
I hereby give notice that a hearing by commissioners will be held on:

Date: Monday 5, Friday 9 & Monday 12 October 2020
Friday 16 & Monday 19 October 2020 (overflow days)
Time: 9.30am
Meeting Room: Council Chambers
Venue: Level 1, Orewa Service Centre,
50 Centreway Road, Orewa

APPLICATION MATERIAL
VOLUME THREE
PRIVATE PLAN CHANGE 40
CLAYDEN ROAD, WARKWORTH

COMMISSIONERS

Chairperson Les Simmons
Commissioners Bridget Gilbert
Michael Parsonson

Wendy Stephenson
HEARINGS ADVISOR

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Note: The reports contained within this document are for consideration and should not be construed as a decision of Council. Should commissioners require further information relating to any reports, please contact the hearings advisor.

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PRIVATE PLAN CHANGE 40, CLAYDEN ROAD, WARKWORTH

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**ECONOMIC ASSESSMENT BY PROPERTY
ECONOMICS**

PROPERTY ECONOMICS



WLC PRIVATE PLAN CHANGE

ECONOMIC RESPONSE TO

COUNCIL QUESTIONS

Client: Warkworth Land Company

Project No: 51846

Date: January 2020



SCHEDULE

Code	Date	Information / Comments	Project Leader
51846.7	January 2020	Report	Tim Heath / Phil Osborne

DISCLAIMER

This document has been completed, and services rendered at the request of, and for the purposes of Warkworth Land Company only.

Property Economics has taken every care to ensure the correctness and reliability of all the information, forecasts and opinions contained in this report. All data utilised in this report has been obtained by what Property Economics consider to be credible sources, and Property Economics has no reason to doubt its accuracy. Property Economics shall not be liable for any adverse consequences of the client's decisions made in reliance of any report by Property Economics. It is the responsibility of all parties acting on information contained in this report to make their own enquiries to verify correctness.

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1. INTRODUCTION

Property Economics has been engaged by Warkworth Land Company (**WLC**) to provide a consolidated high-level economic response to some economic related queries in a council feedback letter dated 5-September-2019 relating to WLC's Private Plan Change (**PPC**) of Clayden Rd Warkworth, followed by some additional responses requested by Council in a 27 November RFI.

The specific areas of concern from Council from an economic perspective related to the loss of industrial zoned land and absence of a neighbourhood centre.

2. ABSENCE OF NEIGHBOURHOOD CENTRE IN THE PPC

Council raised a concern that the PPC did not contain the potential development of a Neighbourhood Centre as identified in the Warkworth Structure Plan. Since the original discussion with Council, WLC has since included a neighbourhood centre of circa six individual shops. This is to be a small convenience top-up oriented retail centre for frequently purchased goods and services to support the surrounding residential development. This addition addresses the Council's concerns regarding this matter.

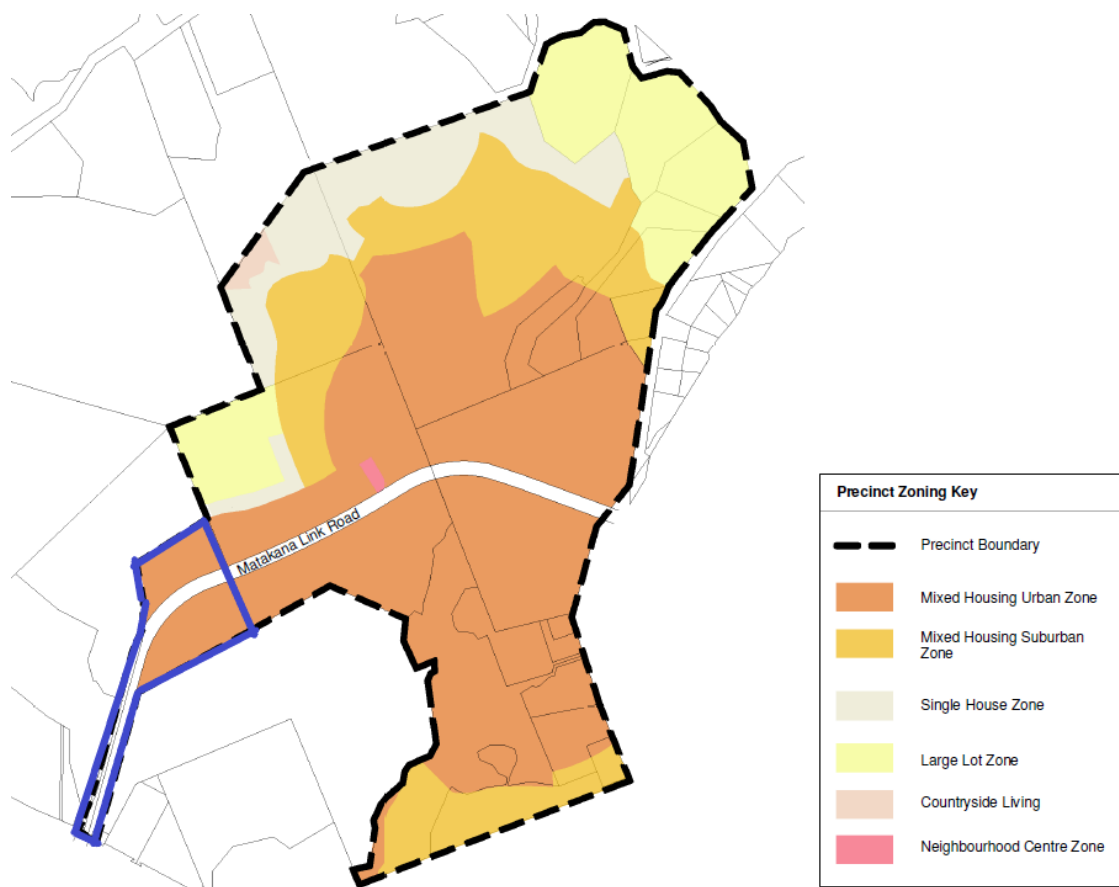
The Centre is sized so it primarily meets the convenience needs of the local community so as not to compete directly with or undermine the role and function of the Warkworth Town Centre. Property Economics agree the neighbourhood centre size as now proposed for the PPC is appropriate and would not generate any adverse economic effects in the context of the RMA.

3. LOSS OF LIGHT INDUSTRIAL ZONED LAND

Under the PPC the applicant is seeking the re-zoning of Light Industrial Land and Future Urban zones in an area adjacent to the Warkworth Showgrounds, to a mixture of Residential Zones.

From an economic perspective, the Council was wanting to better understand the potential impacts of losing 3.6747ha of Light Industrial land to Mixed Housing Urban and Mixed Housing Suburban, factoring in the mitigating employment of the potential swimming pool complex.

Figure 1: Proposed Zoning for the WLC PPC Area



Source: Tattico, Property Economics

Figure 1 shows the proposed zones as outlined in WLC's PPC application. Outlined in blue is the area of interest which is live zoned Business - Light Industrial while the remaining area within the Precinct Boundary is zoned Future Urban.

As contextual background, the PPC rezoning of the Light Industrial Zone land to residential has been proposed for a variety of practical reasons including:

- The existence of the (necessary) Matakana Link Rd would have led to a significant mixing of industrial related vehicles and traffic with residential traffic in a residential /

recreational dominated area. The requirement for heavy and light industrial traffic to utilise a residential road can generate safety and reverse sensitivity issues.

- The industrial zoned land (to the north of Matakana Link Road) is in line with the road bend along which would likely require a new intersection or force trucks to travel further into residential areas to access the majority of the industrial land within the PPC area.
- The industrial zone land in the Structural Plan abuts directly with highly valued and highly utilised public spaces (by children / families) including recreational sports fields, park playgrounds and the showgrounds, as well as the higher density Mixed Housing Urban Zone in the PPC.

Again, safety and reverse sensitivity issues may potentially come into play which may adversely affect public usage and amenity, especially with limited potential for a noteworthy buffer zone due to the narrow road and access entrance to the industrial zone.

- The aforementioned points are likely to create operational and functional issues for the industrial zone land and a difficult area to service from industrial activity perspective.
- The narrow road and entrance to the industrial area would require substantial upgrades to enable truck movements to access the area.

Industrial Land Supply

In respect of the industrial land loss, it is Property Economics' view that the net loss of 3.6747ha of employment land would not give rise to any significant RMA economic issues. In the following analysis on employment and economic consequences of the loss of land, Property Economics has relied on numbers provided in Warkworth Structure Plan (June 2019) and Market Economics' (ME) review of dwelling and employment yields for the Structure Plan published in January 2019.

Given this is a recent report and represents the most up to date information currently available, Property Economics consider the information the most appropriate to utilise for the purposes of this higher-level exercise.

The Light Industrial Zone in the Structure Plan next to the Showgrounds) purple area in Figure 2 following) totals around 56.5ha of almost completely vacant land, which will have 49ha remaining following the PPC.

According to the ME report, there is circa 35ha of occupied Light Industrial Zone in the Warkworth area and the total net developable area of vacant Light Industrial zoned land totalling 53ha (refer table following):

Light Industrial Provision in Warkworth

District Plan	Area
<i>Occupied</i>	35 ha
<i>Vacant</i>	53 ha
Total Industrial Land	88 ha

Structure Plan Areas	Area
<i>Light Industrial Land</i>	27 ha
<i>Heavy Industrial Land</i>	37 ha
Sub-total SP Vacant	64 ha
<i>plus District Plan Vacant</i>	53 ha
Total Vacant	117 ha

Source: ME 2019

This 3.6747 ha, but not considering any required buffer between the Residential Zone and the industrial zone which if factored in that would reduce the amount of usable Light Industrial land further within the PPC.

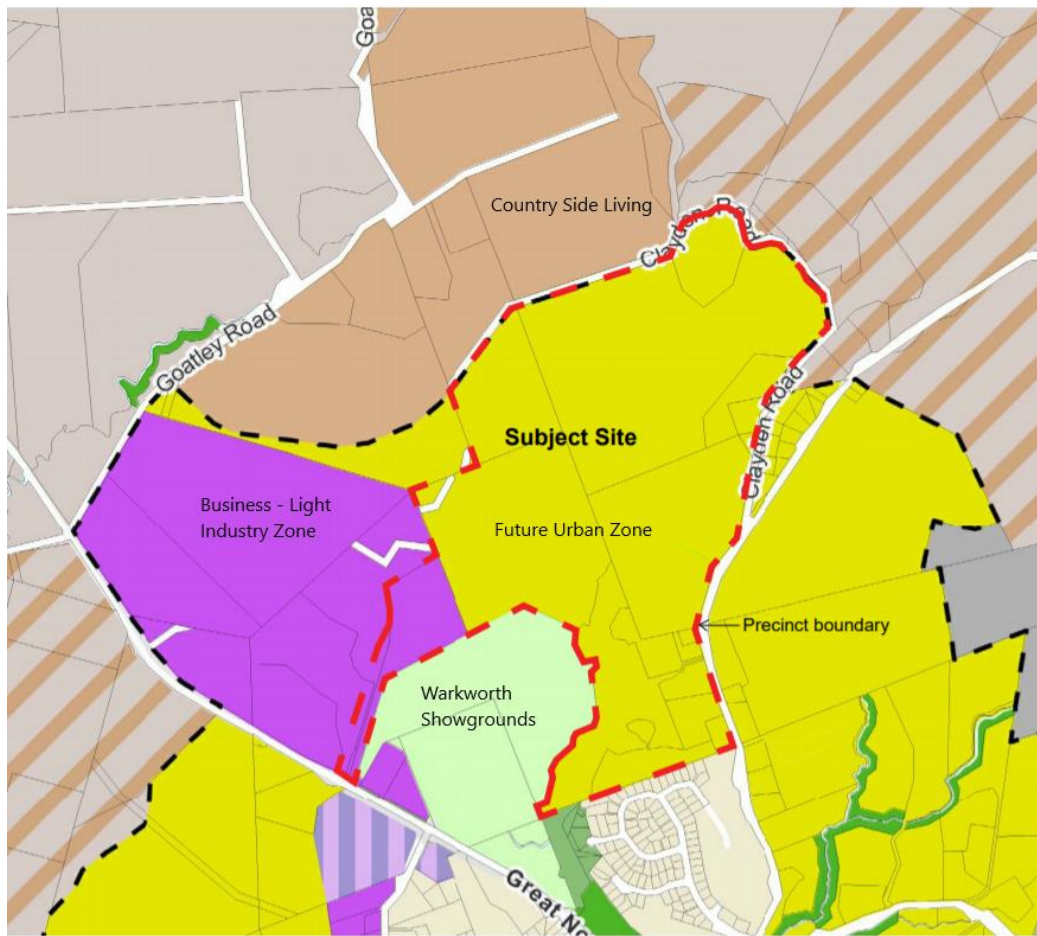
This loss of feasible to be developed for light industrial activity, represents only 7% of this vacant net developable area (3.7ha/53ha) and a 4% reduction in total current industrial zoned land in Warkworth (3.7ha/88ha). In terms of proportional loss this is not considered material.

In addition to the current vacant provision, Warkworth has close to 1,000ha of Future Urban Zone land identified. In the most recent Structural Plan of Warkworth, an additional 27 ha of Light Industrial Zone and 37 ha of Heavy Industry Zoned land has been proposed (refer previous table).

At present, the analysis indicates a total of 117ha of vacant industrial land (including proposed in the FUZ areas) in Warkworth. This provides further contextual basis of the loss of 3.7ha from the PPC

Furthermore, within this 1,000ha of FUZ land, additional land for business activities will be provided. Any allocation of the 1,000ha to business activity would lower the relevance of PPC's 6ha usable land loss commensurately.

Figure 2: Current Zoning for the Area



Source: Property Economics, Auckland Council Geomaps

While the PPC's industrial zone land reduction is not considered a significant loss of industrial zoned land, there is a need to compare this in the context of projected growth.

Warkworth currently accommodates circa 2,800 industrially based employees. While growth in total employment for the area has increased by 23% over the past 18 years (based on Statistics NZ Business Frame data) industrial sectors have burgeoned with growth of over 115% (an additional 1,500 workers) over the same period.

It is expected that this growth will continue through the next two decades with industrial businesses becoming increasingly land intensive resulting in higher land prices that will ultimately 'balance' the market.

With this growth in mind it is estimated that the Warkworth area will require just over 40 hectares of serviced and developable land with varying degrees of accessibility over the next 20 years to accommodate forecast industrial land demand. This can comfortably be supplied within the existing vacant industrial zone provision, let alone all the additional industrial land potential available in the wider Structure Plans and FUZ in wider Warkworth area.

As identified earlier, the District Plan and Structure Plan areas combined encompass in the order of 117ha of vacant industrial land, with further land potentially available in the 1,000ha FUZ areas. This confirms the approximate 3.7ha of usable industrial zone land reallocated to residential activities through the PPC has no material bearing on the Warkworth area's ability to accommodate the area's future projected industrial activity, and therefore does not give rise to any meaningful RMA economic effects in respect of industrial land supply.

4. RESIDENTIAL SUPPLY AND BENEFITS

The PPC closely aligns with the Warkworth Structure Plan which was designed to accommodate the potential for circa 20,000 new residents. In the Warkworth Structure Plan the Council have planned to live zone approximately 324ha of FUZ land in the Warkworth North Western region by 2022, including the area for which the PPC relates.

In Property Economics' 20+ years of studying Auckland's regional property markets, it has found that over time Auckland has a tendency to achieve growth rates closer to Statistics NZ High projections rather than the Medium growth series.

However, the Structure Plan has allocated the potential for 7,500 dwellings, which with the current population of around 5,000 people and just over 2000 dwellings, is more than triple Warkworth's current size and higher than even the Statistics NZ High projections would suggest.

Regardless of the choice in growth projections, the northern area of Warkworth has been identified as the first section of FUZ to be rezoned on account of the SH1 motorway extension, due to be completed in late 2021. This is a 'game changer' for Warkworth growth as it will open up the accessibility of Warkworth to the rest of Auckland, as Auckland's historical growth patterns attest which are strongly linked to motorway development as a trigger for amplified growth rates in an area.

Additionally, the PPC area is in a strategic location in terms of proximity to both the Town Centre, recently zoned employment land and the soon to be completed new SH1 motorway junction for Warkworth.

Effectively, this PPC follows through on the Council initiated process of seeking urbanisation of the land. The PPC closely aligns with the Council's Structure Plan with subtle modifications of the site's development based on expert advice from more detailed research to enable a more efficient and sustainable development of the land.

Economic Benefits

The Council has specified that some commentary of the likely net additional impact of the PPC is required in regard to the transfer effect from activity that would otherwise occur elsewhere in the absence of the PPC.

Firstly, as mentioned earlier, the motorway completion will be a game changer for the level of Warkworth's future growth. It is Property Economics' view that in the absence of the PPC it is unlikely that other residential areas will be developed instead. Rather, Auckland Council would

likely be required to bring forward the rezoning of other FUZ areas as planned in the sequencing (refer the following map). These could result in zoning areas that are less suitable and less efficient for residential development in these formative years of the sequencing which may give rise to flow-on effects on infrastructure provision, capacity and funding.

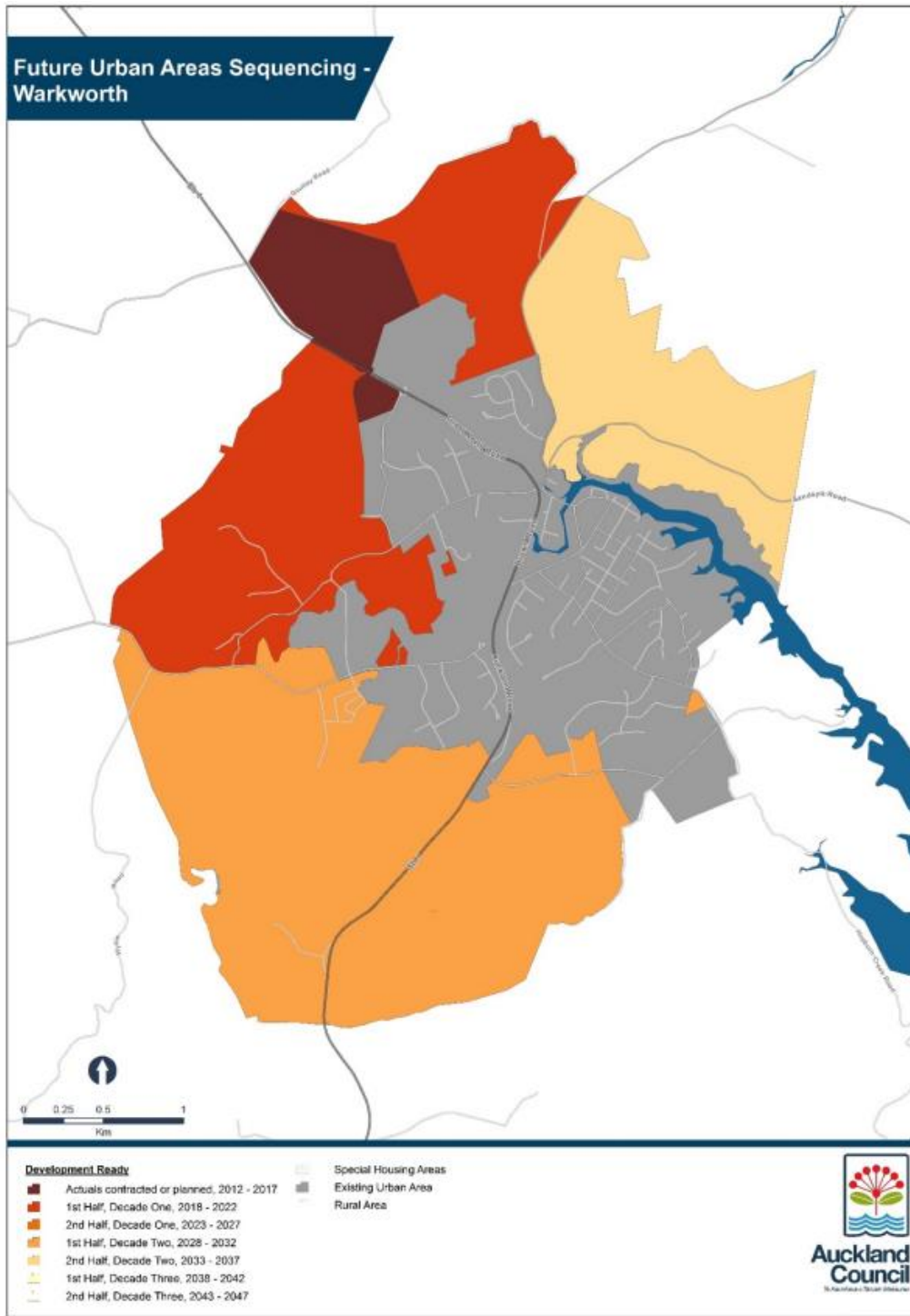
Secondly, and more importantly, the provision of increased residential density within the proposed site has the potential to result in a number of positive economic impacts on the local community's wellbeing. There is increasing recognition regarding the benefits of increased land density for residential activity, utilising less land and providing increased critical mass to providing economies of scale and increased diversity.

The Ministry for the Environment has more recently recognised the value of density summarising some of the key benefits as:

- provide cost savings in land, infrastructure and energy
- reduce the economic costs of time spent travelling
- help concentrate knowledge and innovative activity in the core of the city
- be associated with lower crime and greater safety
- help preserve green spaces in conjunction with certain kinds of urban development
- reduce runoff from vehicles to water, and emissions to the air and atmosphere (though air emissions may be more locally concentrated)
- help encourage greater physical activity, with consequent health benefits
- promote social connectedness and vitality.

In any economy there is potentially a balancing point where the continued intensification of activity could lead to 'crowding out' which indicates the point of congestion at which these benefits start to diminish. In relation to the Warkworth community and this site specifically it is extremely unlikely that increased residential density at this location will result in any degree of crowding out.

Therefore, given infrastructure capacity, the provision of increased residential density, as proposed, is likely to result in a net positive economic impact upon the local community.



5. ADDITIONAL RESPONSES TO COUNCIL RFI

12 December 2019

Warkworth Land Company

c/-John Duthie

Tattico Limited

Via Email: john.duthie@tattico.co.nz

Dear John,

[RE: WLC Private Plan Change RFI Economic Response](#)

Property Economics has been commissioned by Warkworth Land Company to provide the relevant responses to some economic queries outlined in a RFI request from Auckland Council dated 27 November 2019 in relation to the Private Plan Change Request at Warkworth Clayden Road. This response will focus on point 1, 2 and 4 of the economic queries raised in that RFI and will address the points in the order they appear with the RFI questions first.

Economic Questions:

- 1) [Provide some explanation about the location of the proposed Neighbourhood Centre.](#)

The location of the proposed neighbourhood centre is sited to efficiently meet the residential and worker demand of the new growth area to the west of Matakana Rd, is considered an efficient location with access from both directions from Matakana Link Rd, and is considered a location that would benefit the economic performance of the centre and thereby its long term sustainability.

My understanding is the Structure Plan's Matakana Road location is problematic in that there would be accessibility restrictions due the very busy nature of Matakana Road, and this would have restricted the centre's functionality and economic performance. The area to the east of Matakana Road would be more efficiently serviced with its own small convenience centre when it gets developed in the later 2030s / early 2040s based on proposed staging.

- 2) [Provide additional assessment of the magnitude of economic impacts assessed, taking into account the potential for effects to be transferred from elsewhere in Auckland, rather than being net additional to the regional economy.](#)

I am not sure what additional value undertaking an assessment of estimated net economic impacts to the region would add in respect of assessing the merits of the private plan change. Any new development transfers growth from another area, that is the competitive market at work.

The Colliers assessment has already provided an assessment of the benefit to the local economy of \$220m, the balance across the region. The proportion of this that represents a net additional economic benefit to the region has not been assessed by Colliers, and is considered to have

limited relevance to the assessment of the application, i.e. whatever number is produced, the output would be interesting rather than a fundamental requirement. If the number was \$50m, I am unsure how this would be utilised in the assessment of the application. It seems a nice to know rather than a need to know.

4) Provide an estimate of potential employment at the proposed Northern Arena swimming pool complex to the immediate north of the Showgrounds.

This will be highly dependent on the scale of facility developed, the range of services and facilities incorporated which will evolve and grow as the community around the facility grows. For example, a high-quality swim school could attract significant patronage which would have the flow-on effect of an increased employment requirement.

Also, as patronage grows into the future so will employment opportunities and the range of services offered within the facility, so any employment number now is likely to be conservative relative to future employment potential of the facility. At this stage I would estimate around 30-35 people could be employed at the facility depending on the range of services provided, with this employment base anticipated to grow as the surrounding population base of the area grows into the future.

If you have any queries, please give me a call.

Yours faithfully,

Tim Heath

Director

ATTACHMENT N

ARCHAEOLOGICAL ASSESSMENT BY CLOUGH ASS

ARCHAEOLOGICAL ASSESSMENT: CLAYDEN RISE SUBDIVISION, WARKWORTH

Prepared for Warkworth Land Company

September 2019 (Updated from June 2018)



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INTRODUCTION

Project Background

A residential zone subdivision is proposed at land located at Goatley Road and Clayden Road, Warkworth (legal description: Lot 3 & 4 DP 199755, Lot 4 DP 492431, Pt allotment 97 Parish of Mahurangi SO 27c, Pt Lot 1 DP 61693) encompassing a total area of approximately 60ha (Figure 1 and Figure 2).

The land has previously been used for rural production activities, but is being considered for a large residential subdivision to provide new housing to the area.

An archaeological assessment was commissioned by Warkworth Land Company to establish whether the proposed work is likely to impact on archaeological values. This report has been prepared as part a required archaeological assessment of effects for a resource consent application under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). All recommendations are made in accordance with statutory requirements.

Methodology

The New Zealand Archaeological Association's (NZAA) site record database (ArchSite), Auckland Council's Cultural Heritage Inventory (CHI), Unitary Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List were searched to determine whether any archaeological sites had been recorded on or in the immediate vicinity of the property. Literature and archaeological reports relevant to the area were consulted (see Bibliography). Early plans held at Land Information New Zealand (LINZ) were checked for information relating to past use of the property. Archival research was carried out to establish the history of the properties intersected by the proposed road corridor.

A field surveys were undertaken in August 2017 and May 2018 by Clough & Associates Ltd. The ground surface was examined for evidence of former occupation and land use in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century settlement remains. Exposed and disturbed soils were examined where encountered for evidence of earlier modification, and an understanding of the local stratigraphy. Subsurface testing with, spade test pits, probing and hand auguring was carried out in areas to determine whether buried archaeological deposits could be identified or to provide a general understanding of the local soil profile and geology. Photographs were taken to record the topography and features of interest, the development area and its immediate surrounds.

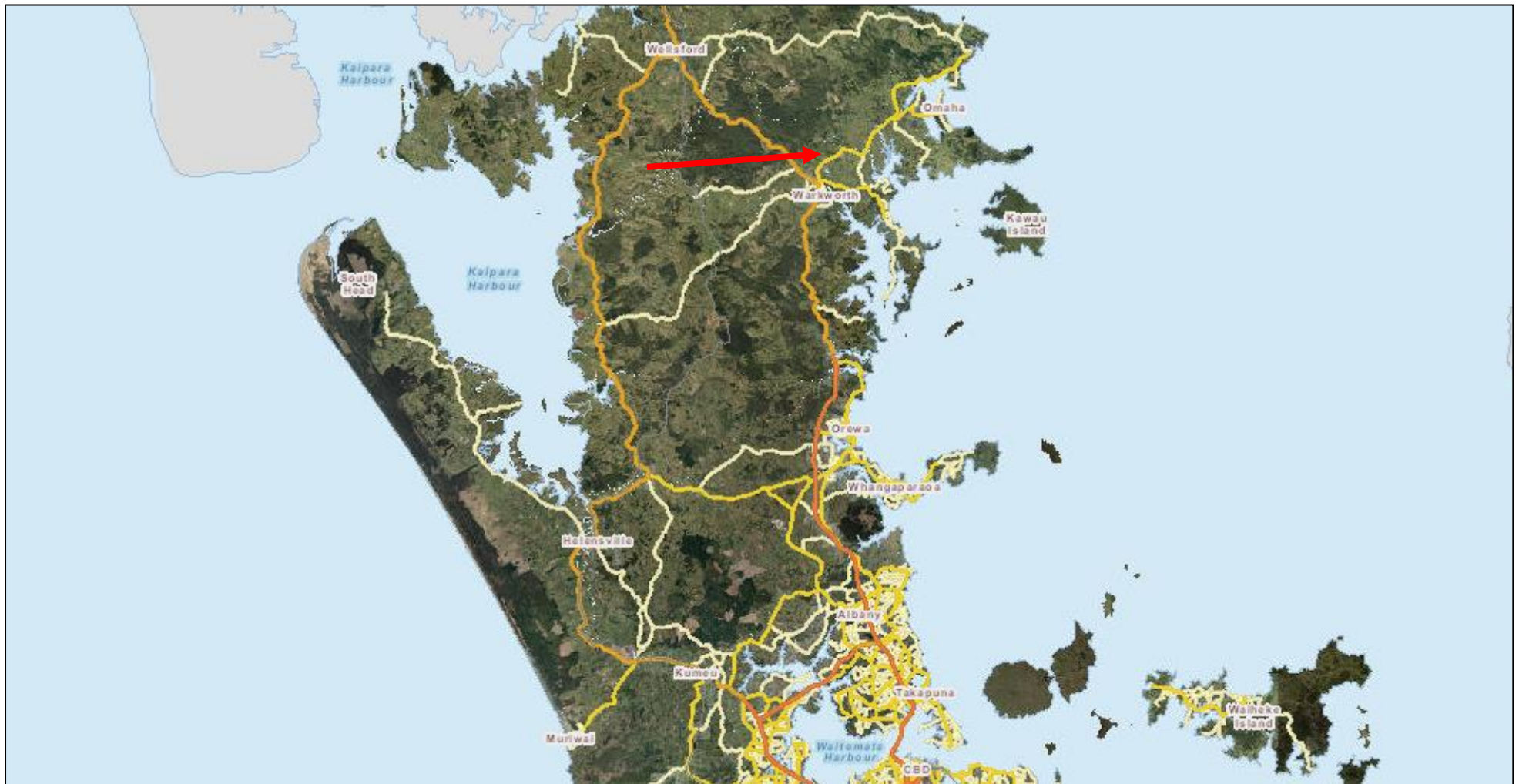


Figure 1. General location plan of Goatley and Clayden Road, Warkworth within the wider region (source: Auckland Council Geomaps, 2016)

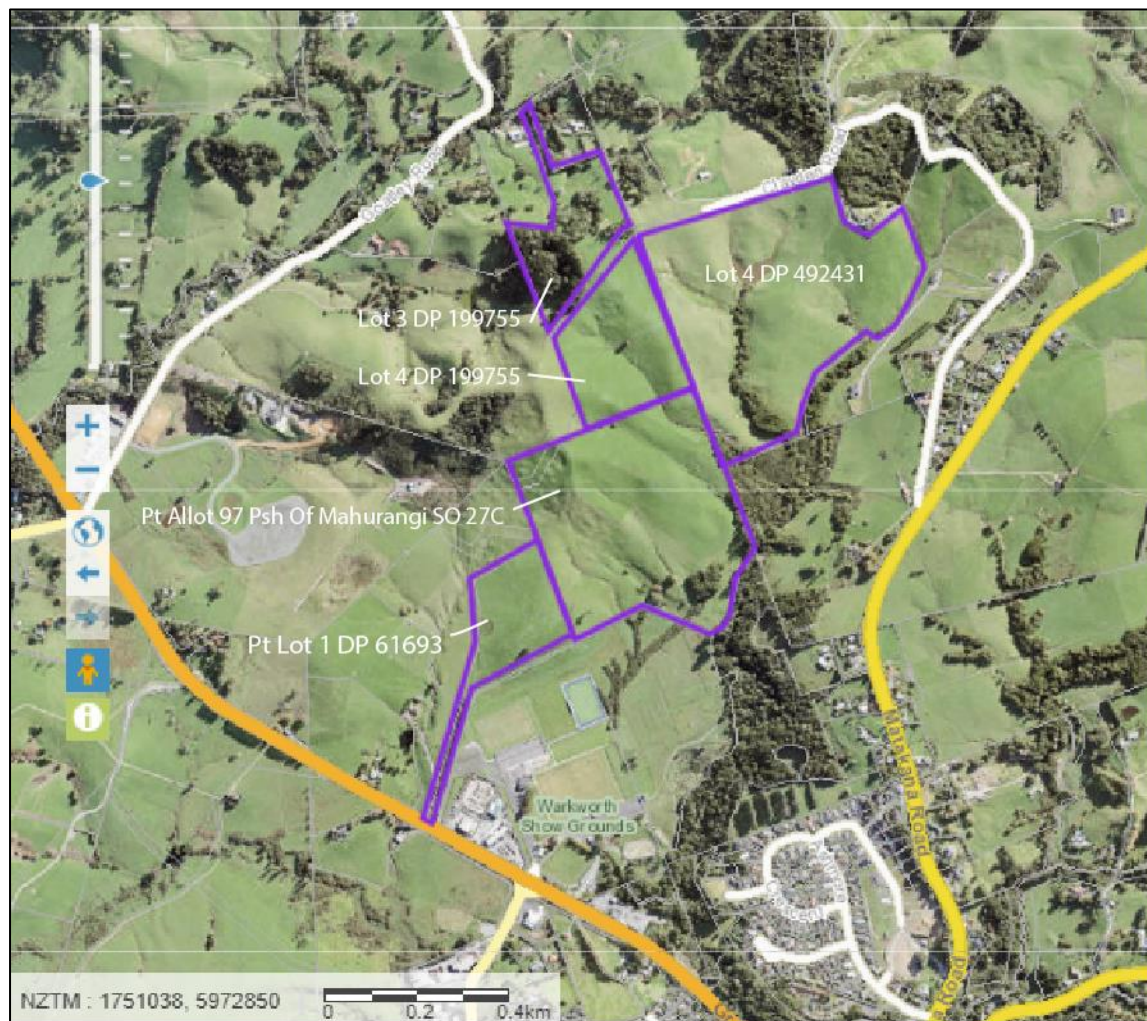


Figure 2. Plan showing proposed development area at Goatley and Clayden Roads, Warkworth (source: Auckland Council Geomaps – Base Aerial)

HISTORICAL BACKGROUND

Māori Settlement¹

The proposed development lies within two significant areas of traditional Māori occupation – Kaipara and Mahurangi. Several tribes and sub-tribes claim affiliation with the land in these districts and today the mana whenua of the area are Ngāi Manuhiri, Ngāti Mauku/Ngāti Kauwae, Ngāti Rango and Ngāti Whatua. However, from the late 1720s pressure from Ngāti Paoa, Ngāti Maru and other tribes of the Marutuahu confederation who occupied the Hauraki Gulf began to build, with disputes arising over fishing rights, and warfare continued intermittently for many years. A later invasion by Ngāpuhi left a void of power throughout much of the greater Auckland area, but Ngāti Rongo subsequently re-established themselves in the district (Cameron, E. and S. Phear, 2017) (ARC 2005).

