ARCHEOLOGICAL ASSESSMENT

ADDENDUM TO
‘PROPOSED RESIDENTIAL DEVELOPMENT,
64 AND 95 SCOTT ROAD, TE KAÚWHATA:
ARCHAEOLOGICAL ASSESSMENT’
BY E. CAMERON AND S.PHEAR
OCTOBER 2016
ARCHAEOLOGICAL ASSESSMENT ADDENDUM

FOR LAKESIDE DEVELOPMENTS 2017 LIMITED

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EXECUTIVE SUMMARY

Lakeside Developments 2017 Ltd (L DL) is preparing a private plan change application for a proposed residential subdivision at 65 and 94 Scott Road, Te Kauwhata. Sián Keith Archaeology Ltd (SKA) has been commissioned to provide an addendum to the archaeological assessment prepared by Cameron and Phear (2016) to accompany the private plan change application.

This addendum has been based on the review of the Cameron and Phear report undertaken by Warren Gumbley Ltd, and has involved excavation of evaluation trenches across the subject site, and consideration of the subject site within a wider archaeological landscape context.

No evidence for archaeological sites, features, or deposits has been identified during the research for this assessment. Without any known archaeological sites within the footprint of the proposed development, no changes are recommended to the layout of the subdivision in order to protect archaeological values. However, given the scale of the proposed development, and that the wider landscape contains a number of recorded archaeological sites, there is reasonable cause to suspect that the earthworks to form the development could impact on unrecorded archaeological material.

It is therefore advisable that an application is made to Heritage New Zealand Pouhere Taonga (HNZPT) for an authority to modify or destroy a potential archaeological site. Affected tangata whenua should be consulted in relation to their traditional history of this area and cultural values associated with this land.

Future earthworks in areas considered to be of higher risk to form infrastructure such as housing platforms, roads and services, should be monitored at the discretion of a suitably qualified archaeologist under authority to HNZPT.
Introduction

Background

Lakeside Developments 2017 Ltd (LDL) is preparing a private plan change application for a proposed residential subdivision at 65 and 94 Scott Road. The proposed development site covers approximately 194 ha of land between Lake Waikare and the North Island Main Trunk rail line. The legal descriptions of the property are:

- Section 52 Block XV Maramarua Survey District consisting of 63.40 Ha;
- Lot 1 DP 35516 consisting of 20.91 Ha;
- Lot 2 DPS 85308, Lot 1 DPS 85309 and Section 90 Block XV Maramarua Survey District consisting of 47.16 Ha;
- Lot 3 DPS 489788 consisting of 47.49 Ha;
- Lot 1 DPS 489788 consisting of 0.76 Ha; and
- Lot 2 DPS 489788 consisting of 14.12 Ha.

The developer commissioned an archaeological assessment as part of the required assessment of effects accompanying a plan change application under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). This assessment (Cameron and Phear 2016) did not identify the presence of archaeological evidence anywhere within the development land. The report recommendations included that:

- There should be no constraints on the proposed subdivision on archaeological grounds, and
- That if modification of an archaeological site does become necessary, an Authority must be applied for under Section 44(a) of the HNZPTA and granted prior to any further work being carried out that will affect the site.

Subsequently WPIL requested a review of this document by Warren Gumbley Ltd. Gumbley concluded that the assessment fell short of providing a solid assessment of the archaeological risk, and that additional work should be undertaken to better assess the archaeological landscape and potential, of this development.

Purpose and Scope

The purpose of this assessment is to provide an addendum to the Cameron and Phear report addressing the concerns raised in the review by Warren Gumbley Ltd. In particular this assessment involves the following:

- Excavation of evaluation trenches across the land to test for the presence/absence of archaeological evidence, and to determine the nature and extent of any evidence identified; and
• Consideration of the subject site within a wider archaeological landscape context.

On the basis of the information obtained from the additional archaeological investigations, the author will make a recommendation on:

• whether the subdivision layout should be revisited on the basis of any archaeological information; and
• whether an archaeological authority should be obtained in advance of any site works.

