

Archaeological assessment of effects (desktop)

SL1 Mexted

Report prepared for: Golden Ridge Farm Limited



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Summary

Colliers Project Leaders (Client) through B&A Urban & Environmental (BAUE) commissioned Redox Cultural Heritage Services Ltd (RCHS) to compile this desktop based Archaeological Assessment of Effects for a proposed subdivision called SL1 Mexted. It affects land parcels: Lot 1 DPS 51518, Lot 1 DPS 75305, Lot 2 DP 589463 & Part Lot 2 DP 25668. The area affected is referred collectively in this assessment as the Site; total area for the proposed development is approximately 89.50 hectares.

The Site has been subject to background desktop study to identify the potential for archaeological sites, features or deposits whether they be recorded or unrecorded within the Site. This review includes any/relevant/available historic documents, aerial imagery, historic maps, archaeological reports and archaeological site data held in the New Zealand Archaeological Association database, ArchSite.

Even if the Site is associated with the European settlement of the Waikato desktop research identified no unrecorded archaeology within the Site. An Accidental Discovery Protocol should be used throughout the development works in the unlikely event archaeology is identified.

Mana Whenua should be consulted at an early stage regarding this assessment, the conclusions reached and the cultural effects of the proposed development which can differ from archaeological effects.

Introduction

The Client proposes to undertake a development called SL1 Mexted Residential (Figure 1). The proposed development comprises combined residential and industrial development of circa 89.50 hectares, which will constitute a mix of residential densities within the development. The desktop review/study identified no recorded or unrecorded archaeological sites within the Site.

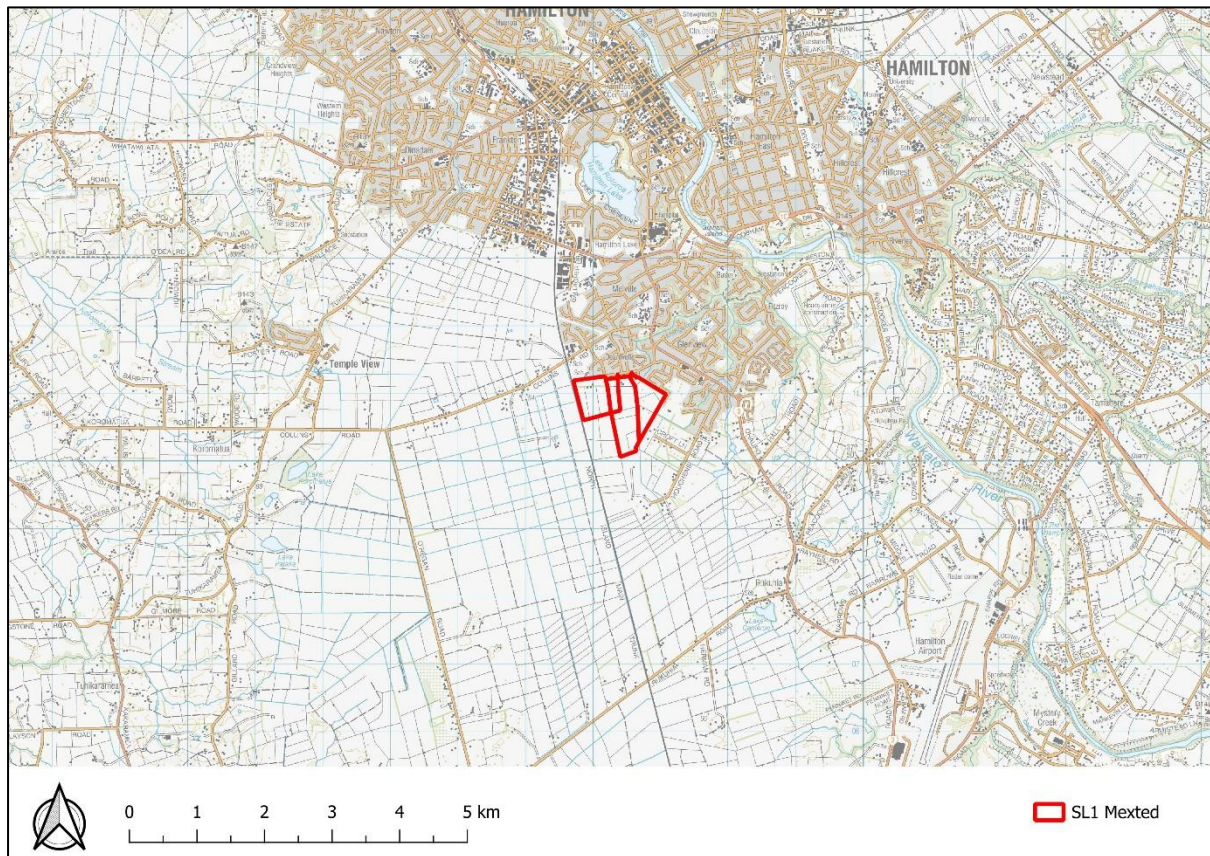


Figure 1. Location for the proposed SL1 Mexted Residential, (Site) in the wider landscape (Source: LINZ).

Statutory requirements

The management of archaeological historical and cultural sites and landscapes are controlled by the Resource Management Act (RMA) and its associated District Plans and Regional Policy Statements. Archaeological sites are also explicitly protected through the archaeological provisions of the Heritage New Zealand/Pouhere Taonga Act (NZHPTA 2014). This Act prevents archaeological sites from being modified or destroyed without an Authority from Heritage New Zealand (HNZ).

Waipa District Plan

The Waipa District Plan are documents that describe the objectives and policies, and rules for land use activities and subdivision. The district plan prescribes what, where and how activities can happen as well as protecting buildings, natural features and sites of significance. It is required to achieve the purpose of the Resource Management Act (RMA) 1991.