The tribes of Ngāti Whatua descend from the ancestor Tuputupuwhenua, and are affiliated with the Mahuhu-ki-te-rangi canoe which landed between the Hokianga and Kaipara Harbour. By the mid-18th century, the southerly expansion of Ngāti Whatua tribes had extended the boundaries of the confederation from the Hokianga to Tamaki (Auckland), (Bateman, 2006).

Māori in the Kaipara and Mahurangi districts did not occupy permanent year round settlement sites, but moved between their kainga (villages) in accordance with the seasons. The east and west coastal boundaries provided abundant marine resources, while the inland forest supplied Māori with hunting and resource gathering opportunities. Rivers such as Pūhoi and Mahurangi supplied plentiful fresh water, and sandy soils near coastal areas were highly suited to kumara cultivation (Murdock, 1992).

Competition for control of one of the most highly prized resources of the Mahurangi – the muru or small spotted shark, which could be dried and used as a winter food source – led to protracted conflict between Te Kawerau and Hauraki tribes in the 1700s. Known as the Marutuahu confederation, these Hauraki tribes comprised Ngāti Paoa, Ngāti Whanaunga, Ngāti Maru and Ngāti Tamatera. Battles continued intermittently throughout the 18th century, with Marutuahu eventually gaining permanent control of the fishing grounds (Murdock, 1992).

Further warfare occurred in the 1820s and 1830s when raiding Ngāpuhi from the north, armed with muskets, launched a series of attacks throughout the tribal territories of Ngāti Whatua. Māori of the Kaipara and Mahurangi, armed only with traditional hand combat weapons such as mere and taiaha, were swiftly defeated. Most fled the invasion, leaving the region virtually deserted for several years (Murdock, 1992).

By the late 1830s small numbers of Ngāti Whatua began to return to their traditional occupation areas in the Kaipara and Mahurangi, eventually re-establishing themselves in the districts. Te Kawerau/Ngāti Rongo Māori of the Mahurangi were now under the leadership of Te Hēmara Tauhia. They settled north of Wenderholm, at Te Muri, where a

¹ This historical background is largely adapted from Judge, C. & R. Clough, 2009, Burnett, Z. & R. Clough, 2016 and Cameron, E. and S. Phear, 2017, although some new research is presented. While the section on Maori Settlement is based on reliable documentary sources, this information should not be viewed as complete or without other context. There are a large number of iwi historically associated with the Auckland region and many other histories known to tangata whenua.

kainga (village), large gardens and an orchard were established (Mackintosh, 2005, pp. 4-5)

European Settlement

Missionaries and sawyers began appearing in the Kaipara and Mahurangi districts by the early 1830s and, with the arrival of Europeans, Ngāti Whatua tribes came under increasing pressure to relinquish land. Although several Ngāti Whatua chiefs signed the Treaty of Waitangi in 1840, including Te Roha from Te Uri-O-Hau, large tracts of land were lost through Crown purchases, pre-1840 claims and Native Land Court proceedings (MZMCH, 2006, p. 199).

When the Tamaki isthmus was chosen as the site of the new capital, land in the Mahurangi became even more essential to the Crown, as it was now one of the main gateways to Auckland. On 13 April 1841, the Crown acquired its first large tract of land in the area, known as the Mahurangi Purchase. This included the Mahurangi and Omaha Block (Deed No. 192) comprising an estimated 220,000 acres, with boundaries stretching from the North Shore of the Waitemata in the south to Te Arai Point in the north (Figure 3) (Turton, 1877)

Initial payment for the land included: ‘400 blankets, 60 cloaks, £200 cash, 60 gowns, 2 horses, 2 head of cattle, 200 pairs of trousers, 30 coats, 100 caps, 4 casks of tobacco, 6 bags flour, 2 bags rice, and 1 bag sugar.’ (Turton, 1877). However, complications arising from the purchase were soon apparent. The land was not obtained from resident iwi such as Ngāti Whatua, but from Hauraki tribes who claimed ancestral control of the area from the 18th century (Rigby, 1998). The Mahurangi Purchase made Ngāti Rongo theoretically landless, and the sale was therefore disputed by their chief Te Hemara Tauhia before it was finalised. Te Hemara appealed for the return of Mahurangi to Ngāti Rongo, in particular Te Puhoi.²

Negotiations were also ongoing with European settlers, many of whom held pre-treaty or pre-emption waiver claims over various tracts of the land (Robin, 2013, p. 35 and Rigby, 1998, p. 37). A ‘second wave’ of Mahurangi purchases was conducted by the Crown between 1853-1865, most notably the Parihoru Mahurangi Purchase (Deed No.197), dated 1 November 1853, which outlined the boundaries of the Mahurangi Block and was signed by Parihoru and four other Kawerau chiefs (Figure 4) (Turton, 1877, pp. 255-6 and Rigby, 1998, p. 37). Following the final settlement of claims against the original purchase surveying in the Mahurangi district continued, with allotments marked out for sale by both speculators and settlers.

The thickly forested land around the Warkworth area provided a rich source of timber and prior to the government land purchase in 1841, a European presence in the Mahurangi had already been established during the 1820s with camps of up to 300 seamen dressing spars for the Royal Navy (Mabbett, 1977 and Keys, 1954, p. 23) of up to 300 seamen dressing spars for the Royal Navy (Mabbett 1977; Key 1967: 23). This had become one of the main industries in the Mahurangi by the late 1820s, and resulted in a spar station being established at the Mahurangi Heads by Captain Ranulf Dacre in 1832. This developed into a wider ship building industry, with at least a dozen ship building yards established on the shores of the Mahurangi during the 19th century (Mabbett, 1977).

² In 1853 the Puhoi (or Te Hemara) Reserve was granted to Ngāti Rongo, the boundaries of which ran ‘from the south shore of the Pukapuka to Waiwera, and inland to the western boundary of the [Mahurangi] Purchase’ (Locker 2001: 80). In 1866 the title to this reserve was granted to Ngāti Rongo at a Native Land Court hearing. The Puhoi Reserve was eventually surveyed into ten blocks, with Te Hemara retaining the titles to Maungatauhoro (70 acres), Orokaraka (8 acres) and Puhoi (2537 acres) (Mackintosh 2005: 6).

The land around the Warkworth area also provided suitable soils for agriculture and as the land was cleared, farms progressively replaced kauri forests and orcharding, dairying, and sheep farming became the predominant use of the land (Vine, 1967).

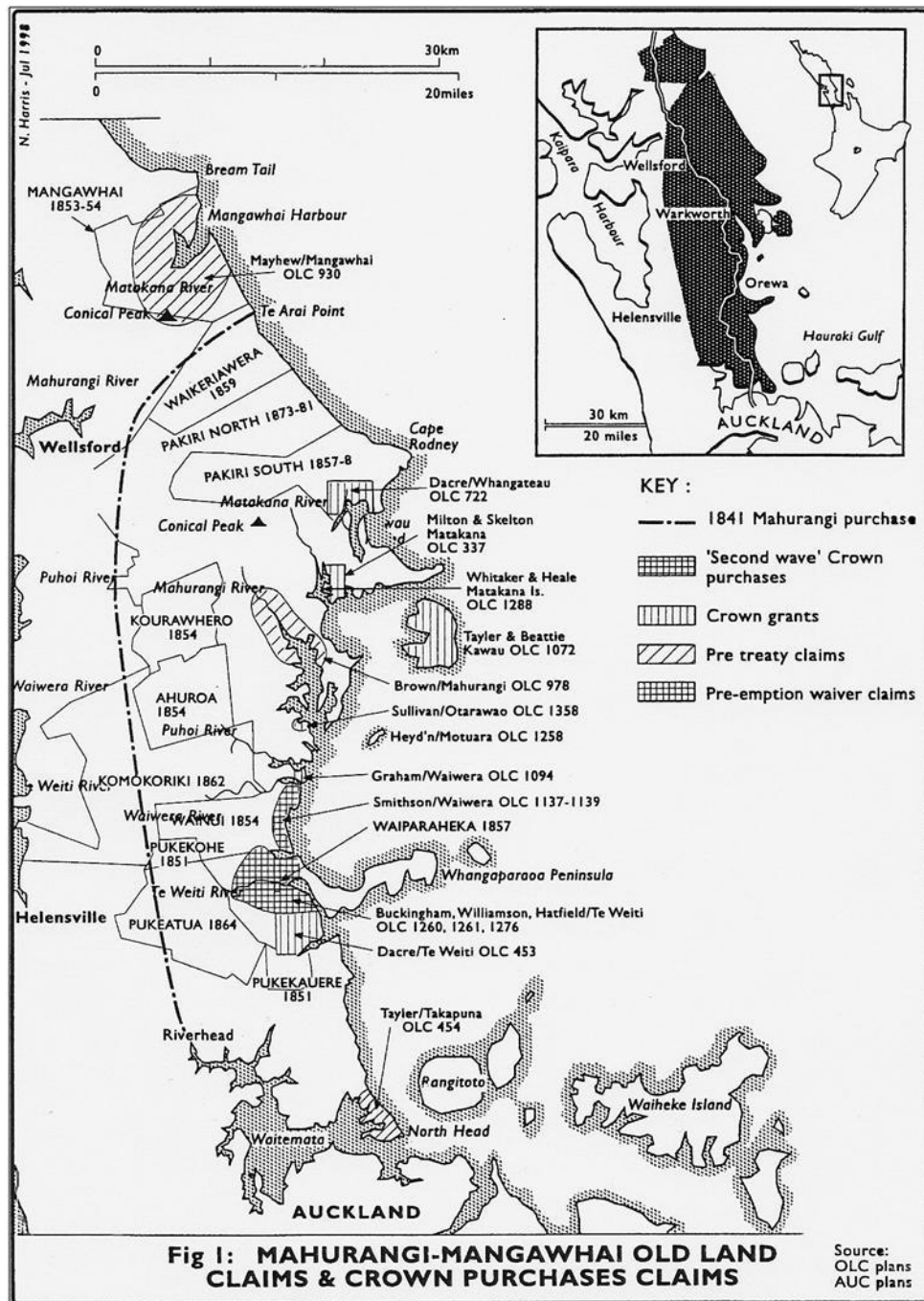


Figure 3. Plan showing land claims and Crown purchases in the Mahurangi (source: Rigby, B. 1998. The Crown, Māori, and Mahurangi 1840-1881: a historical report commissioned by the Waitangi Tribunal. New Zealand, p.3)

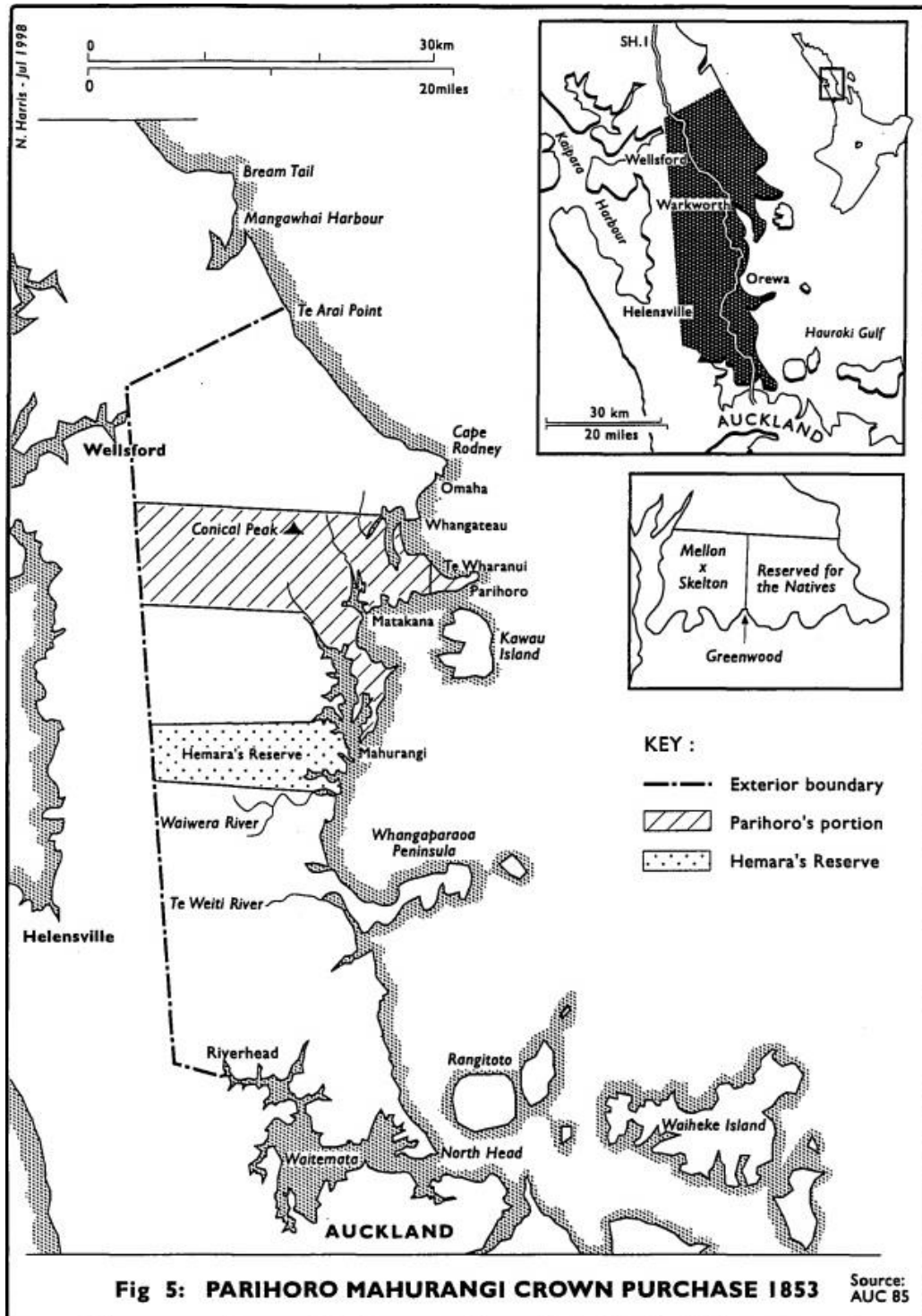


Figure 4. Plan showing Parihoro Mahurangi Crown Purchase, 1853 (source: Rigby, B. 1998. The Crown, Māori, and Mahurangi 1840-1881: a historical report commissioned by the Waitangi Tribunal. New Zealand, p.39)

Warkworth

In 1840 the Surveyor-General, Felton Mathew, sailed up the Mahurangi Harbour with the intent of investigating the suitability of the land for settlement and industry. Mathew's report noted:

'Brick earth is abundant, and the forest in every direction presents a profusion of timber for building, almost entirely Kowdie [sic] [Kauri]. The river is perfectly adapted for navigation by steamers or small vessels; and the harbour forming the depot for shipping being at so short a distance I consider the spot I described as being most admirably adapted for the formation of a town.' (Locker, 2001, p. 62).

The opportunities of the timber trade had already attracted a few Europeans to the area. From the late 1820s, camps of up to 300 seamen had been employed cutting and dressing spars for the Royal Navy, and a spar station at the Mahurangi Heads had been established by Captain Ranulph Dacre and Gordon Davies Browne in 1832.

Following the Mahurangi Purchase of 1841, it would be a decade before surveying was completed and land offered for sale to settlers along the Mahurangi River. In the interim, the Crown sought revenue from the land by issuing timber licenses (to cut wood or firewood) at £5 a year. One of the first licenses issued was to John Anderson Brown in 1844 (Locker, 2001, p. 66). Brown had lived in the Mahurangi as a squatter since 1843, and by the following year had constructed a dam, water-race and mill along the left bank of the Mahurangi River (Keys, 1954, p. 32). This was the first water-powered timber mill in the district, and for a time the area was known as 'Brown's Mill'. Brown renamed the area Warkworth, and by 1854 quarter acre lots were advertised at £6-15 each (Locker, 2001, p. 75) Settlement progressed at a slow rate, and by 1864 those town lots which had not been sold were put up for public auction.

The Mahurangi Library and the Mahurangi Post Office were opened in 1859, with Brown appointed as Postmaster. Brown was also elected chairman of the Mahurangi Highway Board in 1863, the same year in which the first Mahurangi School was established. Local industry expanded with the development of Henry Palmer's flour mill, which was in operation on the right side of the river by 1868, and the manufacture of lime for which Warkworth would become renowned (Keys, 1954, pp. 71-72).

John Sullivan was the first to begin lime production in Warkworth as early as 1849, with Combes and Daldy advertising lime for sale in the *Southern Cross* by 1850. The first lime-works were in operation by the 1850s, and were situated near Brown's Mill on the right bank of the Mahurangi river. A second lime production site, down river from Warkworth, was acquired by John Southgate in 1857 who built a hotel and several lime kilns on the land. Southgate sold to Nathaniel Wilson in 1864, who continued manufacturing lime on the site, eventually establishing the Wilsons Cement Works in 1884. The company was credited with being the first producer of Portland cement in New Zealand and the Southern Hemisphere, and was responsible for the material used to construct the Warkworth Bridge in 1899 (Dave Pearson Architects, 2005).

Land History

The subject property is within the former Allotments 96, 97, 113, 36 and a small area is within Allotment 37³ (Figure 5). Completed deed title tables can be found Appendix A, and a history of the land ownership for the main Allotments is presented below.



Figure 5. Aerial with the development area with the relevant Allotment numbers indicated (source: Auckland Council Geomaps – Base Aerial)

Allotment 96 and 96(A), Parish of Mahurangi

A Crown Grant for the 40 acre Allotment 96, Parish of Mahurangi, was obtained by James Russell, a labourer, on 4 April 1859 (see Appendix A).⁴ The property was sold to land agent Michael Wood in August that same year and then to John George, a butcher from Parnell, in July 1860 (Figure 6).⁵ George was likely an absentee owner and he held the deeds to the land until his death in 1868, aged 30 years.⁶ The estate passed to George's heir at law, Richard George, who later conveyed the land to his wife, Amelia Charlotte, in 1882.⁷

³ Allotment 37 has not been covered by this assessment due to the small area of the proposed development located within the former Allotment.

⁴ Deeds Index 1B/261, Archives New Zealand.

⁵ Ibid; Deeds Register B2/172 & 173 BAJZ A1660 23656 656/a, Archives New Zealand.

⁶ BDM 1868/2819; *New Zealand Herald*, 21 October 1868, p.7.

⁷ Deeds Register R6/594 BAJZ A1660 23641 10/a, Archives New Zealand.

In 1883 Allotment 96 was illustrated on SO 3181 which showed part of the land bisected by what is now State Highway One (Figure 7 and Figure 8). The north-eastern corner of the block is described as ‘low and swampy’ and tracts of ‘high tea tree’ are visible along the western boundary. The plan notes George as the owner and identifies the parcel as Section 96A.

By 1889 the George’s were in default on their mortgage on the property and by order of the Registrar of the Supreme Court of New Zealand the land was sold to William Coleman, a solicitor.⁸ Coleman worked in the National Insurance Buildings in Queen Street and is therefore also likely to have been an absentee owner of Allotment 96.⁹ He retained ownership until 1900 when the property was bought by George Snook, a local settler, for the sum of £30.¹⁰ The block passed to the Auckland Farmers Union Ltd in 1904 and remained unsubdivided until 1928.¹¹ A portion (part of the project area) was conveyed to Alice Carran, wife of local farmer Avalin Carran, in 1929 and was brought under the Land Transfer Act in 1939 (Figure 9).¹² The allotment is included on plans of the Mahurangi Survey District, dated 1930 and 1959, and may also be visible in two aerial photographs of the Warkworth area, dated 1970s (Figure 10 to Figure 13).

Allotments 96B & 96C, Parish of Mahurangi

Allotments 96B and 96C, Parish of Mahurangi (now part of Pt Lot 1 DP 61693), remained under the possession of the Crown until the 1880s; however, the land was earmarked to be set aside as reserves from the 1870s.

In October 1875 a letter was sent from the secretary of the Upper Mahurangi District Highway Board to the Superintendent of Auckland which read:

‘...I have also been instructed to request that your Honor [sic] will be good enough to set apart an allotment of land near the Township of Warkworth and bounded by lots no’s 95, 96, 97 [and] 98, part as a public cemetery and part as a public recreation ground. As there is now no public cemetery in the district the board trust this will meet with your approval.’¹³

The board later referred the matter to the Crown Lands Commissioner and in November 1876 the *New Zealand Herald* reported:

‘Our [Mahurangi] Agricultural Society have had a reply from the Crown Lands Commissioner relative to their application for a piece of ground on which to hold their annual show, and it will be a satisfaction to all our residents to know that the land will be granted for the purposes of the society. But as the allotment is somewhere about 100 acres, and our local Board have previously made application for the same piece for the purposes of a recreation ground and a cemetery, the Commissioner requests that representatives of each may make their own selection, and define the quantity required for each particular purpose. A

⁸ Deeds Register R33/294 BAJZ A1660 23641 58/a, Archives New Zealand; *Auckland Star*, 27 May 1889, p.8.

⁹ *Auckland Star*, 9 December 1896, p.6.

¹⁰ Deeds Register R58/849 BAJZ A1660 23641 99/a, Archives New Zealand.

¹¹ Deeds Index 1B/261, Archives New Zealand.

¹² *Ibid*; NA758/260, LINZ.

¹³ ‘25 September – 19 October 1875 – Chairman, Upper Mahurangi District Board – Reports on election of engineer and fence-viewers and requests that land near Warkworth be set apart for cemetery and recreation purposes’ AP2 38 3161/75, Archives New Zealand.

large portion of the land is level, and suitable for all purposes of recreation such as cricket ground, race-course, cattle shows, &c, &c. And a portion, sufficient for cemetery purposes, is hilly, and consequently may be easily divided into suitable lots. A few trees will require to be planted, and the ground laid out, and the coming generation of the inhabitants of our rising town will have a pleasant spot in which to ruralise.’¹⁴

By February 1883 the application for reserve land was still ongoing and the issue was once again raised at a meeting in the Mahurangi Public Hall:

‘A public meeting was held in Mahurangi Public Hall on February 10, to take into consideration the best means to be adopted to secure to the public for recreation and cemetery purposes the reserve adjoining Lot 96, Parish of Mahurangi. Mr. N. Wilson was unanimously voted to the chair. He informed the meeting that he had waited on the Waste Lands Commissioner who informed him that 20 acres out of 98 had already been set apart for these purposes. He recommended that they ask for the whole of it. Mr. Moore said the Road Board had applied for this property years ago and a part of it was promised. About half of it was level, 30 acres of it very broken. This part he thought would be suitable for a cemetery. Mr. McMurdo said he had purchased the only piece of recreation ground in the place (the old cricket ground) and to atone for having done so he would do all he could to get another one, and if we all united we should succeed in securing it. Mr. Moore moved the following resolution: — “In the opinion of this meeting it is desirable that the whole of the reserve lying to the north-west of the Township of Warkworth bounded by Lots 94, 95, 96 and 97, be obtained for a public cemetery and general recreation ground and that the chairman be requested to forward this resolution to the Waste Lands Board, asking that the land be granted for the purposes named on condition that it be placed in the hands of properly constituted trustees. We ask for this reserve for the following reasons. 1. It is the only Government land in the neighbourhood of Warkworth, and should it be sold there would be no hope in the future of acquiring a suitable place for the purposes named. 2. Warkworth is the centre of a large district, and is rapidly rising into importance. 3. It is not necessary to remind the members of the Waste Lands Board of the benefits that flow to a village, town or city, from a good public recreation ground, not only from a sanitary but from a moral and intellectual point of view.” Mr. McMurdo seconded the resolution which was carried unanimously.’¹⁵

The reserve areas are identified on SO 3181, dated 1883, which show the division of the land into 96B - for agricultural purposes; 96C - for cemetery purposes; and 96D (outside of the project area) for the use of show grounds (see Figure 7 and Figure 8). A notice declaring the land permanently reserved was published in the *New Zealand Gazette* on 10 April 1884.¹⁶

It is unclear how reserves 96B and 96C were utilised for the remainder of the nineteenth century, although internments appear to have taken place in the south-western corner of 96B (recreation reserve) and are still present on the southern side of State Highway One. Warrants for the areas of 96B and 96C now affected by the proposed Designation were

¹⁴ *New Zealand Herald*, 11 November 1876, p.1 (Supplement).

¹⁵ *New Zealand Herald*, 28 February 1883, p.4.

¹⁶ Reserves – A and P [Agricultural and Pastoral] showgrounds Warkworth Allotment 96D Parish of Mahurangi [1980], BADY A1645 1109 566/c, Archives New Zealand.

later issued to Alice Carran, wife of local farmer Avalin Carran, in December 1928 (for 96B) and August 1950 (for 96C).¹⁷ The allotments are included on plans of the Mahurangi Survey District, dated 1930 and 1959, and their later subdivision can be seen on DP 61693 (1969) and DP 155679 (1993) (Figure 10, Figure 11, Figure 14 and Figure 15). The land may also be visible in two aerial photographs of the Warkworth area, dated 1970s (see Figure 12 and Figure 13).

Allotment 97, Parish of Mahurangi

A Crown Grant for Allotment 97, Parish of Mahurangi was awarded to Edward Lonsdale on 9 March 1855 (Figure 16 and see Appendix A).¹⁸ Lonsdale sold the 105 acre block to James Henderson two months later and following financial difficulties with a subsequent mortgage, the land was purchased by Walter Grahame and then Charles William Thompson in 1870.¹⁹ The allotment was possibly utilised for farming purposes and is visible on SO 3181, dated 1883 which describes part of the land in high tea tree, mixed bush and fern (see Figure 7 and Figure 8). Executors of Thompson's estate managed the land from 1882 until 1895 when the property was purchased by George Young.²⁰ It is unclear whether Young resided on Allotment 97; however, he retained ownership until his death in 1918 when the *Rodney and Otamatea Times, Waitemata and Kaipara Gazette* printed the following obituary:

‘It is with deep regret we announce the death of one of our oldest and most respected citizens, Mr George Young, who passed away on Sunday afternoon last. The deceased gentleman was born in Knocklaughrin, a county town in the North of Ireland, 78 years ago, and when quite a lad landed in Australia, eventually coming on to New Zealand. He was among the number who tried their fortunes in gold-mining in the South Island in the early days, the famous Gabriel's Gully rush first claiming his attention, and later on the West Coast fields. He afterwards came north and followed the same calling with varying success at the Thames. Coming to Warkworth 53 years ago the late Mr Young married, and made his home, and strange as it may seem now, was engaged in flour-milling here for some considerable time. The Government of the day obtained Mr Young's services in laying the first section of the telegraph line from Auckland...he was also engaged in building many of the main bridges in this and adjoining counties. During the last few years the deceased has lived quietly in the old home, not enjoying the best of health. He is survived by a widow, and eight daughters, six married, and two sons, George Arthur (married), and Henry Charles, the last named being away on active service. There are also 22 grandchildren and two great grand-children. The late Mr Young was of a retiring nature and kindly disposition, and had many friends who will regret to learn of his demise...’²¹

Deeds to the allotment remained in the Young family until 1938 when the land was purchased by Gilbert Phillips, a farmer, who later brought the block under the Land Transfer Act in 1945.²² The allotment is included on a plan of the Mahurangi Survey District, dated 1959 and may also be visible in two aerial photographs of the Warkworth

¹⁷ NA485/206 & NA981/153, LINZ.

¹⁸ Deeds Index 1B/26 & Application No. 34943C, Archives New Zealand.

¹⁹ Ibid.

²⁰ Ibid.

²¹ *Rodney and Otamatea Times, Waitemata and Kaipara Gazette*, 23 January 1918, p.5.

²² Ibid; NA768/143, LINZ.

area, dated 1970s. Ownership of the parcel passed to local farmer William Tomlinson and his wife, Verna Tomlinson, in 1967 and the allotment remained unsubdivided until 1991.²³ Allotment 97 is included on plans of the Mahurangi Survey District, dated 1930 and 1959, and may also be visible in two aerial photographs of the Warkworth area, dated 1970s (see Figure 10 to Figure 13).

Allotments 113 and 36, Parish of Mahurangi

A Crown Grant for Allotment 113, Parish of Mahurangi was awarded to one Ring on 25 February 1856, and conveyed to Cooper soon after on 28 November 1857, then to Wickham on 2 March 1864 (see Appendix A). On 24 March 1864 Cooper conveyed the land to Wickham, with a mortgage awarded to Daldy on the same day. Part Allotment 100 was conveyed to Wickham on 11 November 1867, and then conveyed from Wickham to Goatley on 17 April 1873. The Goatley family held the land until 12 October 1938 when it was conveyed to Flay. The property then changed hands several further times until 2014 (see Appendix A). The Goatley family were known for their orchards in Warkworth, with land around Goatley Road being used for this purpose predominantly until the 1940s when dairy farming became more prevalent.

A Crown Grant for Allotment 36, Parish of Mahurangi was awarded to Henry William Tyler on 19 April 1955 (see Appendix A). The land was bought under the Land Transfer Act by Benjamin Starling on 7 August 1879, and then transferred to James Clayden on 21 April 1886. The land has remained in the Clayden family since that time, transferring over time between various family members. The land has a history of being used for agricultural purposes.