DOCUMENTARY EVIDENCE

Cameron and Phear’s assessment (2016) contains a relatively comprehensive background research of the published historical sources (i.e. historic maps and plans), and this information is not repeated here. However, a number of additions and comments on the interpretation of the documentary evidence are made.

Lake Waikare is the Waikato’s largest lake, lying to the south-east of Te Kauwhata. It covers 3,442 hectares, with inflow from the Waikato River through the Te Oneta Stream at Rangiriri and the Matahuru stream to the south, and discharge into the Whangamarino Wetland. The lake was lowered in 1965 for flood control.¹ There are a moderate number of recorded sites present around the lake edge including two recorded pa sites, one on the south-eastern side (S13/16), and one possible pa on the eastern side of the lake (S13/62).

DOMESTIC EVIDENCE

Domestic settlement sites are attested to by the presence of the two recorded pa sites. In addition to this there are two historic pictorial representations of Maori living beside the lake. One is a historic image of Kuha Pa on Lake Waikare (Figure 1). Unfortunately it is not clear from the record or the image exactly where this pa is located, and a search of digital files did not produce any further results. The second is a painting by William George Baker (1864-1929) of a Maori settlement in c.1910 on the lake edge (Figure 2). Together these images, along with the known sites on the lake edge, indicate a domestic presence by Maori which likely dates back to the 19th century and earlier.

¹ http://www.tekauwhatavillage.co.nz/welcome-to-te-kauwhata/555-2/
Figure 1: Kaha Pu, Lake Waikare

Figure 2: Lake Waikare c.1910

2 http://mp.natlib.govt.nz/detail/?id=6401&recordNum=2&f=placeid%24324740&i=en. Reference Number: 1/2-019479-F

A map from 1863 (Figure 3) depicts the two water bodies Lake Kopuera and Lake Waikare as being conjoined. It depicts a canoe capsize area in Lake Waikare ‘canoe upset here’ and annotates ‘women and children drowned here’ approximately to the south east of the development (see Figure 4). The presence of women and children in the environment, and canoes in the lake, would also suggest domestic settlement in the lake environment.

**HORTICULTURAL EVIDENCE**

Cameron and Phear’s assessment identifies three important horticultural sites on the margins of Lake Waikare that are located immediately to the south of the development area, and also two sites on the shores of Lake Waikare relating to crop storage. In addition, the assessment includes reference to the Waikato District Plan’s identification of Lake Waikare as an “historical food basket for Waikato hapu” and that “the surrounding lands and margins are identified as sites of significance as they were papakainga, nohoanga kai, paa tuna and also urupā”.

This information comes from Schedule C4 of the Waikato District Plan, ‘Waikato River Sites of Significance’. The schedule describes the sites within it as parcels of land that have been identified in Part 8 (Subpart A) of the Schedule to the Waikato-Tainui Deed of Settlement as being culturally significant to Waikato-Tainui iwi. Lake Kopuera is also identified in this schedule as being “significant for the same reasons as Lake Waikare”. The significance of the archaeological sites and of the statement within the Waikato District Plan were highlighted in the Warren Gumbley Ltd review (Gumbley, 2016).

The site records for S13/121, S13/122 and S13/123 describe Maori horticulture sites covering reasonably large areas. S13/121 is described as having rectangular plots, S13/122 dendritic and less well defined rectangular patterned ditches than S13/121, while S12/123 is described as having poorly defined possible ditches and drains.

The recorded horticultural site S13/121 has been identified by aerial photography only, however S13/122 is recorded on an 1863 map as "Puketutu cultivations" (Figure 3) and shows the site located within a swamp environment. The map adds credence to site S13/121 also being of archaeological value. If this site is indeed archaeological in nature then it would strongly suggest that associated domestic activity was also present, probably on higher ground close by to the site. In addition, it would also suggest that further similar sites may exist in similar swamp environments within the project footprint – i.e. to the east of the development. No attempt was made to confirm S13/121 as being archaeological by intrusive testing as the site is outside of the current development footprint.
Figure 3: “Sketch of Maori fortifications Rangirirei / drawn by the natives - True copy [of a copy] signed A. Sinclair C.G.S. Dec. 9th 1863”. S13/122 highlighted

These horticultural sites appear to be similar in style and possible function to horticultural sites identified in the Far North. Research undertaken by Barber (1989) considers the field evidence for a classification of ditch systems for cultivation activities in northern New Zealand, including a category of wetland ditching. Barber states that these ditches are thought to most obviously provide a drainage function in wetland environments, however reticulation was also apparently intended in some instances.