Part F – District Wide Natural and Cultural Heritage

Section 22 - Heritage and Archaeology

Retaining archaeological heritage

22.2.4 The District's archaeological heritage has not been extensively recorded. Earthworks and the location of buildings in the District present an ongoing challenge to the protection and retention of archaeological heritage. This may result in sites being discovered accidentally, and/or damaged as part of a development.

Objective - Protecting archaeological heritage

22.3.4 To protect the integrity of archaeological heritage items from inappropriate subdivision, use and development.

Policy - Protection of archaeological areas

22.3.4.1 Development shall not be located within the setback from a mapped archaeological area (Appendix N3), if adverse effects on the archaeological area cannot be avoided, remedied or mitigated.

Policy - Archaeological sites

22.3.4.2 To ensure that development does not adversely affect the archaeological resource of the District.

Heritage New Zealand Pouhere Taonga Act (HNZPTA) 2014

The HNZPTA provides blanket protection to all archaeological sites meeting the definition in the Act, whether they are recorded or not. Protection and management of sites is managed by the archaeological authority process, administered by HNZPT. It is illegal to destroy, or modify archaeological sites without an authority to do so from HNZPT.

The HNZPTA 2014 (s6) defines an archaeological site 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 that 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) of the Act¹.

Any person who intends carrying out work that may modify or destroy an archaeological site, or to investigate an archaeological site using invasive archaeological techniques, must first obtain an authority from HNZPT. The process applies to sites on land of all tenure including private, public and designated land. The HNZPTA contains penalties for unauthorised site damage.

The Resource Management Act (RMA) 1991

¹ Such declarations usually pertain to important post-1900 remains with archaeological values.

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 sustaining the potential of natural and physical resources for 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 Māori, 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 Māori.

Where resource consent is required for any activity the assessment of effects is required to address cultural and historic heritage matters (RMA 4th Schedule).

Project scope

The SL1 Mexted Development is part of the wider SL1 development which subdivide land and develop approximately 1035 residential allotments across approximately 89.50 hectares. The SL1 project southwest of Hamilton City Centre in Waipa District, partially bounded by Saxbys Road to the north, Hamilton residential development to the north and east and farmland and the proposed Hamilton Southern Links designation to the west. Specifically SL1 Mexted Residential is part of the Stage 1 development for SL1 with a combination of low through high density residential and associated infrastructure (Figure 2).

SL1 Mexted Residential Masterplan

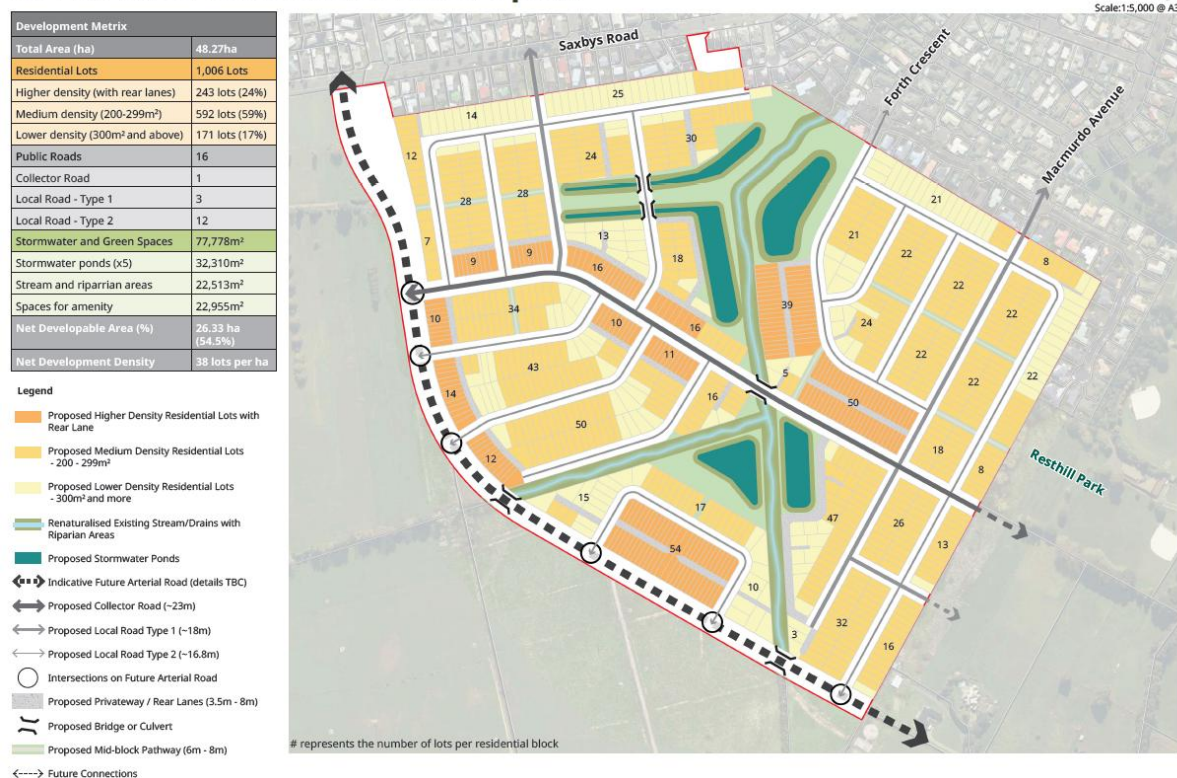


Figure 2. Proposed SL1 Mexted Masterplan (Site) (B&A Urban & Environmental).

Local environment

The Site area is located within the Hamilton Basin; a landscape dominated by the meandering Waikato River which is now entrenched along its current alignment approximately 2.5 kilometres northeast of the Site. Landform comprises flat lowland (former swamp) areas with smaller paleochannels and levees and antecedent hills to the northern and eastern boundaries of the Site. Soil classifications/orders within the Site are identified in soil maps from 'S-map online' as Organic – formed in the partly decomposed remains of wetland plants (peat) or forest litter (Green) and Gley – strongly affected by waterlogging and have been chemically reduced. On slightly higher hill elevations are Allophanic – porous with a low-density structure (Yellow) and Brown (moderately free draining soils with clay (Brown). Drainage classes are identified as Rukuhia (1 – very poorly drained, Pink) and Kaipaki (1 – very poorly drained, Yellow). None of these soils are defined as free draining soils and as such have a much lower to nil potential for archaeological horticultural sites (Figures 3–4).