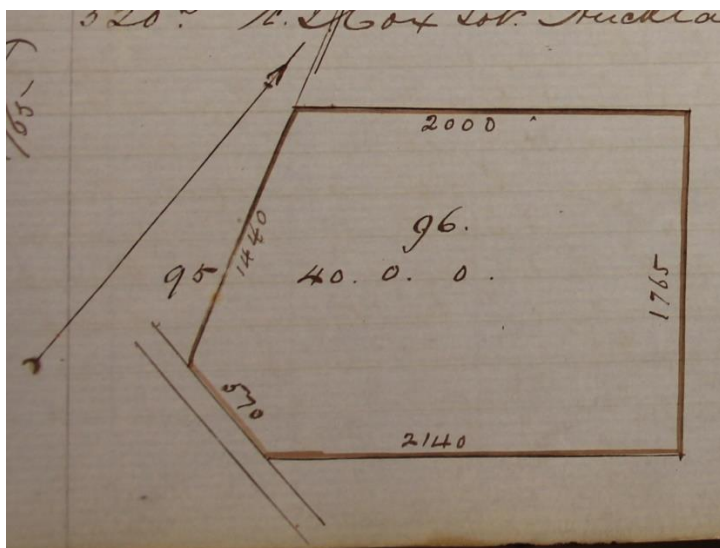
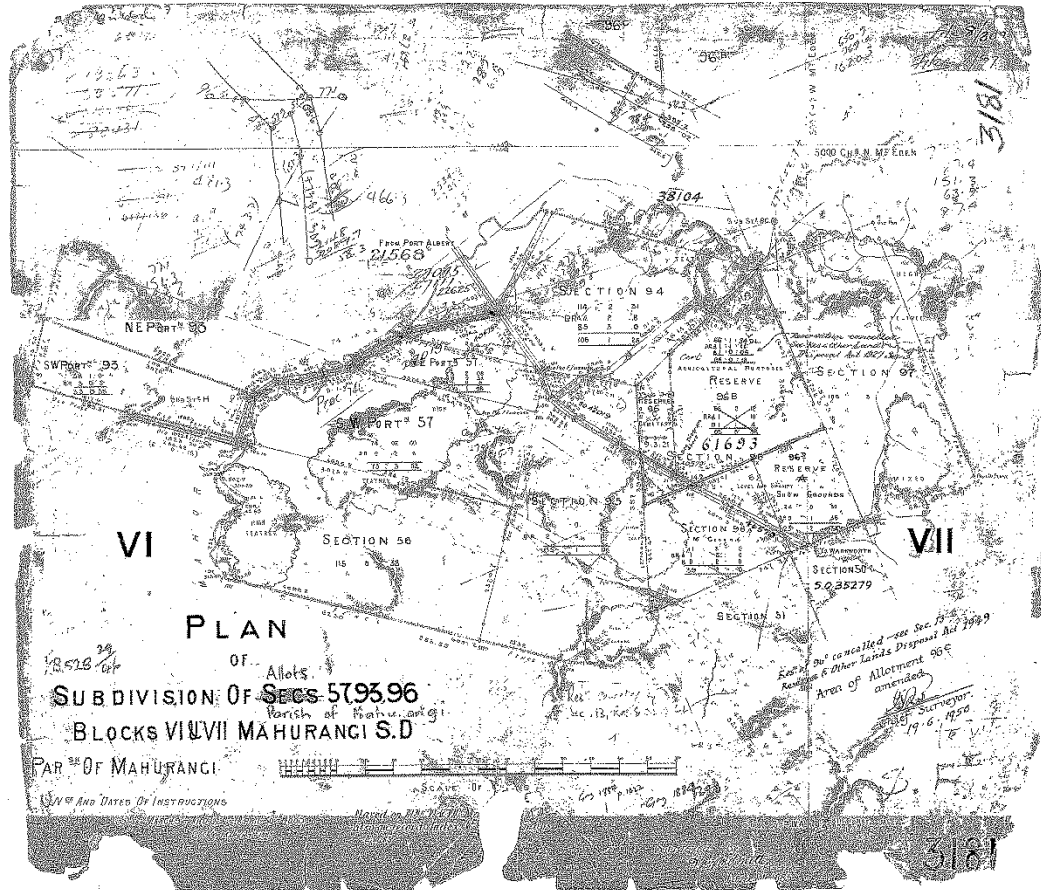


Figure 6. Sketch plan, dated 1859, showing the boundaries of Allotment 96, Parish of Mahurangi as conveyed to Michael Wood, land agent (source: Deeds Register B2/172 BAJZ A166023656 656/a, Archives New Zealand)

²³ NA768/143 & NA81A/525, LINZ.



3181

Figure 7. SO 3181, dated 1883, showing the subdivision of Allotments 57, 93 and 96, Parish of Mahurangi (source: Quickmap)

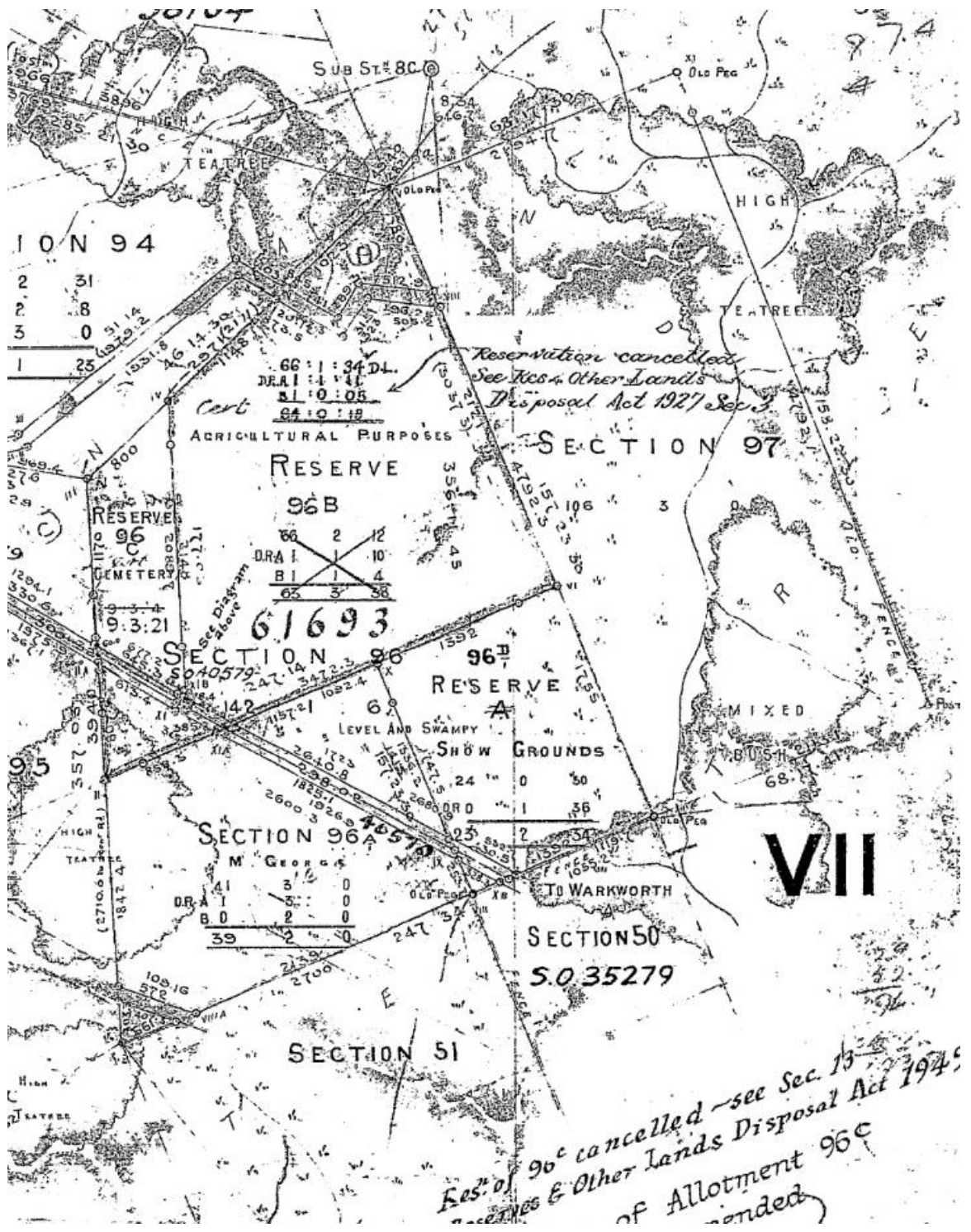


Figure 8. Close-up view of SO 3181, dated 1883, showing Allotment 96A, and reserve areas 96B, 96C and 96D, Parish of Mahurangi (source: Quickmap)

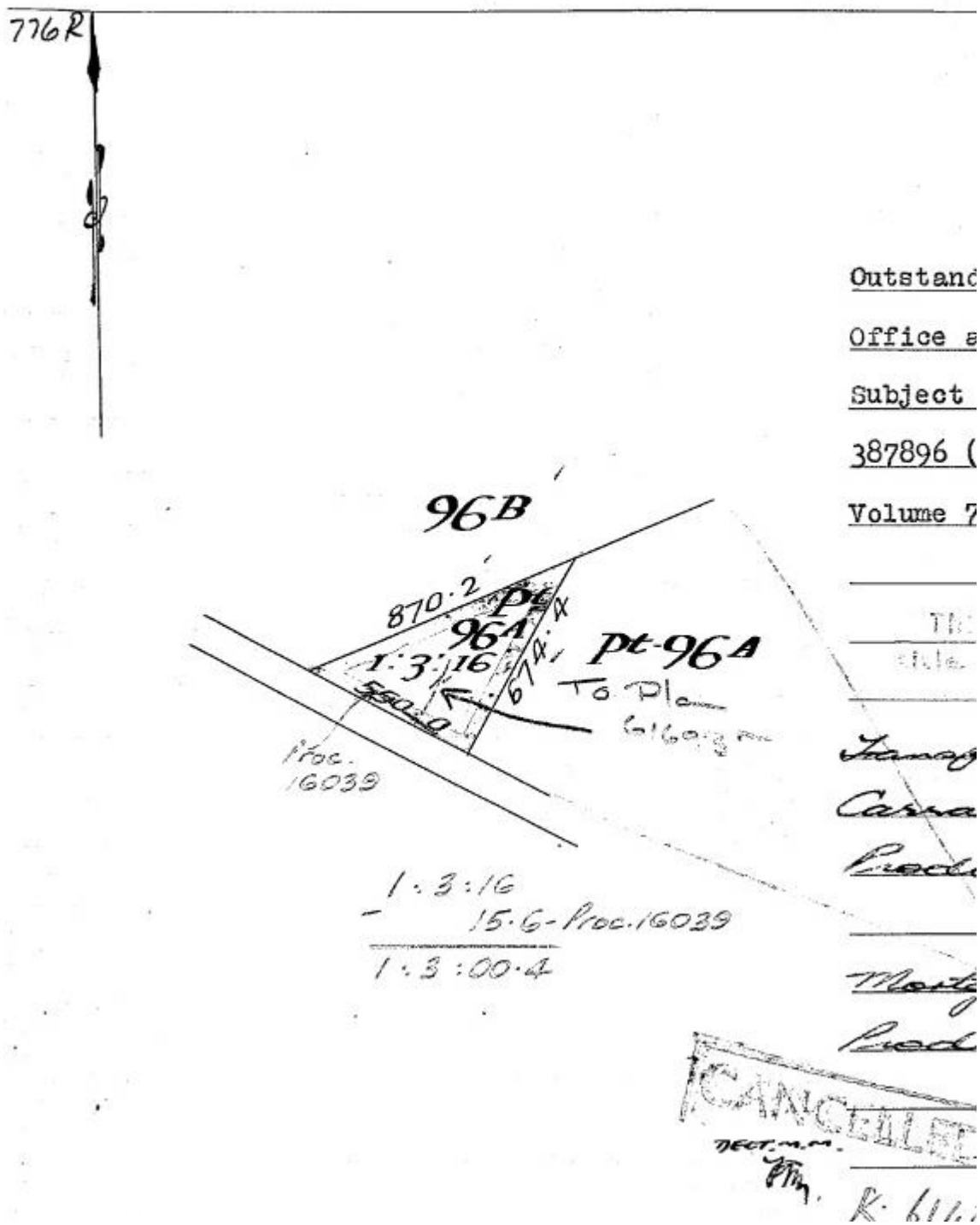


Figure 9. Sketch plan showing the portion of Allotment 96A, Parish of Mahurangi brought under the Land Transfer Act by Alice Carran in 1939 (source: NA758/260, LINZ)

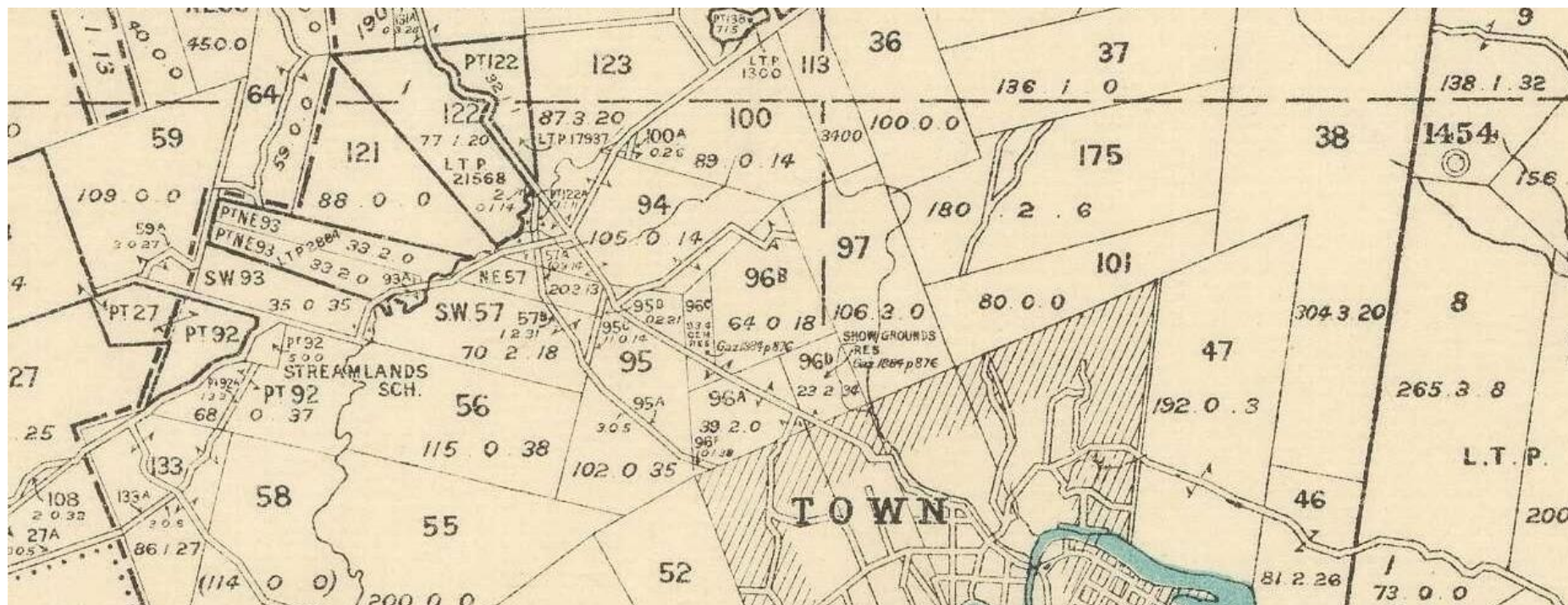


Figure 10. Close-up view of Mahurangi Survey District Plan drawn by E.T. Healy, Delt, dated June 1930, showing Allotments 96A, 96B, 96C, 97, 36 and 37, Parish of Mahurangi (source: NZMS 13, NAK 63, Alexander Turnbull Library)

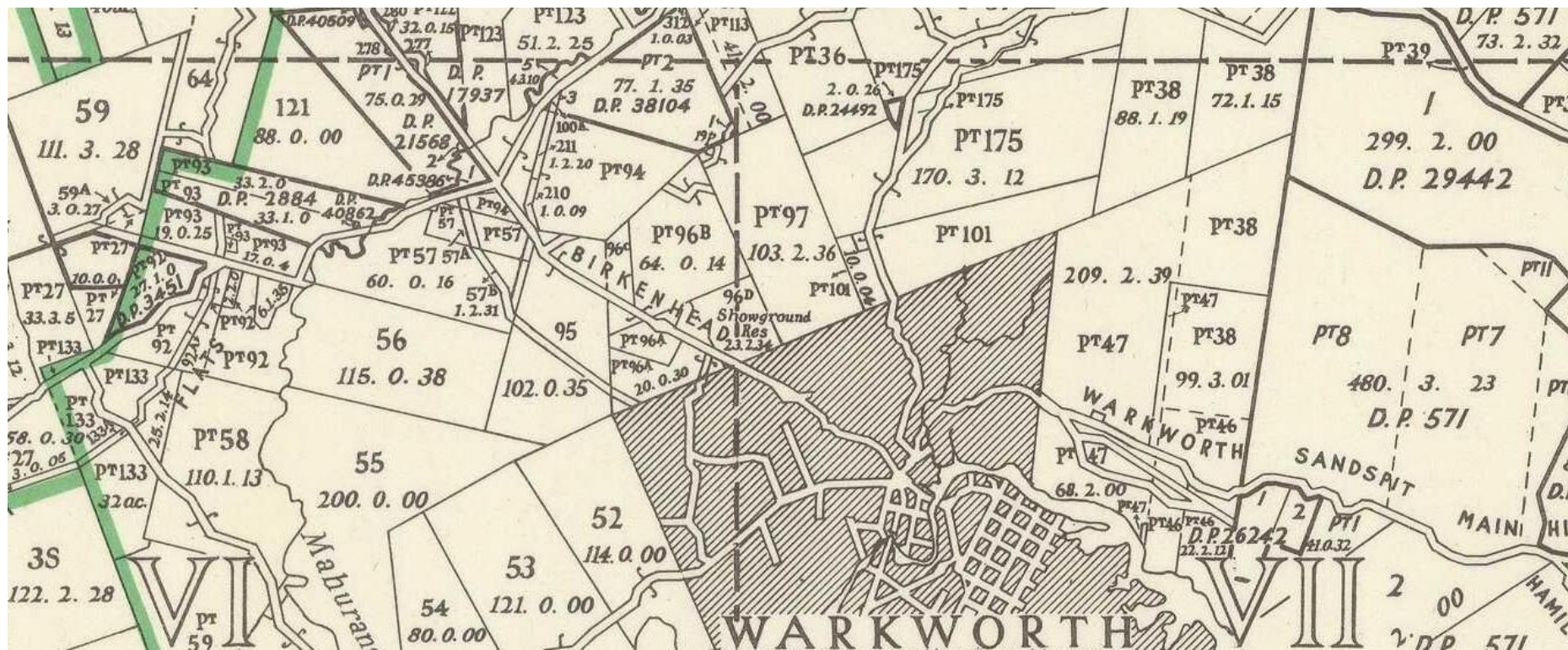


Figure 11. Close-up view of Mahurangi Survey District Plan drawn by P. Ide, dated 1959, showing Allotments 96A, 96B, 96C, 9, 36 and 37, Parish of Mahurangi (source: NZMS 13, NAK 63, Alexander Turnbull Library)

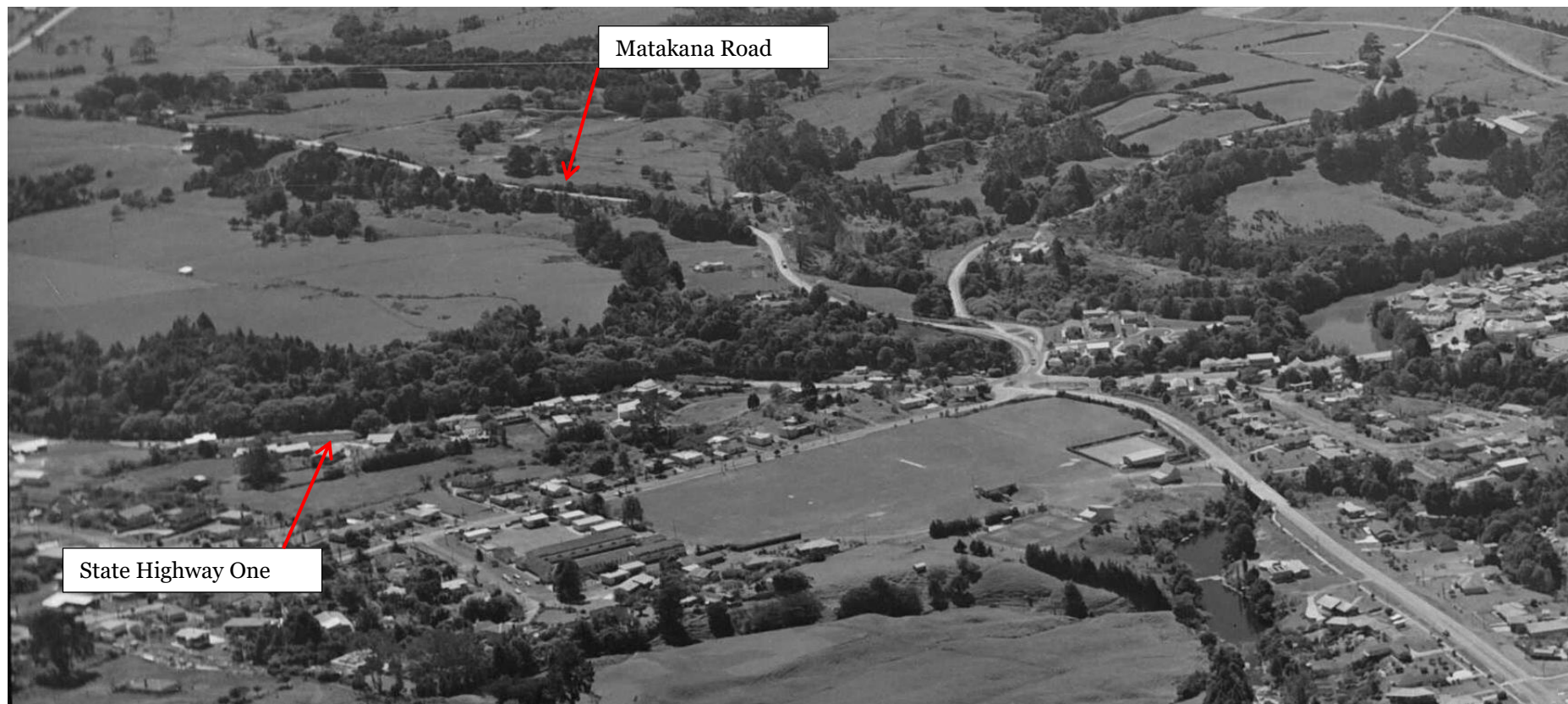


Figure 12. Close-up of aerial photograph, dated 26 March 1973, showing Warkworth area with State Highway One and Matakana Roads visible (source: Warkworth. Whites Aviation Ltd: Photographs. Ref: WA-71320-G. Alexander Turnbull Library, Wellington. <http://natlib.govt.nz/records/22467281>)



Figure 13. Close-up of aerial photograph, dated 14 June 1976 showing Warkworth area with State Highway One and Matakana Roads visible (source: Warkworth. Whites Aviation Ltd: Photographs. Ref: WA-73613-G. Alexander Turnbull Library, Wellington. <http://natlib.govt.nz/records/23227838>)

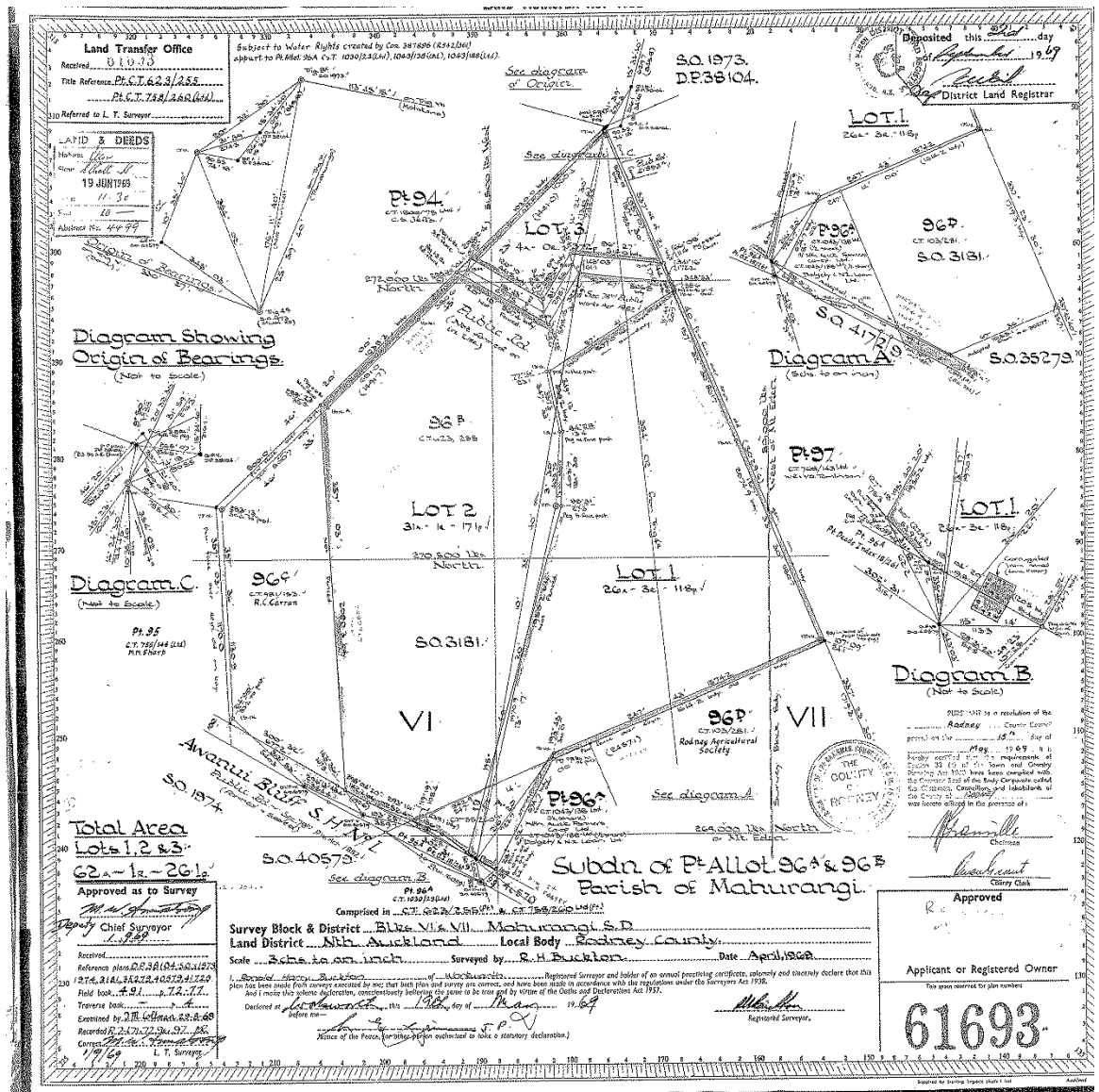


Figure 14. DP 61693, dated April 1969, showing the subdivision of Pt Allotments 96A and 96B, with 96C visible (source: Quickmap)

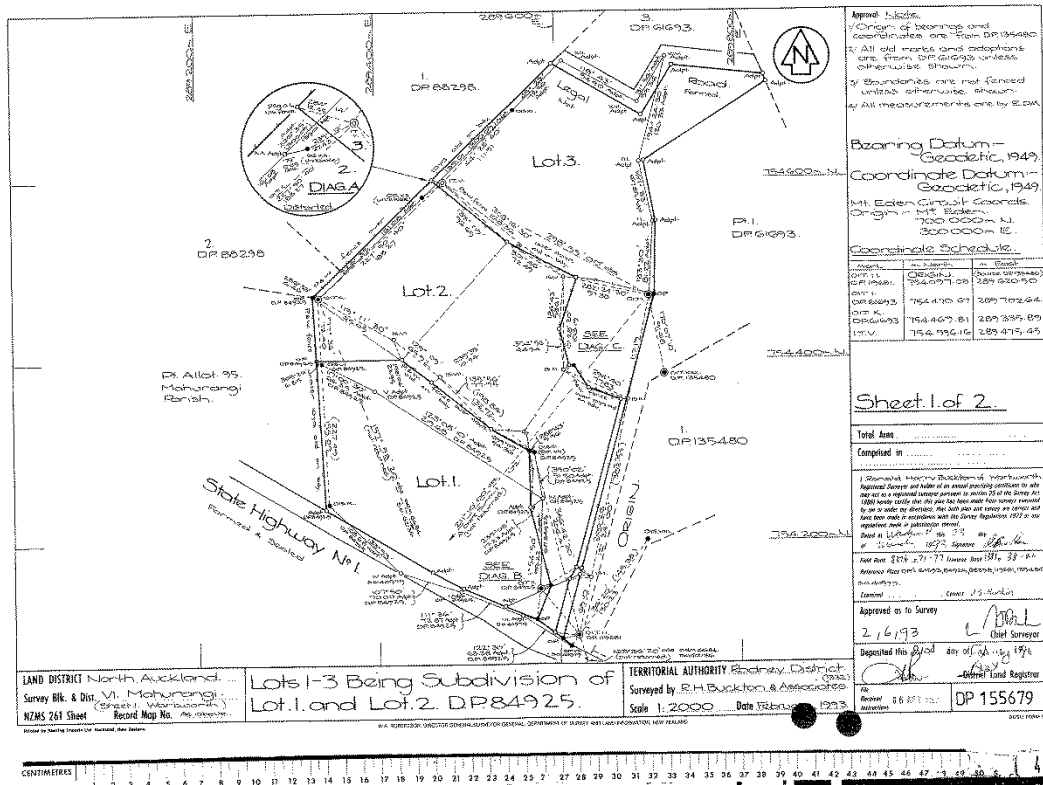


Figure 15. DP 155679, dated February 1993, showing the subdivision of Pt Allotments 96B and 96C, Parish of Mahurangi (source: Quickmap)

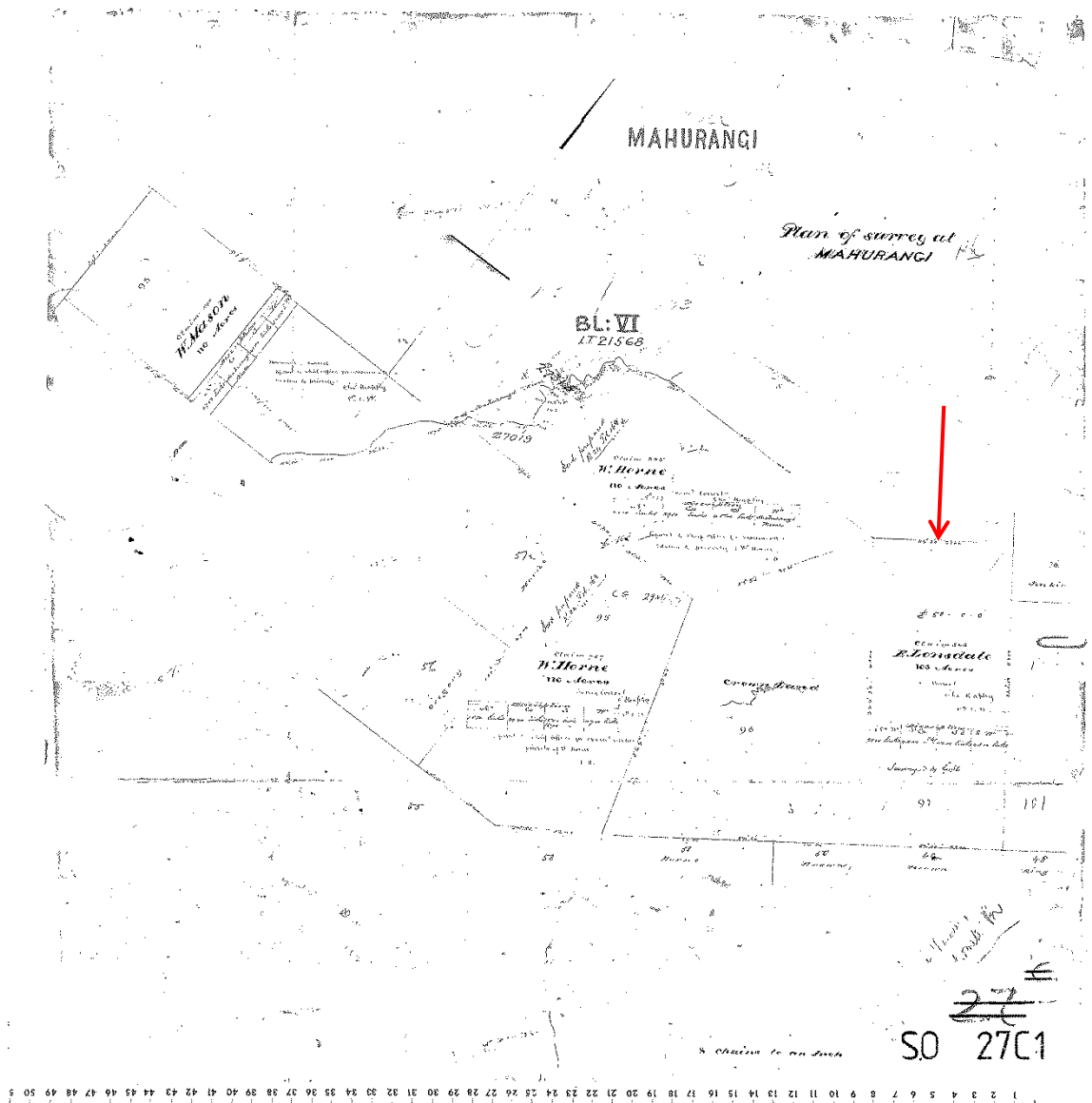


Figure 16. SO 27C1, undated, showing early claimants to land in the Parish of Mahurangi. E. Lonsdale's claim for the 105 acre Allotment 97 is identified and arrowed in red (source: Quickmap)

World War II U.S. Army Camps

Several United States military camps were located throughout the wider Warkworth area during World War II (1939-1945). American forces stationed at these camps comprised elements of the 3rd Marine Corps Division, the 25th Infantry Division, and the 43rd Infantry Division (Figure 17). The first division to establish camps in the area was the 43rd, which arrived in October 1942. The division remained for only a few weeks but later returned in March 1944. Elements of the 3rd Marine Corps Division, including the 21st Regiment, 12th Artillery Regiment and 3rd Tank Battalion, were stationed in Warkworth for several months from March 1943. Last to arrive in the area was the 25th Infantry Division, which occupied camps from December 1943 to February 1944 (Biolettei, 1989).

