

Rotokauri North SHA: archaeological assessment

report to
Ma Development Enterprises Ltd

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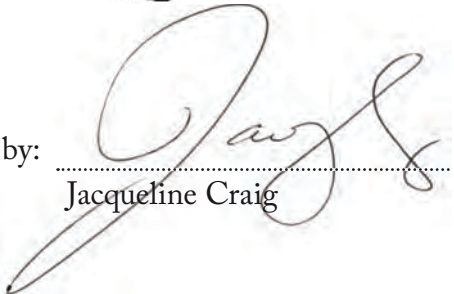
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Ma Development Enterprises Ltd propose developing a special housing area on 21 properties in Rotokauri North on Te Kowhai Road, between Exelby and Burbush Roads (Lots 2 and 3 DP 334215; Lots 2, 4, 5 and 6 DP 359488; Lots 1 and 2 DP 485743; Lots 3, 5 and 6 DPS 15123; Lots 1, 3, 4 and Pt Lot 2 DPS 15254; Lots 9, 10, 11 and Pt Lot 7 DPS 15255; Sections 23 and 53 SO 495676). Although there are no recorded archaeological sites within the proposed development, the prevalence of modified gardening soils along the Waikato river and the presence of suitable soil for pre-European horticulture in the northern half of the property meant that there was a possibility of previously unrecorded archaeological sites being present within the area. Michael Gao from Ma Developments Ltd commissioned CFG to undertake an archaeological assessment of the proposed development to aid in their resource application.

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).

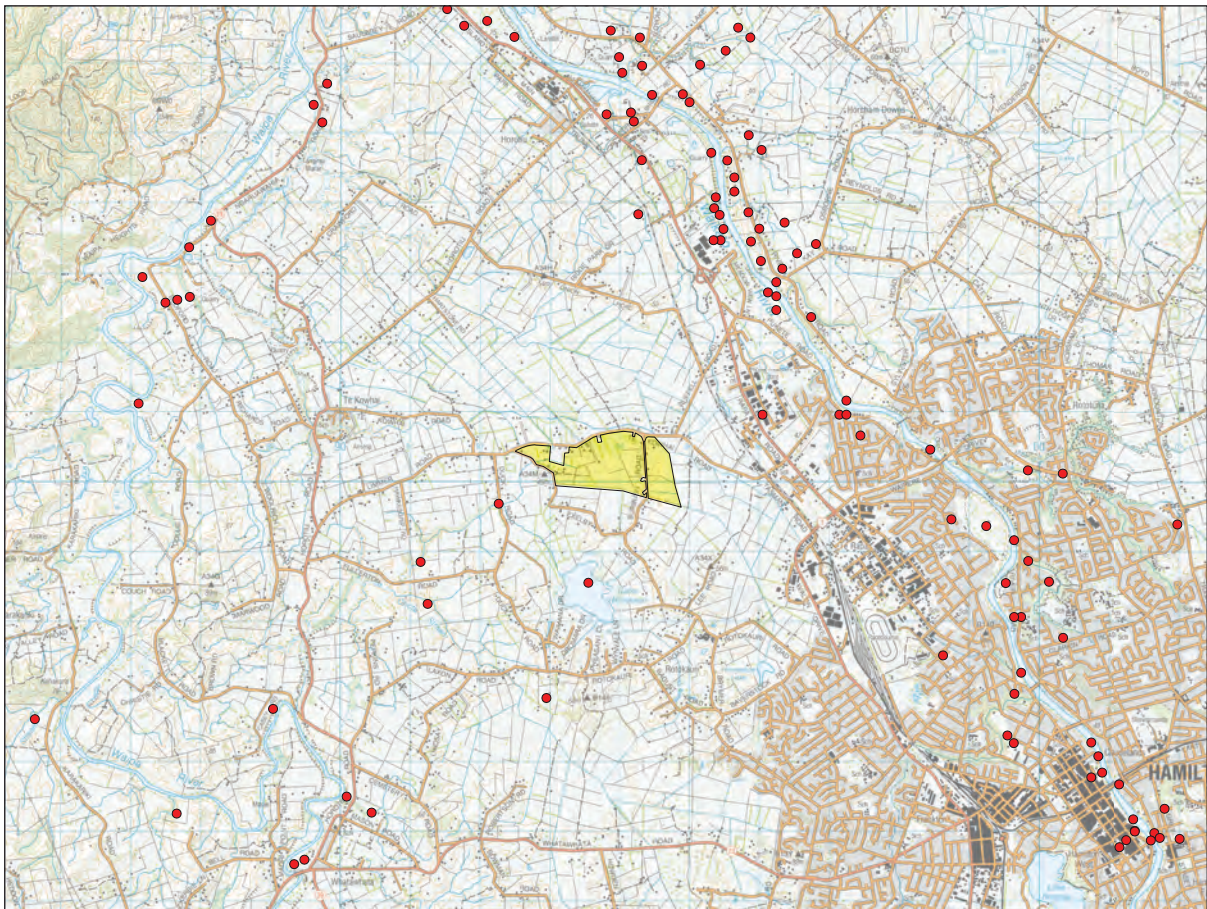


Figure 1. Map of Rotokauri North showing recorded archaeological sites in the area.

