
Archaeological Assessment of the Proposed Subdivision of
Section 1 SO 65970

Dip Road, Kamo

28 February 2022

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Quality Information

Document: Archaeological Assessment of the Proposed Subdivision of Section 1 SO 65970. Dip Road, Kamo

Ref: 2022-106

Date: 28 February 2022

Prepared by: Jonathan Carpenter

Revision History

Revision	Revision Date	Details	Authorized Name
Client draft	15 February 2022		J. Carpenter
Final	28 February 2022		J. Carpenter

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File ref.:

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Glossary

Classic	The later period of New Zealand settlement
Midden	The remains of food refuse usually consisting of shells, and bone, but can also contain artefacts
Pa	A site fortified with earthworks and palisade defences
Pit	Rectangular excavated pit used to store crops by Maori
Terrace	A platform cut into the hill slope used for habitation
Wahi tapu	Sites of spiritual significance to Maori

1.0 Introduction

D. Widdup of Project Civil Ltd commissioned Geometria Ltd to undertake an archaeological assessment of the proposed subdivision of Section 1 SO 65970 at Dip Road in Kamo, for Onoke Heights Ltd. One archaeological site is recorded in the vicinity of the proposed works, but a large number of sites are recorded in the wider area, which is a significant archaeological and cultural landscape.

Under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA, previously the Historic Places Act 1993), all archaeological sites are protected from any modification, damage or destruction except by the authority of Heritage New Zealand Pouhere Taonga.

This report uses archaeological techniques to assess archaeological values and does not seek to locate or identify wahi tapu or other places of cultural or spiritual significance to Maori. Such assessments may only be made by Tangata Whenua, who may be approached independently of this report for advice.

Likewise, such an assessment by Tangata Whenua does not constitute an archaeological assessment and permission to undertake ground disturbing activity on and around archaeological sites and features may only be provided by Heritage New Zealand Pouhere Taonga, and may only be monitored or investigated by a qualified archaeologist approved through the archaeological authority process.

1.1 The Heritage New Zealand Pouhere Taonga Act 2014

Under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA; previously the Historic Places Act 1993) all archaeological sites are protected from any modification, damage or destruction except by the authority of the Historic Places Trust. Section 6 of the HNZPTA defines an archaeological site as:

"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)"

To be protected under the HNZPTA an archaeological site must have physical remains that pre-date 1900 and that can be investigated by scientific archaeological techniques. Sites from 1900 or post-1900 can be declared archaeological under section 43(1) of the Act.

If a development is likely to impact on an archaeological site, an authority to modify or destroy this site can be sought from the local Heritage New Zealand Pouhere Taonga office under section 44 of the Act. Where damage or destruction of archaeological sites is to occur Heritage New Zealand usually requires mitigation.

Penalties for modifying a site without an authority include fines of up to \$300,000 for destruction of a site.

Most archaeological evidence consists of sub-surface remains and is often not visible on the ground. Indications of an archaeological site are often very subtle and hard to distinguish on the ground surface. Sub-surface excavations on a suspected archaeological site can only take place with an authority issued under Section 56 of the HNZPTA issued by the Heritage New Zealand.

1.2 The Resource Management Act 1991.

Archaeological sites and other historic heritage may also be considered under the Resource Management Act 1991 (RMA). The RMA establishes (under Part 2) in the Act's purpose (Section 5) the matters of national importance (Section 6), and other matters (Section 7) and all decisions by a Council are subject to these provisions. Sections 6e and 6f identify historic heritage (which includes archaeological sites) and Maori heritage as matters of national importance.

Councils have a responsibility to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga (Section 6e). Councils also have the statutory responsibility to recognise and provide for the protection of historic heritage from inappropriate subdivision, use and development within the context of sustainable management (Section 6f). Responsibilities for managing adverse effects on heritage arise as part of policy and plan preparation and the resource consent processes.

2.0 Location

The project area is located immediately east of Dip Road and west of Crawford Crescent, on the north west side of Kamo. The subject property is Section 1 SO 65970, and is 6.8775 ha in size. The property is currently in a mix of short and rank grass, with several large puriri and totara trees, and regenerating native forest along the southern boundary and Waipango stream. Two water mains cross the property on the eastern side, from the adjacent WDC water reservoir.

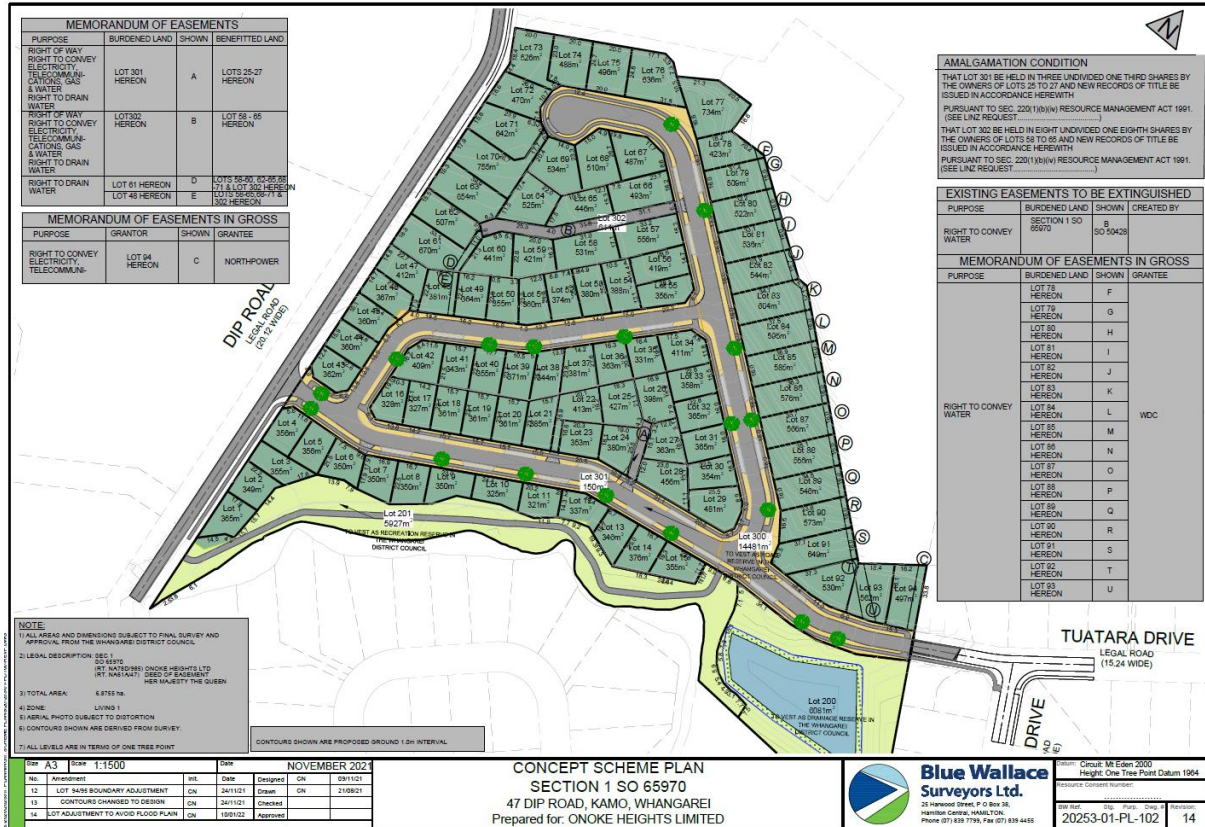
The subject property is located on the south west slope of the Onoke volcanic cone, to the east of the Hurupaki volcanic cone, part of the Whangarei Volcanic Field. The cones, two of seven running broadly west to east from Ngararatunua to Pukepoto at Glenbervie, formed 500,000-300,000 years ago and are the youngest in the Whangarei Field.