Most U.S. military camps in the area consisted of several native timber ‘two-and four-men huts’. These were mostly constructed with louvre windows. Khaki pyramidal tents were also erected in some camps, and were fitted with wooden floors and pot-belly stoves (Biolettei, 1989, p. 111 & 113) (Figure 18). Wells were dug by troops at certain farm camps to provide fresh water sources, some of which are still in use today.

The above-mentioned camps included camps M1, M2, M3 and M5 (along with M4 and M6 known collectively as ‘Dome Camp’), and camps J1, J2 and J3 (known collectively as ‘Rodney Camp’). which were situated in the immediate vicinity of the project area²⁴ (

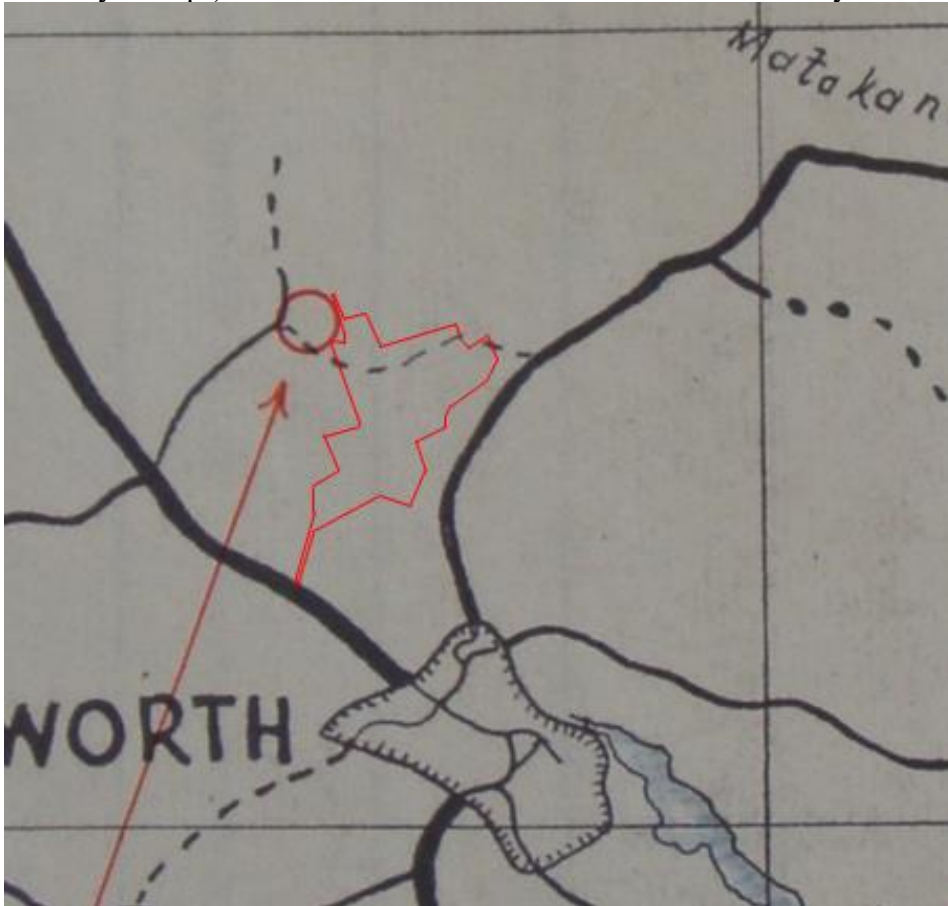


Figure 19 to Figure 25). These camps accommodated elements of the 25th Infantry Division after their campaign in the Solomon Islands. The camps were occupied from December 1943 - February 1944 and detailed plans dated 9th, 10th and 13th September 1943, record the positions of various personnel and ancillary buildings as well as services such as water supply, drains and power lines, and notable other buildings and roads in the immediate surrounds of the camps. The Rodney Camp was noted to be a comparatively small site with the grounds comprising only a few huts, mess rooms, ablution blocks, cookhouses, latrines, Quarter Master Store and Ration Store. According to a camp data file, dated 1943-1944, most of these buildings were constructed with concrete floors, sarking roofs and with malthoid on Pinex.²⁵

²⁴ Camp M5 and M6 are located along Kaipara Flats Road away from the project area so are not discussed here.

²⁵ Camp data – Warkworth J1, J2 and J3 Camps, 1943-1944, ACIO A1629 21011 12/g, Archives New Zealand.

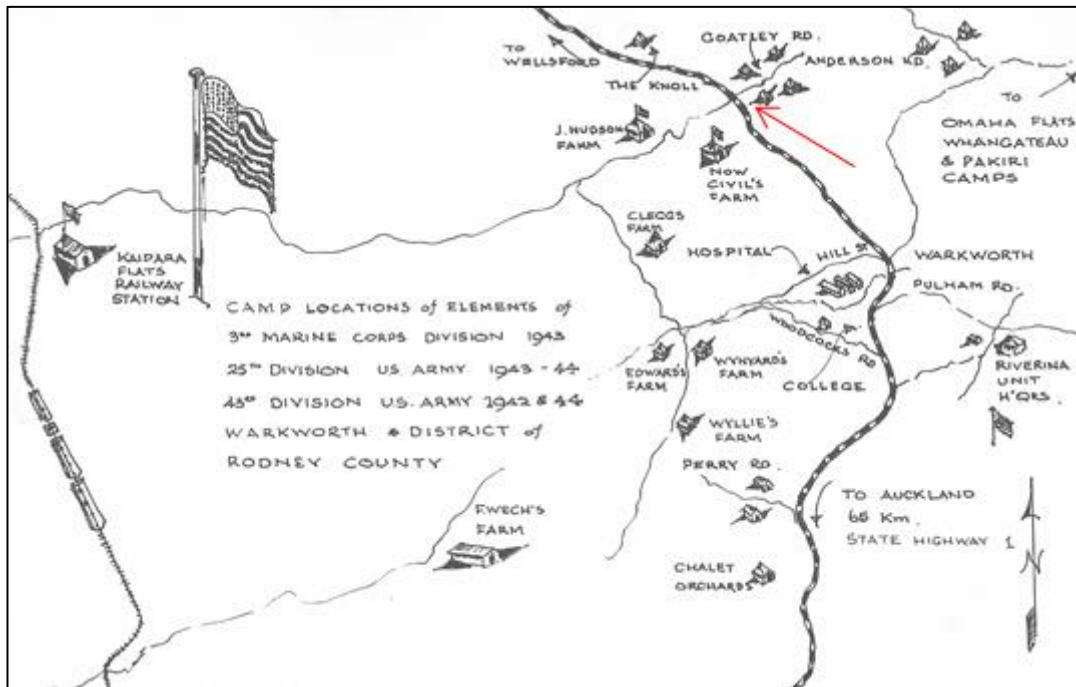


Figure 17. Sketch plan showing the location of World War II US military camps in the Warkworth area, with the general Goatley and Clayden Roads Subdivision area indicated by the arrow (source: Harry Bioletti, *The Yanks are Coming: The American Invasion of New Zealand, 1942-1944*, Auckland, 1989, p.xii)



Figure 18. Photograph, dated 1940s, by Tudor Collins, showing a typical US military camp with two- and four- men huts. SH1 heading north to Wellsford is visible in the photo (source: Bioletti 1989, p.27)

Following the departure of the U.S. Forces from the Warkworth area some camp buildings were utilised by the New Zealand Army, and by 4 August 1944 the *Evening Post* reported that a group of the Warkworth army camps had been handed over by the New Zealand Army to the War Assets Realisation Board. The article noted:

‘The camps are built to the usual New Zealand Army pattern, and consist largely of prefabricated huts and various auxiliary buildings, including stores, kitchens, mess-rooms, and drying rooms...The camps which have now been vacated by the New Zealand Army provided accommodation for many thousands of soldiers. The Warkworth group alone had room for about 5000.’²⁶

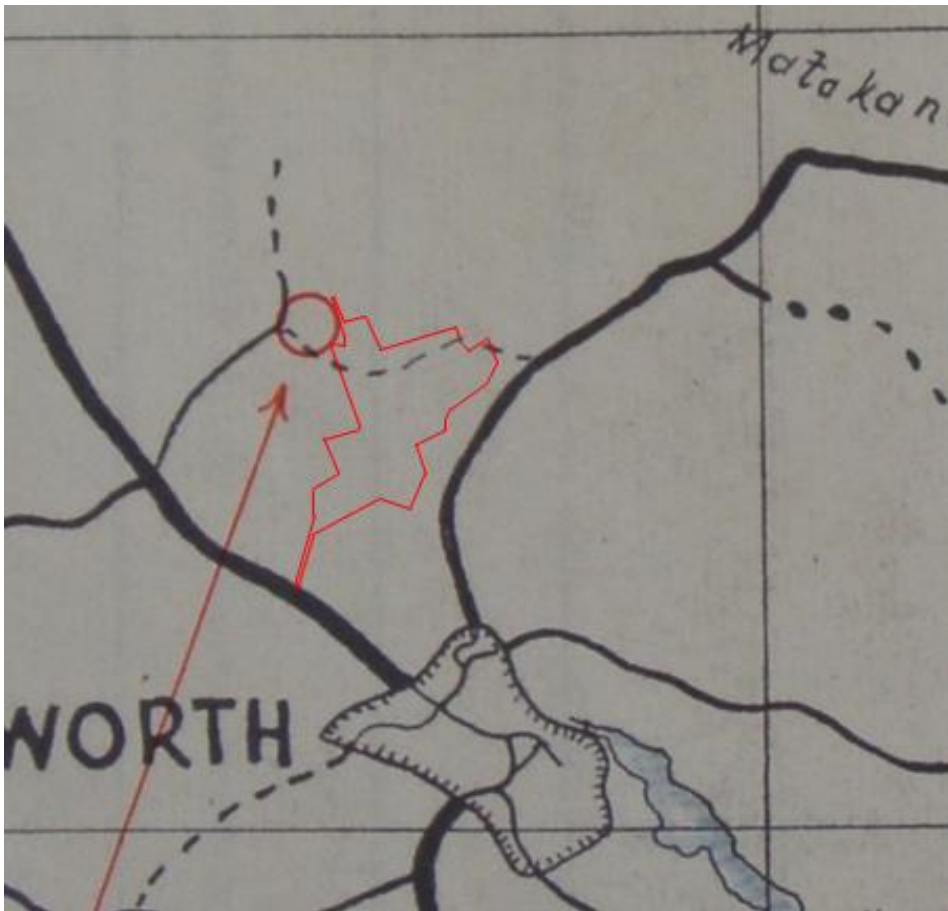


Figure 19. General location map of Dome Camp M1 and M2 and proposed residential development area (outlined in red) (source: Camp Data – Archives NZ)

²⁶ *Evening Post*, 4 August 1944, p.5.



Figure 20. Camp plans of M1 and M2 (source: Camp Data – Archives NZ)

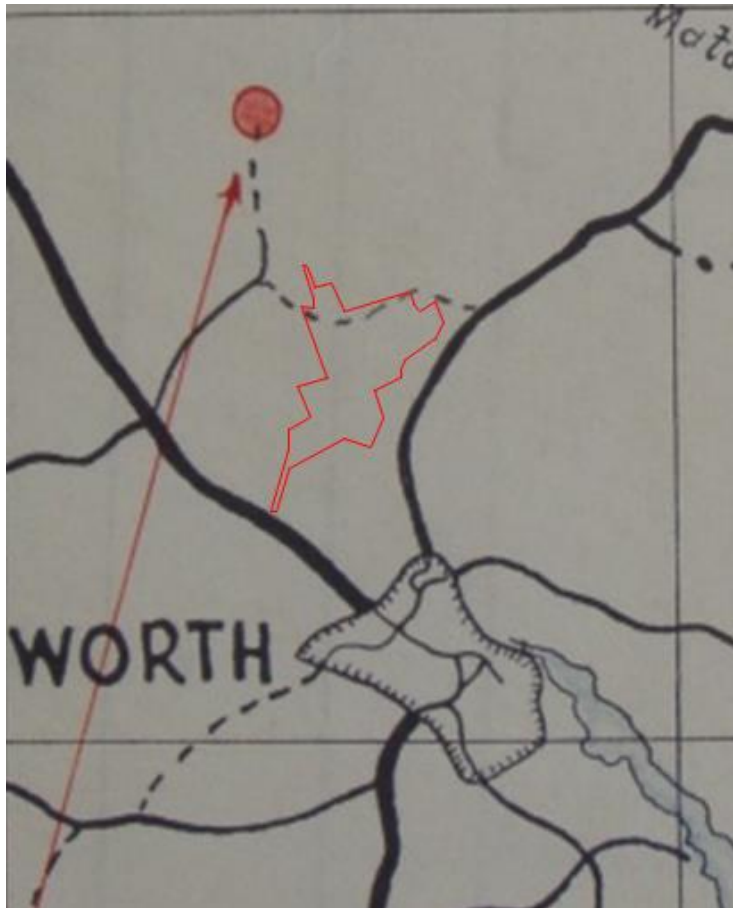


Figure 21. General location map of Dome Camp M3. The blue box indicates the project area (source: Camp Data – Archives NZ)

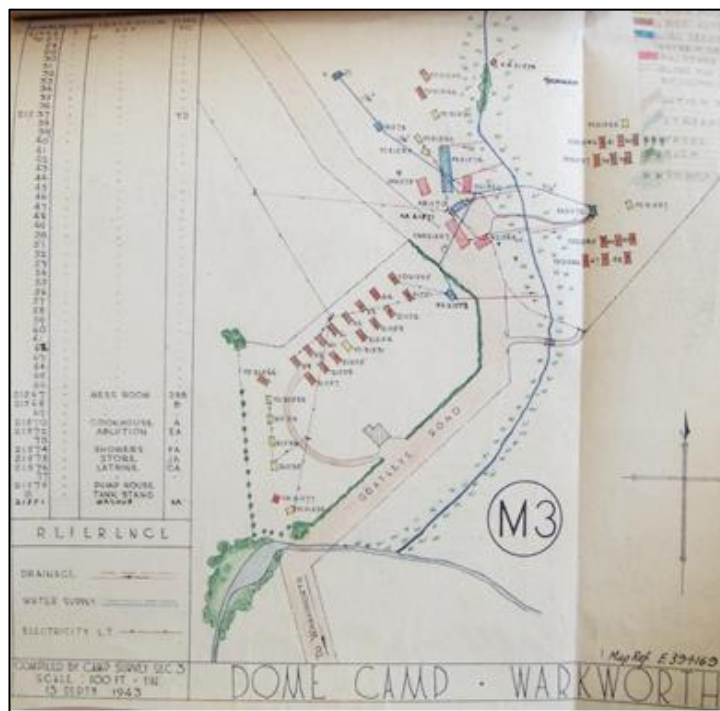


Figure 22. Camp plan of M3 (source: Camp Data – Archives NZ)

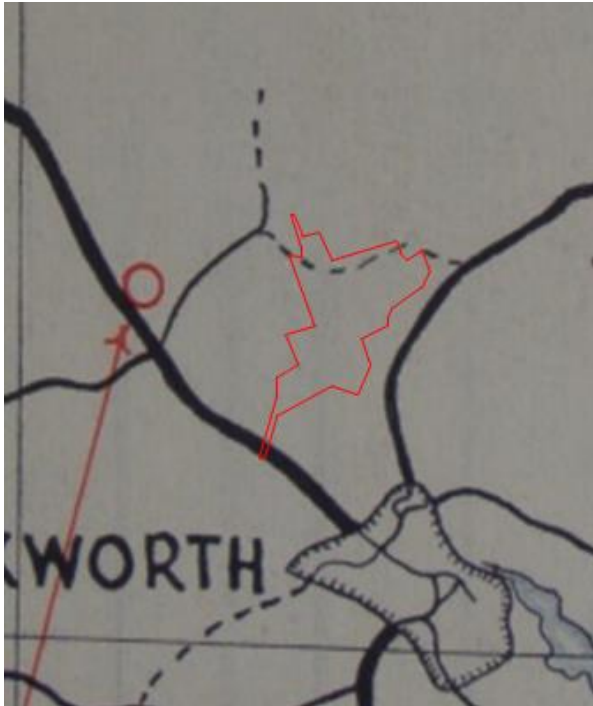


Figure 23. General location map of Dome Camp M5. The blue box indicates the project area (source: Camp Data – Archives NZ)

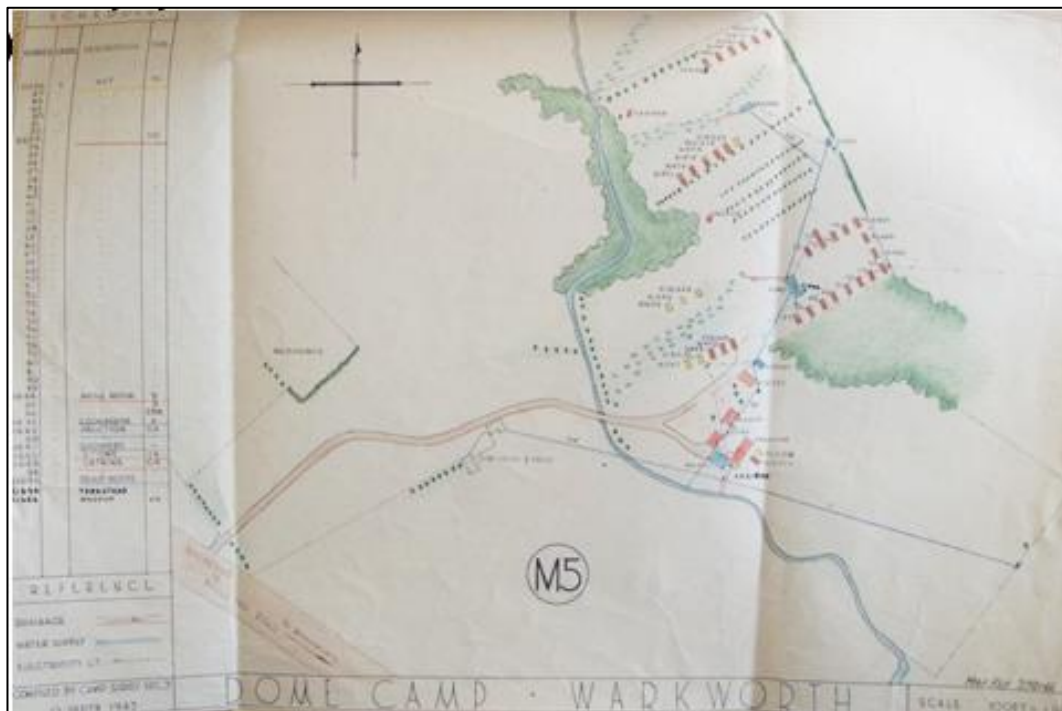


Figure 24. Camp plan of M5 (source: Camp Data – Archives NZ)

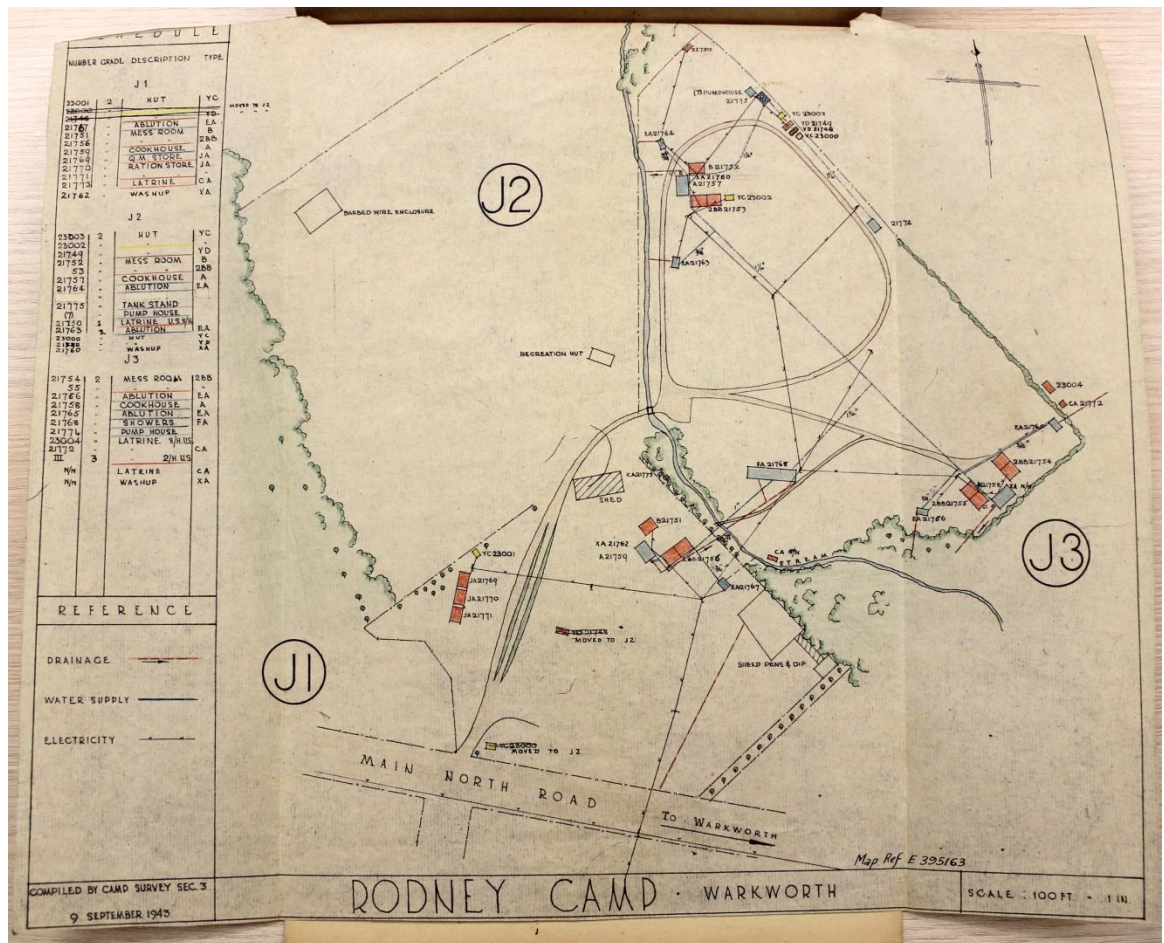


Figure 25. Plan, dated 9 September 1943, showing the layout of Rodney Camps J1, J2 and J3, situated within the Rodney Showgrounds along State Highway One, Warkworth (source: Camp data – Warkworth J1, J2 and J3 Camps, 1943-1944, ACIO A1629 21011 12/g, Archives New Zealand)

ARCHAEOLOGICAL BACKGROUND

The broader Warkworth area has a number of archaeological and historic heritage sites, relating to pre- and post-European occupation of the area. Close to the Mahurangi River Māori archaeological sites have been discovered on the northern and southern banks, including middens, pits and terraces. Many pre-1900 buildings have been retained within the Warkworth Township itself, and there are numerous remains of early industrial sites in the area, including the Wilson Cement works and Kowhai Lime Kilns, as well as recorded locations of saw mills and flour mills.

The archaeological background of the Warkworth area was reviewed as part of a recent study for North and Northwest Rural Urban Boundary (RUB) options commissioned by Auckland Council (Campbell, M., J Harris and A. McAlister, 2013). The report identified the distribution of pre-European Māori sites in the area as well as soils indicating suitability for gardening. The proposed development area is situated on a combination of suitable and unsuitable gardening soils (hill soils) (Campbell et. al 2013, p.26).

The project area is just north of the main Warkworth Township, and there are no recorded archaeological sites indicated on the NZAA ArchSite database as seen in (Figure 26). The majority of the recorded archaeological sites lie to the west of the development, on Kaipara North Road.

A number of archaeological assessment with supporting reports have been undertaken within the wider area Warkworth area surrounding the proposed development area.

An archaeological assessment was also carried out at 467 Matakana Road for a proposed subdivision, 2km northeast of the Clayden Road/Matakana Road intersection where the Matakana Link Road will emerge. No archaeological sites or features were found as a result of the survey (Clough and Prince 2000).

The Puhoi to Wellsford Road of National Significance, Puhoi to Warkworth section, is an ongoing roading project, a section of which will intersect with the current SH1 road adjacent to the south-eastern extent of the project area. The archaeological assessment for this project identified no previously unidentified archaeological sites in that section of the Designation (Figure 27) but did identify the cemetery on the south side of SH1 (discussed in the Historic Background above under Allotment 96) (Clough et al 2015). This cemetery has not been recorded on the NZAA Archsite database or the Cultural Heritage Inventory, nor is it listed with Heritage New Zealand or on the Auckland Unitary Plan schedule.

An archaeological assessment was also completed for the proposed Hudson Road Business Park, immediately east of the motorway Designation. This assessment identified one natural “slump” terrace, which resembled an archaeological site but was ultimately natural in origin (Judge and Clough 2008).

The Warkworth Showgrounds were assessed in 2004 as part of a proposed redevelopment, where probing and test pitting undertaken failed to identify any archaeological sites or features (Farley, G. & R. Clough, 2004).

The Matakana Link Road, which lies along the southeast of the proposed development area was assessed in 2018 with no archaeological sites being identified within its boundaries (Dawson, L., S. Phear & Z. Burnett, 2018).

More recently the Goatley Road Subdivision Stages 1-3 was archaeologically assessed, with no archaeological sites being identified within its boundaries. This project area lies to the immediate west of this project area (Jamieson, B., Z. Burnett and S. Phear, 2018).

The Auckland Council Unitary Plan Heritage overlays were consulted for Built Heritage and Character and Mana Whenua sites of significance. No heritage items relating to these overlays were identified within the boundaries of the proposed development area or within 500m.

Recorded Sites within the vicinity of the Project area

The Auckland Council Cultural Heritage Inventory (CHI) database was consulted. Four recorded sites identified as “Reported Historic Site” are located within a 500m radius buffer of the project area (Figure 28). The site of US Military Camp – Dome Camp M5 (CHI 16995) is located on the north-western side of Goatley Road. US Military Camp – Rodney Camps J1, J2 and J3 (CHI 17001) is located to the southeast of the project area within the Warkworth Show grounds and US Military Camp – Dome Camp M53 (CHI 16992) to further north on the northern side of Goatley Road. The last site is of a historic house “Clayden House” (CHI 21953) located on the eastern side of Clayden Road (see Appendix B).

A review of the camp plans in relation to the CHI recorded site locations, however, indicates a discrepancy in both the M1 and M2, and M3 Dome Camp sites, with site M1 and M2 actually falling within 500m of the project area and adjacent to the northern boundary of the project area (Figure 29 and Figure 30). The table of sites within 500m of the project area therefore also includes CHI 16992, Dome Camp M1 and M2 (with the actual coordinates not those recorded on the CHI).

The third camp site US Military Camp – Dome Camp M3 (CHI 16993) lies outside of the proposed development area to the north as does the site of Clayden’s House (CHI 21953), which lies to the west on the eastern side of Clayden Road.

There are no heritage items identified on the Heritage New Zealand – The List within the boundaries of the proposed development area or immediate surrounding environment.