In a paper documenting pollen, phytolith and starch residue analysis at Motutangi in the Far North, Horrocks and Barber (2005) describe wetland ditches within Northland as being “dendritic in pattern, with long ditches many tens of metres in length from which shorter ditches emanate at various angles”. These have been documented as being extensive in some locations, in particular remnant ditching for water reticulation that covers over 100ha of the Kaitaia floodplain.

Barber (1989) concludes that the evidence of wetland ditching in the far north “argues for complex catchment management and the adaptation of central Pacific agronomic practices and cultigens”. More recent analysis in Horrocks and Barber (2005) documents conclusions that also

Figure 4: Close-up of Figure 3
fieldwork

objectives

The main objective of the archaeological testing exercise was to provide more detailed information for the assessment of environmental effects to support the plan change application. The testing was designed to provide the following details:

- locate archaeological evidence which may be present on the development land,
- where possible determine the nature and extent of any evidence,
- assess the effects of the development on any archaeological values, and
- provide the developer with an opportunity to avoid any archaeological material where possible, and where appropriate, by altering the design of the subdivision layout, or
- advise on any requirements under the HNZPTA of a requirement to obtain a general archaeological authority for the subdivision works.

methodology

The following describes the methodology for the test trenching that was undertaken during the week of 20 February 2017:

locations

- Testing was undertaken to include a range of landforms and areas (Figures 5, 6 and 7).
- The major landforms and highpoints were tested, as were landforms considered suitable for house sites.

method

- Trenching was undertaken with a mechanical excavator fitted with a c.1.2m wide flat bucket directed by the archaeologist,
- Trenching involved removal of topsoil to the top of natural subsoil.

limitations

The current development proposal does not include subdivision of the low-lying areas within the flood zone. This zone extends to the south and east of the development land. To the south the land will be managed as grassed farmland. This land is the closest to recorded site S13/213, but given there is no development proposed in this area, no testing was undertaken here to establish if this recorded site is archaeological, and if it extends into the study area.
There are proposals to develop a sports field and recreational grounds to the eastern side of the subject site within a former swamp environment. Testing was not undertaken in this area to establish if archaeological evidence similar to site S13/121 (a potential horticultural site recorded to the south) was present due to time constraints in the field.

A walkway is proposed along the water’s edge of Lake Waikare. It is currently anticipated that this will be built on a boardwalk and will have a relatively small impact, a closer survey of this area failed to establish if similar sites to the recorded rua (S13/102-2) are present.

RESULTS

The results of the trenching excavations are detailed in Table 1, and in the images which follow. Figures 5, 6 and 7 below show the location of the test trenches.

No evidence of archaeological material was identified and the field visit did not lead to the identification of any new archaeological sites.
Figure 5: Layout of Test Trenches
Figure 6: Layout of test trenches in relation to landform
Figure 7: Layout of test trenches in relation to the proposed development
### Table 1: Results of trenching