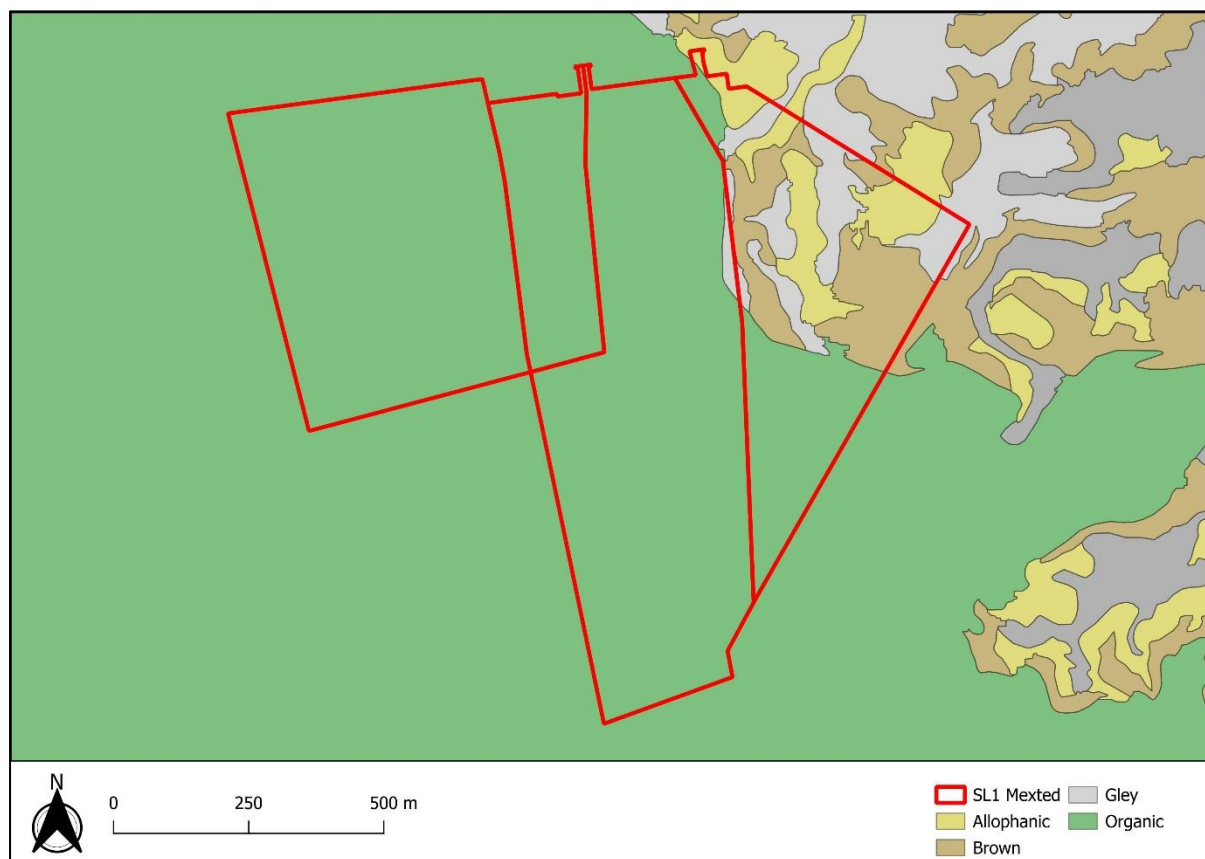


Figure 3. Soil classification (LRIS, S-Map online).