Table 1: List of CHI sites within 500m of the proposed development areas

CHI No.	NZAA No.	Easting NZTM	Northing NZTM	Site Type	Site Name	Category
16992	N/A	1747434	5972507	U.S Military Camp	Dome Camp M1 and M2	Historic Structure
16993	N/A	1748039	5973370	U.S Military Camp	Dome Camp M3	Historic Structure
21953	N/A	1748985	5972986	Clyden’s House	House Site	Historic Structure
17001	N/A	1748099	5971447	U.S Military Camp	Rodney Camps J1, J2 and J3	Historic Structure

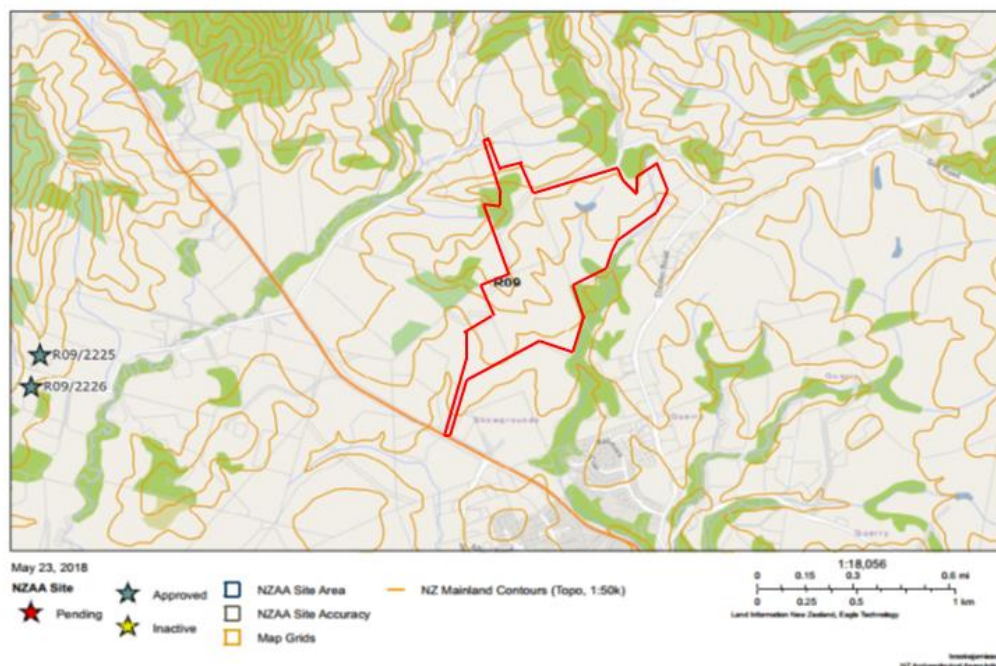


Figure 26. Recorded NZAA ArchSites locations (stars) in relation to the proposed development area indicated by the red outline (source: NZAA ArchSite 23.05.2018)



Figure 27. The Designation for the Puhoi to Warkworth section of the RoNS shown in red. The southwestern portion of the project area is indicated by the arrow (source: Clough et al 2015, p. 68)

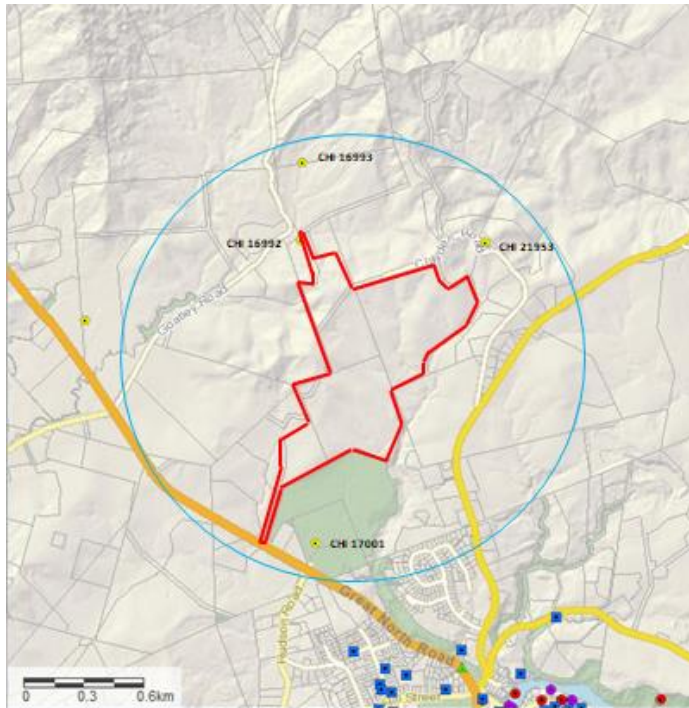


Figure 28: Recorded CHI sites in relation to the development area (outlined in red) including a 500m buffer (blue circle). Four sites are recorded as falling within 500m of the project area – U.S Military Camp sites CHI 16992, 16993 and 17001 and Clayden’s House site (CHI 21953) (source: AC CHI)

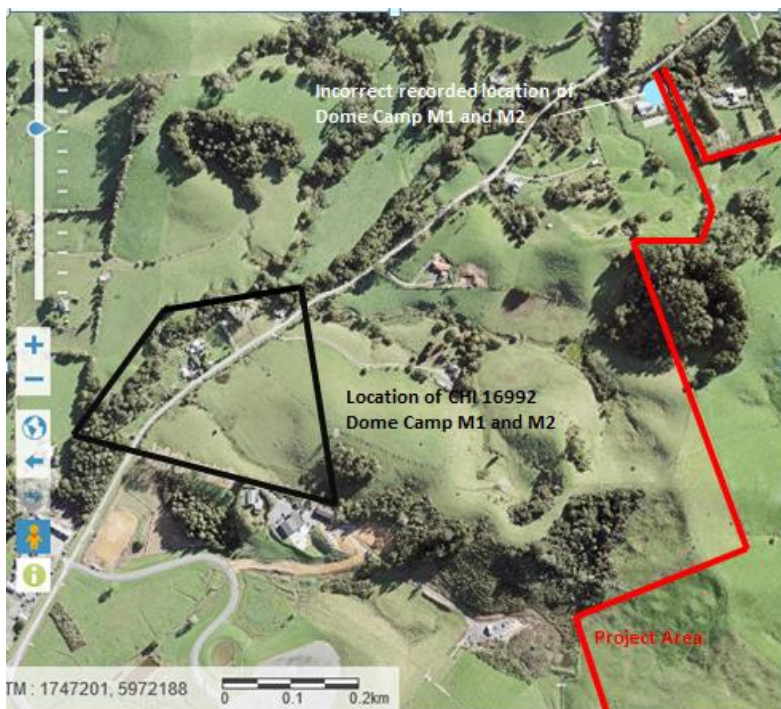


Figure 29. Aerial indicating the location of Dome Camp site M1 and M2 (CHI 16992) based on the camp plan (see Figure 27), in relation to the recorded site location. This places it adjacent to the northwestern boundary of the site, but not within it (aerial source: AC GIS viewer)

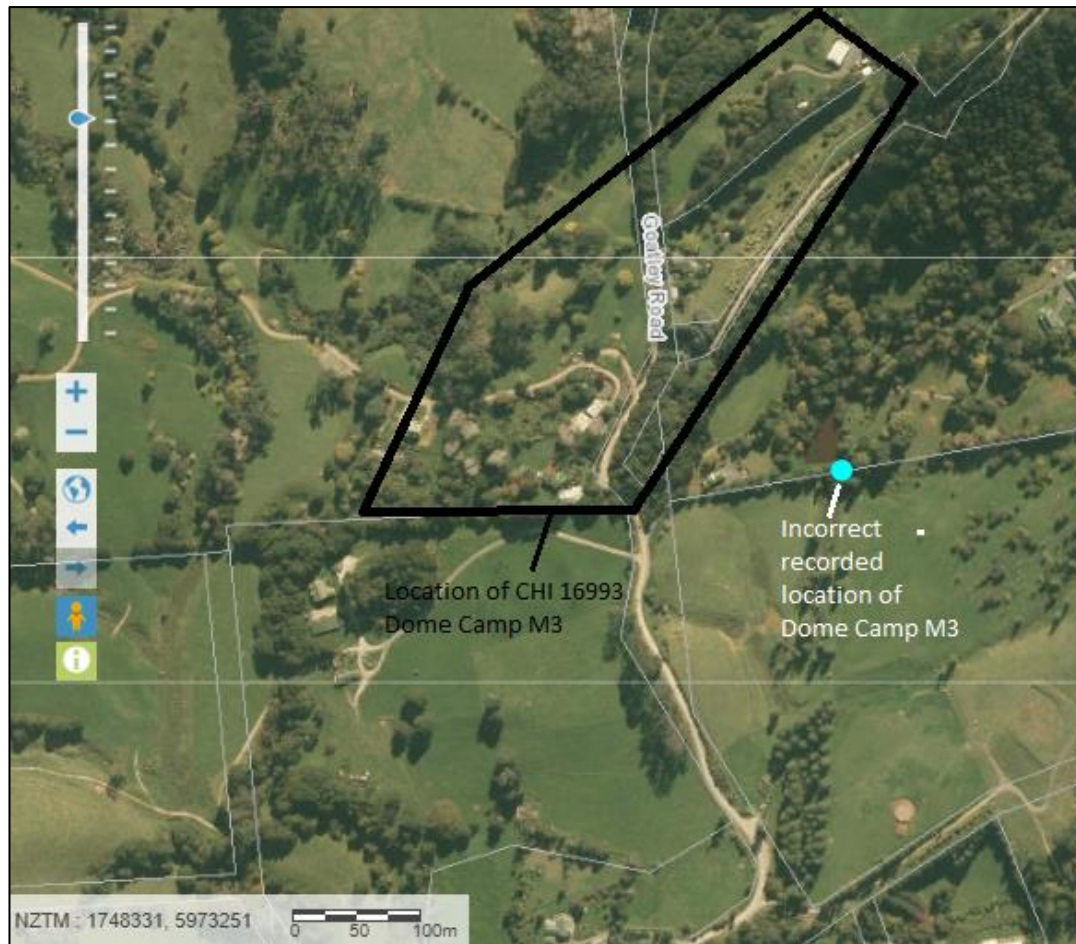


Figure 30. Aerial indicating the location of site M3 based on the camp plan (see Figure 29), which is located to the west of the project area (Aerial source: AC GIS viewer)

Information from Early Aerials

A selection of digitally available historic aerial photographs²⁷ was examined from the mid-1960s through to present day. Based on this information it appears that the from the mid-20th century until the early 1990s that the project area consisted of grazed/farmed paddocks with variably changing vegetation consisting of field /paddock and tree/field boundary lines. The current manmade pond in the centre of the development properties is a relevantly recent construction dating to around the early 2000s (Figure 31 to Figure 34).



Figure 31. Detail from 1966 aerial photo (14.10.1966 SN1875 Run 5039 Photo # 15; source: Retolens)

²⁷ www.retrolens.co.nz



Figure 32. Detail from 1973 aerial photo (4.12.1973 SN3618 Run 4628 Photo # 7; source: Retolens)

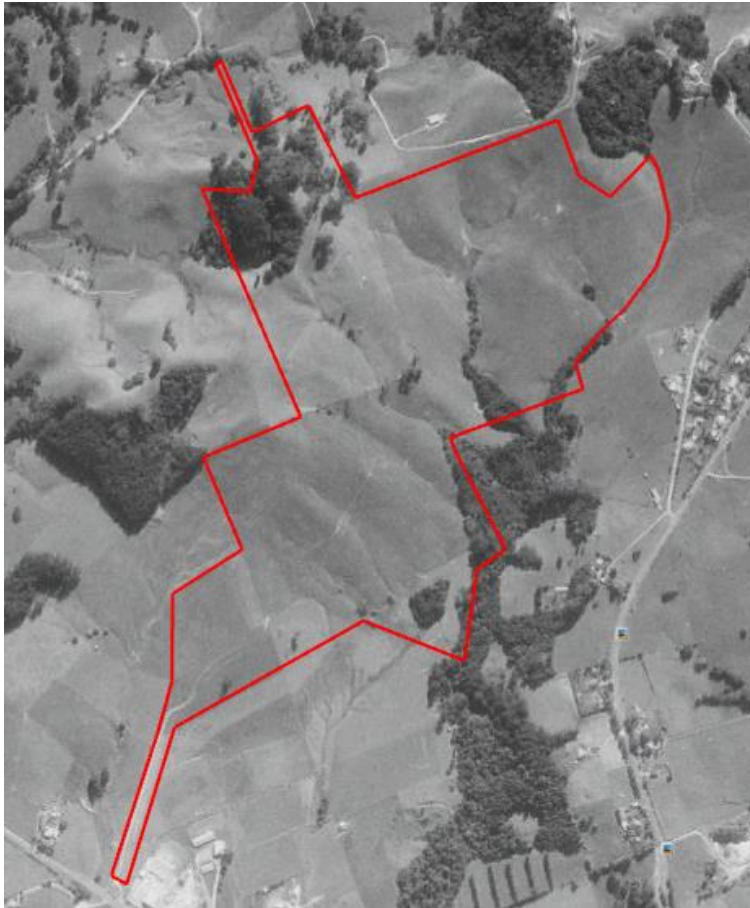


Figure 33. Detail from 1996 aerial photograph (02.05.1996_SN9482 Run G Photo# 14; source: Retolens)



Figure 34. Detail from the 2018 aerial photograph (source: GeoMaps Base Layer 2018)

PHYSICAL ENVIRONMENT

Topography, Vegetation and Land use

The project area consists of steeply undulating hills with gullies at their bases. The area is steepest through the centre and eastern sides from which it slopes down to the west (SH1), north (Goatley Road) and south (Warkworth Show grounds). Occasional areas of natural slumping were noted around the waterlogged gullies where some cattle erosion had also occurred due to stock usage.

The area is currently being used as farm and grazing land for sheep, cattle and horses; with the majority of the paddocks being divided by post and wire fences. The majority of the property is under short pasture grass, with several stands of native bush and vegetation being located in the northern portion of the property. These areas are fenced off and do not appear to be subject to cattle grazing or access. There is a line of concrete power lines, cross the property on a roughly east west axis. Located roughly in the centre of the property, and within the base of a large wide gully, is a manmade pond. This pond collects water and is used as a monsoon bucket reservoir by the local fire service (Pers -comm R. Clayden).

Small pockets of instability of ground surfaces are noted throughout the property on the moderate to gentle slopes as well as areas of wet ground which has resulted in hummock and reeds suggestive of groundwater /seepage.

Geology and Geomorphology

The underlying geology of the project area is underlain by calcareous mudstone (Mahurangi Limestone) of the Northland Allochthon group. The Northland Allochthon sediment consists of marine sediments (highly disrupted/sheared siltstone, mudstone and limestone) which result in slopes steeper than 8 degrees being prone to slope instability, especially where there are concentrations of ground water. The calcareous mudstones are more stable and the lower lying northern portion of the development area consists of alluvial and colluvial deposits which may contain areas of soft and potentially compressible ground (Orglas, 2016).

FIELD ASSESSMENT

Field Survey Results

The survey of the proposed development area was undertaken during two field surveys.

The first field survey was undertaken on the 21st August 2017 as part of the Matakana Link Road alignment project (Dawson, L., S. Phear & Z. Burnett, 2018), part of the land comprising of Pt allotment 97 Parish of Mahurangi SO 27c, Pt Lot 1 DP 61693 (see Figure 2). This survey consisted of a pedestrian field survey with a series of spade test pits and probing to understand the local stratigraphy and flat topographical features. A second survey was undertaken on the 22nd May 2018 which concentrated on the remaining surveyed portions of the proposed development area.

Both field surveys were undertaken by Clough & Associate Ltd archaeologists. Several areas were not surveyed due to being made inaccessible either by vegetation or currently grazing cattle.

These results of the 2017 survey are as follows (Dawson, L., S. Phear & Z. Burnett, 2018):

The northern end of the property before the stream was surveyed and probed. This area slopes gently down to the stream edge, and is lined with mature native trees (Figure 35). A test pit was dug within a few metres of the fence before the stream, showing 150mm of light brown topsoil above the clay substrate (Figure 36). At the time of survey, we could not access the area beyond the fence towards the stream. No archaeological sites or features were identified.

The southern (and longer) portion of the property was inspected and probed. The area, lead in by a tree-lined driveway, is currently farmed and kept in pasture (Figure 37 to Figure 39), with intermittent streams and overland flow paths extending through the alignment in a north-south direction. A similar soil profile to the northern test pit was observed in an area exposed by erosion - a thin, light brown topsoil above a clean, clay substrate. Two further test pits were placed along the alignment in the southern area (Figure 40 and Figure 42), and these also indicated a similar soil profile.

The bushed area adjacent to the stream was not accessible at the time of survey (Figure 43). However, there is some potential for archaeological sites (such as midden) to be located along the stream banks as this a location often utilised by Maori in the past.



Figure 35. Looking south, at the northern end of the proposed development area, showing the grassed slope down to the river



Figure 36. The test pit at the northern end of the proposed development area, near the river, showing light brown topsoil and a clay substrate



Figure 37. Looking south towards the SH1 road entrance within the proposed development area



Figure 38. Looking northeast over the proposed development area which was in pasture



Figure 39. Trampling and stock movement on the proposed development area



Figure 40. A test pit approximately located within the proposed development area, showing light brown topsoil onto a yellow clay subsoil



Figure 41. Looking west over the proposed development area



Figure 42. A test pit dug near the southern side of the stream, showing light brown topsoil onto a yellow clay base



Figure 43. The fenced off stream area, currently overgrown



Figure 44. Test pit locations within the proposed development area (within the yellow boundaries) within Pt Allotment 97 Parish of Mahurangi SO 27c (nb. the third red dot/test pit is located on the neighbouring property which is part of the MLR proposed development area)

A pedestrian field survey was undertaken on the 22 May 2018 in wet and showery conditions on Lot 3 & 4 DP 199755 and Lot 4 DP 492431 (see Figure 2).

Exposed areas of soil profiles were checked for archaeological sites and a number of hand augers and probing were undertaken across the proposed development area. The survey was undertaken after a period of heavy rain, which resulted in the current ground surface being wet and water logged. Several of the areas were not accessed due to cattle and horses being grazed in those areas.

The eastern side of the proposed development area consisted of a series of steeply sloping undulating hills which dropped down to a deep gully which currently contains the manmade pond. A series of 5 hand augers were undertaken over this area targeting the tops of the hills or large flat naturally occurring terraces. The augers revealed the soil profile to consist of a 10-15cm thick dark brown loamy clay topsoil overlying orange plastic clay (Figure 45, Figure 46, Figure 47, Figure 48, Figure 49). No archaeological sites or material were identified during the survey in this portion of the property.

The western portion of the property rose steeply to a small ridge line running roughly east/west through the centre of it. A large portion of this area could not be fully accessed due to the southern portion being currently grazed in cattle or being fenced off thick native regenerating bush. Again the ground surface was covered in pasture grass used for grazing; much of the area showed evidence for animal pugging due to wet ground conditions.

Like the remaining portions of the property the probing and auguring revealed a 10cm dark brown loamy clay topsoil overlaying orange clay.

No archaeological sites or material were identified during the survey of the western portion of the property.



Figure 45. Looking southwest over eastern side of development property. Note manmade pond in centre of photo



Figure 46. Looking southwest to southern extent and boundary of proposed development area



Figure 47. Example of exposed soil profile caused by cattle pugging/wallowing



Figure 48. Looking southwards over a small stream gullies



Figure 49. Example of hand auger results showing soil profile. The ranging pole is 50cm in length with 10cm intervals



Figure 50. Looking northwards over western extent of proposed development area



Figure 51. Example of exposed soil profile along farm track and beneath existing macrocarpa trees



Figure 52. Results of auger showing soil profile

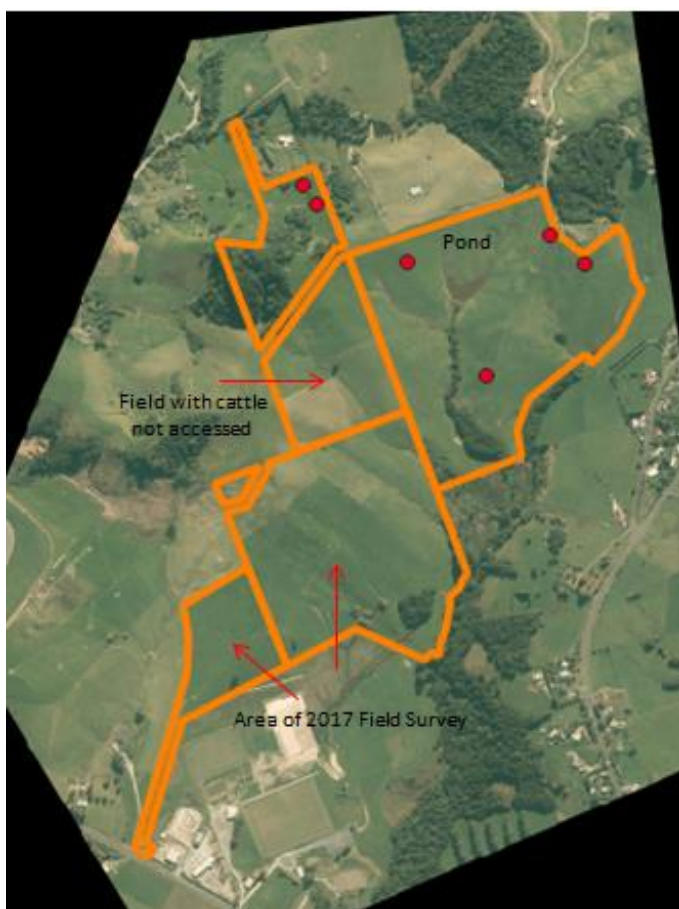


Figure 53. Location of hand auger tests completed in the 2018 survey

DISCUSSION AND CONCLUSIONS

Summary of Results

The historical and archaeological research indicates that during the 19th and 20th century the project area was predominantly farmland with a small number of land owners. This was supported by the results of the field surveys. While WWII U.S. Army camps were located in close proximity, no evidence of use of the properties by the camps was observed during field survey.

There appears that any modification to the existing land forms has been caused by farming and possible orcharding activities including the creation of a manmade pond, general farming infrastructure such as tracks, fencing and water troughs for cattle. The insertion of the powerlines appears to have only caused localised modification; specifically in the area of the pole.

No visible archaeological material or features were identified during the field surveys, although it was noted that there may be potential for archaeological midden sites to be located along the small water courses within the gullies. The underlying clay subsoils within the project area suggest it was marginal for Māori garden or horticultural activities. However, it is possible that Māori would have used the area as part of a wider subsistence utilization zone for collection of resources (eg. fern root, birds).

Māori Cultural Values

This is an assessment of archaeological values and does not include an assessment of Māori cultural values. Such assessments should only be made by the tangata whenua. Māori cultural concerns may encompass a wider range of values than those associated with archaeological sites.

Survey Limitations

It should be noted that archaeological survey techniques (based on visual inspection and minor sub-surface testing) cannot necessarily identify all sub-surface archaeological features, or detect wahi tapu and other sites of traditional significance to Māori, especially where these have no physical remains.

Several areas of the proposed development area were not visited during field survey. This was due to the presence of cattle specifically a bull, cattle and stallion horses. These areas were observed from a distance due to health and safety requirements. The area of dense native regenerating bush was not accessed either due to it being physically inaccessible.

Archaeological Value and Significance

The archaeological value of sites relates mainly to their information potential, that is, the extent to which they can provide evidence relating to local, regional and national history using archaeological investigation techniques, and the research questions to which the site could contribute. The surviving extent, complexity and condition of sites are the main factors in their ability to provide information through archaeological investigation. For example, generally pa are more complex sites and have higher information potential than small midden (unless of early date). Archaeological value also includes contextual (heritage landscape) value. Archaeological sites may also have other historic heritage

values including historical, architectural, technological, cultural, aesthetic, scientific, social, spiritual, traditional and amenity values.

The proposed development of a residential subdivision at Goatley and Clayden Roads has no known archaeological values or significance, as no recorded historic heritage sites are located within the proposed development area and none were identified as a result of field survey and assessment. Based on the recorded Moari settlement pattern in the Mahurangi area and historic research, the landscape modification that has already taken place across the property through farm clearance, and the results of field survey, there is low potential for there to be any subsurface archaeological sites present.

Effects of the Proposal

As stated above, there is low potential for any subsurface archaeology to be present across the majority of the site. Therefore, the proposed residential development will not affect any recorded archaeological sites, and it is unlikely any subsurface archaeological sites are present.

Based on the existing assessment, any effects of the proposed development area on archaeological values are considered to be less than minor. A cut/fill plan of the development (Figure 54) shows the extent to which the land will be recontoured. In some areas the changes to the existing elevations will be altered by more than 10m either through cutting or filling activities. Any archaeological remains identified in such locations will not be able to be preserved in situ.

In any area where archaeological sites have been recorded in the general vicinity it is possible that unrecorded subsurface remains may be exposed during development. Archaeological features and remains can take the form of burnt and fire cracked stones, charcoal, rubbish heaps including shell, bone and/or 19th century glass and crockery, ditches, banks, pits, old building foundations, artefacts of Māori and early European origin or human burials.

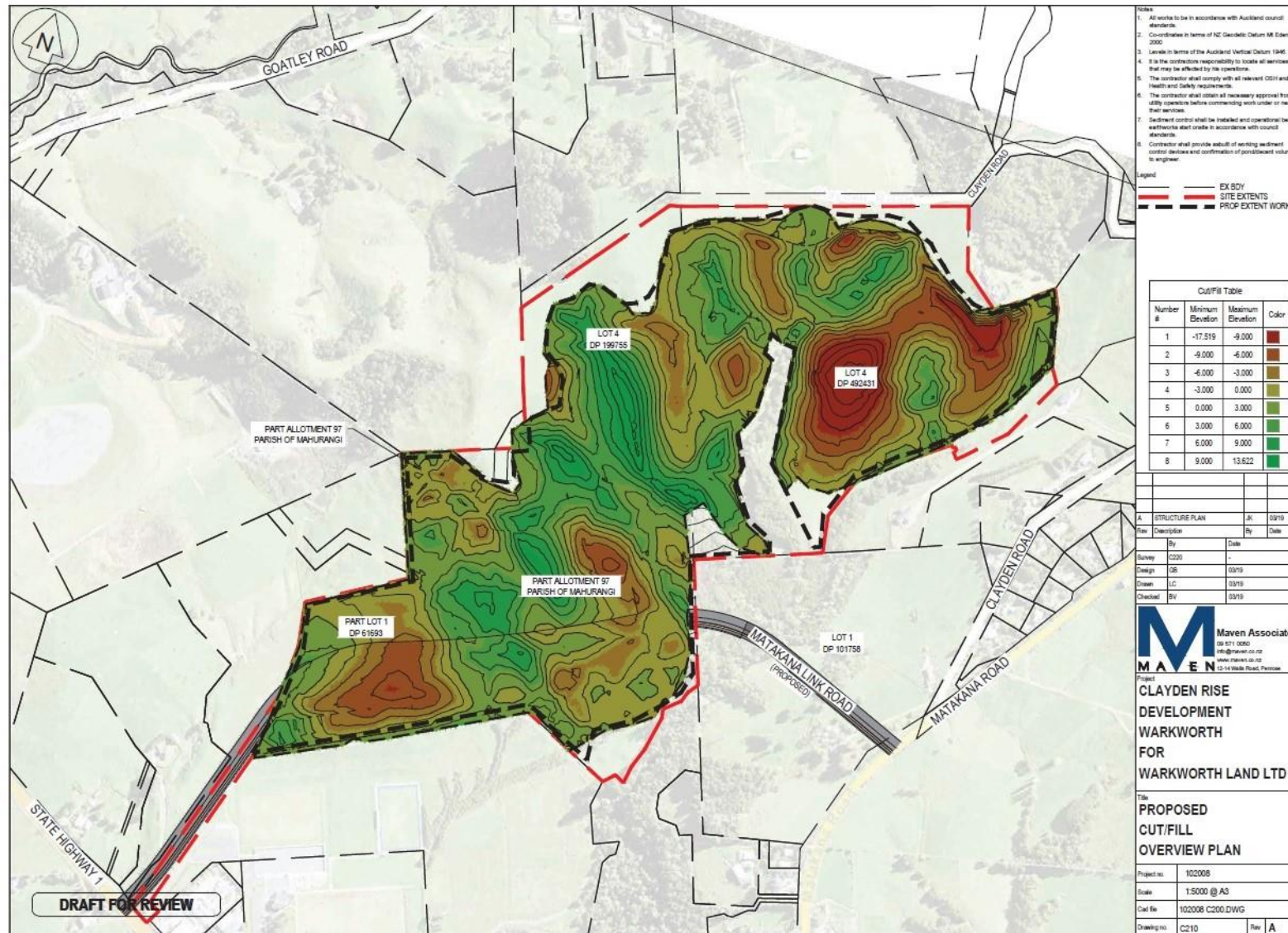


Figure 54. Cut/Fill plan showing proposed recontouring of the land within the assessed land block.

Resource Management Act 1991 Requirements

Section 6 of the RMA recognises as matters of national importance: ‘the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga’ (S6(e)); and ‘the protection of historic heritage from inappropriate subdivision, use, and development’ (S6(f)).

All persons exercising functions and powers under the RMA are required under Section 6 to recognise and provide for these matters of national importance when ‘*managing the use, development and protection of natural and physical resources*’. There is a duty to avoid, remedy, or mitigate any adverse effects on the environment arising from an activity (S17), including historic heritage.

Historic heritage is defined (S2) as ‘those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures, deriving from any of the following qualities: (i) archaeological; (ii) architectural; (iii) cultural; (iv) historic; (v) scientific; (vi) technological’. Historic heritage includes: ‘(i) historic sites, structures, places, and areas; (ii) archaeological sites; (iii) sites of significance to Māori, including wahi tapu; (iv) surroundings associated with the natural and physical resources’.

Regional, district and local plans contain sections that help to identify, protect and manage archaeological and other heritage sites. The plans are prepared under the rules of the RMA. The Auckland Unitary Plan (Operative in part) is relevant to the proposed activity.

There are no scheduled historic heritage sites located within the project area. This assessment has established that the proposed activity will have no effect on any known archaeological or historic heritage remains and it is unlikely that any sites are present.

If archaeological remains are exposed during earthworks, the Accidental Discovery Rule (E12.6.1) set out in the AUP OP must be complied with. Under the Accidental Discovery Rule works must cease within 20m of the discovery and the Council, Heritage NZ, Mana Whenua and (in the case of human remains) NZ Police must be informed.

Heritage New Zealand Pouhere Taonga Act 2014 Requirements

In addition to any requirements under the RMA, the HNZPTA protects all archaeological sites whether recorded or not, and they may not be damaged or destroyed unless an Authority to modify an archaeological site has been issued by Heritage NZ (Section 42).

An archaeological site is defined by the HNZPTA Section 6 as follows:

‘**archaeological site** means, subject to section 42(3), –

(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)’

Authorities to modify archaeological sites can be applied for either in respect to archaeological sites within a specified area of land (Section 44(a)), or to modify a specific archaeological site where the effects will be no more than minor (Section 44(b)), or for the purpose of conducting a scientific investigation (Section 44(c)). Applications that relate to sites of Māori interest require consultation with (and in the case of scientific investigations the consent of) the appropriate iwi or hapu and are subject to the recommendations of the Māori Heritage Council of Heritage NZ. In addition, an application may be made to carry out an exploratory investigation of any site or locality under Section 56, to confirm the presence, extent and nature of a site or suspected site.

An archaeological authority will not be required for the proposed development at Goatley and Clayden Roads as no known sites will be affected, and it is unlikely that any undetected sites are present. However, should any sites be exposed during any ground disturbance works throughout the development, the provisions of the HNZPTA must be complied with.

Conclusions

No archaeological or historic heritage sites have been previously recorded within the proposed residential development area at Goatley and Clayden Roads, Warkworth, and no sites were identified as a result of the field survey. During the 19th century the land was used for agricultural and likely orcharding in places, with a focus then on pasture. In addition, while there were WWII U.S. Army camps located nearby, they were not located within the proposed development area.

Based on the existing assessment, any effects of the proposed development on archaeological values are considered to be less than minor. Any sites exposed during subsequent development following granting of resource consent, either through vegetation removal or earthworks, can be appropriately mitigated under the provisions of the RMA (1991) and HNZPTA (2014).

RECOMMENDATIONS

- There should be no constraints on the proposed development of the Clayden Rise subdivision, Warkworth on archaeological grounds, since no archaeological sites are known to be present and it is considered unlikely that any will be exposed during development across the project area.
- If archaeological remains are exposed during vegetation clearance/removal and earthworks, the Accidental Discovery Rule (E12.6.1) set out in the AUP OP must be complied with. Under the Accidental Discovery Rule works must cease within 20m of the discovery and the Council, Heritage NZ, Mana Whenua and (in the case of human remains) NZ Police must be informed.
- 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. (Note that this is a legal requirement).
- In the event of koiwi tangata (human remains) being uncovered, work should cease immediately in the vicinity of the remains and the tangata whenua, Heritage NZ, NZ Police and Council should be contacted so that appropriate arrangements can be made.
- Since archaeological survey cannot always detect sites of traditional significance to Māori, such as wahi tapu, the tangata whenua should be consulted regarding the possible existence of such sites on the property.