<table>
<thead>
<tr>
<th>Trench No.</th>
<th>Dimensions (L x W x D)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52m x 1.5m x 25cm</td>
<td>The trench runs east-west across a small ridge away from the crest of a hill. The trench was excavated to natural base which comprised of brown orange firm fine silt. Plow lines were noted and a modern pipe.</td>
</tr>
<tr>
<td>2</td>
<td>13m x 1.5m x 30cm</td>
<td>The trench runs north-south near the crest of a hill. The trench was excavated to the natural base material which comprised of firm fine orange brown silt. A modern pipe was noted running the length of the trench and plough lines were noted.</td>
</tr>
<tr>
<td>3</td>
<td>49m x 1.5m x 30cm</td>
<td>The trench runs east-west across the top of a small hillock. The trench was excavated to natural base material which comprised of orange brown firm fine silt.</td>
</tr>
<tr>
<td>4</td>
<td>25m x 1.5m x 30cm</td>
<td>The trench runs north-south on a terrace of small hillock ridge (on the west face of the ridge). The trench was excavated to the natural base material which comprised of brown orange fine silt.</td>
</tr>
<tr>
<td>5</td>
<td>18m x 1.5m x 30cm</td>
<td>The trench runs east-west on small ridge that runs east-west. The trench was excavated to natural base material which comprised of mottled brown orange firm fine silt, with mottling increasing in north-west.</td>
</tr>
<tr>
<td>6</td>
<td>25m x 1.5m x 30cm</td>
<td>The trench runs north-south on a small ridge, the trench was excavated to natural base which comprised of mottled brown orange firm fine silt. The area had been ploughed recently and Bioturbation was noted in the trench.</td>
</tr>
<tr>
<td>7</td>
<td>18m x 1.5m x 25cm</td>
<td>The trench runs north-south on a small ridge, the trench was excavated to natural base which comprised of mottled brown orange firm fine silt.</td>
</tr>
<tr>
<td>8</td>
<td>35m x 1.5m x 25cm</td>
<td>The trench runs north-east/south-west at western end of small ridge, the trench was excavated down to natural base, which comprised of orange brown firm fine silt.</td>
</tr>
<tr>
<td>9</td>
<td>53m x 1.5m x 20cm</td>
<td>The trench runs north-east/south-west on top of a hill. The trench was excavated to natural base which comprised of mottled brown orange firm fine silt. Bioturbation was also noted in the trench.</td>
</tr>
<tr>
<td>10</td>
<td>43m x 1.5m x 30cm</td>
<td>The trench runs north-south on the western face of a ridge. The trench was excavated to natural base which comprised of brown orange mottled firm fine silt. Bioturbation was also noted.</td>
</tr>
<tr>
<td>11</td>
<td>36m x 1.5m x 30cm</td>
<td>The trench runs north-west/south-east on a small slope. The trench was excavated down to natural base material which comprised of grey white firm fine silt. Bioturbation was also noted.</td>
</tr>
<tr>
<td>12</td>
<td>38m x 1.5m x 35cm</td>
<td>The trench runs north-east/south-west on a north facing terrace. The trench was excavated to natural base which comprised of grey-white firm fine silt. Bioturbation was also noted.</td>
</tr>
<tr>
<td>13</td>
<td>22m x 1.5m x 30cm</td>
<td>The trench runs north-east/south-west on top of a ridge. The trench was excavated to natural base which comprised of mottled brown orange and grey white firm fine silt. Bioturbation was also noted in the trench.</td>
</tr>
<tr>
<td>Trench No.</td>
<td>Dimensions (L x W x D)</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>14</td>
<td>23 x 1.5m x 30cm</td>
<td>The trench runs east west on a small ridge on top of a small hill. The trench was excavated to natural base material which comprised of brown orange firm fine silt. There was an area of hard packed brown fine silt (potentially by stock). This appeared to be in a depression. The hard surface could be the location of an old cattle trough. Bioturbation was also noted in the trench.</td>
</tr>
<tr>
<td>15</td>
<td>42m 1.5m x 25cm</td>
<td>The trench runs north-east/south west on top of a small hill. The trench was excavated to natural base material which comprised of brown orange mottled firm fine silt. One potential pit was noted. The pit was oval in plan and had an uneven base with brown firm silt with manganese making up the fill. Pit was approximately 1m x 1m and was between 18 and 27cm deep. A short 1.5m trench was excavated off to the south east to exposed the top of the potential pit. Due to the irregular nature of the feature it was determined not to be archaeological in nature.</td>
</tr>
<tr>
<td>16</td>
<td>40m x 1.5m x 30cm</td>
<td>The trench runs north- south on top of a small ridge. The trench was excavated to natural base material which comprised of brown, red, grey and white firm fine silt. There were a number of brown silt deposits, one was tested which was very shallow. These were thought to be potential trees. One modern square posthole was noted.</td>
</tr>
<tr>
<td>17</td>
<td>28m x 1.5m x 30cm</td>
<td>The trench runs north-east/ south-west and was excavated down to natural base. The natural comprised of orange brown red firm fine silt with manganese inclusions.</td>
</tr>
<tr>
<td>18</td>
<td>31m x 1.5m x 30cm</td>
<td>The trench runs north-south on a small hillock. The trench was excavated down to natural base which compromised of brown orange mottled firm fine silt. Also noted were small white pumice fragments likely brought to the surface during modern excavations in the area. A short 3.5m trench was excavated to test the area for potential post holes which were likely trees. Bioturbation and animal burrows were also noted.</td>
</tr>
<tr>
<td>19</td>
<td>36m x 1.5m x 30cm</td>
<td>The trench runs east-west on a north- south ridge, the ridge truncates as it descends to the south east. The trench was excavated to natural base which comprised of orange brown firm fine silt. Natural oxidised iron fragments were also noted in the trench. Two modern round voided postholes were noted in the trench. Animal burrows also noted in the trench.</td>
</tr>
<tr>
<td>20</td>
<td>24m x 1.5m x 30cm</td>
<td>The trench runs east- west on low ridge near Lake Waikare. The trench was excavated to natural base which comprised of orange brown firm fine silt. Potential bioturbation and one circular voided posthole were noted.</td>
</tr>
<tr>
<td>21</td>
<td>20m x 1.5m x 25cm</td>
<td>The trench runs north- east/ south-west on a south facing terrace of a north-south running ridge. The trench was excavated down to natural base which comprised of brown orange firm fine silt.</td>
</tr>
</tbody>
</table>