3.0 Proposed Development

The subdivision scheme plan proposes 94 residential lots for the property, ranging in size from 321-755m². The subdivision will be served by a new loop road and cul de sac and two shared access lots, accessed via the southern side of the subdivision from Dip Road and Tuatara Drive. A recreation reserve and drainage reserve totalling 12008m² with pedestrian access will run along the southern boundary. The subdivision will require substantial cut and fill earthworks, and retaining.



Figure 1: Project area and plan.



The first set of criteria assess the potential of the site to provide a better understanding of New Zealand's past using scientific archaeological methods. These categories are focussed on the intra-site level.

How complete is the site? Are parts of it already damaged or destroyed? A complete, undisturbed site has a high value in this section, a partly destroyed or damaged site has moderate value and a site of which all parts are damaged is of low value.

How diverse are the features to be expected during an archaeological excavation on the site? A site with only one or two known or expected feature types is of low value. A site with some variety in the known or expected features is of moderate value and a site like a defended kainga which can be expected to contain a complete feature set for a given historic/prehistoric period is of high value in this category.

How rare is the site? Rarity can be described in a local, regional and national context. If the site is not rare at all, it has no significance in this category. If the site is rare in a local context only it is of low significance, if the site is rare in a regional context, it has moderate significance and it is of high significance if the site is rare nationwide.

The second set of criteria puts the site into its broader context: inter-site, archaeological landscape and historic/oral traditions.

What is the context of the site within the surrounding archaeological sites? The question here is the part the site plays within the surrounding known archaeological sites. A site which sits amongst similar surrounding sites without any specific features is of low value. A site which occupies a central position within the surrounding sites is of high value.

What is the context of the site within the landscape? This question is linked to the one above, but focuses onto the position of the site in the landscape. If it is a dominant site with many features still visible it has high value, but if the position in the landscape is ephemeral with little or no features visible it has a low value. This question is also concerned with the amenity value of a site and its potential for on-site education.

What is the context of the site within known historic events or people? This is the question of known cultural association either by tangata whenua or other descendant groups. The closer the site is linked with important historic events or people the higher the significance of the site. This question is also concerned with possible commemorative values of the site.

An overall significance value derives from weighing up the different significance values of each of the six categories. In most cases the significance values across the different categories are similar.

5.0 Archaeology and History

5.1 Archaeological Sites

There are three archaeological sites recorded within 500m of the project area, according to ArchSite. The nearest site is a pa, Q06/379 adjacent to the houses on Tuatara Drive. To the north is the Onoke railway ballast quarry dating from the 1890s and recorded as Q06/632, and a small pit and terrace site recorded as Q06/469. Located 600m to the west on the summit of Hurupaki is the large pa site Q06/208 (Table 1; Figure 3).

Q06/379 was recorded by G. Nevin in 1988. It consisted of the remnants of a pa site which had been heavily modified by bulldozing, located between the reservoir and Tuatara Drive (Figure 4). The remnant features were in excellent condition at the time they were recorded, being under grass with the property owned by Warren Smith. They consisted of four terraces and six pits with seven other vague depressions on the upper terrace. These features are just visible in aerial photographs taken in 1947 and 1954. Mr Smith recalled that he had observed the neighbouring part of the reserve before the forest regenerated and that no features were observable on that side of the boundary. The recorded features of Q06/379 are 50m from the eastern boundary of the subject property and will not be affected.

Q06/469 was a single pit recorded in a paddock 100m north of the Waipanga Road level crossing and 20m west of the railway line. It was 5 x 5m in size and 1.2m deep on the upslope side and 60cm deep on the down slope side. There is no suggestion as to the age or function of the pit but the site record notes that the area was under gumtrees as part of an experimental horticulture station in 1910. Q06/379 is 500m from the subject property and will not be affected.

Q06/208 is the large pa site on the summit of Hurupaki, above the quarry on the south east side of the mountain. The site was mapped and a kumara storage pit on the pa was excavated by J. McKinlay in 1970 but the site was not formally recorded until 1979, by the Archaeological Site Recording Group. It consisted of approximately 40 pits on 15 terraces, with two sets of transverse ditch and bank defences. The site was approximately 100m long and 50m wide. Q06/208 will not be affected.

Table 1: Recorded Archaeological sites in the vicinity of the project area.

Metric Site #	Imperial Site #	Easting (NZTM)	Northing (NZTM)	Site Type
Q06/379	N20/351	1716877	6050580	Pa
Q06/469	--	1716776	6051080	Pit
Q06/208	N20/5	1715978	6050378	Pa
Q06/632	--	1715878	6050844	Quarry works