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 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.

Methodology

The New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS) was searched for records of archaeological sites in the vicinity, which were incorporated into the project GIS. The Heritage New Zealand Pouhere Taonga digital library was searched for archaeological reports written about the area. Old maps and plans held by Land Information New Zealand (LINZ) and in other online archives were searched. Historic aerial photography was accessed through Retrolens (<http://retrolens.nz/>). Old newspaper articles were accessed through the Papers Past online database (<http://paperspast.natlib.govt.nz/cgi-bin/paperspast>). The University of Waikato Library Digital Collections and the National Library of New Zealand were searched for relevant images and maps. Geological maps of the area were accessed through GNS Science (<http://data.gns.cri.nz/geology/>). Soil information was obtained from the S-MAPONLINE database maintained by Landcare Research (<https://smap.landcareresearch.co.nz/>).

The lots were surveyed on foot. Due to the large scale of the survey area (approximately 133 hectares) and the relatively flat landscape of many of the lots, a targeted survey methodology was implemented. This methodology involved focussing on areas where drains, erosion, fence lines, animal damage and tree throw have exposed the soil in which evidence of previous modification of the landscape may be evident. No invasive methods such as test pitting were employed. Field assessment was undertaken by Arden Cruickshank of CFG Heritage Ltd on 22 June 2018.

Background

Lake Rotokauri is the largest of more than 40 lakes between Te Kauwhata and Te Awamutu. The lakes are of national importance as the largest remaining collection of such habitats within one area in New Zealand. These lakes are the remnants of once widespread wetlands, which supported productive and diverse bird and fish populations. The wetlands are recorded on early 1860s maps (Figure 2) and were drained during the early 20th century to enable roads to be established in the area. Rotokauri and the wider wetlands would have provided resources such as waterfowl, eel, and freshwater mussels, probably for the same people who were consuming the vegetable produced in the largescale gardening systems evident along the edges of the Waikato River.

On a survey map of the area from 1919 (DP 14534) the area of the proposed development is listed as 'drained swamp country' with 'undulating country in grass' to the East, in the vicinity of Burbush Road. This is confirmed by Landcare Research, who have recorded the central portion of the proposed development as containing a mellow humic organic soil of the Utuhina family. This is a poorly drained loamy peat with high water logging vulnerability which would not be suitable for pre-European horticulture. The northern portion of the proposed development however, contains well drained loams of the Otorohanga family which could have been used for pre-European horticulture. The remainder of the soil types within the property appear to be variants of poorly to moderately well drained clays.

Pre-European and 19th century Maori

Most sites in the wider area are pre-European Maori gardening sites, mostly identified from 1940s aerial photos, and many have not been field checked by an archaeologist. Maori horticultural sites (principally garden soils and borrow pits) are commonly recorded around the greater Hamilton Basin.

The first settlers in the Waikato landed at Kawhia in the *Tainui* waka, but archaeological evidence is not entirely clear on when they settled in the Area. Radiocarbon dates from archaeological sites near the Waikato River indicate large scale occupation and gardening in the area began around AD 1500. Other dates from around the Waikato Basin, such as Mangakaware, Taupiri and Horitu, suggest people began to occupy the landscape more intensively in the mid-17th (Bellwood 1978, Campbell and Harris 2011; Hoffmann 2011; Gumbley and Hoffmann 2013). Very little in-depth temporal research into land use between the Waikato and Waipa River, and the wider Waikato, means this information is tentative.

The only information that seems to be available about Maori in the area during the 19th century is mentions of kauri gum digging within the wetlands surrounding Rotokauri lake. One such mention was a result of a European settler in the 1890s who removed eel weirs from an outlet on Lake Rotokauri to lower the water level, after which local Maori searched the area and found a 'considerable quantity' of kauri gum (*Waikato Times*, 10 January 1891: 2.)

European settlers

Little information is available on Rotokauri and its surrounds. Roads are plotted in several 1880s survey maps, but there is no recorded evidence of land use or buildings until the 20th century (Figure 2). This was likely due to the area being dominated by wetland; and as the drainage and roading boards slowly lowered the water levels in the area, more land became available for settling. The Rotokauri School was opened in 1911 (Rotokauri 1986), with per-

manent road access available to the school around 1917 (*Waikato Times*, 11 January 1917: 4). There was no evidence found to indicate European people lived within the project area before the 1900s.

The property is part of Allotment 215, Parish of Pukete, which was granted to Robert Gillies and 'others' in January 1871 (Waikato Deed Index 2W 846). This Allotment was then on-sold to Orbell in 1872, who only took out one mortgage for the property at time of purchase and started splitting up the Allotment in 1899. The proposed subdivision was part of a subdivided section 'Part 215' which was sold by Orbell in 1903 (Waikato Deed Index 3W 354) and went through various hands and mortgages in the following decade. Part 215 was subdivided into smaller farms during the 20th century.