A selection of image of some of the trenches is provided below.
Figure 8: Trench 4

Figure 9: Trench 9
Figure 10: Trench 10

Figure 11: Trench 11
Figure 12: Trench 14
Figure 13: Trench 18
DISCUSSION

The Waikare Lake environment was certainly occupied by Maori prior to 1900. There are numerous recorded archaeological sites around the lake, and historic plans and pictorial depictions from the 19th and early 20th centuries of activities ranging from horticultural to domestic.

The lakes would have been valuable areas for natural resources and with easy access to the Waikato River. That Maori were living on the lake edge is attested to by the presence of the recorded sites. However, the records available do not detail how extensive and intensive their occupation of this environment was. The archaeological evidence is not conclusive, and this data has been gathered historically not by intensive field survey or detailed excavation.

There may be wetland horticultural sites present within the development footprint. The majority of swamp drainage systems are recorded in the Far North, and whilst there are some examples outside of this area, these are still generally within Northland (Furey, 2006). If indeed the sites to the south of the development footprint are archaeological in nature these would be of some considerable interest in this location. Should the archaeological evidence for these continue into the development footprint this would provide an important opportunity to investigate a type of horticultural activity not previously identified in the Waikato.
ASSESSMENT OF EFFECTS

At present, and with the current available information, there are no known impacts to large scale areas of domestic activity such as papa kainga or large urupa. Horticultural evidence may exist in the wetland environments, however there is no current direct evidence for this.

Despite this, the evidence for the wider landscape indicates that Maori were utilising the lake environment and swamp areas and therefore were also likely to have been using the higher landforms for settlement and other domestic or funerary practices.

It is therefore considered that the development land has a moderate potential for archaeological material, particularly given that the proposed area for development is extensive. The evidence may include archaeological sites which leave only minor traces on the land – such as fireplaces and postholes from former buildings, or small or individual burial sites.

If any archaeological material does exist, it is likely that it would be affected by the works involved to establish the proposed development.

CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

This addendum has detailed the results of test trenching at the subject site, and commented on the research that provides information on the potential for archaeology on the subject site. On the basis of this information, comment has been made regarding the potential effects of the proposed development on archaeological values.

The test trenching did not uncover any evidence of archaeological material, and no new archaeological sites were identified. However, the historical and archaeological context of the site, and the scale of the proposed development is such that there is a moderate potential for archaeological material to be uncovered on the site during the works.