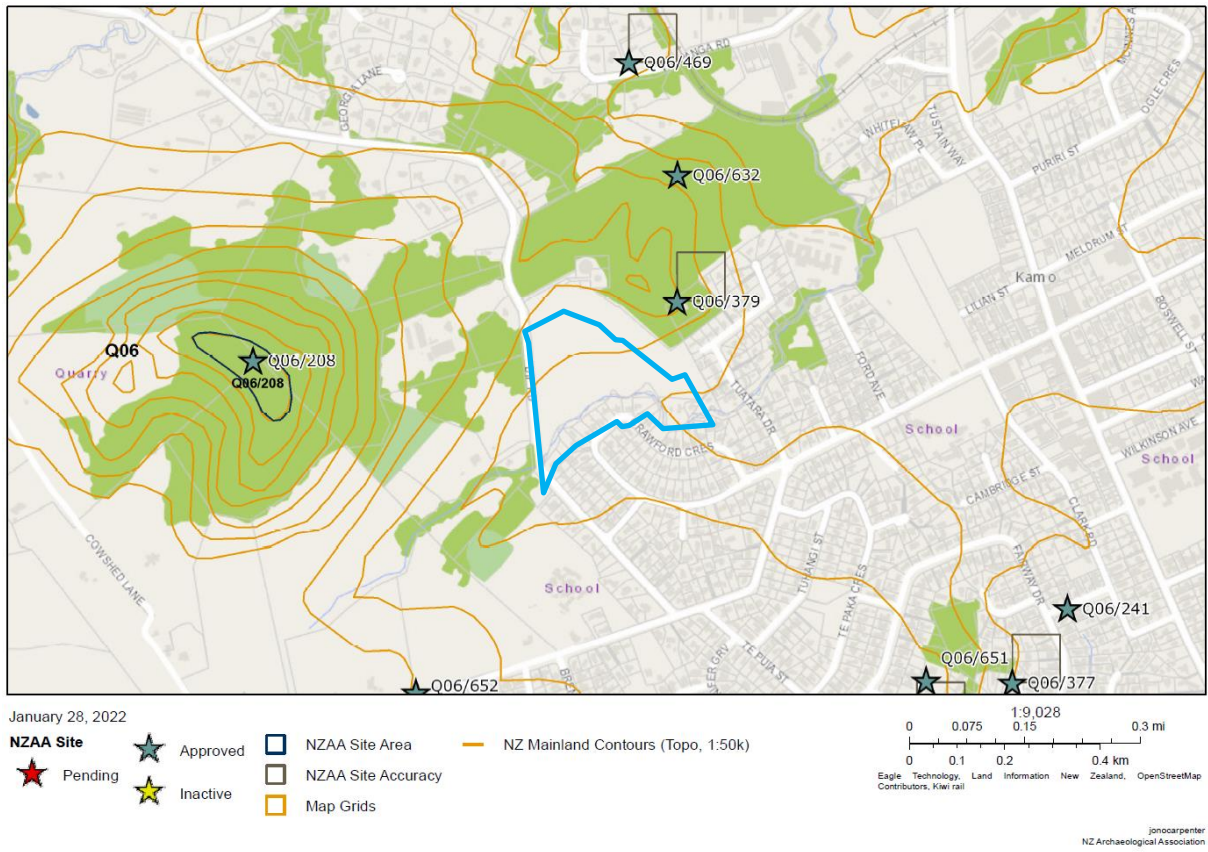


Figure 3: Archaeological sites in the vicinity of the subject property, and the cable alignment (ArchSite).

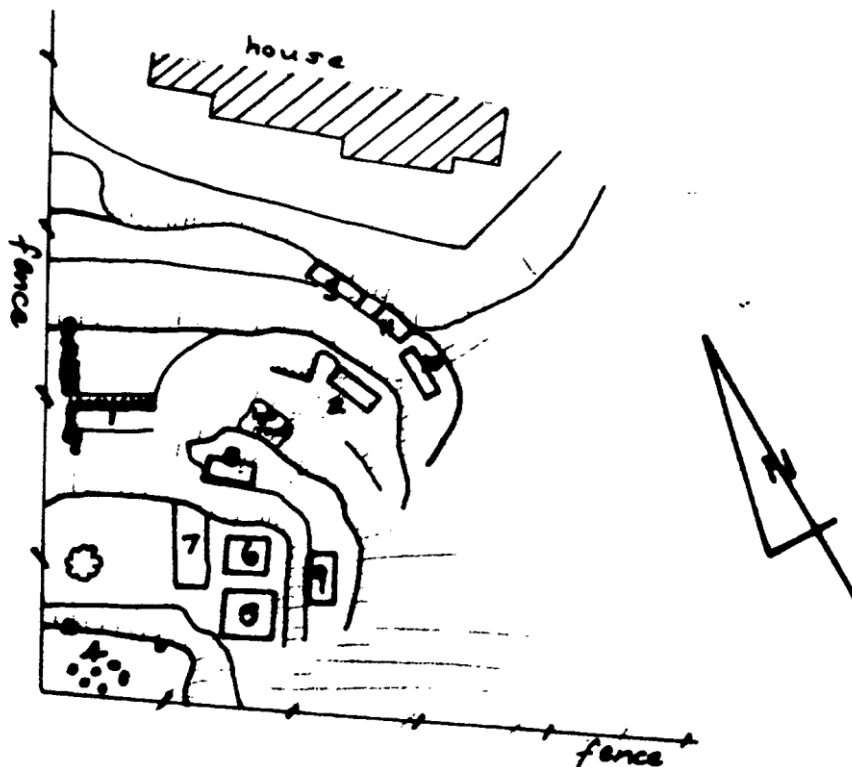


Figure 4: Sketch plan of Q06/379 from archaeological site record (G. Nevin 1988).

5.2 Other Heritage Sites and Features, and Associated Scheduling

There are no scheduled historic heritage sites or features or Maori Sites of Significance within the project area, in the Whangarei District Plan. Neither are there any registered Historic Places, Historic Areas or Wahi Tapu or Wahi Tapu Areas on the Heritage New Zealand List.

While there are a number of scheduled notable trees and buildings on the western side of Kamo and within 500m of the subject property, neither Q06/379 on Onoke, the Onoke cone itself, Q06/208 Hurupaki Pa or the cone itself have been identified as Site or Area of Significance to Maori.

The Onoke Scenic Reserve contains a historic railway ballast pit and associated features which are an Actively Managed Historic Site per the Department of Conservation's Historic Heritage management programme. Actively managed sites are of high value and a priority for preservation and visitor access. The site was first formally identified by the author of this report while working for the Department of Conservation in 2007 and initial research suggested the site pre-dated 1900. A Department of Conservation heritage assessment of the reserve was subsequently produced (Butcher 2010) but until 2013 the site had not been recorded in the archaeological site record file. This site has now been recorded as Q06/632.

5.3 Historic Background

The Maori archaeological sites recorded in the vicinity of the Onoke Scenic Reserve are a remnant of prehistoric and protohistoric Maori habitation and horticultural

activities on the rich volcanic soils of the Kamo area. Along with Maungatapere, Maunu, and Whatatiri to the south east and Glenbervie to the west, Kamo was a centre of intensive Maori gardening in the prehistoric and protohistoric period.

A Maori village called Ketenikau was located on the western side of modern Kamo and was associated with extensive cultivations in the early historic period. Potato, maize, kumara and gourds were being cultivated with wooden gardening implements in 1839 when this activity was observed by William Carruth. The pa sites in the vicinity of the subject property probably predate the last phase of occupation of Ketenikau, based on the lack of defensive works suitable to musket warfare.

Gilbert Mair purchased the land between Kamo and the Hatea River in 1839, with the subsequent Crown investigation in 1844 leading to a reduction in the size of the grant to Mair, and subsequent purchase of the Te Kamo Block by the Crown in 1858 (that block being the northern part of Mair's claim, which was not awarded to him). The neighbouring Ketenikau Block to the west (south of Onoke) was surveyed in 1866.

As the European settlement of Kamo developed and farms were established in the area, most of the archaeological remains associated with the earlier Maori occupation were modified or destroyed. The construction of dry stone walls by European settlers from the mid-19th century has served to obscure and destroy the earlier Maori horticultural landscape which, on the basis of such landscapes preserved elsewhere, would have consisted of an elaborate mesh of low stone alignments marking out garden plots, paths providing access through the gardens, gardened mounds of stone and soil, and clearance mounds, along with undefended kainga and pa.

In 1874, the 138 acre Onoke Block, containing the land which would later become the Onoke Scenic Reserve, the WDC water reservoir, and the subject property, was surveyed on behalf of claimants Tipene Hari and Te Hira (ML 3548, 1874). At that time, the bush line appears to be almost halfway up the sides of the cone, between what would become the railway and Dip Road, with the subject property cleared.