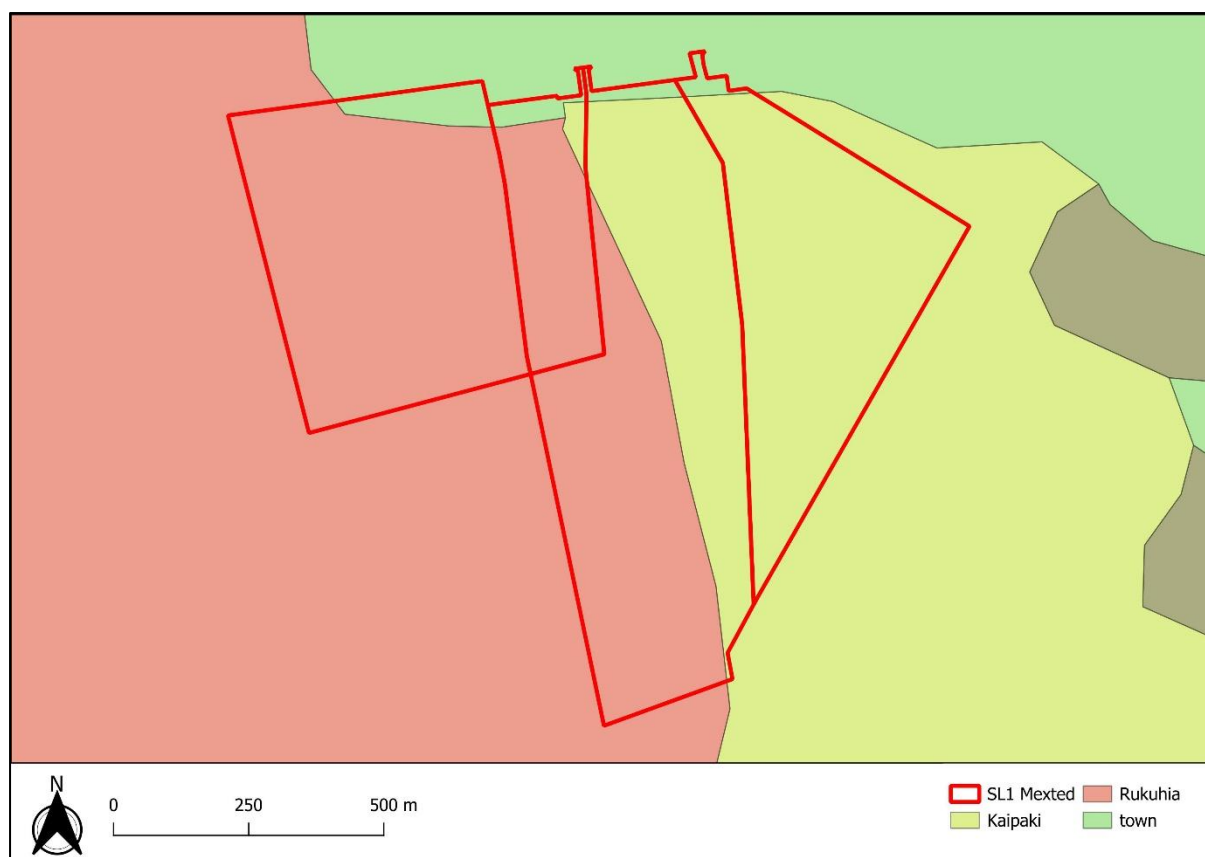


Figure 4. Soil drainage (LRIS, S-Map Online).

Geology of the Middle Waikato Basin

The Hamilton Basin features diverse landscapes and soils shaped by geological and climatic processes over thousands of years. It is characterized by four main landscape units: low rolling hills, alluvial plains, low terraces, and gullies; evolving over more than a million years, with significant geological deposits from volcanic activity (Figure 5).



Figure 5. Map from Lowe (2010) showing the Hamilton Basin.

The Hinuera Formation, consisting of volcanogenic alluvium, is a key feature of this landscape with material forming it through deposition over the last 20,000 years. A key factor in the formation of this landscape is the Waikato River which has changed the landscape through sediment deposition and river migration before its more recent entrenchment.

Both the Waikato River, Oranui eruption and Taupo pumice alluvium (Hatepe Eruption) have caused significant changes to the landscape of the middle Waikato basin, shaping the modern environment (Figure 4). During the last one hundred millennia a meandering braided Waikato River has both eroded and deposited sediment across the landscape. This has transformed the landscape into a rolling somewhat flattened environment made up of gently rolling hills composed of raised levees and depressed swales and lower swamps and lakes. After the Oranui eruption the Waikato was forced to change course being redirected away from the

Firth of Thames into the Waikato basin, and finally through to its current outlet at Port Waikato (deposition occurred between 23,500–17,000 years BP, with the river beginning to entrench in its modern channel around 17,500 BP) (Lowe 2010). The Waikato's high energy braided river system distributed sediment across the Hamilton Basin in various thicknesses and consistencies. This landscape, represented as a braided fan, has now been classified as the Hinuera surface, an accumulation/sequence of deposited tephras since the rivers' entrenchment (Lowe 2010: 5; McLeod 1984:2).

After the rivers final course had settled into the current alignment an eruption at Hatepe (c. 1800 BP) directed a lahar flow down the river (Taupo pumice alluvium-TPA). This created, through erosion and deposition, a series of new river terraces along the banks of the river, which are still visible today (Lowe 2010). Aside from natural modification humans have also significantly modified this landscape.

Within the Hamilton Basin soil types reflect a diverse landscape and soil parent materials, have varying and distinct drainage characteristics. These soil classification units can be divided into differing qualities from volcanic ash, weathering, and soils that have been modified by humans. Well-drained soils usually lie on raised deposits and less free draining to poorly drained soils in lower down in swales. For the Hamilton Basin key soil series include Horotiu (well-drained), Bruntwood (moderately well-drained), and Te Kowhai (poorly drained). These soil types have direct importance/correlation to archaeology, especially horticulture, and the likelihood for sites. Solis are primarily formed from volcanic ash and alluvium, with varying clay types. Tamahere soils (man-made) have also been identified in soil maps. These are anthropogenic and are modified soils used for agriculture, particularly the growing of tubers, such as, kumara (Lowe 2010).

Form the effects of climate changes and the recent influx of humas the Basin has undergone significant changes from climatic shifts and human activity. Studies indicate that the original shrubland-grassland changed successively to a broadleaf-podocarp forest circa 17,500 years ago. During the influx of Māori into inner New Zealand deforestation and agricultural practices impacted the environment significantly in a relatively short period of time; this was exacerbated with the later influx of Europeans. As a result of deforestation and climate changes, sedimentation led to the additional formation of lakes and peat bogs (Lowe 2010).

Main soil types within the Hamilton Basin include a variety of parent materials and how they are situated in the landscape (Figure 6). Low rolling hills include Hamilton, Kainui, and Ohaupo series, characterized by weathered tephra and clay-rich profiles. Plains soils such as Horotiu, Bruntwood, and Te Kowhai series exhibit varying drainage and clay types, influenced by alluvial deposits. Low terrace soils, primarily Waikato series, are weakly developed due to their young age from recent flood deposits. Gully soils include Tamahana and Kirikiriroa series, formed from recent sediment and colluvium. Horotiu soil is classified as Typic Orthic Allophanic Soils, indicating its tephric and mixed rhyolitic composition. Te Kowhai soil profile presents a contrasting structure and composition compared to Horotiu soil. It is classified as Acidic Orthic Gley Soils, reflecting its tephric and rhyolitic nature. As mentioned above there are also large areas of organic soils from former peat swamps which have now been drained in the modern era (Lowe 2010).