Archaeological survey and investigations

Most of the recorded archaeological sites in the Waikato basin relate to Pre-European Maori gardening. The remains of Pre-European Maori gardening sites are often in the form modified soils, which can be a mix of sand and gravel added to the parent soil (often referred to as Tamahere soils) to improve the drainage and texture of the soil for tuber growth. These sands and gravels are quarried from borrow pits, which are pits dug below the upper volcanic loams to the pumice gravels beneath. The gravels are alluvial, and hence the density of gardening soils with associated borrow pits near waterways in the Waikato basin. The middle and lower portions of the Waikato Basin are estimated to contain over 3000 ha of modified gardening soils.



Figure 2. Survey plan SO 345 drawn in 1868 showing Lot 215. The proposed development is approximately where 'Gillies and Street' is written below 'Lot 215'.



Figure 3. View southeast over Lot 6 DP 359466 showing water retention in the drained wetlands.



Figure 4. View west over central portion of the proposed development, this section has been drained, but still suffers water retention issues.

Some of these soils were mapped in 1939 by Grange et al. around Waipa and Waikato Rivers, none of which were recorded within the project area.

The closest recorded archaeological site to the proposed development is S14/11, a burial reported in 1975 approximately 700m southwest of Exelby road. It was noted as being a crouched burial, which indicates it was most likely a pre-European Maori burial. It was uncovered during sand quarrying, and appears to have been completely removed, although it is not known what happened to the remains. The site was revisited by Alexey Simmons in 2003, where it was noted



Figure 5. View south towards neighbouring properties on the prominent hills surrounding the drained wetland.

that no archaeological material was noted near where the burial was reported, but this is most likely due to the heavy modification of the area caused by the quarrying.

Field Survey

The property was surveyed on 22 June 2018 by Arden Cruickshank. The survey was conducted paddock by paddock, using the races for access. The survey was conducted from east to west.

The eastern paddocks are gently rolling hills, which extend approximately 200m west of Burbush Road. Beyond this, the paddocks are generally flat, drained wetland, which again slopes up towards Exelby Road to the west. The extent of the development is essentially a drained wetland surrounded by rolling hills.

The drained wetland still suffers from water retention, with many of the paddocks within the centre of the proposed development retaining water. This area would not have been suitable for horticultural or agricultural activities prior to the drainage being installed. No evidence of terracing or storage pits were observed on the higher portions on the peripheries of the proposed development. There are more prominent hills surrounding the drained wetland which have a higher potential for pre-European occupation, but these are outside the project area.

Summary

No evidence of pre-1900 archaeology or heritage, or significant 20th century heritage including built heritage, was found in the proposed development, either during the historic research or the field survey. The most suitable areas for pre-European Maori horticulture is in the northern portion of the proposed development but there is no evidence that this was ever undertaken here. The soils within the vicinity of the Waikato river are much more suited to it, and this is evident by the large number of borrow pits, modified gardening soils and other associated archaeological sites that have been recorded along the river. The area of the proposed develop-

ment does not appear to have been settled by Europeans until the 20th century, when drainage improvements to the soil allowed the land to be used.

Assessment

The following assessment relates only to archaeological values. Other interested parties, in particular mana whenua, may hold different values regarding the heritage values of the properties.

No evidence of pre-1900 archaeology or heritage, or significant 20th century heritage including built heritage, was found in the proposed subdivision, either during the historic research or the field survey, and no assessment of values or significance can be made.

Recommendations

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

- an authority to destroy, damage or modify archaeological sites within the proposed subdivision does not need to be applied for from Heritage New Zealand Pouhere Taonga (HNZPT) under Section 44 of the Heritage New Zealand Pouhere Taonga Act 2014;
- all works should be undertaken following an accidental discovery protocol. An example of such a protocol is amended to this report.
- since archaeological research cannot always detect sites of traditional significance to Maori, or wahi tapu, the appropriate tangata whenua authorities should be consulted regarding the possible existence of such sites, and the recommendations in this report.

References

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Accidental Discovery Protocol

In the event of the accidental or unexpected discovery of archaeological features, including human remains:

1. All work within the vicinity of the discovery should cease immediately.
2. A buffer of at least 10 m should be set up around the discovery and this should be marked on the ground, preferably with pegs and tape, or similar.
3. All machinery and plant should be removed from the buffer zone where this is possible.
4. The site archaeologist, or other qualified archaeologist, should be informed.
 - i Heritage New Zealand Pouhere Taonga (HNZPT) should be informed.
 - ii If the discovery is of Maori origin, the relevant tangata whenua authorities should also be informed. Appropriate protocols (tikanga) should be observed.
 - iii If the discovery is of human remains, the New Zealand Police should also be informed.
5. The archaeologist should take relevant steps to secure the area of the discovery.
6. The archaeologist will assess the discovery and advise HNZPT and the client on the relevant steps to be taken.
7. Works in the area of the discovery shall not recommence until authorised in writing by the archaeologist in consultation with any identified affected parties or HNZPT.