At a sitting of the Native Land Court on 19 September 1877 the survey plan was produced and Tipene Hari stated that he belonged to Ngati Kahu of Onoke and the land belonged to him. His ancestors had owned it in former times and he stated that it belonged to Mihiao (possibly Mihiao of Ngapuhi, who had married Hikurangi of Ngati Hu in the late 18th century). Hari stated that he should be named on the memorial to the land along with Te Hira and Wiremu Pepene. There was no opposition and an order of the court was made to that effect (Maori Land Court Whangarei Minute Book No.2 p. 208. Whangarei Library).

The title to the Tiawhenua Block immediately south of the stream was investigated on 23 August 1865. Claim to the 35 acre block was made by Hirini Tipene Paikia and his claim was read to the Court. Tipene Paikia stated that he, Tipene Hare, Chief Te Puia, Wiremu Pohe, Renate Titore, and the whole of Ngati Kahu were claimants.

Tipene Hare stated that their claim derived from Te Uhio, and recited the whakapapa from Te Uhio to the claimants. Tipene Paikia stated that there was no dispute with regards to the title, and that they wished a grant be made so that they could sell it if a buyer came forward.

Tamati Pehi Riri stated that he was a claimant to the land but did not object to a grant being made to any of those named. All the other claimants agreed to his name being added to the claim. Subsequently and following further discussion among the claimants, only Hirini Tipene Paikia was named on the title.

The adjoining Nga Moko Tuaitara and Nga Moko Tuaitara No.2 blocks to the east, upon which pa site Q06/379 is located were surveyed in 1871 and 1873, also for Tipene Hari (ML 2335). The land court minutes for this block could not be located in the time available for the assessment but may contain information about the pa. Those blocks were subsequently subdivided and developed for residential housing in the 1950s and 1960s.

M. Butcher of the Department of Conservation prepared a heritage assessment of the Onoke Scenic Reserve in 2010, including a narrative history of the reserve focussing on the operation of the railway ballast pit. Butcher (2010: 3) suggests the ballast pit may have been in operation as early as 1878, when construction of the Whangarei-Kamo railway line began.

However the railway did not extend beyond the Kamo station until the early 1890s. Frustrated by the lack of progress in extending the railway by the government of the day, the local community took matters into their own hands. In 1890, James Whitelaw, a Kamo settler, made the first attempt to proclaim and construct a tramway from the Kamo Coal Station to Hikurangi, according to notices in the Northern Advocate on 8 and 15 November that year, and an application to the Whangarei County Council on 24 December. Nothing came of the attempt although the government recommitted itself to the development the next year. By 1893 work had finally begun, although there was argument about the source of 20,000 yards of ballast for the railway. The engineer in charge wanted to use limestone from Hikurangi which would require more processing than the rock from either of the two road metal quarries at Hikurangi and Kamo, or the scoria from Onoke (called Oneke) (Menefy 1994: 124-126).

The operation of the Onoke Ballast pit was probably part of Kamo-Hikurangi railway endeavour rather than the earlier construction of the Whangarei-Kamo line. The pit was certainly in operation by 1893 when it was mentioned in the Northern Advocate. It was operated by the government, on the land of James Whitelaw. Whitelaw went bankrupt in 1894 and the Onoke Block, then mostly in grass and fenced. The land was partly marketed on the value of the easily accessible scoria.

The Kamo-Hikurangi line was surveyed in 1894, and SO 7057-2 illustrates the ballast pit and a self-acting incline tramway. The reserve surrounding the ballast pit is shown as 10 acres 3 roods and 36 perches including the tramway corridor. A self-acting incline is one in which the loaded wagons going down pull, via a cable and drum, the empty wagons going up. An incline might have two separate tracks, or a single track with a passing loop. The Onoke ballast pit appears to have had two separate tracks according to the quarry survey plan. A later plan from 1910 (SO 15957) also shows the self-acting incline, along with an older disused tramway immediately south.

Butcher (2010: 4-6) provides an overview of its operation including the hazards of working at the site from this time, such as rock falls and runaway hoppers on the incline. The ballast pit was decommissioned in 1937-38 having not been used for several years. Most of the plant was removed, to Kawiti and Otahuhu but Boiler 41

was found to be of no further use to anyone and was left on site. Anecdotally it was used for target practice by the Home Guard during World War II. By the time aerial photographs of the area were taken in 1947, scrub had already grown up around the workings, obscuring the incline.

In the early 20th century an experimental farm and forestry operation was established on the neighbouring land to the north. In 1901, discussion was held with the Minister of Lands and Survey to establish an experimental horticultural station on the Onoke Block, to the north of the ballast pit reserve (Northern Advocate, 18 May 1901).

Features associated with this endeavour are also shown on survey plan SO 15957 (1910) including stands of gum trees, totara seed beds, stone culverts and buildings including sheds, offices and a manager's house.

A water reserve was also established on the north side of the Waipango stream around this time. A pipe providing water to the railway from higher up the stream is illustrated on the plan, and crosses over to the railway in the vicinity of the north east corner of the reserve.

In the late 1930s the need for a local water supply was raised by the Kamo Town Board. as the town of Kamo was expanding and existing water supplies were no longer adequate. World War II delayed the project although an £8000 special loan was raised by the Board in 1943 for the project. In early 1946 the Kamo Town Board tendered for the construction of a 12 foot high, 43 foot diameter tank to hold 130,000 gallons of water, and pipe services, with work commencing in March 1946 and the reservoir opened officially on 18 January 1947.

Tapper Brothers took the contract for the pump station and reservoir, while D. Wilson took the contract for the pipes (six inch fibrolite-asbestos-concrete), with the work to cost £13,200 and take five months). The pump was to take 250 gallons of water a minute from the springs and send it 1200 feet to the reservoir, with 84lbs of pressure per square inch provided. Early operation was not without incident, with a burst main a week after opening causing the loss of the entire tanks-worth of water (Northern Advocate, 15 March 1943, 15 March 1946, 17 January 1947, 25 January 1947. The second tank was built in the 1960s.