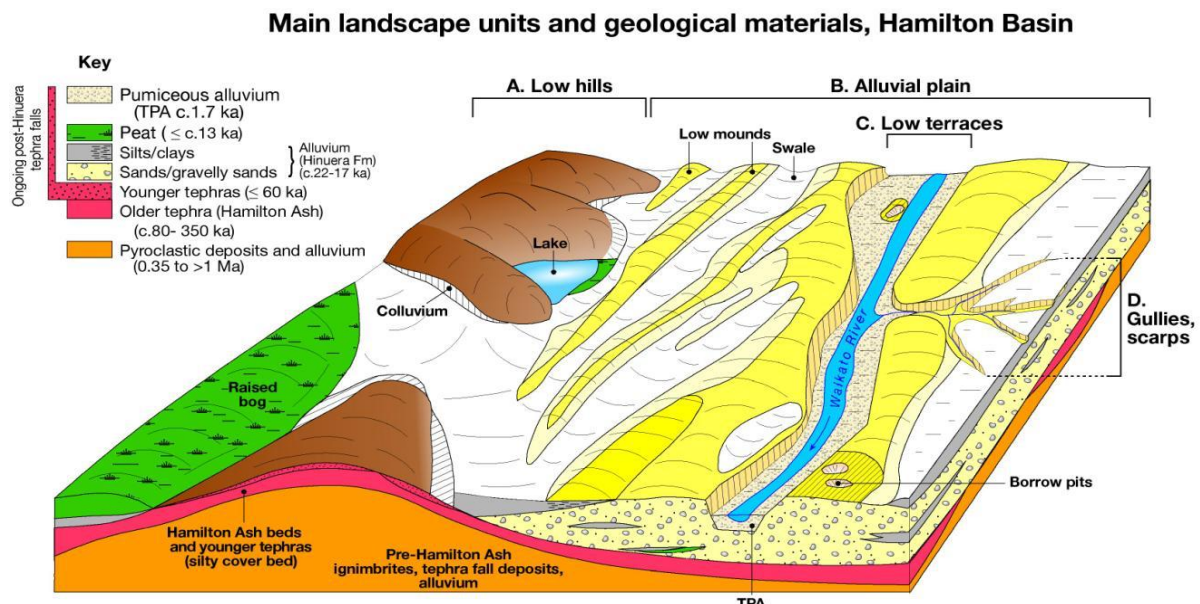


Figure 6. Block diagram showing the principal landform units of the Hamilton Basin (Lowe 2010:4).

Recorded archaeology within the Site and in the immediate vicinity

There are currently no recorded archaeological sites within the Site.

The closest recorded archaeological sites within 2 kilometres of the Site are a former flour mill (S14/102) (800m), a drainage ditch (S14/510) (600m) and a pā (S14/76) (2 kilometres) (Figure 7).

Previous work within the general area (east of SH3) has also been undertaken by the author on several occasions including an assessment for Northview Capital (W. Gumbley Ltd, date unknown), another private land change proposal (W. Gumbley Ltd, date unknown) and an assessment and investigative works for the east-west arterial road called Whatukooruru Drive (Gainsford 2021). None of these assessments identified any unrecorded archaeological sites. There is however pre-1900 European occupation/land use within the Site shown by the allotments/sections.

The extensive pre-European Māori horticultural landscape along the river corridor identified through soil maps from the late 1930s onwards (Grange 1939) combined with more modern research by Gumbley and Hutchinson in 2012–3 have identified multiple archaeological sites in the landscape. These were recorded from aerial images from the late 1930s and early 1940s and were identified due to the presence of borrow pits (Gumbley & Hutchinson 2013). Neither the soil maps nor work by Gumbley and Hutchinson have identified any horticultural soils or archaeological sites relating to this landscape within the Site.

The New Zealand Heritage List/Rārangī Kōrero

No heritage sites are identified on the list within or in the immediate vicinity of the Site.

increased along the rivers during the 1800s, settlements in these areas increased (Swarbrick 2025).

After the initial occupation of coastal New Zealand, the Māori diaspora led inland towards the Middle Waikato Basin. To access the Waikato, navigable waterways and accessible land were used to locate suitable areas for horticulture and occupation; evidenced by the plethora of recorded archaeological sites along the Waikato River, its tributaries and gully systems. Recorded archaeological sites within this landscape are a combination of defensive structures; established at higher elevations to provide a watershed of the area. Pā are also closely linked with surrounding settlements and gardens, utilising the fertile soils adjacent to the river for the cultivation of kumara and other plant species (Gainsford 2025, O'Hagan 2025).

Following the signing of the Treaty of Waitangi in 1840, there was increased pressure on Māori by Europeans to sell their land. In response to increasing European pressure some chiefs decided to unite and stave off the threat to both land, customs and mana. In 1858 the first Māori King was proclaimed at Ngāruawāhia; chief Pōtatau Te Wherowhero. Following this and disputes over land in Taranaki, which Waikato tribes had support, the Government planned an invasion into the Waikato, which led to the wars in the early 1860s. Governor George Grey had accused the Waikato chiefs of disloyalty. Following this he announced his intention to send troops into Waikato on 11 July 1863. A result of the Waikato Wars was that the majority of Māori owned land was confiscated under the NZ Settlements Act (NZSA) 1863 (Swarbrick 2025).

European

Following the first European settlers (traders and missionaries) more permanent Europeans were soldiers who were guarding militia townships, for example, Cambridge. As the war was being fought, the government planned to confiscate Waikato lands and establish defended townships to deter Māori from reoccupying their territory. Settlers earmarked for these areas were part of the Waikato militia, consisting of four regiments recruited from Otago and Australia (1863) with the promise of land grants post-service. Following the wars and disestablishment of the militia (1865–66) and formation of the armed constabulary (1867) to guard the confiscation line, many men were released from service. They were granted land in the region that had been confiscated from Māori under the NZSA 1863. However, this land was usually allotted into 50-acre blocks drawn up on survey plans and mostly turned out to be less ideal for agriculture being inaccessible and swampy. Lots of these allotments were either left, on sold or they were cleared, drained for use. Following the close of the war around circa mid-1864 new towns were surveyed at Alexandra (now Pirongia), Cambridge and the former Māori villages of Kihikihi and Kirikiriroa (renamed Hamilton). Also, former military outposts were also settled at Te Awamutu, Ōhaupō, Whatawhata, Huntly and Ngāruawāhia.