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APPENDIX A: EARLY OWNERSHIP TABLES

Allotment 36, Parish of Mahurangi

Instrument	Parties	When Recorded	Where Recorded
Crown Grant	Henry William Tyler	19 April 1855	Deeds Index 4B/19, Archives New Zealand
Bought under the Land Transfer Act	Benjamin Starling (of London), solicitor	7 August 1879	NA17/159, LINZ
Transfer	Starling to James Clayden, farmer	21 April 1886	NA17/159, LINZ
Transfer	Clayden to Henry George Clayden, farmer	20 June 1910	NA17/159, LINZ
Transfer	Clayden to John Robert Clayden, farmer	17 September 1947	NA17/159, LINZ
Transfer	Clayden to Alan John Clayden (1/3 share) and Michael Ross Clayden (1/3 share), farmers	1 November 1971	NA2D/526, LINZ
Transfer	John R. Clayden to Alan J. Clayden (undivided 1/6 share)	7 November 1979	NA2D/526, LINZ
Transfer	John R. Clayden to Michael R. Clayden (undivided 1/6 share)	7 November 1979	NA2D/526, LINZ
Transfer	Share of Alan J. Clayden to Michael R. Clayden	7 December 1981	NA2D/526, LINZ
Transfer (Pt Allot 36, being Lot 2 DP 144258). New CT issued	Michael Ross Clayden	26 September 1994	NA85C/534, LINZ
Transfer (Pt Allot 36, being Lot 1 DP 64623). New CT issued	Michael Ross Clayden	6 September 1995	NA102A/461, LINZ
Transfer (Pt Allot 36, being Lot 3 DP 175763). New CT issued	Michael Ross Clayden	27 June 1997	NA108A/794, LINZ
Transfer (Pt Allot 36, being Lot 4 DP 492431). New CT issued	Michael Ross Clayden	18 January 2016	CT 715682, LINZ

Allotment 96(A), Parish of Mahurangi

Instrument	Parties	When Recorded	Where Recorded
Instrument	Parties	When Recorded	Where Recorded
Crown Grant	James Russell	4 April 1859	Deeds Index 1B/261, Archives New Zealand
Conveyance	Russell to Michael Wood	30 August 1859	Deeds Index 1B/261, Archives New Zealand
Conveyance	Wood to John George	9 July 1860	Deeds Index 1B/261, Archives New Zealand
Agreement	George & Bank of Australasia	20 April 1882	Deeds Index 1B/261, Archives New Zealand
Release	Bank of Australasia to George	2 September 1882	Deeds Index 1B/261, Archives New Zealand
Conveyance	Richard George to Amelia Charlotte George	5 September 1882	Deeds Index 1B/261, Archives New Zealand
Mortgage	George & ux to Coleman	14 September 1883	Deeds Index 1B/261, Archives New Zealand
Conveyance	Reg. Supreme Court to William Coleman	31 July 1889	Deeds Index 1B/261, Archives New Zealand
Conveyance	Coleman to George Snook	8-Sep-00	Deeds Index 1B/261, Archives New Zealand
Mortgage	Snook to National Bank	2-Nov-00	Deeds Index 1B/261, Archives New Zealand
Mortgage	Snook to Goodwin	12-May-03	Deeds Index 1B/261, Archives New Zealand
Conveyance	Snook to Auckland Farmers Union Ltd	22-Jun-04	Deeds Index 1B/261, Archives New Zealand
Conveyance (part of Allot 96A)	Auckland Farmers Union Ltd to Alice Carran	16-Mar-29	Deeds Index 1B/261 & 10B/134, Archives New Zealand
Pt Allotment 96A brought under the Land Transfer Act	Alice Carran	28-Nov-39	NA758/260, LINZ

Allotment 97, Parish of Mahurangi

Instrument	Parties	When Recorded	Where Recorded
Crown Grant	Edward Lonsdale	9 March 1855	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Lonsdale to James Henderson	31 May 1855	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Mortgage	Henderson to Charles William Thompson	30 December 1861	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Thompson to Walter Grahame	23 March 1870	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Grahame to C.W. Thompson	24 March 1870	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Letters of Administration	John H.R. Harrison	1 August 1882	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Order	Supreme Court	30 June 1891	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Harrison to George Young	30 December 1895	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Mortgage	Young to The Queen	26 March 1896	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Probate	George Young decd	12-Apr-18	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Young & anr to Gilbert Phillips	21-Jun-38	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand

Allotment 97 brought under the Land Transfer Act	Gilbert Phillips	24-Apr-45	NA768/143, LINZ.
Instrument	Parties	When Recorded	Where Recorded
Crown Grant	Edward Lonsdale	9 March 1855	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand
Conveyance	Lonsdale to James Henderson	31 May 1855	Deeds Index 1B/26 & Application File No. 34943C, Archives New Zealand

Allotment 113, Parish of Mahurangi

Instrument	Parties	When Recorded	Where Recorded
Crown Grant	Ring	25 February 1856	Deeds Index 1B/6, Archives New Zealand
Conveyance	Ring to Cooper	28 November 1857	Deeds Index 1B/6, Archives New Zealand
Conveyance	Cooper to Wickham	24 March 1864	Deeds Index 1B/6, Archives New Zealand
Mortgage	Wickham to Daldy	24 March 1864	Deeds Index 1B/6, Archives New Zealand
Conveyance (Pt Allotment 100, Parish of Mahurangi)	Wickham to Wickham	20 March 1876	Deeds Index 1B/6 & 1B/7, Archives New Zealand
Reconveyance	Daldy to Wickham	11 November 1867	Deeds Index 1B/6, Archives New Zealand
Conveyance	Wickham to Goatley	17 April 1883	Deeds Index 1B/6, Archives New Zealand
Conveyance	Goatley to Goatley	25 February 1916	Deeds Index 1B/6, Archives New Zealand
Conveyance	Goatley to Flay	12 October 1938	Deeds Index 1B/6, Archives New Zealand
Brought under the Land Transfer Act	Frederick Michael Flay, farmer	27 November 1939	NA758/250, LINZ
Transfer	Flay to Albert Edward Gibbs, farmer	14 September 1944	NA758/250, LINZ
Transfer	Gibbs to Brian Gibbs, farmer, and Raewyn Lawrie, spinster	18 May 1967	NA758/250, LINZ
Transfer	Gibbs to Michael and Victoria Emery	16 December 1988	NA758/250, LINZ
Transfer	Emery to Alan and Janet Stevenson	4 March 1998	NA758/250, LINZ
Transfer (Lots 3 & 4 DP 199755)	Stevenson to Bruce, Donald and Gregor Stevenson, Shona Tuke and Roly Linstrom Ltd	15 December 2014	NA128B/165, LINZ

APPENDIX B: CULTURAL HERITAGE INVENTORY RECORDS

Search results			
CHI Places Number	17001	NZAA Metric Site Number	
ACC Heritage Number		WCC Computer Number	
NZMS 260 map number	None	Date of Visit	
NZMS 260 map name	None	Type of site or area	U.S MILITARY CAMP
NZTM map sheet	None	Name of site or area	Rodney Camps J1:J2:J3
Nature of Information:		EIF application year:	
Date of construction:		Architect:	
Builder:		Engineer:	
Reported by:	Leah Stevens	Date reported:	18 Apr 2007
Local authority:	Rodney District Council	Date (NZAA SRF Entry Date)	
District plan name:		Listing status in district/ regional plan:	
NZAA record status:	Brief Aerial photograph Site location map	ArcView category:	Reported Historic Site
NZHPT Register number:		NZHPT Register name:	
NZHPT Act section:		NZHPT Registration type:	None

Search results			
CHI Places Number	16692	NZAA Metric Site Number	S07_23
ACC Heritage Number		WCC Computer Number	
NZMS 260 map number	S07	Date of Visit	1979
NZMS 260 map name	None	Type of site or area	TERRACES
NZTM map sheet	None	Name of site or area	
Nature of Information:		EIF application year:	
Date of construction:		Architect:	
Builder:		Engineer:	
Reported by:	Wynne Spring Rice	Date reported:	1979
Local authority:	Auckland City Council	Date (NZAA SRF Entry Date)	
District plan name:		Listing status in district/ regional plan:	
NZAA record status:	Brief	ArcView category:	Archaeological Site
NZHPT Register number:		NZHPT Register name:	
NZHPT Act section:		NZHPT Registration type:	None
<p>Click on this link to view this cultural heritage site in the Auckland Council GIS Viewer</p> <p>Hide record</p>			

Search results			
CHI Places Number	16993	NZAA Metric Site Number	
ACC Heritage Number		WCC Computer Number	
NZMS 260 map number	None	Date of Visit	Not visited
NZMS 260 map name	None	Type of site or area	US Military Camp
NZTM map sheet	None	Name of site or area	Dome Camp M3
Nature of Information:		EIF application year:	
Date of construction:		Architect:	
Builder:		Engineer:	
Reported by:	Leah Stevens Kim Tatton	Date reported:	18/04/2007 24/06/2010
Local authority:	Rodney District Council	Date (NZAA SRF Entry Date)	
District plan name:		Listing status in district/ regional plan:	
NZAA record status:	Brief Aerial photograph Site location map	ArcView category:	Reported Historic Site
NZHPT Register number:		NZHPT Register name:	
NZHPT Act section:		NZHPT Registration type:	None

Search results			
CHI Places Number	21953	NZAA Metric Site Number	
ACC Heritage Number		WCC Computer Number	
NZMS 260 map number	None	Date of Visit	Not visited
NZMS 260 map name	None	Type of site or area	House site (historic)
NZTM map sheet	None	Name of site or area	Claydon's house
Nature of Information:		EIF application year:	
Date of construction:		Architect:	
Builder:		Engineer:	
Reported by:	Robert Brassey	Date reported:	07 May 2018
Local authority:	Rodney District Council	Date (NZAA SRF Entry Date)	
District plan name:		Listing status in district/ regional plan:	
NZAA record status:		ArcView category:	Reported Historic Site
NZHPT Register number:		NZHPT Register name:	
NZHPT Act section:		NZHPT Registration type:	None

ATTACHMENT O
LAND CONTAMINATION REPORT BY FOCUS

***PRELIMINARY SITE INVESTIGATION
WARKWORTH PLAN CHANGE AREA
WARKWORTH
AUCKLAND***

For the Attention of:

Development Advisory Services Limited

Reference: FES 1258.001 R3 February 2020



1127





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Date February 2020

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Principal Environmental Consultant

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Appendices

Appendix A – Site Contour Plan

Appendix B – Environmental HAIL

Appendix C – Historical Aerial Photographs

Appendix D – Site Contamination Enquiry

Appendix E – Historical Certificate of Title

Appendix F - Site Inspection Photographs

Executive Summary

Focus Environmental Services Limited was contracted by Development Advisory Services Limited to carry out a preliminary site investigation for the Warkworth Plan Change Area.

This Preliminary Site Investigation has been prepared in general accordance with the requirements of the Contaminated Land Management Guidelines No. 1 (Ministry for the Environment, 2011).

The history of the site was researched by Focus Environmental Services personnel, which involved a review of the available historical aerial photographs of the site, a review of the Auckland Council property file, a contaminated sites enquiry to Auckland Council and a review of the historical certificates of title. During the review of the available information any potentially contaminating activities or land uses were identified.

In summary, during the review of the available information it was noted that a portion of the site at 245 Matakana Road has been utilised for horticultural activities. It was noted that a number of existing and historic site buildings were present across the proposed plan change area pre-1996. Therefore, the potential for ground contamination associated with the use of lead-based paints and potential asbestos ground contamination associated with former demolition activities at the site was noted.

In addition, the potential for uncertified fill materials within the building footprint of the dwelling located at 43 Clayden Road and in the areas of the historical races identified at 157, 171, 185 and Lot 8 DP135480 Matakana Road, Warkworth were noted.

Finally, three potential spray races were identified at 185 Matakana Road, and piles of potentially burnt refuse were identified at 171, 185 and 207 Matakana Road, Warkworth.

Following the desk top assessment, the sites within the Plan Change Area were visited and a site inspection and walk over was carried out. The sites were inspected by Focus Environmental Services Limited personnel on 11th of July 2019 & 10th of September 2019. During the site inspection any potentially contaminating activities or land uses were identified. It should be noted that no site walkover and inspection was completed for the properties at 157, 165, 171, 185, 207, 211, 233 & Lot 8 DP 135480 Matakana Road. The investigation for these properties were limited to a desktop assessment only.

It should be noted that a preliminary site investigation had been undertaken on the northern portion of the subject site and a report prepared.

The report titled '*Preliminary Site Investigation Due Diligence Warkworth North*' Dated 30th May 2018 and prepared by Riley Consultants Ltd outlines the site history for the sites Pt Lot 1 DP 61693 State Highway 1, Warkworth 0981, Pt Allot 97 So 27C State Highway 1 Warkworth 0985, Lot 3 DP 199755 Goatley Valley Road, Dome Valley 0981 & Lot 4 DP 492431 Clayden Road, Dome Valley 0985.

In brief the report details that the site has been historically and currently used as pasture for livestock farming.

However, the report identifies that HAIL Activity G5 has occurred onsite in the form of a dumped car and truck and therefore the report recommends a detailed site investigation to determine potential effect on the site soils.

Furthermore, a site walkover and inspection were undertaken on the above addresses by Focus Environmental Services Personal on the 10th of September 2019. Focus Environmental Services did not identify any further potentially contaminating activities onsite.

In summary, during the site walkover and inspection, potential spray race operation and evidence of burning were noted at 245 Matakana Road and 35 Clayden Road. Furthermore, potentially uncertified fill materials were identified at 21 Clayden Road and no potentially contaminating land uses and/or activities identified at 43 Clayden Road, Warkworth.

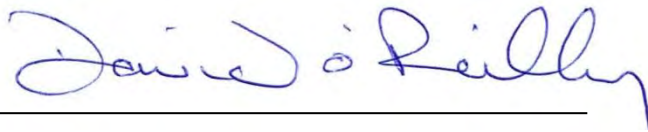
The information obtained of the sites history and from the site inspection and walk over was assessed to determine if any potentially hazardous activities listed on the Hazardous Activities and Industries List (HAIL) had occurred on site as a result of past or current land use.

Due to the potential sources of additional contamination identified it is considered that there is evidence to suggest that an activity outlined in the Hazardous Activities Industries List (HAIL) has been, or is or is currently being, carried out at the properties within the Warkworth Plan Change Area.

Prior to the development of the sites where potentially contaminating land uses and/or activities have taken place, a detailed site investigation is recommended.

The detailed site investigation would confirm if the identified land uses and/or activities have affected the site soils and will confirm the consenting requirements for the site.

Submitted By,



David O'Reilly
Principal Environmental Consultant
Focus Environmental Services Limited

1.0 Scope

- 1.1 This report has been prepared at the request of Development Advisory Services Limited (“the Client”) in terms of the Focus Environmental Services Limited Agreement (“Agreement”).
- 1.2 The following report is based on:
 - *Information provided by the client;*
 - *A review of historical aerial photographs available for the site;*
 - *A search of the Auckland Council Property File;*
 - *A search of the Auckland Council Contaminated Sites Database;*
 - *A review of the Historical Certificate of Title;*
 - *The report titled ‘ Preliminary Site Investigation Due Diligence Warkworth North’ Dated 30th May 2018 and prepared by Riley Consultants Ltd; and*
 - *A site walkover and inspection.*
- 1.3 We have not independently verified the information provided to us by the Client or its completeness. We do not express an opinion on the accuracy or the reliability of such information.
- 1.4 No warranties are given, intended or implied.
- 1.5 Opinion, inferences, assumptions and interpretations made in this report should not be construed as legal opinion.
- 1.6 Where an assessment is given in this report, the Client must also rely upon their own judgement, knowledge and assessment of the subject of this report before undertaking any action.
- 1.7 This report must not be used in any other context or for any other purpose other than that for which it has been prepared without the prior written consent of Focus Environmental Services Limited.
- 1.8 This report is strictly confidential and intended for the sole use of the Client and shall not be disclosed without the prior written consent of Focus Environmental Services Limited.

2.0 Site Identification

The Warkworth Plan Change site consists of fifteen separate properties located at Matakana Road, Clayden Road, Goatley Road and State Highway 1, Warkworth, Auckland as shown in Figure 1 attached. The sites are irregular in shape and are zoned a mix of 'Future Urban Zone', 'Business - Light Industry Zone' and 'Rural - Country Side Living Zone' under the Auckland Unitary Plan: Operative in Part.

The site identification details are provided in Table 1 below.

Table 1: Site Identification Details: Warkworth Plan Change Area

Physical Address	Legal Description	Area (ha)	Grid Reference
245 Matakana Road, Warkworth	Lot 1 DP 101758	14.7499	1748739mE 5972161mN
35 Clayden Road, Warkworth	Lot 1 DP 492431	3.1513	1748833mE 5972507mN
21 Clayden Road, Warkworth	Lot 2 DP 175763	2.3880	1748956mE 5972550mN
43 Clayden Road, Warkworth	Lot 2 DP492431	2.1289	1749057.85mE 5972730.33mN
Lot 4 DP 492431, Clayden Road	Lot 4 DP 492431	22.7678	1748642.98mE 5972609.68mN
Goatley Road Dome Valley 0981	Lot 4 DP 199755	7.3350	1748255.63mE 5972518.67mN
State Highway 1 Warkworth 0981	Pt Allot 97 Psh of Mahurangi SO 27C, Pt Lot 1 DP 61693	24.5805	1748278.92mE 5972080.52mN
157 Matakana Road, Warkworth	Lot 2 DP 135480, ¼ SH Lot 8 DP 135480	2.6660 (ha)	1748649mE 5971518mN
165 Matakana Road, Warkworth	Lot 6 DP 135480	4511 (m ²)	1748868mE 5971601mN
171 Matakana Road, Warkworth	Lot 3 DP 135480	1.44 (ha)	1748790mE 5971647mN
185 Matakana Road, Warkworth	Lot 4 DP 13540, ¼ SH Lot 8 DP 135480	1.001 (ha)	1748779mE 5971735mN
207 Matakana Road, Warkworth	Lot 5 DP 135480, ¼ SH Lot 8 DP 135480	1.6205 (ha)	1748698mE 5971813mN
211 Matakana Road, Warkworth	Pt Allot 101 Psh Of Mahurangi	3035 (m ²)	1748787mE 5971830mN
223 Matakana Road, Warkworth	Pt Allot 101 Psh Of Mahurangi	2023 (m ²)	1748780mE 5971862mN
Lot 8 DP135480, Matakana Road, Warkworth	¼ SH Lot 8 DP 135480	-	1748603mE 5971725mN

3.0 Site Topography

The properties within the Warkworth Plan Change Area contain undulating landscapes with a number of gullies and surface water bodies. Descriptions of the topographies of the individual sites are provided below.

The site contour plan is presented in Appendix A.

3.1 245 Matakana Road, Warkworth

The property at 245 Matakana Road is undulating with a steep gully in the north-western portion of the site. An Unnamed tributary of the Mahurangi River is located in the western portion of the site.

3.2 35 Clayden Road, Warkworth

The property at 35 Clayden Road slopes downwards towards the western side of the site. An unnamed tributary of the Mahurangi River runs along the western boundary of the site.

3.3 21 Clayden Road, Warkworth

The property at 21 Clayden Road has a gentle sloping topography downwards from the east to the west of the site. An unnamed tributary of the Mahurangi River is located approximately 35m west of the site.

3.4 43 Clayden Road, Warkworth

The property at 43 Clayden Road slopes downwards towards the western side of the site. An unnamed tributary of the Mahurangi River runs along the western boundary of the site.

3.5 Lot 4 DP 492431, Clayden Road

The topography of the property located at Lot 4 DP 492431 slopes inwards towards the centre of the site. In the northern portion of the site a pond is present which feeds an unnamed tributary of the Mahurangi River.

3.6 Goatley Road, Dome Valley 0981

The topography of the property located at Goatley Road, Dome Valley 0981 slopes inwards towards the centre of the site. The headwaters of an unnamed tributary of the Mahurangi River are located in the centre of the site.

3.7 State Highway 1 Warkworth 0981

The property at State Highway 1, Warkworth 0981 generally slopes from the west to east with an unnamed tributary of the Mahurangi River runs along a portion of the eastern boundary of the site.

3.8 157 Matakana Road, Warkworth

The property at 157 Matakana Road is undulating, with a steep downwards slope toward the western portion of the site.

3.9 165 Matakana Road, Warkworth

The property at 165 Matakana Road slopes gently downwards towards the western side of the site with a steep slope in the south-western corner of the site.

3.10 171 Matakana Road, Warkworth

The property at 171 Matakana Road has a steeply sloping topography downwards from the east to the west of the site.

3.11 185 Matakana Road, Warkworth

The property at 185 Matakana Road slopes steeply downwards from the east towards a gully located to the west of the site.

3.12 207 Matakana Road, Warkworth

The property at Lot 207 Matakana Road slopes steeply downwards from the east towards a gully located to the west of the site.

3.13 211 Matakana Road, Warkworth

The property at 211 Matakana Road has a gently sloping landscape, sloping from the north-east down to the south-western portion of the site.

3.14 223 Matakana Road, Warkworth

The property at 223 Matakana Road has a relatively flat landscape with a gentle slope from the north to the southern portion of the site.

3.15 Lot 8 DP135480 Matakana Road, Warkworth

The property at Lot 8 DP 135480, Matakana Road has an undulating landscape with a steep downwards slope towards a gully in the centre of the site. An unnamed tributary of the Mahurangi River runs through the gully in the centre of the site.

4.0 Geology and Hydrology

Published geological maps¹ indicate the subject sites are typically underlain by sedimentary deposits of the Pakiri Formation and limestone deposits of the Mahurangi Limestone Motatau Complex. A description of the underlying geologies are presented in Tables 2 and 3 below.

Table 2: Geology: Warkworth Plan Change Area

Key name	Pakiri Formation of Warkworth Subgroup (Waitemata Group)
Simple name	Neogene sedimentary rocks
Main rock name	sandstone
Description	Alternating thick-bedded, volcanic-rich, graded sandstone and siltstone.
Subsidiary rocks	siltstone
Key group	Waitemata Group
Stratigraphic lexicon name	Pakiri Formation
Absolute age (min)	21.7 million years
Absolute age (max)	24.0 million years
Rock group	sandstone
Rock class	Clastic sediment

¹ Geology of the Auckland Area (Institute of Geological & Nuclear Sciences 1:25,000 geological map 3, 2011)

Table 3: Geology: Warkworth Plan Change Area

Key name	Pakiri Formation of Warkworth Subgroup (Waitemata Group)
Simple name	Neogene sedimentary rocks
Main rock name	sandstone
Description	Alternating thick-bedded, volcanic-rich, graded sandstone and siltstone.
Subsidiary rocks	siltstone
Key group	Waitemata Group
Stratigraphic lexicon name	Pakiri Formation
Absolute age (min)	21.7 million years
Absolute age (max)	24.0 million years
Rock group	sandstone
Rock class	Clastic sediment

No groundwater investigation was carried out as part of this investigation.

The nearest surface water body is an unnamed tributary of the Mahurangi River which runs through the centre of the subject site.

5.0 Regulatory Framework

5.1 The National Environmental Standard

The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES) came into effect on the 1st of January 2012 and supersedes any District Plan rules that related to contaminated land. Any Regional Plan rules relating to contaminated land are still applicable.

In brief, the objective of the NES is to ensure that land affected by contaminants is identified and assessed and, if necessary, remediated or managed to protect human health. The NES only applies to the activities: removing or replacing all, or part of, a fuel storage system; sampling the soil; disturbing the soil; subdividing the land; and changing the land use, and where an activity or industry described in the Hazardous Activities and Industries List (HAIL) is being, has been, or is more likely than not to have been undertaken on the piece of land.

The NES also contains reference to the soil contaminant standards for human health (SCS_(health)), for a variety of land use scenarios along with reference to best practice reporting documents.

The Ministry for the Environment HAIL is presented as Appendix B.

5.2 Auckland Unitary Plan: Operative in Part

The contaminated land rules of the Auckland Unitary Plan: Operative in Part (AUP: OP) have immediate legal effect following its notification. As the AUP: OP was notified on the 15th of November 2016 the contaminated land rules of the AUP: OP must be considered.

In brief, the objective of the AUP: OP is to manage land containing elevated levels of contaminants to protect human health and the environment and to enable the effective use of the land.

The contaminated land rules of the AUP: OP apply when the land contains contaminants above those levels specified in Table E30.6.1.4.1 of Chapter E30 of the AUP: OP.

6.0 Site History

The history of the site was researched by Focus Environmental Services personnel, which involved a review of the available historical aerial photographs of the site, a search of the Auckland Council property file, an Auckland Council contaminated sites enquiry, a review of the historical certificate of titles and an onsite interview. Furthermore, the northern section of the subject site has been investigated, the results are summarised below.

6.1 Historical Aerial Photographs

Descriptions of the historical aerial photographs for the subject sites are presented in Table 4 - 13 below. The historical aerial photographs for the sites are presented in Appendix C.

Table 4: Historical Photographs: 245 Matakana Road, Warkworth

Date	Description
1966 - 1973	The 1966 - 1973 historical photographs show the subject site located to the west of the junction between Matakana Road and Clayden Road. The site is in use for rural residential purposes with the residential dwelling located in the south-central portion of the site. Horticultural activities can be seen to the south-west of the dwelling. A second site access point can be seen in the north-eastern corner of the site. This provides access to the shearer's barn and a structure (HB01) which is located in the central northern area of the site. The western portion of the site is overgrown with native bush while the eastern portion is in use a grassed paddock. The surrounding properties are predominantly rural in use.
1982 - 1992, 1999	The 1982 - 1999 historical photographs are of poor resolution, however they appear to show the removal of one of the structures (HB01) located in the central northern portion of the site. A laneway can be seen joining the residential dwelling to the shearer's sheds in the northern portion of the site. An elongated structure (HB02) can be seen adjacent to the area of horticulture in the 1999 historical photograph. The surrounding properties in use for rural and rural residential purposes.
2006	The 2006 - 2010 historical photographs show the subject site relatively unchanged from the 1999 historical photograph with the site still in use for rural residential purposes. A structure, most likely the livestock holding pen can be seen in the generally location of the former building (HB01) in the central northern portion of the site. The horticultural activities including the elongated structure (HB02) have been removed from site. The surrounding properties in use for rural and rural residential purposes.
2015 - 2017	The 2017 historical photographs show the subject site generally as it appeared during the site walkover and inspection. The residential area of the site can be seen in the south eastern portion of the site while the shearer's sheds can be seen in the north eastern portion of the site. The livestock holding pen can also be seen to the north of the shearer's sheds in the central northern portion of the site. The surrounding properties in use for rural and rural residential purposes.

Due to the age of the existing dwelling, garage, minor dwelling, shed and shearer's sheds identified (pre-1996), it is considered there is the potential for lead based paint to have been used on the external building materials and therefore, there is the potential for lead contamination to be present in the soils surrounding these site buildings.

In addition, due to the age of the historic site buildings (HB01 & HB02) identified (pre-1996) there is the potential for lead based paint to have been used on the external building materials and therefore there is the potential for lead to be present in the soils surrounding the site buildings. Furthermore, there is also potential for asbestos fibres to be present in the soils as a result of demolition/removal works.

It should be noted that no areas of potential filling were identified during the review of the available historical photographs.

Table 5: 35, 21 & 43 Clayden Road, Warkworth

Date	Description
1966 - 1999	The 1966 - 1999 historical photographs show the subject site forming part of a larger plot of land with no structures or buildings present and in use as pastoral land. A stream can be seen along the northern boundary of 35 Clayden Road. Clayden Road can be seen to the east of the subject site. With the exception of the residential properties to the south of the site, the surrounding properties appear to be predominantly rural in use.
2006, 2011	The 2006 & 2011 historical photographs show the subject site relatively unchanged from the 1999 historical photograph and still in use for rural purposes. The 2006 historical photograph aerial image is truncated and does not show the northern section of 43 Clayden Road, however, the remaining image shows the subject site divided and now forming 35 & 21 Clayden Road. The existing dwelling at 21 Clayden Road can be seen in the north-eastern corner of the site. A laneway cuts through the central portion of the site which lead to what appears to be storage containers. The surrounding environment is unchanged from the 1999 historical photographs.
2017	The 2017 historical photograph shows the subject site generally as it appeared during the site walkover and inspection with 21, 35 & 43 Clayden Road each occupied by residential dwelling. Sheds can also be observed on 35 & 43 Clayden Road. The surrounding properties are a mix of rural and residential land use.

It should be noted that no historical buildings or areas of potential filling were identified during the review of the available historical photographs.

Table 6: Historical Photographs: 157 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the subject site forming part of a larger parcel of land and in use for rural purposes. The site is vacant with no buildings observed. The site consists of grassland with no trees or shrubbery. The surrounding properties are predominantly rural in use. Matakana Road can be observed to the east of the site.
1973 & 1982	The 1973 and 1982 historical photographs show the subject site relatively unchanged from 1966. The exception is a race has been constructed along the northern boundary of the site. The site remains in use for rural purposes and as part of a larger parcel of land. The surrounding properties are predominantly rural in land use.
1992 - 2017	The 1992 through to 2017 historical photographs show the subject site remaining in use for rural purposes and as part of a larger parcel of land. Shelter belts can be observed on the western and central portions of the site. The race along the northern boundary appears to have become overgrown by the 1996 photograph. The surrounding properties remain in use for rural purposes.

Potentially uncertified fill material may have been used in the construction of the race identified onsite.

Table 7: Historical Photographs: 165 Matakana Road, Warkworth

Date	Description
1966 & 1973	The 1966 & 1973 historical photographs show the subject site forming part of a larger plot of land in use for rural residential purposes. A dwelling, two additional buildings, a shed (1) and a driveway can be observed in the northern portion of the site. Trees dominate the southern portion of the site. The surrounding properties are predominantly in use for rural purposes. Matakana Road can be observed to the east of the site.
1982	The 1982 historical photograph shows that a loop track has been constructed in the centre of the site and the trees on the southern portion of the site has been converted to grassland. Additional building (1) has been extended eastwards. The site remains in use for rural residential purposes and the surrounding sites remain predominantly rural in land use.
1992 & 1996	The 1992 historical photograph shows a small building has been erected along the western boundary of the site, south of the existing building (HB01). The 1996 photograph shows that another building has been erected in the southern portion of the site (HB02). The remainder of the site appears unchanged from the 1982 photograph.
2001 & 2011	The 2001 and 2011 historical photographs show the site relatively unchanged from the 1996 photograph. Shed (2) appears to have been erected among the trees in the south-western portion of the site. The site remains in use for residential purposes. The shed from the 1992 photograph has been removed in the 2011 photograph (HB01).
2017	The 2017 historical photograph shows that the building erected in 1996 has been removed (HB02). The remainder of the site remains relatively unchanged. The site remains in use for residential purposes, with surrounding sites in use for a combination of residential and rural purposes. Matakana Road can be seen to the east of the site.

It should be noted that no areas of potential filling were identified during the review of the available historical photographs.

Due to the age of the existing dwelling, two additional buildings and two sheds identified (pre -1992), it is considered there is the potential for lead based paint to have been used on the external building materials and therefore, there is the potential for lead contamination to be present in the soils surrounding these site buildings.

In addition, due to the age of the historic site buildings identified (pre -1992) there is the potential for lead based paint to have been used on the external building materials and therefore there is the potential for lead to be present in the soils surrounding the site buildings. Furthermore, there is also potential for asbestos fibres to be present in the soils as a result of demolition/removal works.

Table 8: 171 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the subject site forming a larger piece of land and in use for rural purposes with no buildings or structures observed. The site is predominantly grassland with some trees present in the western portion of the site. The surrounding properties are predominantly in use for rural purposes. Matakana Road can be observed to the east of the site.
1973-1992	The 1973 - 1992 historical photographs show the subject site relatively unchanged from the 1966 photograph. A race has been constructed through the centre of the site. The site remains in use for rural purposes and as part of a larger parcel of land. The surrounding properties continue to appear in use for rural purposes.
1996 & 2001	The 1996 and 2001 historical photographs show the site remaining in use for rural purposes and the race has been removed. A small structure or vehicle can be observed in the north-eastern portion of the site in the 1996 photograph but has been removed in the 2001 photograph. The surrounding properties are still predominantly in use for rural purposes.
2011 & 2017	The 2011 and 2017 historical photographs show the site has been separated from the larger parcel of land and in use for residential land use. A dwelling, garage and surrounding concreted parking area can be observed in the centre of the site. Two water tanks and a shed can be observed to the south of the garage. A domestic garden can be seen to the north-west of the dwelling. An area of potential fill can be observed in the north-eastern corner and appears to be sourced from the cut required to develop the buildings on the site. The 2017 photograph shows a potential pile of burnt refuse along the eastern boundary. The surrounding sites are predominantly residential in land use. Matakana Road can be observed to the east of the site.

It should be noted that no historical buildings were identified during the review of the available historical photographs. Potential filling may have occurred during the construction of the race in 1973.

Table 9: 185 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the subject site as part of a larger parcel of land and in use for rural purposes. The site is undeveloped with the exception of a shed (1), stock loading ramp and potential spray race (1) observed in the north-western corner of the site. The remainder of the site is dominated by pasture. The surrounding properties are predominantly rural in use. Mahurangi River can be seen to the west of the site and Matakana Road can be observed to the east of the site.
1973-1992	The historical photographs from 1973 to 1992 show the site remaining in use for rural purposes. A race has been constructed leading to the shed. A stock holding pen, loading ramp and potential spray race (2) appear to have been erected along the western boundary of the site. The surrounding properties remain in use for rural purposes.
1996	The 1996 historical photograph shows the site in use for rural purposes and remaining as part of a larger piece of land. A loop track has been constructed leading from Matakana Road to the centre of the site. A dwelling (1) and water tank are observed in the centre of the site.
2001	The 2001 historical photograph shows that an additional dwelling (2), garage (1) and shed (2) with adjoining structure have been erected to the south of the original dwelling. No changes appear to have been made to the existing site buildings. The surrounding properties are in use for a combination of rural and residential land use.
2011	The 2011 historical photograph shows that a large garage (2) has been erected in the south-eastern corner of the site, adjacent to the second dwelling. An additional stock loading ramp and potential spray race (3) can be observed in the north-eastern portion of the site. The original shed from 1966 (1) appears to have been re-roofed. The adjoining structure to the shed from 2001 (2) appears to have been removed and the shed has been reroofed. A pile of potentially burnt refuse can also be observed in the northern portion of the site.
2017	The 2017 historical photograph shows the subject site relatively unchanged from the 2011 photograph. An extension has been added to the rear of the original dwelling. The site is in use for rural and residential purposes. The surrounding properties are predominantly residential in land use. Matakana Road can be seen to the east of the site.

It should be noted that potential filling may have occurred for the construction of the race in 1973.