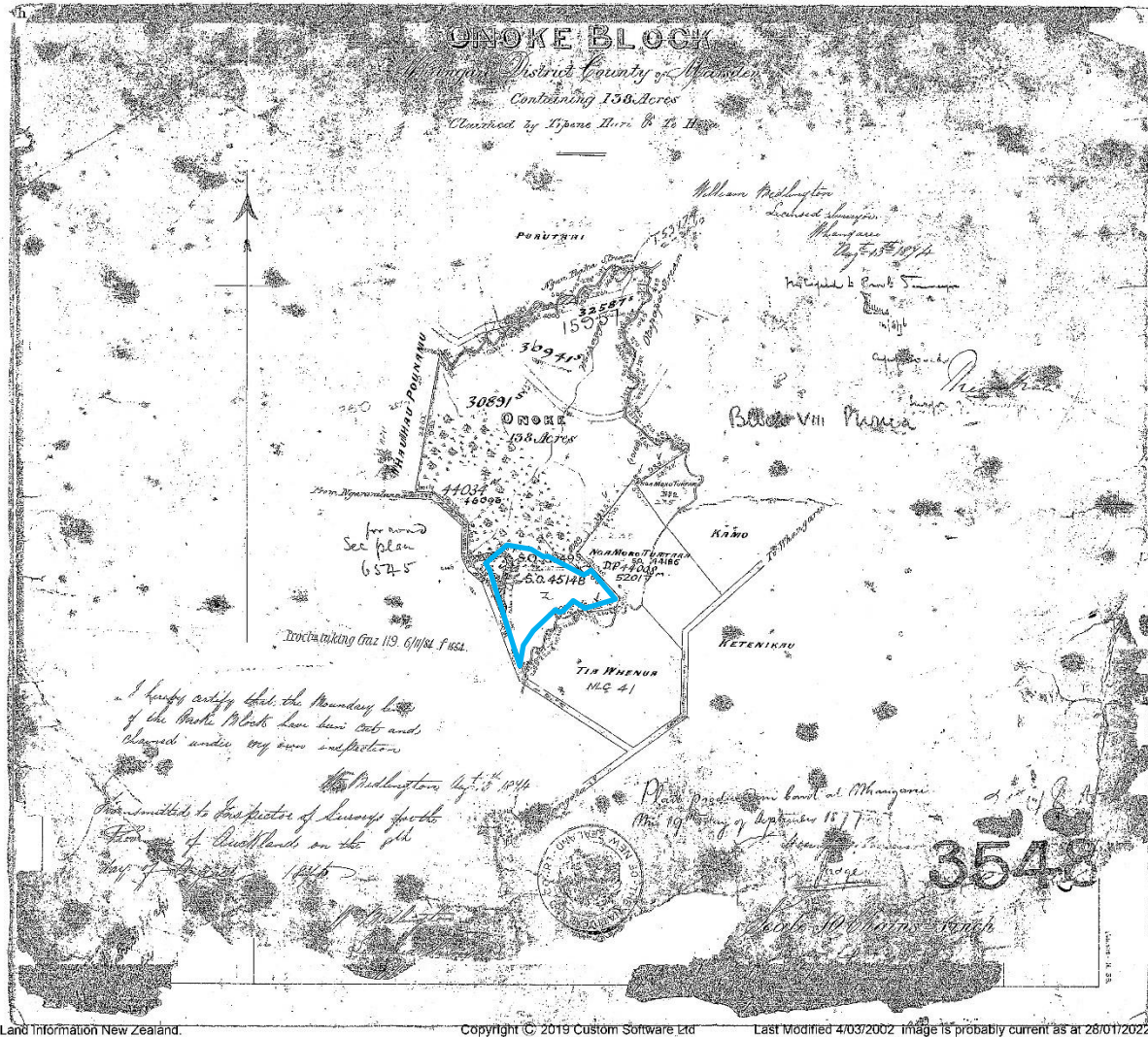


Figure 5: Detail of ML 3548 Onoke Block (1874) with subject property in blue.

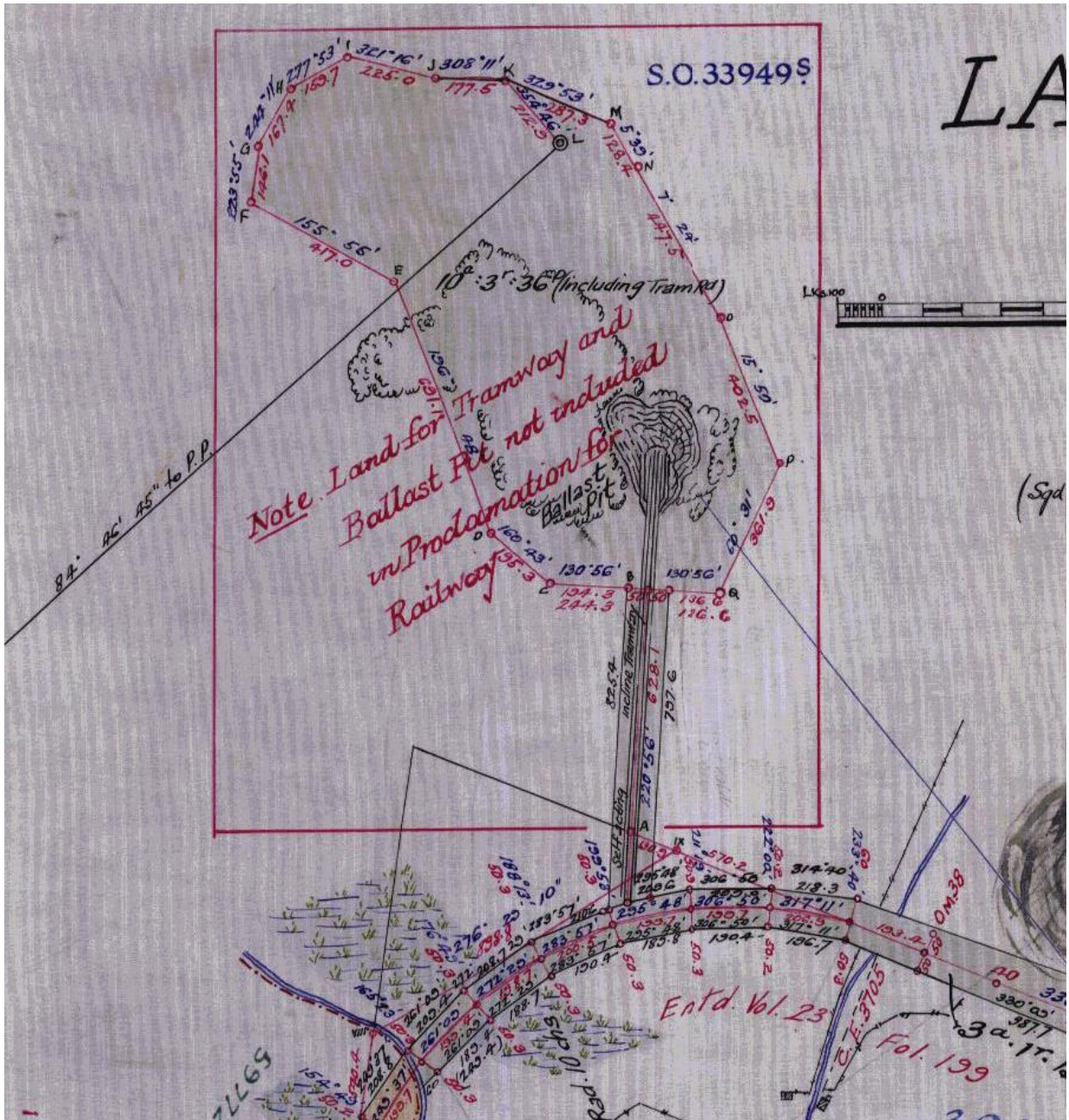


Figure 6: Detail of SO 7057-2 (1894), showing the railway ballast pit reserve and self-acting incline (1894).



Figure 7: Detail from SO 15957 (1910) showing tramway, incline, ballast pit, railway water pipe and other features of interest.