During the early influx of European settlers Māori continued as they had since their arrival into the Waikato. Initially the Waikato was not considered favourable by Europeans for farming or cultivation as it was deemed difficult, too swampy and quite inaccessible. Little land changed hands during this period due to its 'unfavourable' nature. However, Māori with newly acquired agricultural skills, tools and modern farming techniques and crop species (introduced often by Missionaries) changed Europeans perceptions. Māori farming and exports became very successful (Phillips 2014). Most likely this success prompted, to a degree, the British invasion of the Waikato (1863) by the Crown. Land acquired was used for European

settlers and allotted to militiamen. Following the land wars large tracts of Māori owned land were confiscated and allocated to militiamen. Later this land was often sold by the men since they too thought it too difficult to clear and cultivate. This is the case for the site and the surrounding area around Cambridge and Hamilton whereby land was confiscated to be allotted to militiamen men following service (Gainsford 2025, O'Hagan 2025).

Local history

Prior to the arrival of European settlers to the Waikato River was the major transport route for initial exploration, settlement and burgeoning trade (through the 1850s). These canoes were later replaced by steamers during the British expansion into the region, through the Waikato Wars. Part of this British expansion included the 3rd and 4th Waikato Militia Regiments. As with initial settlement the river was the only major route from Auckland into the Waikato. The first settlers were members of the disestablished 4th Waikato Regiment who settled around 1864–1866. They received a 1-acre town section and were also entered into the ballot for one fifty-acre section or more according to rank/station so that they could commence farming the outlying Hamilton district. The area around the Site was identified as South of West Hamilton now known as Rukuhia. A lot of this surrounding land south of Ohaupo Road was identified as the Rukuhia Swamp (Raynes 1981).

Korokonui and Acacia Hill

The land southwest of Hamilton, as with large tracts of land surrounding the town, was divided up for militiamen leaving service/being struck off around 1865-66. The initial division was as 50-acre lots in a reasonably ordered fashion, being drawn directly onto maps.

The proposed development of SL1 Mexted lies adjacent to land holdings which are historically referred to as Korokonui and Acacia Hill. These two land holdings are a result of militiamen taking up their farms and quite often realising that the land was difficult to farm, required significant work in clearing scrub, trees and often significant drainage. A lot of these former militiamen left their land selling it other interested parties who amalgamated these into larger landholdings.

James Williamson

Historic plans and aerials also show that a significant amount of land within the Rukuhia area was bought up by Williamson. He is noted as the purchaser of larger tracts of land not just in the south west of Hamilton but also towards Pirongia.

Historic plans and aerials

Historic plans

A review of historic survey plans in Quickmap identified several plans of direct relevance to the Site, for example, SO 380_1–3 (Figure 8), SO390 B_1 (Road through Rukuhia Swamp – mid 1800s?), SO 635 (1869) & SO 5094 (1888). Also, a composite map by Raynes (1981) and, a sketch map by Captain Newell shows various features of interest adjacent the Site.

Results of the review identify Militia Allotments ('Farms'), farmstead/homestead buildings, vegetation and roads. Initially the land parcels are shown as the lots issued to militiamen but

later representations of this area show these as being likely transformed into a larger landholding owned by James Williamson (SO380 & SO635). On SO380 the Site is shown to be swamp/scrubland which is further corroborated by SO5094 (1888) as its eastern boundary is shown as swamp. The Site has subsequently been drained although there is no direct evidence of this in historic plans (Figures 8–13). There are no features shown on any available plans that identify any unrecorded archaeology within the Site.

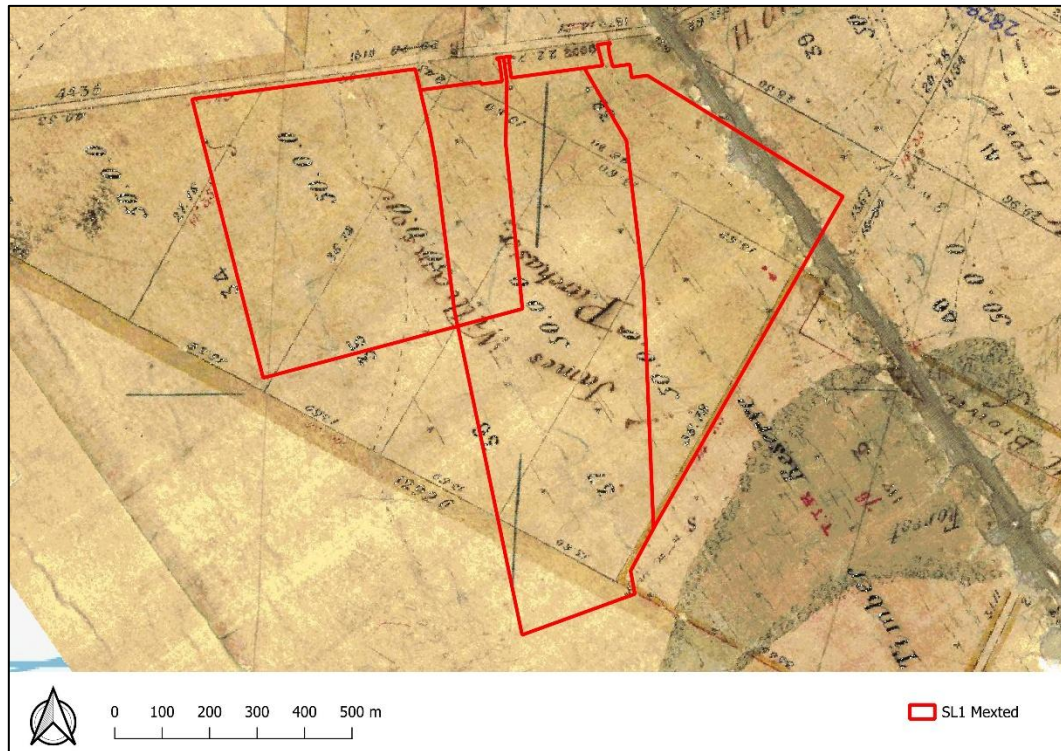


Figure 8. Excerpt from SO380 (1865) the Site is identified as swamp (Quickmap).