Table 10: 207 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the subject site as forming part of a larger parcel of land and in use for rural purposes. The site is undeveloped with no buildings or structures observed. The site is covered in pasture with bushland on the northern corner of the site. The surrounding properties are predominantly rural in land use. The Mahurangi River can be seen to the west of the site and Matakana Road to the east.
1973-1996	The 1973 through to 1996 historical photographs show the site unchanged except for a portion in the north-western corner has been converted from bush land to pasture.
2001	The 2001 historical photograph shows that the site has changed to residential land use and a dwelling (1) and driveway have been erected in the eastern portion of the site. A water tank can also be observed along the eastern boundary. A potential pile of burnt refuse (1) can also be observed in the north-western portion of the site. The surrounding properties are in use for a combination of residential and rural purposes.
2011	The 2011 historical photograph shows that three joined sheds have been erected along the northern boundary of the site. A stockpile of building materials can also be observed adjacent to the sheds. A second burn pile (2) can be observed in the south-eastern portion of the site.
2017	The 2017 historical photograph shows that an additional dwelling has been erected in the centre of the site. A shed along the eastern border (4), a shipping container to the east of the original dwelling and a shed (5) adjacent to the new dwelling are also observed. The surrounding properties appear in use for a combination of residential and rural purposes.

It should be noted that no historical buildings or areas of potential filling were identified during the review of the available historical photographs.

Table 11: 211 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the site in use for residential purposes. The image is of poor resolution; however, it appears that a dwelling is situated in the centre (HB01) of the site and possibly other structures in the western portion of the site. The surrounding properties are predominantly rural in use. Matakana Road can be seen to the east of the site.
1973 - 1996	The 1973 through to 1996 historical photographs are of clearer resolution and shows that a dwelling is present in the centre of the site, a garage (HB02) along the southern boundary of the site and two sheds in the north-western corner of the site. The site remains in use for residential purposes. The surrounding properties remain predominantly rural in land use.
2001	The 2001 historical photograph shows that the garage along the southern boundary has been extended / added to. A domestic garden can also be observed in the western portion of the site. The site remains in use for residential purposes with surrounding properties in use for a combination of rural and residential land use.
2011	The 2011 historical photograph shows that the site has been redeveloped. The original dwelling has been removed and a new dwelling and concrete area erected. The extension to the garage appears to remain on site however the original garage has been removed (HB02). The two sheds in the north-western corner of the site remain.
2017	The 2017 historical photograph shows the site in a similar state to the 2011 photograph. One of the sheds in the north-western corner of the site has been removed (HB03) and replaced with a domestic garden. The site remains in use for residential purposes, with surrounding properties in use for residential purposes. Matakana Road can be seen to the east of the site.

It should be noted that no areas of potential filling were identified during the review of the available historical photographs.

Due to the age of the existing shed and garage identified (pre -1992), it is considered there is the potential for lead based paint to have been used on the external building materials and therefore, there is the potential for lead contamination to be present in the soils surrounding these site buildings.

In addition, due to the age of the historic site buildings identified (pre -1992) there is the potential for lead based paint to have been used on the external building materials and therefore there is the potential for lead to be present in the soils surrounding the site buildings. Furthermore, there is also potential for asbestos fibres to be present in the soils as a result of demolition/removal works.

Table 12: 223 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the subject site in use for residential purposes. The image is of poor resolution; however, a dwelling (1) appears to be situated in the northern portion of the site. The surrounding properties are predominantly rural in land use. Matakana Road can be seen to the east of the site.
1973 & 1982	The 1973 and 1983 historical photographs are of clearer resolution and shows that there are two large dwellings on the site. The site is in use for residential purposes. The surrounding properties are predominantly in use for rural purposes.
1992 & 1996	The 1992 historical photograph shows the subject site relatively unchanged from the 1982 photograph except a small structure appears to have been erected in the south-western portion of the site. The 1996 photograph is of poor resolution but it appears that the small structure has been removed.
2001, 2011 & 2017	The 2001 historical photograph shows that a garage has been erected in the north-eastern corner of the site. The site remains in use for residential purposes with surrounding properties in use for a combination of rural and residential purposes. The site appears unchanged between 2001 and 2017.

It should be noted that no historical buildings or areas of potential filling were identified during the review of the available historical photographs.

Table 13: Lot 8 DP135480 Matakana Road, Warkworth

Date	Description
1966	The 1966 historical photograph shows the site as dominated by bushland and unused. Mahurangi River can be seen running through the centre of the site. The surrounding properties are predominantly rural in use.
1973-2017	The 1973 through to 2017 historical photographs show the subject site relatively unchanged from the 1996 photograph, with the exception that a race has been constructed through the southern portion of the site. Through the 1973 to 2017 photographs, this track appears more overgrown with trees. The site remains covered in bushland throughout this forty-three-year period. The surrounding properties change in land use from predominantly rural purposes to predominantly rural-residential land use. Mahurangi River can be seen running through the centre of the site.

It should be noted that no historical buildings were identified during the review of the available historical photographs for this site. Potential filling may have occurred to construct the race through the site in 1973.

6.2 Background

The report titled '*Preliminary Site Investigation Due Diligence Warkworth North*' Dated 30th May 2018 and prepared by Riley Consultants Ltd outlines the site history for the sites Pt Lot 1 DP 61693 State Highway 1, Warkworth 0981, Pt Allot 97 So 27C State Highway 1 Warkworth 0985, Lot 3 DP 199755 Goatley Valley Road, Dome Valley 0981 & Lot 4 DP 492431 Clayden Road, Dome Valley 0985.

In brief the report details that the site has been historically and currently used as pasture for livestock farming.

However, the report identifies that HAIL Activity G5 has occurred onsite in the form of a dumped car and truck and therefore the report recommends a detailed site investigation.

Furthermore, a site walkover and inspection were undertaken on the above addresses by Focus Environmental Services Personal on the 10th of September 2019. Focus Environmental Services did not identify any further potentially contaminating activities onsite.

6.3 Previous Investigation

There were a number of environmental investigations relating to soil or groundwater contamination associated with the proposed Matakana Link Road.

A number of environmental investigations were completed across the subject sites and the wider area as part of the proposed Matakana Link Road. In brief, with the exception to the storage and handling of hazardous materials associated with the Skywork Helicopters facility at 38 Goatley Road, no potentially contaminating activities or lands uses were identified within the subject sites. Due to the relatively large distance between the HAIL activity and the subject sites, it was concluded that the risk is low.

In addition, a number of geotechnical investigations were also completed across the subject site and the wide area as part of the proposed Matakana Link Road and subdivision. As part of the geotechnical investigations a number of hand augers were completed across proposed building platforms and in the area of the Matakana Link Road and subdivided areas. In brief, no fill materials were encountered in any of the hand augers completed in the area of the Warkworth Plan Change Area.

A detailed review of the remaining reports as part of the Assessment of Environmental Effects for the Matakana Link Road were not completed as these were considered to be outside of the scope of the contaminated land assessment.

6.4 Auckland Council Property File

The results of the council search showed a number of consents relating to the properties within the Warkworth Road Plan Change Area. There were no files on record with Council relating to the properties of Lot 8 DP 135480, 157 Matakana Road and 165 Matakana Road, Warkworth.

The relevant details of the Property File search are presented in Table 14 - 22 below:

Table 14: Relevant Property File Information: 245 Matakana Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Construct Implement Shed	P.J Membery	BPA 717651	06/05/1975
Construct Storage Shed	P.J Membery	BPA 114650	25/06/1976
Extension to Implement Shed	P.J Membery	BPA 37912	26/06/1979
Livestock Wintering Barn (Cattle)	P.J Membery	J026037	14/11/1980
Alteration to Existing Kitchen	P.J Membery	F052284	05/05/1989
Additions to Dwelling (Garage)	P.J Membery	90/1156	18/07/1990
Proposed Subdivision	The White Light Family Trust	R60577	23/09/2013
Additions to dwelling (1930)	A Membery & Mrs D Steel	ABA 1020240	29/06/2015

Table 15: Relevant Property File Information: 35 Clayden Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Subdivision	Michael Ross Clayden	R59319	21/11/2012
Subdivision	Ross Clayden	R64115	24/04/2015
Construct New Shed	Rob Mills & Leanna Stenbeck	ABA-1021605	07/09/2015
Construct Dwelling	Rob Mills & Leanna Stenbeck	ABA-1022696	18/02/2016

Due to the age of the dwelling and shed it is considered unlikely that lead based paint would have been used on the external building products.

Table 16: Relevant Property File Information: 21 Clayden Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Construct Dwelling	Robert & Donna Shaw	ABA 23421	18/2/2003

Due to the age of the dwelling it is considered unlikely that lead based paint would have been used on the external building products.

Table 17: Relevant Property File Information: 43 Clayden Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Vehicle Crossing	Michael Freestone	LUC60011070 BCO10061241	2/11/2016
Single Storey 6 bed house	Michael Freestone	BA1023736	01/06/2016

A note in the property file dated 20 December 2016 details that the building footprint and a 1.0m buffer around the perimeter had the topsoil stripped and then fill material was compacted to a maximum depth of 1.0m below the building platform.

Due to the age of the dwelling it is considered unlikely that lead based paint would have been used on the external building products.

Table 18: Relevant Property File Information: 171 Matakana Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Land Use Consent for Earthworks	I. P Steven Family Trust	L34694	28/05/2003
Building Consent for Implement Shed	I. P Steven Family Trust	ABA31194	10/06/2003
Building Consent for Dwelling	M Steven	ABA33525	19/12/2003

Due to the age of the dwelling and shed it is considered unlikely that lead based paint would have been used on the external building products.

Table 19: Relevant Property File Information: 185 Matakana Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Building Permit to Extend Dwelling	W R Tomlinson	BPA22578	23/01/1969
Building Permit for Garage	W R Tomlinson	BPA70110	28/01/1972
Building Permit to Extend Shed	W R Tomlinson	BPA13981	13/06/1974
Building Consent for Rental Dwelling	W R Tomlinson	ABA951543	11/07/1995
Building Consent for Minor Dwelling/Carport	W R Tomlinson	ABA981930	18/09/1998
Building Consent for Alterations to Minor Dwelling	B Tomlinson	ABA982708	10/12/1998
Building Consent for Shed	W R Tomlinson	ABA1008232	9/07/2010

Due to the age of the site buildings it is considered likely that potentially lead-based paint would have been used and maintained on the external building products.

Table 20: Relevant Property File Information: 207 Matakana Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Building Consent for Minor Dwelling	D R Tomlinson	ABA980071	19/01/1998
Land Use Consent for Shed	D R Tomlinson	LAN-64092	17/02/2015
Building Consent for Shed	D R Tomlinson	ABA1019305	19/03/2015

Due to the age of the dwelling and shed, it is considered unlikely that lead-based paint would have been used on the external building products.

Table 21: Relevant Property File Information: 221 Matakana Road

Proposed Activity	Applicant	Reference	Date
Building Permit for Extension to Dwelling	R S Chessum	BPA41676	27/01/1961
Building Permit for Garage	R S Chessum	BPA145927	26/07/1963
Building Permit for Addition to garage	P & A Ilsley	BPA90036	11/05/1981
Building Permit for freezer room extension	P & A Ilsley	BPA719851	25/03/1983
Building Permit to add garage to dwelling	D & G Dent	92/1749	26/11/1992
Building Consent for Garage	M Smith	ABA2216	27/10/2000
Land Use consent to remove existing dwelling and construct new dwelling	T & C Bayer	LAN52669	6/08/2007
Building Consent for Dwelling	T & C Bayer	ABA1001104	9/11/2007

Due to the age of the site buildings it is considered likely that potential lead-based paint would have been used and maintained on the external building products.

Table 22: Relevant Property File Information: 223 Matakana Road, Warkworth

Proposed Activity	Applicant	Reference	Date
Building Permit for additions to dwelling	R V Moore	BPA225481	30/12/1968
Planning Dispensation for Shed	R G & V L Rimmer	TP/332B/75	5/06/1985
Building Permit for shed	R G & V L Rimmer	B124137	11/06/1985
Building Consent for additions to dwelling	JJBA Limited	ABA1002483	18/02/2008

Due to the age of the dwelling and shed it is considered likely that potentially lead based paint would have been used and maintained on the external building products.

6.5 Auckland Council Site Contamination Enquiry

The Auckland Council site contamination enquiry did not contain any records for the properties relating to the Warkworth Road Plan Change Area.

The Auckland Council Site Contamination Enquiry is presented in Appendix D.

6.6 Historical Certificate of Title Review

The historical certificate of title review was completed for the properties relating to the Warkworth Plan Change Area.

Following the review of the historical certificate of title no companies/entities were listed that would suggest that the subject sites have been utilised for an activity described in the HAIL.

The historical certificate of title is presented in full as Appendix E.

6.7 Onsite Interview

An interview with the current occupiers of the sites with the Warkworth Plan Change Area could not be conducted by Focus Environmental Services personnel, as they were not available during the site walk over and inspection.

7.0 Site Walkover and Inspection

The site inspection and walk over was carried out by Focus Environmental Services Limited personnel on the 11th of July 2019 and the 10th of September 2019.

7.1 245 Matakana Road, Warkworth

The site was accessed from Matakana Road, Warkworth via a gravel drive way which lead to the residential area of the site.

The residential dwelling, garage and minor dwelling were constructed of painted wooden weather board and soffits that where constructed of potential asbestos containing materials (PACM).

To the southern side of the residential dwelling was a small vegetable garden and dog kennels. To the northern side of the residential dwelling were the shipping containers and to the western side of the residential dwelling a burn pile with refuse present was observed.

The southern and eastern areas of the site were grassed paddocks in use for grazing livestock. A septic tank was observed in the eastern area.

The northern area of the site was, for the majority, in use for grazing livestock. Site structures in the northern area consisted of a shearer's barn, two stockholding areas (potential spray race operations) and drainage contractor's yard with gravel stockpiles and a temporary shelter.

The shearing barn was concrete lined and constructed of painted corrugated iron. On the eastern side of the shearers shed was a stock holding area (potential spray race operation) and a number of PACM cement sheeting panels.

To the western side of the shearer's barn was a small drainage contractor's yard which consisted of an area of gravel stockpiled and a temporary shelter in use for storage of equipment (trailers and a mower). Also, in this area of the site was a burn barrel with refuse burning present.

Further to the east in the northern area of the site was another stock holding area (potential spray race operation) that was constructed primarily of concrete.

A site feature plan is presented as Figure 2-1 and the site inspection photographs are presented in Appendix F.

7.2 35 Clayden Road, Warkworth

The site was accessed from Clayden Road, Warkworth via a long gravel driveway. The site consisted of a residential dwelling, a large garage, a shed, a burn barrel and grassed curtilage area.

The large garage was locked at the time of the site walkover and inspection and was constructed of painted metal and was concrete lined. A burn barrel was observed to the northern side of the shed, however, all burning appeared to be contained to the inside of the barrel.

The dwelling was constructed of painted wooden weather board and soffits that were constructed of PACM. All materials observed were painted and in a good condition.

To the east of the dwelling was a small shed that was constructed of a wooden board and was locked at the time of the site walkover and inspection.

A site feature plan is presented as Figure 2-2 and the site inspection photographs are presented in Appendix F.

7.3 21 Clayden Road, Warkworth

The site was accessed from Clayden Road Warkworth via a gravel driveway which lead into the residential area of the site.

The partially raised residential dwelling was painted and was constructed of potentially asbestos containing soffits and weatherboard cladding. Adjacent to the eastern boundary of the dwelling a plastic water tank was observed. On the northern side of the dwelling a paddock was observed. To the east of this paddock two in-situ water tanks were observed. To the west of the dwelling an area of general storage was observed. No potentially contaminating activities were identified within this area of the site.

To the south of the residential dwelling a gravel track extends into the western portion of the site. On the southern side of the gravel track a small raised treated timber stockpile was observed. The gravel track continues into the southern and western areas of the site which are in use for grazing purposes.

To the south of the gravel entranceway from Clayden Road a small stock holding pen was observed. Continuing south from this an area of gravel hardstand was observed. In the eastern area of this, two raised shipping containers were observed. The interior of the containers was unable to be assessed. Furthermore, in the space between the containers a small area of chemical storage was identified, however this was raised off the ground surface and a majority of the chemicals were stored within metal lockers. The remainder of this area was in use as truck and trailer storage, it should be noted that no evidence of staining was observed. The western section of this area had recently been extended and the potential use of uncertified fill was noted.

A site feature plan is presented as Figure 2-3 and the site inspection photographs are presented in Appendix F.

7.4 43 Clayden Road, Warkworth

The site was accessed from Clayden Road, Warkworth via concreted driveway which led to the residential dwelling.

The dwelling was constructed predominantly of stone and the soffits were noted to be potentially asbestos containing. To the north of the dwelling a large curtilage area was identified

To the north and west of the dwelling, two paddocks were observed, the paddocks were in use as grazing for horses.

To the south west of the residential dwelling a small chicken coup as observed. Further south from this, two water tanks were observed.

To the south of the dwelling a small unpainted tin shed was observed, the shed was unable to be accessed but it was observed to have a concrete base.

No potentially contaminating land uses or activities were identified during the site walkover at 43 Clayden Road, Warkworth.

A site feature plan is presented as Figure 2-5 and the site inspection photographs are presented in Appendix F.

7.5 Additional Site Walkover

An additional site walkover and inspection was completed for the properties at State Highway 1, Warkworth 0981, Goatley Road, Dome Valley 0981 and Lot 4 DP 492431 Clayden Road, Dome Valley 0985.

It should be noted that a detailed account of the site features for these sites is provided in the report titled *Preliminary Site Investigation Due Diligence Warkworth North'* Dated 30th May 2018 and prepared by Riley Consultants Ltd.

No additional site features or further evidence of ground contamination was identified at these sites during the site walkover and inspection.

It should be noted that no site walkover and inspection was completed for the properties at 157, 165, 171, 185, 207, 211, 233 & Lot 8 DP 135480 Matakana Road. The investigation for these properties were limited to a desktop assessment only.

8.0 Asbestos Management

Due to the age of some of the site buildings (pre-2000) and the visual inspection undertaken during the site walkover and inspection, external ACM soffits products observed on residential dwelling, minor dwelling and garage at 245 Matakana Road and the soffits of the residential dwelling at 35 Clayden Road are considered unlikely to present ground contamination in their current state as these materials appeared painted and in relatively good condition.

Due to the age of the residential dwellings located at 21 and 43 Clayden Road (post-2000), it is considered unlikely that asbestos contaminating materials would have been utilised in the construction of this building.

Furthermore, PACM cement sheeting was observed in the area of the shearer's shed and it is recommended that further investigation in the area of the site is carried out during the intrusive site investigation.

Following a search of the underground services database on Auckland Councils GeoMaps, no asbestos cement pipes were identified across the sites within the Warkworth Plan Change Area.

Any removal of asbestos materials from the site will need to be conducted in accordance with the Health and Safety at Work (Asbestos) Regulations (MBIE, 2016) and the Approved Code of Practice for the Management and Removal of Asbestos (WorkSafe New Zealand, 2016) by a licensed asbestos removals specialist under an approved asbestos removal control plan.

It should be noted that ACM, other than that described, may also be present at the site and a thorough inspection should be carried out by a suitably qualified and competent asbestos surveyor prior to any demolition activities at the site.

9.0 Potentially Contaminating Activities or Land Uses

9.1 245 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Historical horticultural activities;
- Potential spray race operations;
- Potential ground contamination associated with burning of refuse;
- Potential ground contamination associated with the use of lead-based paint; and
- Potential ground contamination associated with asbestos fibres from former demolition activities;

9.2 35 Clayden Road, Warkworth

Following the review of the history and the available information relating to the subject site, no potentially contaminating land uses and/or activities were identified at the site at 35 Clayden Road, Warkworth.

9.3 21 Clayden Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential Uncertified Fill Material.

9.4 43 Clayden Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential Uncertified Fill Material.

9.5 157 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential filling for the construction of the race.

9.6 165 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential ground contamination associated with the use of lead-based paint; and
- Potential ground contamination associated with asbestos fibres from former demolition activities;

9.7 171 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential filling for the construction of the race; and
- Potential ground contamination associated with burning of refuse.

9.8 185 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential ground contamination associated with the use of lead-based paint;
- Potential ground contamination associated with asbestos fibres from former demolition activities;
- Potential fill for the construction of the race;
- Potential ground contamination associated with burning of refuse; and
- Potential spray races.

9.9 207 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential ground contamination associated with burning of refuse.

9.10 211 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential ground contamination associated with the use of lead-based paint; and
- Potential ground contamination associated with asbestos fibres from former demolition activities.

9.11 223 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential ground contamination associated with the use of lead-based paint.

9.12 Lot 8 DP135480 Matakana Road, Warkworth

Following a review of the history and the available information relating to the subject site the following potential contaminating land uses and/or activities have been identified:

- Potential filling for the construction of the race.

Prior to the commencement of any development across the site, it is recommended that a thorough site walkover and inspection be completed for each property in order to confirm if any potentially contaminating land uses and/or activities have been carried out at the site which have not been identified during the historical photograph review.

10.0 Conceptual Model of Exposure Pathways

The preliminary conceptual site model provided in Table 23 below expands on the potential sources of contamination (as identified above) and exposure pathways and was based on the potential effects of the proposed change of land use on human health and the environment.

Table 23: Preliminary Conceptual Site Model: Warkworth Plan Change Area.

Potential Source	Potential Pathways	Potential Receptors	Assessment
Contaminated Soil	Dermal Contact with Contaminated Soils	Human Health - Residential Land Use.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
		Human Health - Commercial/Industrial Outdoor Worker.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
	Ingestion of Contaminated Soils	Human Health - Residential Land Use.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
		Human Health - Commercial/Industrial Outdoor Worker.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
	Inhalation of Vapours/Fibres	Human Health - Residential Land Use.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
		Human Health - Commercial/Industrial Outdoor Worker.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
	Surface Water Run-off	Ecological Receptors - Unnamed Tributary of the Mahurangi River.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.
	Migration of Groundwater	Ecological Receptors - Unnamed Tributary of the Mahurangi River.	Potentially Complete: Sampling and analysis is recommended to confirm the concentrations of contaminants in soil.

11.0 Conclusions and Recommendations

The history of the site was researched by Focus Environmental Services personnel, which involved a review of the available historical aerial photographs of the site, a review of the Auckland Council property file, a contaminated sites enquiry to Auckland Council and a review of the historical certificates of title. During the review of the available information any potentially contaminating activities or land uses were identified.

In summary, during the review of the available information it was noted that a portion of the site at 245 Matakana Road has been utilised for horticultural activities. It was noted that a number of existing and historic site buildings were present across the proposed plan change area pre-1996. Therefore, the potential for ground contamination associated with the use of lead-based paints and potential asbestos ground contamination associated with former demolition activities at the site was noted.

In addition, the potential for uncertified fill materials within the building footprint of the dwelling located at 43 Clayden Road and in the areas of the historical races identified at 157, 171, 185 and Lot 8 DP135480 Matakana Road, Warkworth were noted.

Finally, three potential spray races were identified at 185 Matakana Road, and piles of potentially burnt refuse were identified at 171, 185 and 207 Matakana Road, Warkworth.

Following the desk top assessment, the sites within the Plan Change Area were visited and a site inspection and walk over was carried out. The sites were inspected by Focus Environmental Services Limited personnel on 11th of July 2019 & 10th of September 2019. During the site inspection any potentially contaminating activities or land uses were identified. It should be noted that no site walkover and inspection was completed for the properties at 157, 165, 171, 185, 207, 211, 233 & Lot 8 DP 135480 Matakana Road. The investigation for these properties were limited to a desktop assessment only.

It should be noted that a preliminary site investigation had been undertaken on the northern portion of the subject site and a report prepared.

The report titled '*Preliminary Site Investigation Due Diligence Warkworth North*' Dated 30th May 2018 and prepared by Riley Consultants Ltd outlines the site history for the sites Pt Lot 1 DP 61693 State Highway 1, Warkworth 0981, Pt Allot 97 So 27C State Highway 1 Warkworth 0985, Lot 3 DP 199755 Goatley Valley Road, Dome Valley 0981 & Lot 4 DP 492431 Clayden Road, Dome Valley 0985.

In brief the report details that the site has been historically and currently used as pasture for livestock farming.

However, the report identifies that HAIL Activity G5 has occurred onsite in the form of a dumped car and truck and therefore the report recommends a detailed site investigation to determine potential effect on the site soils.

Furthermore, a site walkover and inspection were undertaken on the above addresses by Focus Environmental Services Personal on the 10th of September 2019. Focus Environmental Services did not identify any further potentially contaminating activities onsite.

In summary, during the site walkover and inspection, potential spray race operation and evidence of burning were noted at 245 Matakana Road and 35 Clayden Road. Furthermore, potentially uncertified fill materials were identified at 21 Clayden Road and no potentially contaminating land uses and/or activities identified at 43 Clayden Road, Warkworth.

The information obtained of the sites history and from the site inspection and walk over was assessed to determine if any potentially hazardous activities listed on the Hazardous Activities and Industries List (HAIL) had occurred on site as a result of past or current land use.

Due to the potential sources of additional contamination identified it is considered that there is evidence to suggest that an activity outlined in the Hazardous Activities Industries List (HAIL) has been, or is or is currently being, carried out at the properties within the Warkworth Plan Change Area.

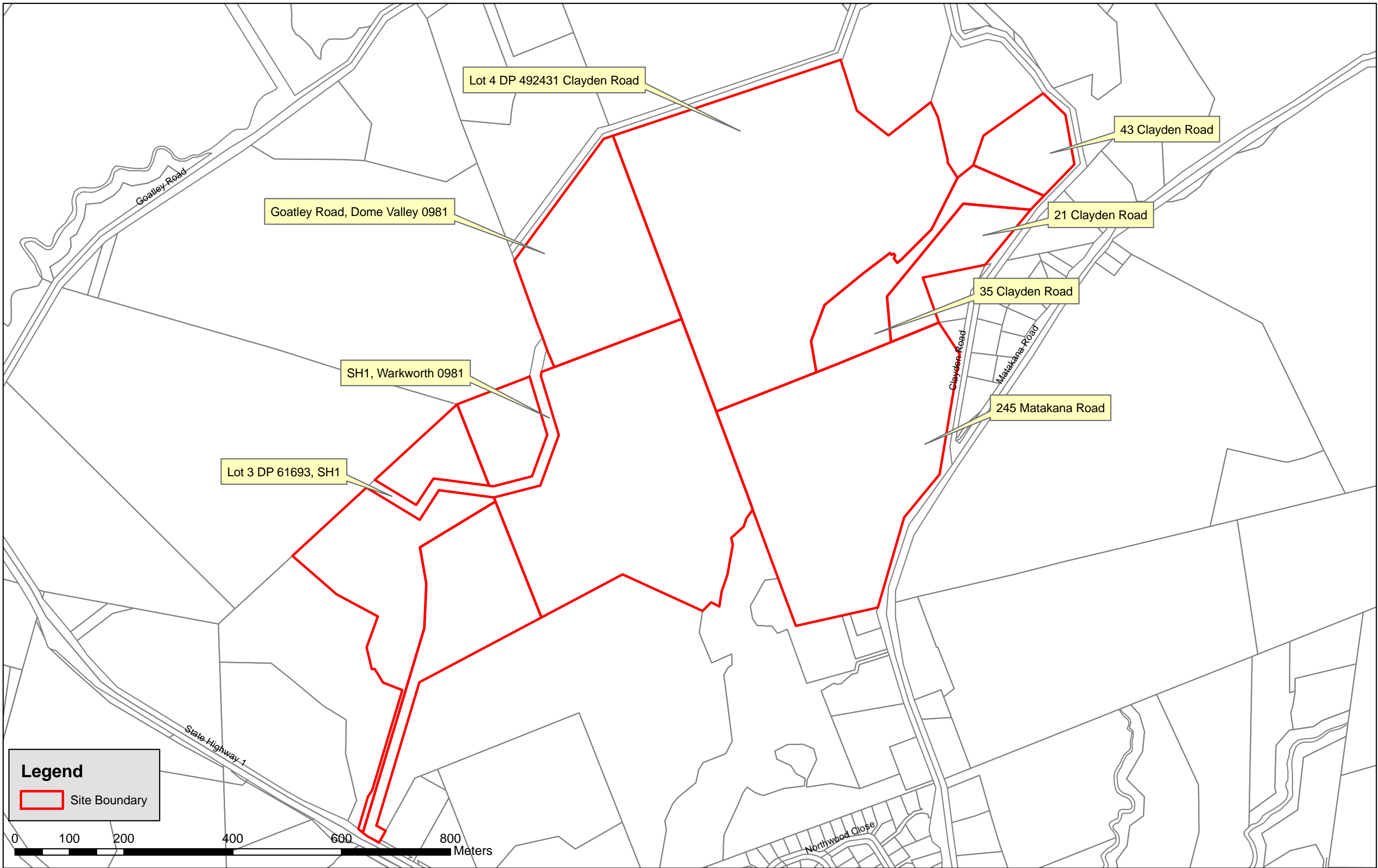
Prior to the development of the sites where potentially contaminating land uses and/or activities have taken place, a detailed site investigation is recommended.


The detailed site investigation would confirm if the identified land uses and/or activities have affected the site soils and will confirm the consenting requirements for the site.