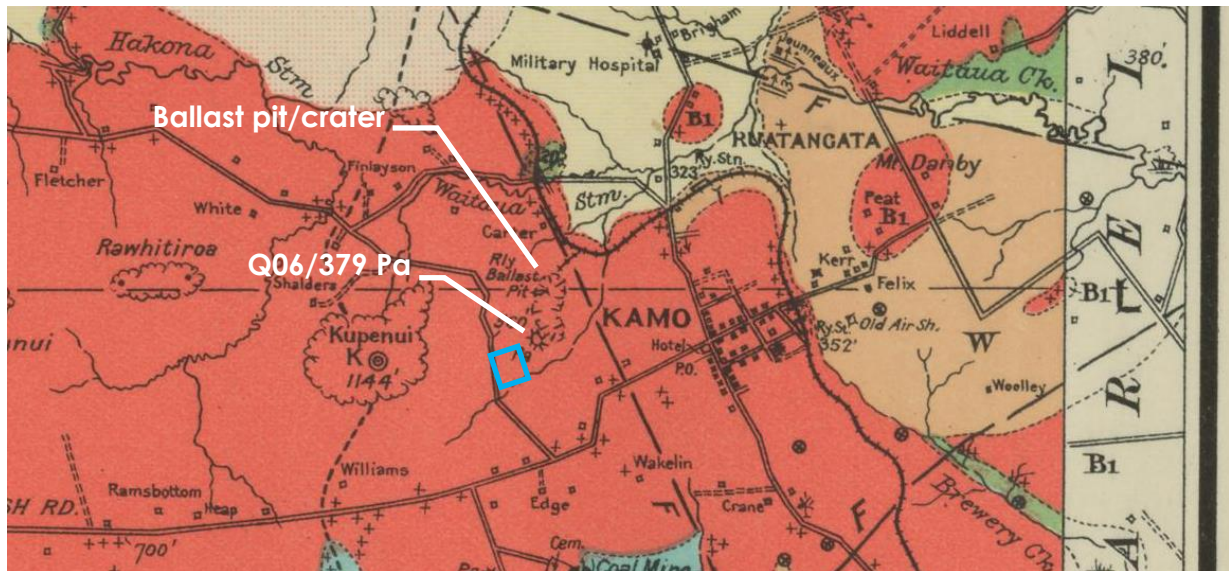


Figure 8: Detail from Ferrar's 1922 Geological Survey of the Purua District, showing pa, ballast pit and incline, and subject property (in blue).



Figure 9: Detail from SN 409 402/24 (1942)

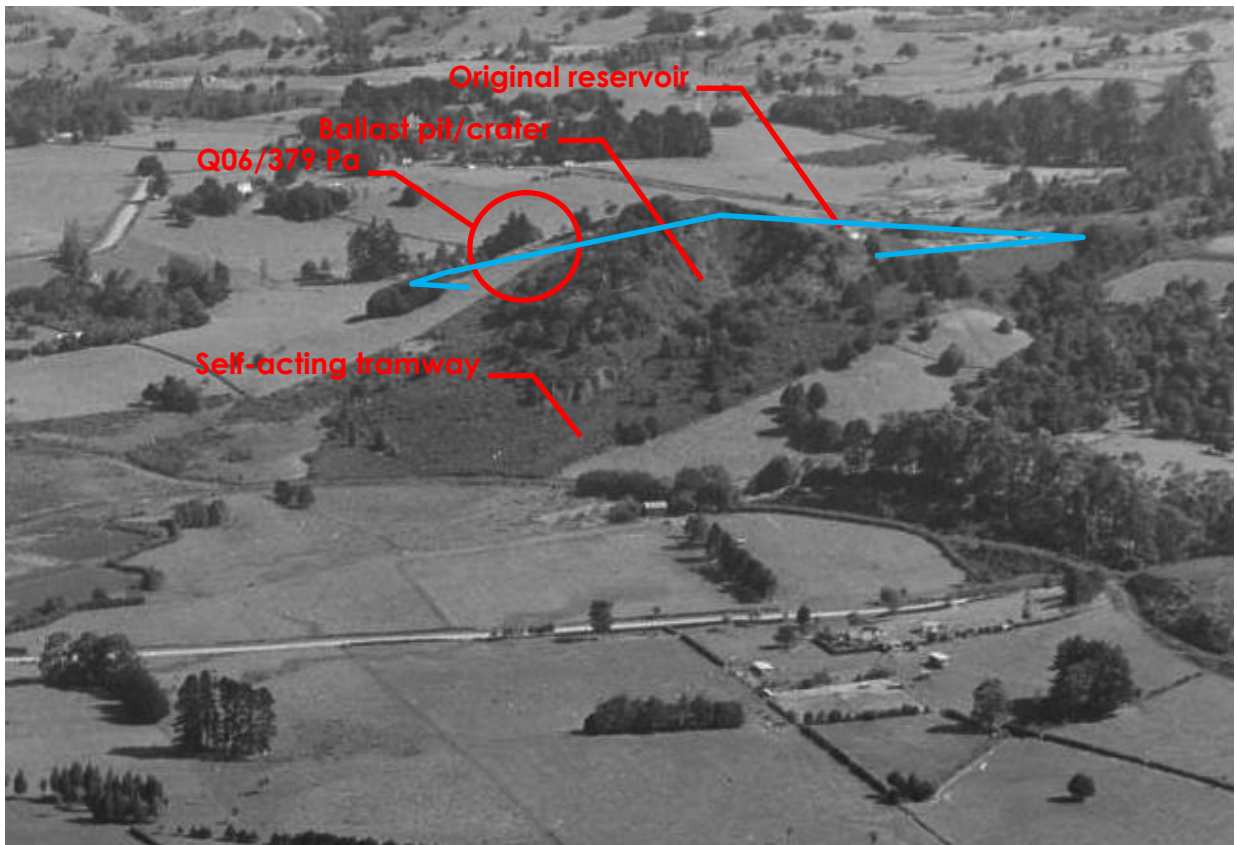


Figure 10: Subject property and Onoke in 1947, with historic/archaeological features.



Figure 11: Onoke in 1954.