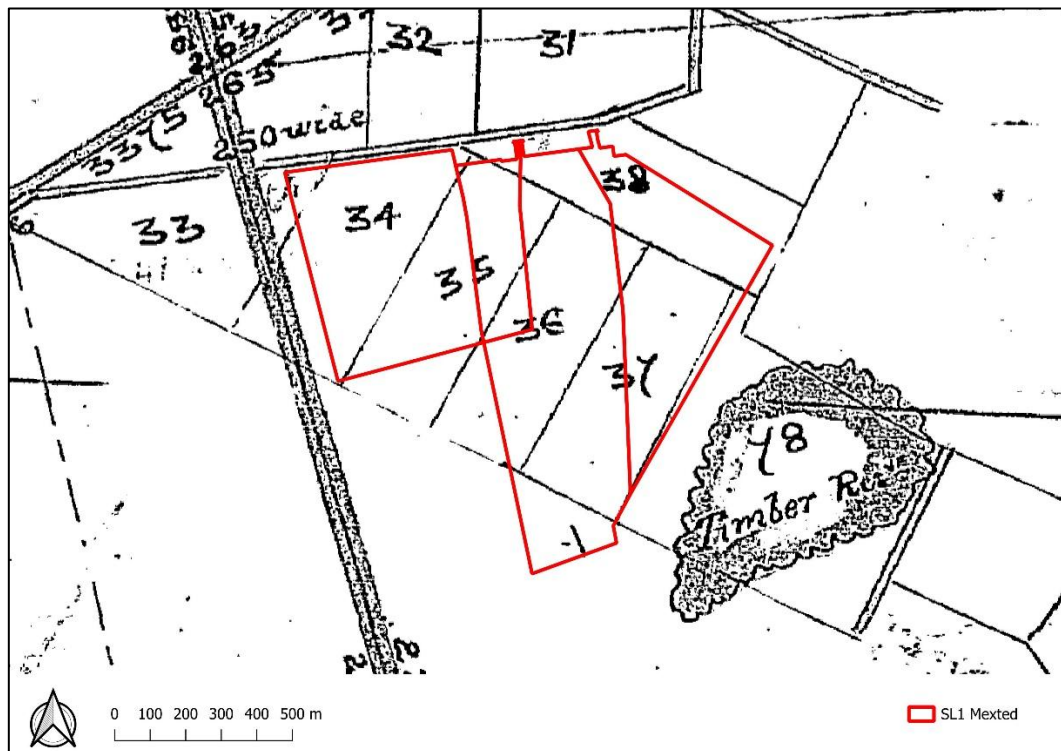


Figure 9. Excerpt from SO 390 B-1, a mid 1800s (?) plan showing the sections, road and timber reserve (Quickmap).

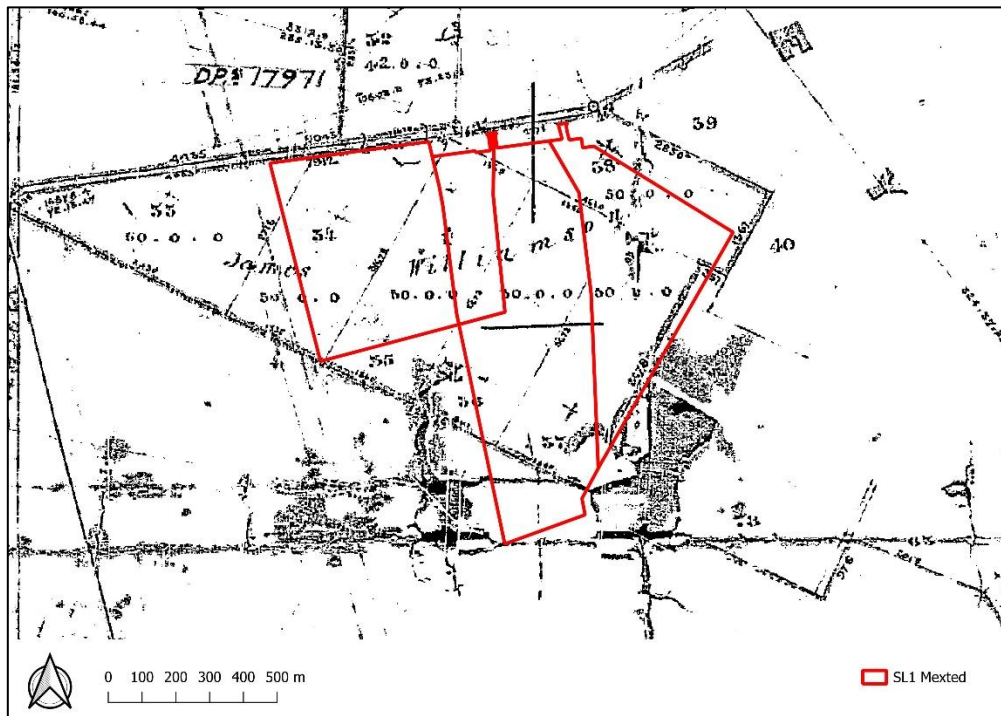


Figure 10. Excerpt from SO635 (Quickmap).

Historic aerals

Early aerial imagery was reviewed on the website Retrolens. The earliest available images for the Site are from 1943. Aerial images visualise historic land use for the Site, which has primarily been pastoral grazing. Aerials show a landscape that is quite similar in land use up to current images. There have also been construction of structures, tree/hedge planting, race maintenance, drainage ditches and fences etc. None of the images studied identified any archaeological features (Figures 14–15).



Figure 11. Excerpt from earliest available aerial photography from 1943 (SN266-832/47) (Source: Retrolens).