In this situation, obtaining an archaeological authority from HNZPT to modify a potential archaeological site has the advantage of enabling the development to continue in accordance with the authority if any archaeological material is uncovered. Earthworks which will have the greatest risk of impacting archaeological evidence should be determined by the project archaeologist and monitored at their discretion. The alternative, operating under an Accidental Discovery Protocol (ADP), would require works in the location of any archaeological find to stop until the required approvals have been sought and obtained from HNZPT.

RECOMMENDATIONS

In relation to the RMA process:

- There are no known reasons to alter the current subdivision plans based on archaeological values.

- It is recommended that input from local iwi is sought to discuss this addendum and the conclusions reached.
In relation to the HNZPT process:

- It is recommended that an archaeological authority be obtained from HNZPT to modify a potential archaeological site.

- It is also recommended that input from local iwi is sought to discuss any authority application.
REFERENCES


APPENDICES

Appendix 1: Warren Gumbley Ltd Review
Review of:

“Proposed Residential Development, 64 & 95 Scott Road, Te Kauwhata: Archaeological Assessment” by E. Cameron and S. Phear. October 2016.

By Warren Gumbley 30 November 2016

This review was requested by Simon Ash of Winton Partners and by Norm Hill on behalf of Nga Muka Trust.

The report comprises eight sections:

- Introduction;
- Historical Background;
- Archaeological Background;
- Physical Environment – Geology and topography;
- Field Assessment– Results of the field survey;
- Discussion and Conclusion (including seven sub-sections):
- Recommendations;
- Bibliography.

This review considered each section in turn and before making a concluding statement.

Introduction

This section describes the methodology –

- The NZ Archaeological Association database was searched;
- A documentary survey was carried out;
- Historical maps were reviewed;
- A visual inspection as carried out of the subject property on 30 September 2016.

With regard to the latter a number of surface visible archaeological features were identified as indicators of the presence of archaeological sites. Two points are salient here. Absence of
visible surface features has no correlation with the presence or absence of sub-surface archaeology. While this is so for most of New Zealand, it is particularly pertinent in the inland Waikato. For example, one of the feature types identified was shell middens. These are an important identifier for archaeological sites in coastally oriented situations that allow the identification of a great proportion of archaeological sites in that environment. However, in the inland Waikato these are effectively absent. Therefore, any reliance on the presence of these will result in the significant under identification of archaeological sites.

Historical Background

This section is basic and with regard to Taimui relies heavily on the online encyclopaedia “Te Ara”. The history of Taimui is considered in two paragraphs only.

The consideration of early 19th century New Zealand history is generalised and is a review of nationally focussed popular history.

The Kingitanga movement is also considered in the context of the causative processes relating to the invasion of the Waikato in 1863 and more specifically the Battle of Rangiriri. While this is a significant element of New Zealand’s history there is no evidence to suggest that the battle impacted this area and the degree of consideration of this is disproportionate to its relevance. This is especially so given the superficiality of the preceding material considered.

Plans and historic photographs are also considered. This area is adequately covered.

Archaeological Background

This consists of five paragraphs and a summary table. Essentially, this is nothing more than a review of the NZ Archaeological Site Records.

Paragraphs one and two include a naïve review of horticulture with reference to the Waikato and describes three important horticultural sites on the margins of Lake Waikare immediately south of the development area. The discussion of these is uninformed and may also be described as naïve.

The next paragraph refers briefly to two sites on the shore of Lake Waikare relating to crop storage. The potential significance of these for the subject property is not considered. The presence of these sites in the local landscape implies that agricultural activities, probably relating to kumara cultivation, occurred nearby. These sites are also often associated with domestic activities (i.e. shelter and cooking).

The fourth paragraph refers to ten archaeological sites recorded at Rangiriri. These almost entirely relate to the battle and subsequent British use of the place as a supply base. It is hard
to understand the purpose of the focus on this group of sites, which are both physically
distant from the development area, and relating to a particular period in time. Strangely, the
importance of the pre-war paa at Rangiiri is unrecognised and so not discussed.