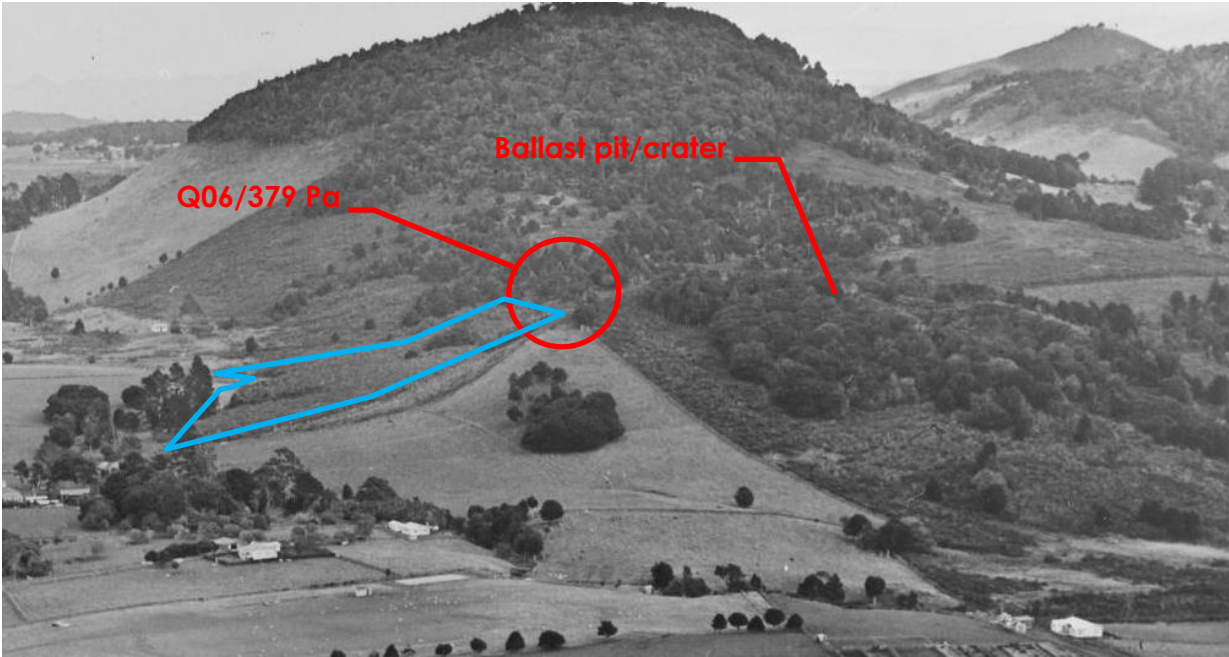


Figure 12: Subject property and Onoke in 1954.

6.0 Results

The site was visited on 3 February 2022. The weather was fine and surface visibility was good, except for several areas of rank grass, the largest of which is on the steeper north eastern slope. No probing or spade test units were excavated.

The property slopes gently to the south from the saddle between the Hurupaki and Onoke cones at the northern boundary, and the high point of Onoke on the north east side. Exposed surfaces from erosion and soil creep showed homogenous red to orange brown volcanic soil with no sign of old soil horizons or archaeological material.

There was no indication that surface features from pa site Q06/379 extend onto the subject property, and georeferencing the site map from the site record file puts the features at least 50m from the eastern boundary of the subject property.

No archaeological sites or features were observed on the ground surface. However a stone cairn was noted against the easternmost puriri tree, comprising small scoria rocks and cobbles, along with several small slabs of concrete pipe, piled between two large roots, with larger boulders downslope holding the smaller rocks in place. Former land owner R. Mortimer was unaware of the feature and could offer no information about it. The trees have been there since at least 1942, when they are visible in the first available aerial imagery. The puriri with the cairn is the smallest of the six at that time

There may be archaeological effects from the subdivision. This is due to the presence of the pa site nearby, and likelihood of occupation and gardening activities on the well-drained, gently sloping and fertile hillside below it. The cairn may or may not be archaeological, and if it is to be disturbed it may require further investigation.



Figure 13: Looking south east from Dip Road.



Figure 14: looking north east from south west boundary.



Figure 15: Exposed batter on old track near eastern boundary



Figure 16: New bench and geotechnical bore.



Figure 17: Cairn built against puriri tree.





Figure 19: Q06/379 Pa 50m from eastern boundary of subject property.

7.0 Significance Assessment

There were no archaeological sites or features to assess.

8.0 Assessment of Effects

8.1 Effects under the Heritage New Zealand Pouhere Taonga Act 2014

There are three common outcomes when assessing the effects on archaeological values and making recommendations for their management:

- 1) There are no effects and an archaeological Authority is not required, but an accidental discovery protocol is recommended.
- 2) There may be archaeological effects, which due to circumstance are difficult to determine; and an archaeological Authority is recommended on a precautionary basis (although there is no statutory or policy basis for the use of the term 'precautionary').
- 3) There are, or are likely to be archaeological effects and an archaeological Authority is required.

Where there is reasonable cause to suspect there may be archaeological effects, an Authority should be sought.

At Onoke Heights, there may be archaeological effects based on the presence of a pa site approximately 50m from the subject property. Pa sites and other undefended sites are not occupied in isolation, and because the subject property appears to have been cleared of forest when originally surveyed for Maori owners in the course of the land title investigation for the Onoke and surrounding blocks in 1874, it was probably occupied or otherwise used by that time for horticultural or agricultural purposes by the Maori owners, and any subsequent owners prior to 1900.

The volcanic soil, available water, and gentle slope would have been amenable to Maori occupation and horticultural activity, and the European farming which followed alienation of the block. Subsurface archaeological features which might reasonably be expected to be present as a result of such occupation and use include the remains of hearths and ovens, postholes from structures, midden deposits and garden soils.

These sorts of subsurface archaeological features, in the absence of surface features, are difficult to proactively identify and avoid. Mitigating effects on such features usually takes the form of identifying such features in the course of earthworks by archaeological monitoring and on-call procedures, investigating features, and then allowing them to be destroyed or where possible, avoided and left in-situ. The presumption is that such features are likely to be of low to moderate significance based upon the significance assessment criteria used for archaeological sites. Further consultation with Heritage New Zealand and stakeholders may be required if potentially highly significant archaeological features (such as an urupa or burial ground) are identified.

As large-scale earthworks are required for the Onoke Heights subdivision, extensive topsoil stripping may reveal subsurface archaeological features prior to bulk earthworks. Topsoil stripping for recent large subdivisions in Tikipunga and Maunu (Bresgi pers. comm.) have revealed previously unidentified subsurface shell midden

where no surface archaeological features were present, and this situation is likely across many parts of Taitokerau-Northland.

8.2 Effects under the Resource Management Act 1991 and Whangarei District Plan

There are no effects on broader historic heritage under the Whangarei District Plan.

There are no scheduled Sites of Significance to Maori, or Historic Heritage items in the Whangarei District Plan affected by the proposed Onoke Heights subdivision. There are no dry stone walls, or recorded archaeological sites that might be considered under the earthworks and subdivision rules of the Whangarei District Plan. There are no wahi tapu or other sites of significance identified in any iwi/hapu environmental management plan covering the subject property which the Whangarei District Plan might give regard to.

9.0 Recommendations and Mitigation

- 1) The proposed subdivision may affect archaeological sites or features.
- 2) An archaeological Authority under the Heritage New Zealand Pouhere Taonga Act 2014 is recommended, on a precautionary basis.
- 3) The archaeological Authority application will require evidence of consultation with the Tangata Whenua.
- 4) An appropriate archaeological site instruction should be prepared in order to manage any archaeological effects.

10.0 Summary

Geometria Ltd was commissioned by D. Widdup of Project Civil to undertake an archaeological survey and assessment of the proposed subdivision of Section 1 SO 65970 at Dip Road, Kamo.

This is in an area of moderate archaeological sensitivity and an archaeological Authority and associated site instruction is recommended in order to manage any potential archaeological effects.