Figure 12. Excerpt from later photography from 1979 (SN5479-G/22) (Source: Retrolens).

LiDAR imagery

Height data shown below provides an elevation model for the landscape and subject area in 2008 and 2023. LiDAR data uses laser points taken from aircraft to create a height elevation model for the landscape and can remove extraneous object such as houses and trees. There is no visible evidence for archaeology within the Site based on available LiDAR data connected to other sources (Figures 16–17).

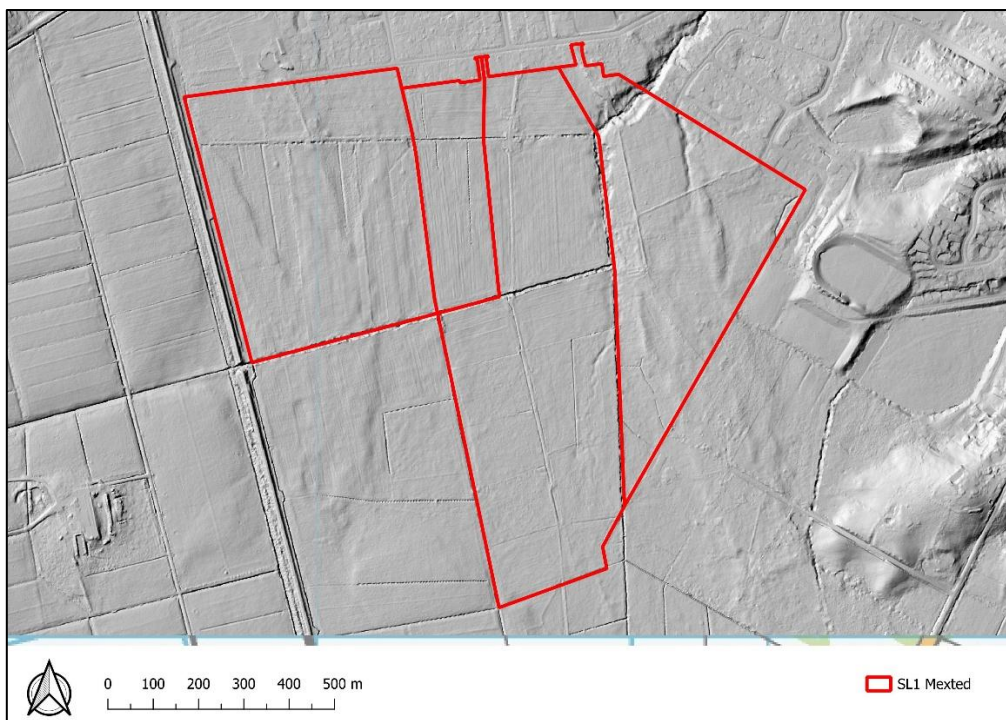


Figure 13. LiDAR excerpt from 2008.

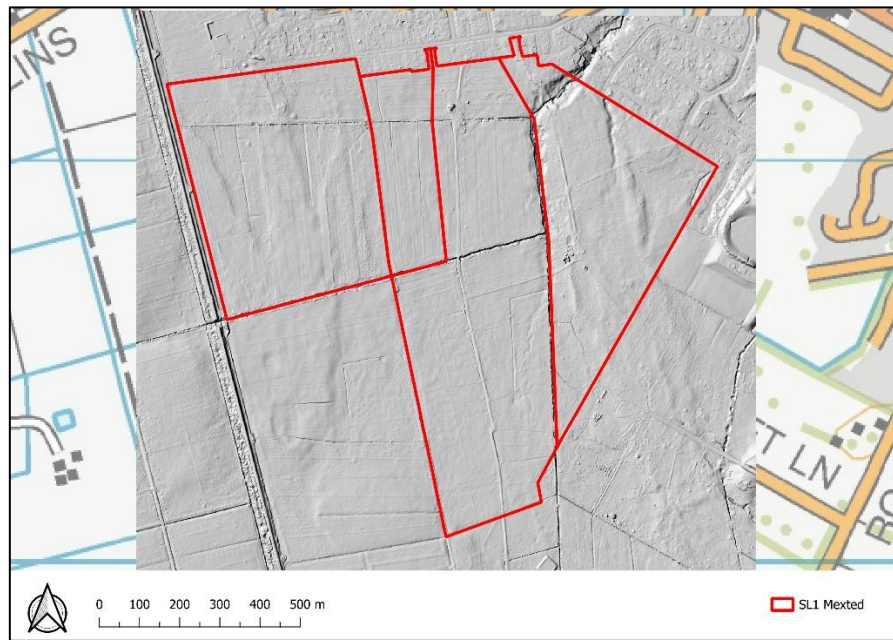


Figure 14. Lidar derived hillshade model from DEM data taken in 2023 that shows the Site as mostly flat with some lower hills to the north (Source: LINZ).

Assessment of Archaeological Values

The Site encompasses land that was allotted to the Waikato Militia as farms following its disestablishment in 1865–66. Following this, farms were on sold and amalgamated into larger landholdings, as shown by the ownership of James Williamson. Results from the desktop assessment did not identify any archaeological sites within the Site.

Assessments of effects on archaeological values

Since there are no known values there can be no effects on these by the proposed development.

Conclusions and recommendations

No recorded or unrecorded archaeology was identified within the Site through this desktop review. Due to the nature of the, it is highly unlikely that any archaeology will be encountered during the proposed development.

Recommendations:

1. Even if there is no recorded archaeology or identified potential for unrecorded archaeology there is always the potential to uncover single unexpected finds in the landscape during large scale works. It is therefore recommended that Accidental Discovery Protocols are used for the duration of the project. Protocols used, should be those recommended/approved by Heritage New Zealand.
2. Consultation be undertaken with Mana Whenua at an early stage of the process. The results of this assessment should be discussed in detail so that Mana Whenua are aware of this report and its results and have opportunity to comment on the findings, the project and discuss any Authority application.

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