Paragraph 5 contains reference to the Waikato District Plan. The plan specifically identifies
Lake Waikare and the following part of the plan is quoted:

“Lake Waikare was a [sic] historical food basket for Waikato hapuu. The surrounding lands
and margins are identified as sites of significance as they were papakainga, nohoanga kai, paa
tuna, and also urupa....”

This is a significant statement that has implications for the potential for the presence of in-
ground archaeological sites within the development area. However, this is overlooked later in
the report, which represents a significant oversight. The significance of lakes and waterways
to the distribution of archaeological sites in the inland Waikato is well understood to be an
important predictor for the presence of archaeological sites and has been for some decades1.

Very importantly, this section does not make the crucial point — that there have been no
systematic archaeological surveys of the environs of either Lake Waikare or Lake Kopuera
(a.k.a. L Karaka). Sites have only been recorded on an ad hoc basis. Therefore, the
archaeological record for this area can, based on my 35 years of experience, be understood to
have been significantly under-recorded and, therefore, cannot be taken to be representative of
the actual population of archaeological sites locally. A contributory factor to this will be the
general lack of surface visibility of archaeological deposits.

**Physical Environment**

This is a useful review and notes the inter-related nature of the wetland ecosystems of the
lower Waikato, including Lake Waikare’s importance as an eel fishery.

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1 Cassells, R. 1972a. Human ecology in the prehistoric Waikato. _Journal of the Polynesian
Society_, vol 81, pp. 196-247.

Cassells, R. 1972b. Locational analysis of prehistoric settlement in New Zealand. _Mankind,
vol. 8_, pp. 212-222.

Cassells, R. 1972c. Prehistoric man and his environment. In D.H. Goodall (ed), _The Waikato,
man and his environment_. Waikato Branch of the N.Z. Geographical Society.

Newsletter11(1), 30-35._
Field Survey

The field survey was a superficial pedestrian survey. By its nature it may be described as self-limiting because it could only ever identify surface features which, by the report’s authors own admission, are likely to be absent as a consequence of the land use of the last 150 years. A useful example of the effects of dairy stocking can be seen at the nearby Taniwha Paa, which, 40 years ago had dramatic and well defined surface visible feature which are today almost invisible.

No effort was made to recognise or identify places or archaeological potential or actual inground archaeology.

The statement on page 31 (para 1) to the effect that “dairy herds would have destroyed or caused substantial damage to any such features that may have been located in this area.” Is fallacious and misleading. It does not account for the fact that intact archaeological material, particularly that which may have deep cuts/deposits such as subterranean storage pits, may indeed have survived at the site. In addition, considering the scale of the project, it would seem unlikely that farming activities would have caused the obliteration of the entire subsurface archaeological potential.

Discussion and Conclusions

The summary of results basically makes the same statement criticised above:

That farming activities “would have damaged or destroyed evidence of any archaeological features and deposits that may have once been present”. This and other sections of the report reiterate this theme. It is an assumption entirely unsupported by methodology or data.

Again, this repetitively dismissive theme blandly denies the real potential for subsurface archaeology. Contradictorily, the significant short-comings of the survey and data collection are touched on.

The sub-section titled “Archaeological Value and Significance” once again makes another statement to the effect that archaeological sites would have been “damaged or destroyed” as a consequence of land use activities. The weakness of this has been noted above.

Given the above the assessment of effects is, understandably, unsubstantiated.

Similarly, the recommendations are not sustainable.
Conclusions –

In my professional opinion this report does not measure up to the standards expected for an Assessment of Archaeological Values as good practice much less so best practice. The report is better understood as a lower order document such as an appraisal. Nonetheless, its principal shortcoming lies in not recognising three things;

1. That the proposed area for development is extensive and located between two important resource foci for Maori – Lakes Waikare and Kopuera.
2. That most if not all archaeology potential within the development area will be invisible and sub-surface.
3. That a programme of subsurface archaeological testing is needed to identify actual and potential archaeology.

Without a programme of field testing to identify archaeological deposits any attempt to assess archaeological values and effects on these will be fatally flawed.