11.0 References

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Appendix A – Archaeological Site Record Form



Site Record Form

NZAA SITE NUMBER: Q06/379

SITE TYPE: Pa

SITE NAME(s):

DATE RECORDED:

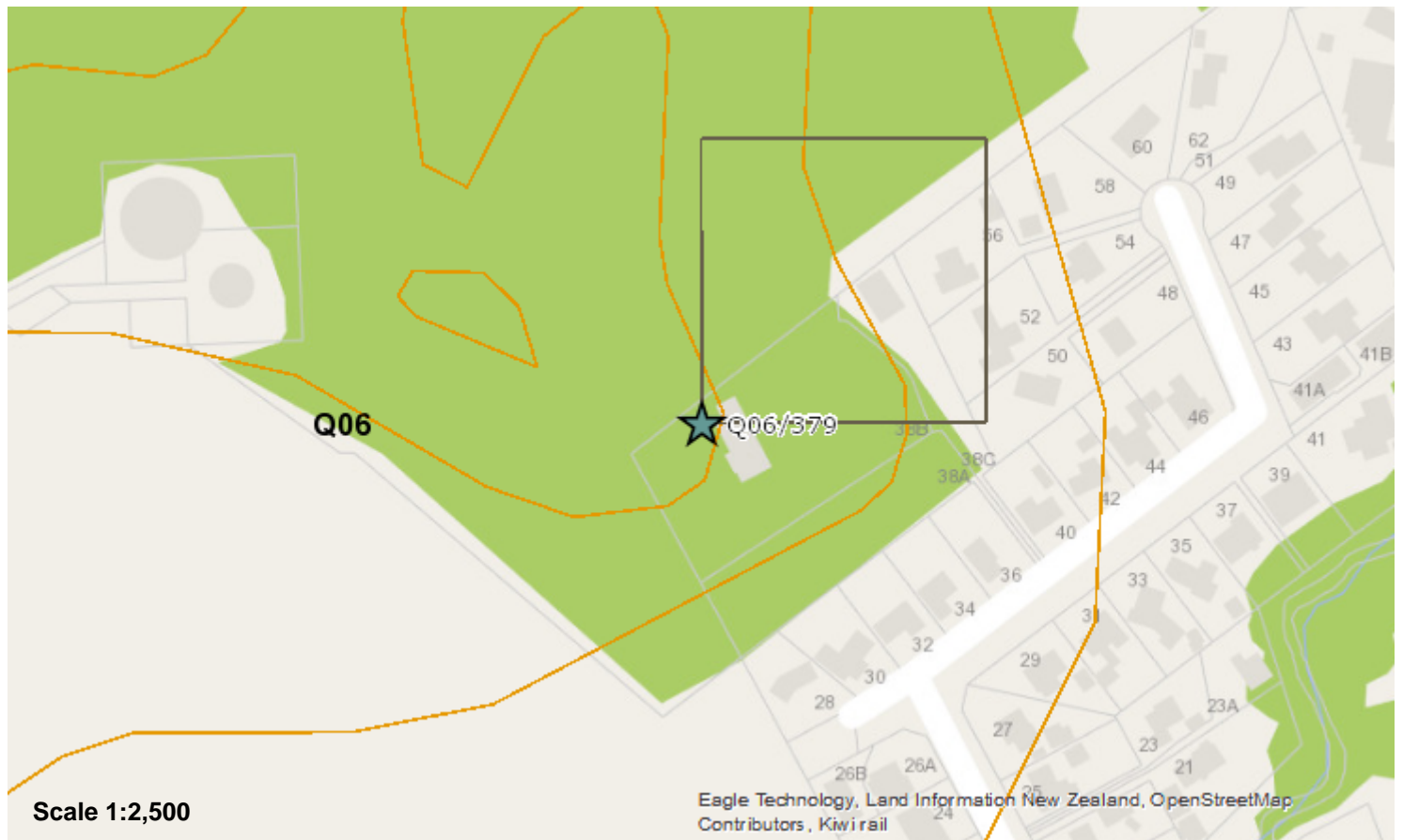
SITE COORDINATES (NZTM) Easting: 1716877

Northing: 6050580

Source: CINZAS

IMPERIAL SITE NUMBER: N20/351

METRIC SITE NUMBER: Q06/379



Finding aids to the location of the site

Brief description

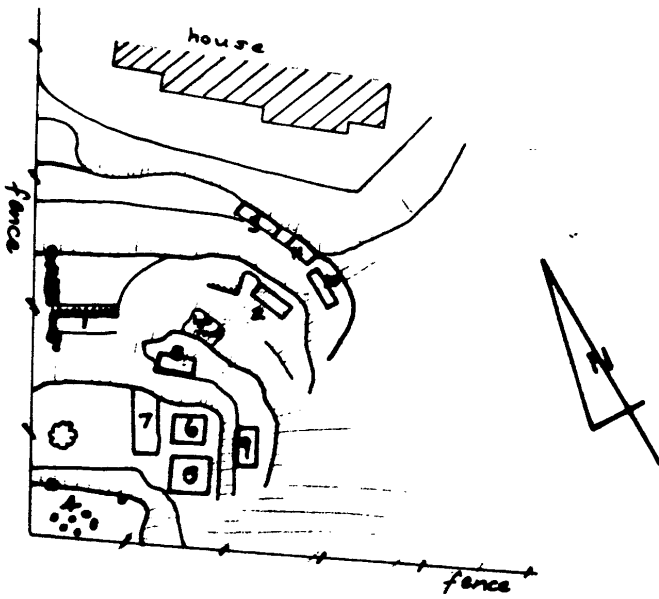
PA

Recorded features

Other sites associated with this site

SITE RECORD HISTORY	NZAA SITE NUMBER: Q06/379
<p>Site description</p> <p>Condition of the site</p> <p>Statement of condition</p> <p>Current land use:</p> <p>Threats:</p>	

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION SITE DESCRIPTION FORM Map Number N20 Map Name Whangarei Map Edition 4th ed. 1977 Grid Reference 803 0175	SITE NUMBER N20/351 SITE NAME: MAORI OTHER SITE TYPE Pa
<p>Mr. Smith said he has seen the property over the fence, when clear of the current heavy growth of gorse, bracken and scrub. He says there is no more pa there. It appears that the rest of the pa has been heavily bulldozed with little remaining. The earthworks have been out into red rubbly scoria soil and rocks.</p> <p><u>Measurements of the features:</u></p> <p>1 stone faced terrace - looks modified, 60 cm high front scarp, made of loose scoria rock</p> <p>2 Pit - 3 x 1 m x 15 - 20 cm deep</p> <p>3 Terrace - 1.5 x 3 m front edge eroded</p> <p>4 7 Vague depressions 60 -75 cm diametre 5 - 15 cm deep on top terrace</p> <p>5 Pit - 3 x 3 m x 50 cm deep - rocky edges but not placed</p> <p>6 Pit - 2 x 2.5 m x 20 - 40 cm deep</p> <p>7 Terrace - 2 x 4.4 m - open and facing east 2 m wide</p> <p>8 Pit - 3 x 1.25 m x 20 cm deep</p> <p>9 Pit - 2.5 x 1.5 x 25 cm deep</p> <p>10 Pit - 3 x 1 m x 15 cm deep</p> <p>11 Terrace - 1 x 2.25 m - front edge eroded</p> <p>Terrace 3 & 11 are possibly ^{pits} similar to 10 but with eroded front edge.</p> <p><u>Photos:</u> From top across Pits 5 & 8 to Tuatara Drive From Pit 5 across terrace with Karaka Tree Thru Pits 8, 2 & 10 to back of house Across Karaka tree terrace to 7, 6 & 5 up Crawford Crescent From the top to Pit 10 of this section the site falls steeply over 9 - 10 m before dropping another 5 - 6 m to the house.</p>	



Scale 1:500