Figures

Figure 1 - Site Location Plan

Figure 2-1 - 2-13 - Site Features Plan



Legend
 Site Boundary

0 100 200 400 600 800 Meters




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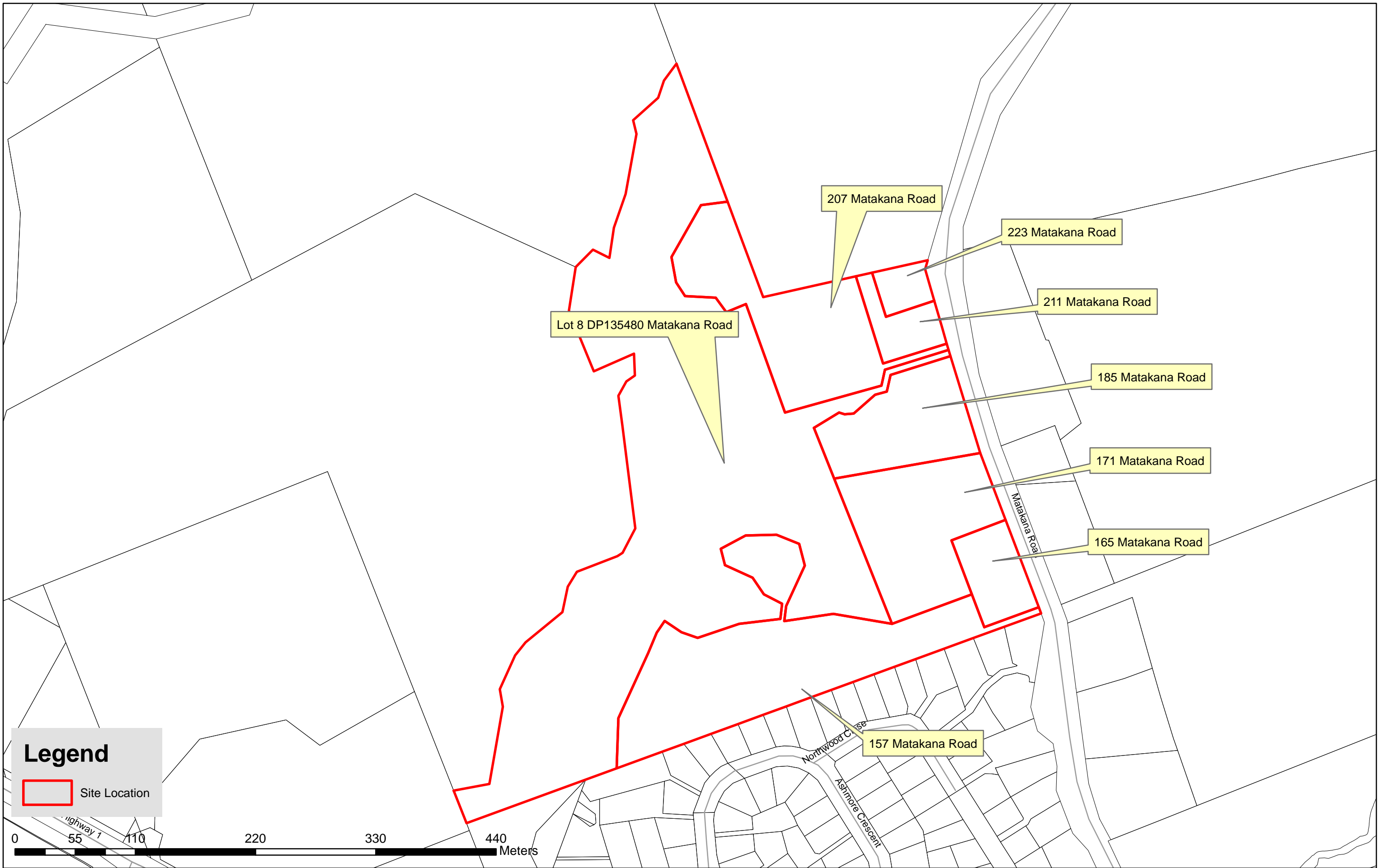
Figure 1-1: Site Location Plan
 Preliminary Site Investigation


1163

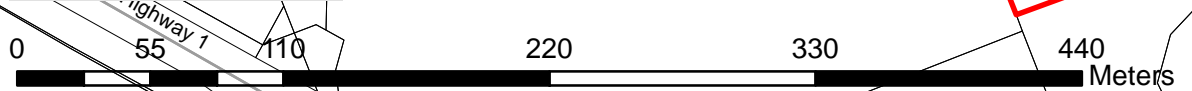


1258.001 R3

Drawing Number: 1258.001.01
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Legend
 Site Location





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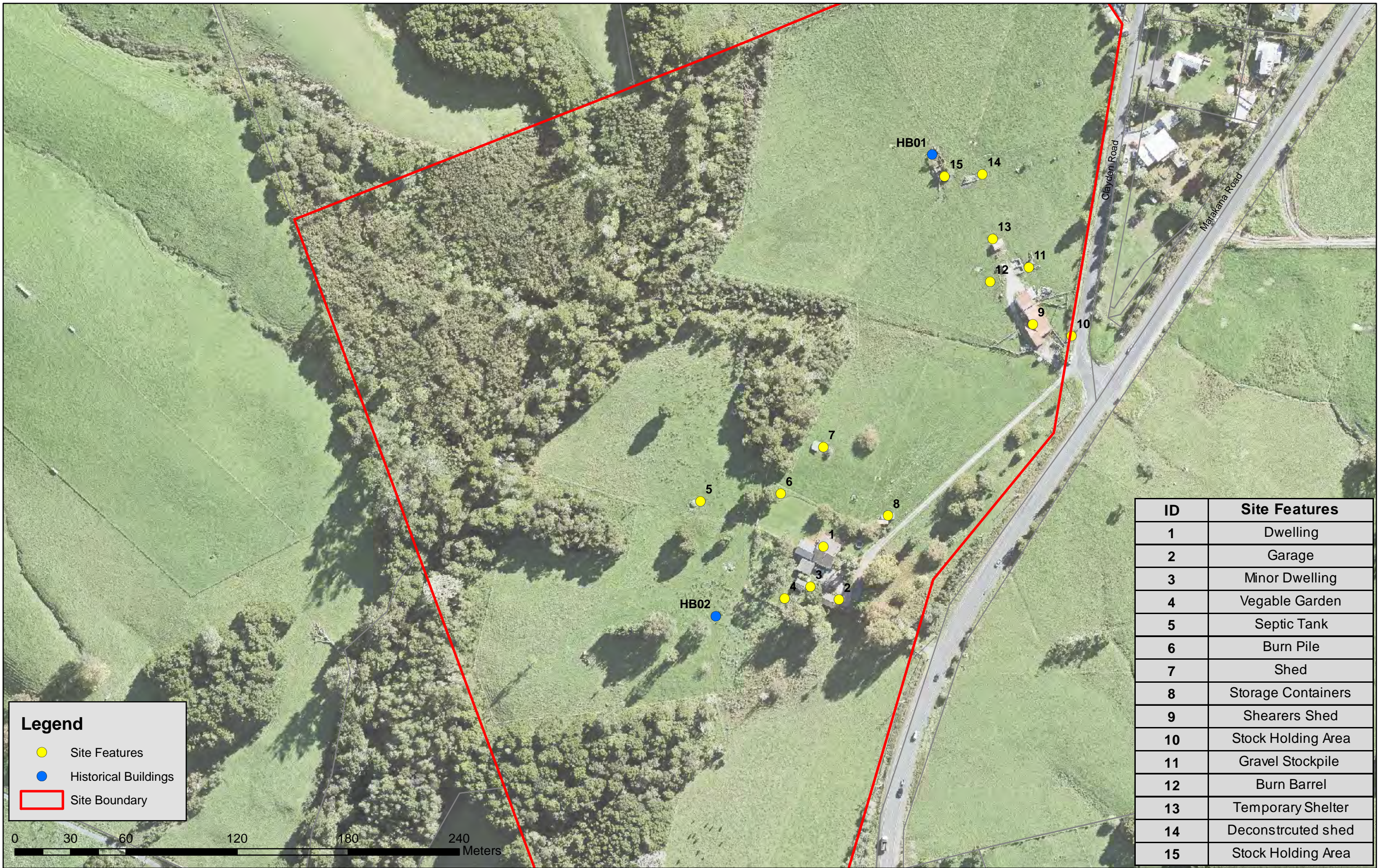
Figure 1-2: Site Location Plan
 Preliminary Site Investigation

1164



1258.001 R3

Drawing Number: 1258.001.02
Drawn By: PS
Checked By: DO'R
Date: 07/02/2020



Legend

- Site Features
- Historical Buildings
- Site Boundary



ID	Site Features
1	Dwelling
2	Garage
3	Minor Dwelling
4	Vegable Garden
5	Septic Tank
6	Burn Pile
7	Shed
8	Storage Containers
9	Shearers Shed
10	Stock Holding Area
11	Gravel Stockpile
12	Burn Barrel
13	Temporary Shelter
14	Deconstructed shed
15	Stock Holding Area




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Figure 2-1: Site Feature Plan
245 Matakana Road
 Preliminary Site Investigation

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1258.001 R3

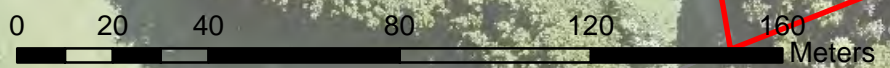
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 Drawn By: SD
 Checked By: DO'R
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Legend

- Site Features
- Site Boundary

ID	Site Features
1	Entrance
2	Shed
3	Burn Barrel
4	Dwelling
5	Shed





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Figure 2-2: Site Feature Plan
35 Clayden Road
 Preliminary Site Investigation

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1258.001 R3

Drawing Number: 1258.001.05
Drawn By: SD
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Date: 07/02/2020



Legend

- Site Features
- Site Boundary

ID	Site Feature
1	Gravel Driveway
2	Partially Raised Residential Dwelling
3	Platic Water Tank
4	Paddock
5	In-Situ Water Tanks
6	Area of General Storage
7	Raised Treated Timber Stockpile
8	Gravel Track
9	Paddocks
10	Stock Holding Pen
11	Two Rasied Shipping Containers
12	Chemical Storage
13	Truck and Trailer Storage
14	Potentially Uncertified Fill



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**Figure 2-3: Site Feature Plan
 21 Clayden Road**

Preliminary Site Investigation

1167



Drawing Number: 1258.001.06
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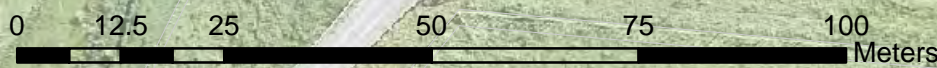
1258.001 R3



Legend

- Site Features
- Site Boundary

ID	Site Feature
1	Residential Dwelling
2	Curtilage Area
3	Grazing Paddocks
4	Water Tanks
5	Chicken Coup
6	Shed





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Figure 2-4: Site Feature Plan
43 Clayden Road
 Preliminary Site Investigation

1168



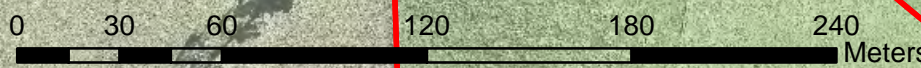
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Drawn By: SD
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Legend

- Site Features
- Site Boundary



ID	Site Features
1	Shed
2	Stream
3	Stream Crossing
4	Pond




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Figure 2-5: Site Feature Plan
Lot 3 DP 61693, SH1
 Preliminary Site Investigation

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1258.001 R3

Drawing Number: 1258.001.07
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Legend

- Site Features
- Site Location

Site Feature	Description
1	Former Race
2	Shelter Belts




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Figure 2-6: Site Features Plan
157 Matakana Road

Preliminary Site Investigation

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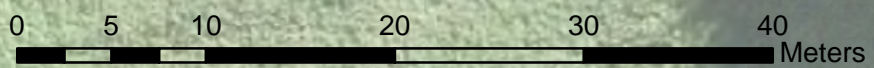
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Drawn By: PS
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Date: 07/02/2020



Legend

- Site Features
- Site Location

Site Feature	Description
1	Driveway
2	Dwelling
3	Additional Building (1)
4	Extension to Additional Building
5	Additional Building (2)
6	Historical Building (1)
7	Shed (1)
8	Shed (2)
9	Historical Building (2)





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Figure 2-7: Site Features Plan
165 Matakana Road
 Preliminary Site Investigation

1171



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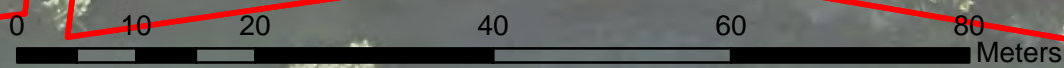
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Checked By: DO'R
Date: 07/02/2020



Legend

- Site Features
- Site Location

Site Features	Description
1	Driveway
2	Dwelling
3	Garage
4	Two Water Tanks
5	Domestic Garden
6	Former Race
7	On-site Sourced Fill
8	Potential Burn Pile




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Figure 2-8: Site Features Plan
171 Matakana Road
 Preliminary Site Investigation

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1258.001 R3

Drawing Number: 1258.001.010

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Date: 07/02/2020



Legend

- Site Features
- Site Location

Site Feature	Description
1	Driveway
2	Dwelling (1)
3	Dwelling extension
4	Former Race
5	Shed (1)
6	Potential Spray Race (1)
7	Potential Spray Race (2)
8	Shed (2)
9	Adjoining structure to shed
10	Garage (1)
11	Dwelling (2)
12	Garage (2)
13	Potential Burn Pile
14	Potential Spray Race (3)

0 5 10 20 30 40 Meters



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Figure 2-9: Site Features Plan 185 Matakana Road

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Date: 07/02/2020

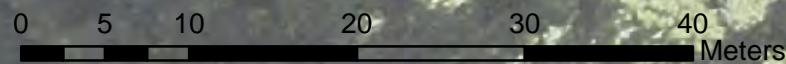
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Legend

- Site Features
- Site Location

Site Feature	Description
1	Driveway
2	Dwelling (1)
3	Shipping Container
4	Dwelling (2)
5	Potential Burn Pile (1)
6	Shed (1)
7	Shed (2)
8	Shed (3)
9	Shed (4)
10	Shed (5)
11	Potential Burn Pile (2)




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Figure 2.10: Site Features Plan
207 Matakana Road

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1174



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Drawing Number: 1258.001.012

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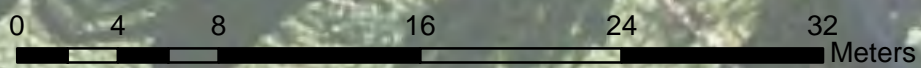
Date: 07/02/2020



Legend

- Site Features
- Site Location

Site Features	Description
1	Driveway
2	Historical Building (1)
3	Dwelling
4	Garage Extension
5	Historical Building (2)
6	Shed (1)
7	Historical Building (3)
8	Domestic Garden




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Figure 2-11: Site Features Plan
211 Matakana Road

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1175



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Drawing Number: 1258.001.013

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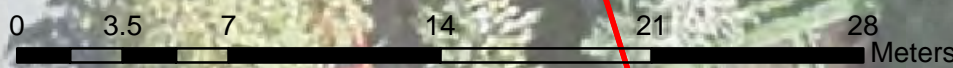
Date: 07/02/2020



Legend

- Site Features
- Site Location

Site Feature	Description
1	Driveway
2	Dwelling (1)
3	Garage
4	Dwelling (2)



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Figure 2-12: Site Features Plan
223 Matakana Road
 Preliminary Site Investigation



1258.002 R1

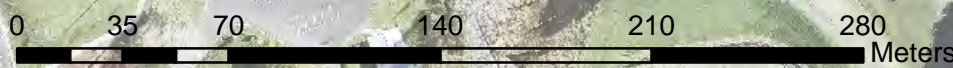
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Drawn By: PS
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Legend

- Site Features
- Site Boundary

Site Feature	Description
1	Mahurangi River
2	Former Race




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Figure 2-13: Site Features Plan
Lot 8 DP135480

Preliminary Site Investigation

1177



1258.001 R3

Drawing Number: 1258.001.015
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Appendices

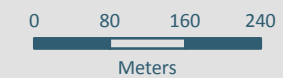
Appendix A - Site Contour Plan



DISCLAIMER:
This map/plan is illustrative only and all information should be independently verified on site before taking any action. Copyright Auckland Council. Land Parcel Boundary information from LINZ (Crown Copyright Reserved). Whilst due care has been taken, Auckland Council gives no warranty as to the accuracy and plan completeness of any information on this map/plan and accepts no liability for any error, omission or use of the information. Height datum: Auckland 1946.

Site Contour Plan

1181



Scale @ A3
= 1:8,000

Date Printed:
16/07/2019



Appendix B - Environmental HAIL

Appendix C: Hazardous Activities and Industries List (HAIL)

Current at date of publication of this Users' Guide. Please refer to the Ministry for the Environment website for a current version.

A Chemical manufacture, application and bulk storage

1. Agrichemicals including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application
2. Chemical manufacture, formulation or bulk storage
3. Commercial analytical laboratory sites
4. Corrosives including formulation or bulk storage
5. Dry-cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents
6. Fertiliser manufacture or bulk storage
7. Gasworks including the manufacture of gas from coal or oil feedstocks
8. Livestock dip or spray race operations
9. Paint manufacture or formulation (excluding retail paint stores)
10. Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds
11. Pest control including the premises of commercial pest control operators or any authorities that carry out pest control where bulk storage or preparation of pesticide occurs, including preparation of poisoned baits or filling or washing of tanks for pesticide application
12. Pesticide manufacture (including animal poisons, insecticides, fungicides or herbicides) including the commercial manufacturing, blending, mixing or formulating of pesticides
13. Petroleum or petrochemical industries including a petroleum depot, terminal, blending plant or refinery, or facilities for recovery, reprocessing or recycling petroleum-based materials, or bulk storage of petroleum or petrochemicals above or below ground
14. Pharmaceutical manufacture including the commercial manufacture, blending, mixing or formulation of pharmaceuticals, including animal remedies or the manufacturing of illicit drugs with the potential for environmental discharges
15. Printing including commercial printing using metal type, inks, dyes, or solvents (excluding photocopy shops)
16. Skin or wool processing including a tannery or fellmongery, or any other commercial facility for hide curing, drying, scouring or finishing or storing wool or leather products
17. Storage tanks or drums for fuel, chemicals or liquid waste
18. Wood treatment or preservation including the commercial use of antisapstain chemicals during milling, or bulk storage of treated timber outside

B Electrical and electronic works, power generation and transmission

1. Batteries including the commercial assembling, disassembling, manufacturing or recycling of batteries (but excluding retail battery stores)
2. Electrical transformers including the manufacturing, repairing or disposing of electrical transformers or other heavy electrical equipment
3. Electronics including the commercial manufacturing, reconditioning or recycling of computers, televisions and other electronic devices
4. Power stations, substations or switchyards

C Explosives and ordinances production, storage and use

1. Explosive or ordinance production, maintenance, dismantling, disposal, bulk storage or repackaging
2. Gun clubs or rifle ranges, including clay targets clubs that use lead munitions outdoors
3. Training areas set aside exclusively or primarily for the detonation of explosive ammunition

D Metal extraction, refining and reprocessing, storage and use

1. Abrasive blasting including abrasive blast cleaning (excluding cleaning carried out in fully enclosed booths) or the disposal of abrasive blasting material
2. Foundry operations including the commercial production of metal products by injecting or pouring molten metal into moulds
3. Metal treatment or coating including polishing, anodising, galvanising, pickling, electroplating, or heat treatment or finishing using cyanide compounds,
4. Metalliferous ore processing including the chemical or physical extraction of metals, including smelting, refining, fusing or refining metals
5. Engineering workshops with metal fabrication

E Mineral extraction, refining and reprocessing, storage and use

1. Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition
2. Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)
3. Cement or lime manufacture using a kiln including the storage of wastes from the manufacturing process
4. Commercial concrete manufacture or commercial cement storage
5. Coal or coke yards
6. Hydrocarbon exploration or production including well sites or flare pits
7. Mining industries (excluding gravel extraction) including exposure of faces or release of groundwater containing hazardous contaminants, or the storage of hazardous wastes including waste dumps or dam tailings

F Vehicle refuelling, service and repair

1. Airports including fuel storage, workshops, washdown areas, or fire practice areas
2. Brake lining manufacturers, repairers or recyclers
3. Engine reconditioning workshops
4. Motor vehicle workshops
5. Port activities including dry docks or marine vessel maintenance facilities
6. Railway yards including goods-handling yards, workshops, refuelling facilities or maintenance areas
7. Service stations including retail or commercial refuelling facilities
8. Transport depots or yards including areas used for refuelling or the bulk storage of hazardous substances

G Cemeteries and waste recycling, treatment and disposal

1. Cemeteries
2. Drum or tank reconditioning or recycling
3. Landfill sites
4. Scrap yards including automotive dismantling, wrecking or scrap metal yards
5. Waste disposal to land (excluding where biosolids have been used as soil conditioners)
6. Waste recycling or waste or wastewater treatment

H Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment

I Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment

Hazardous Activities and Industries List (HAIL) with hazardous substances

The table below lists hazardous substances that are typically associated with a specific activity or industry. A suitably qualified and experienced practitioner should be consulted when determining the suite of chemicals to be analysed for a detailed site investigation.

Activity or industry	Hazardous substances
Agrichemicals including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application	Arsenic, lead, copper; wide range of organic agrichemicals including organochlorine pesticides, organophosphate pesticides, herbicides, fungicides, carbamates, and synthetic pyrethroids; compounds may be mixed with diesel before spraying
Chemical manufacture, formulation or bulk storage	Wide range of organic and inorganic compounds
Commercial analytical laboratory sites	Wide range of organic and inorganic compounds including solvents, acids, metals, and mercury
Corrosives including formulation or bulk storage	Mercury, sulphuric, phosphoric, hydrochloric and nitric acids, sodium and calcium hydroxide, ammonia and ammonium hydroxide
Dry-cleaning plants including dry-cleaning premises or the bulk storage of dry-cleaning solvents	Volatile hydrocarbons including trichloroethylene 1,1,1-trichloroethane tetrachloroethene (also known as PCE), and carbon tetrachloride
Fertiliser manufacture or bulk storage	Calcium phosphate, calcium sulphate, copper chloride, sulphur, sulphuric and phosphoric acid, molybdenum, selenium, iron, cadmium, nitrates, and ammonia
Gasworks including the manufacture of gas from coal or oil feedstocks	Polycyclic aromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene and xylenes (BTEX), phenolics, metals (particularly arsenic, lead, copper, chromium), boron, cyanide compounds, sulphides and sulphates, thiocyanates, ammonia, nitrates, and coke
Livestock dip or spray race operations	Arsenic, organochlorines (eg, aldrin, dieldrin, DDT, lindane) and organophosphates, carbamates, and synthetic pyrethroids
Paint manufacture or formulation (excluding retail paint stores)	Solvents, resins, metals including arsenic, cadmium, copper, nickel, lead, zinc, and mercury
Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds	Arsenic, lead, copper, mercury; wide range of organic compounds including acidic herbicides, organophosphates, and organochlorines (eg, endosulfan on golf and bowling greens)
Pest control including the premises of commercial pest control operators or any authorities that carry out pest control where bulk storage or preparation of pesticide occurs, including preparation of poisoned baits or filling or washing of tanks for pesticide application	Arsenic, cyanide, strychnine, mercury, phosphorus, 1080, organochlorines and organophosphates, carbamates, synthetic pyrethroids, and other commercial preparations
Pesticide manufacture (including animal poisons, insecticides, fungicides or herbicides) including the commercial manufacturing, blending, mixing or formulating of pesticides	Wide range of insecticides, herbicides and fungicides, including arsenic, lead, mercury, copper, tin, chromium, organochlorines, organonitrogens, organophosphates, acid herbicides, and carbamates. Dioxin may be present as an impurity
Petroleum or petrochemical industries including a petroleum depot, terminal, blending plant or refinery, or facilities for recovery, reprocessing or recycling petroleum-based materials, or bulk storage of petroleum or petrochemicals above or below ground	Hydrocarbons including BTEX, PAHs, and solvents; lead and other metals, particularly if waste oil handled
Pharmaceutical manufacture including the commercial manufacture, blending, mixing or formulation of pharmaceuticals, including animal remedies or the manufacturing of illicit drugs with the potential for environmental discharges	Wide range of chemicals and solvents

Activity or industry	Hazardous substances
Printing including commercial printing using metal type, inks, dyes, or solvents (excluding photocopy shops)	Solvents, acids, alkalis, and metals
Skin or wool processing including a tannery or fellmongery, or any other commercial facility for hide curing, drying, scouring or finishing or storing wool or leather products	Chromium (including hexavalent Cr), manganese, copper, ammonia, nitrite, sulphides, acids, sodium hydroxide, lime, formaldehyde, solvents, cyanide, detergents, pesticides, and bleaching agents (eg, hydrogen peroxide)
Storage tanks or drums for fuel, chemicals or liquid waste	Wide range of chemicals (organic and inorganic), and biological hazards
Wood treatment or preservation including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside	Pentachlorophenol (PCP), copper, arsenic, chromium, boron, PAHs, phenolics (creosote), antisapstain, organochlorine pesticides, fungicides, and tributyltin (TBT)
Batteries including the commercial assembling, disassembling, manufacturing or recycling of batteries (but excluding retail battery stores)	Metals (lead, mercury, zinc, cadmium, nickel, antimony, silver, and manganese), and sulphuric acid
Electrical transformers including the manufacturing, repairing or disposing of electrical transformers or other heavy electrical equipment	Polychlorinated biphenyls (PCBs), hydrocarbons, copper, tin, lead, and mercury
Electronics including the commercial manufacturing, reconditioning or recycling of computers, televisions and other electronic devices	Metals (eg, copper, tin, lead, mercury, cadmium, nickel, silver, zinc, and beryllium), solvents, and PCBs
Power stations, substations or switchyards	PCBs, asbestos, metals including boron, arsenic (in fly ash), water treatment chemicals (thermal stations), and hydrocarbons (eg, diesel in generators)
Explosive or ordinance production, maintenance, dismantling, disposal, bulk storage or re-packaging	Acetone, nitric and sulphuric acid, ammonium nitrate, PCP, nitroglycerine, lead, mercury, copper, aluminium, silver, sodium hydroxide, and explosives; fuel oils, solvents and metals (associated with workshops)
Gun clubs or rifle ranges, including clay targets clubs that use lead munitions outdoors	Metals (lead, antimony, copper, zinc, tin, and nickel)
Training areas set aside exclusively or primarily for the detonation of explosive ammunition	Explosives, lead, copper, arsenic, antimony (firing ranges), and hydrocarbon storage
Abrasive blasting including abrasive blast cleaning (excluding cleaning carried out in fully enclosed booths) or the disposal of abrasive blasting material.	Metals (iron, lead, chromium, aluminium, zinc). Dependent on material being removed and substrate
Foundry operations including the commercial production of metal products by injecting or pouring molten metal into moulds	Metals, particularly iron, aluminium, lead, zinc, copper, tin, nickel, chromium and oxides, chlorides, fluorides and sulphates of these, acids, coke, and fuel oils
Metal treatment or coating including polishing, anodising, galvanising, pickling, electroplating, or heat treatment or finishing using cyanide compounds	Metals (zinc, aluminium, cadmium, chromium, lead, copper, and tin), acids (sulphuric, nitric, hydrochloric, and phosphoric), cyanide; fluorine and barium (from Al processing)
Metalliferous ore processing including the chemical or physical extraction of metals, including smelting, refining, fusing or refining metals	Metals and associated oxides, fluorides and chlorides; cyanide compounds
Engineering workshops with metal fabrication	Metals and oxides of iron, nickel, copper, chromium, magnesium and manganese; range of organic compounds used for cleaning including BTEX, solvents
Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition	Asbestos
Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)	Petroleum hydrocarbons and PAHs
Cement or lime manufacture using a kiln including the storage of wastes from the manufacturing process	Lime, calcium hydroxide, alkalis; boron and arsenic in fly ash

Activity or industry	Hazardous substances
Commercial concrete manufacture or commercial cement storage	Cement, calcium hydroxide, alkalis, and ammonia
Coal or coke yards	Hydrocarbons (particularly PAHs), boron, and arsenic
Hydrocarbon exploration or production including well sites or flare pits	Hydrocarbons including PAHs, metals (barium, cadmium, zinc, mercury, lead), and vanadium
Mining industries (excluding gravel extraction) including exposure of faces or release of groundwater containing hazardous contaminants, or the storage of hazardous wastes including waste dumps or dam tailings	Arsenic, mercury, cyanides, sulphides, and metals and hydrocarbons associated with fuel storage
Airports including fuel storage, workshops, washdown areas, or fire practice areas	Petroleum hydrocarbons including lube oils; metals and PAHs in fire practice areas, potential for dioxins in fire practice areas
Brake lining manufacturers, repairers or recyclers	Asbestos and copper
Engine reconditioning workshops	Hydrocarbons including solvents, and metals contained in waste oil
Motor vehicle workshops	Hydrocarbons including PAHs, solvents, and metals contained in waste oil
Port activities including dry docks or marine vessel maintenance facilities	Metals, paint residues (tin, and lead), tributyltin (TBT), and hydrocarbons associated with fuel storage
Railway yards including goods-handling yards, workshops, refuelling facilities or maintenance areas	Hydrocarbons including PAHs, solvents, creosote/phenols, and metals
Service stations including retail or commercial refuelling facilities	Petroleum hydrocarbons (BTEX, PAHs) and lead
Transport depots or yards including areas used for refuelling or the bulk storage of hazardous substances	Wide variety of chemicals, dependent on products being transported
Cemeteries	Nitrates, lead, mercury, formaldehyde, and biological hazards
Drum or tank reconditioning or recycling	Wide range of chemicals from drums; hydrocarbons used to wash drums
Landfill sites	Dependent on original waste composition, wide range of hydrocarbons and metals, organic acids, landfill gas, and ammonia
Scrap yards including automotive dismantling, wrecking or scrap metal yards	Metals, petroleum hydrocarbons (particularly lube oils), solvents used for cleaning, and PCBs
Waste disposal to land (excluding where biosolids have been used as soil conditioners)	Depends on type of waste – biological hazards (bacteria, viruses), metals, PAHs, semi-volatile organic compounds, and solvents
Waste recycling or waste or wastewater treatment	Depends on type of waste – biological hazards (bacteria, viruses), metals, PAHs, semi-volatile organic compounds, and solvents.
Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment	Dependent on contaminants associated with adjacent property
Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	Dependent on contaminants associated with spill

The New Zealand Institute of Chemistry (NZIC) has published a series of articles on many industries in New Zealand at http://www.nzic.org.nz/ChemProcesses/chem_processes.html. These articles provide a good chemical background for many of the industries listed on the HAIL.

Appendix C - Historical Aerial Photographs

Historical Aerial Photographs

245 Matakana Road,
Warkworth

by Focus Environmental Services Limited

1966 Historical Photograph



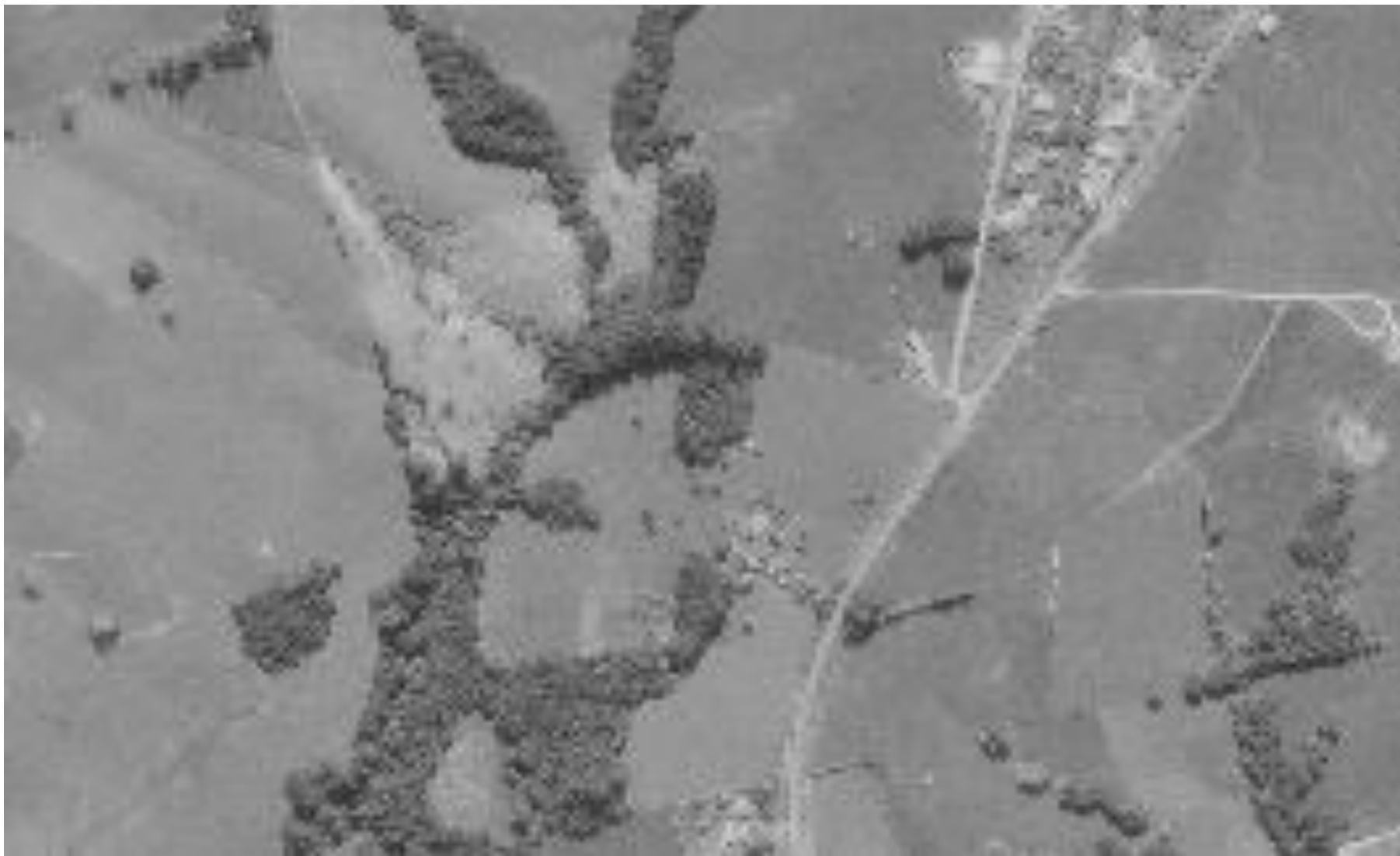
Source: NZ Aerial Mapping

1973 Historical Photograph



Source: NZ Aerial Mapping

1982 Historical Photograph



Source: NZ Aerial Mapping

1992 Historical Photograph



Source: NZ Aerial Mapping

1999 Historical Photograph



Source: Auckland Council GeoMaps

2006 Historical Photograph



Source: Auckland Council GeoMaps

2008 Historical Photograph



Source: Auckland Council GeoMaps

2010 Historical Photograph



Source: Auckland Council GeoMaps

2017 Historical Photograph



Source: Auckland Council GeoMaps

Historical Aerial Photographs

21, 35 & 43 Clayden Road,
Warkworth

by Focus Environmental Services Limited

1966 Historical Photograph



Source: NZ Aerial Mapping

1973 Historical Photograph



Source: NZ Aerial Mapping

1982 Historical Photograph



Source: NZ Aerial Mapping

1992 Historical Photograph



Source: NZ Aerial Mapping

1999 Historical Photograph



Source: Auckland Council GeoMaps

2006 Historical Photograph



Source: Auckland Council GeoMaps

2011 Historical Photograph



Source: Auckland Council GeoMaps

2017 Historical Photograph



Source: Auckland Council GeoMaps

Historical Aerial Photographs Warkworth Plan Change Area

by Focus Environmental Services Limited

1966 Historical Photograph



Source: NZ Aerial Mapping

1973 Historical Photograph



Source: NZ Aerial Mapping

1982 Historical Photograph



Source: NZ Aerial Mapping

1992 Historical Photograph

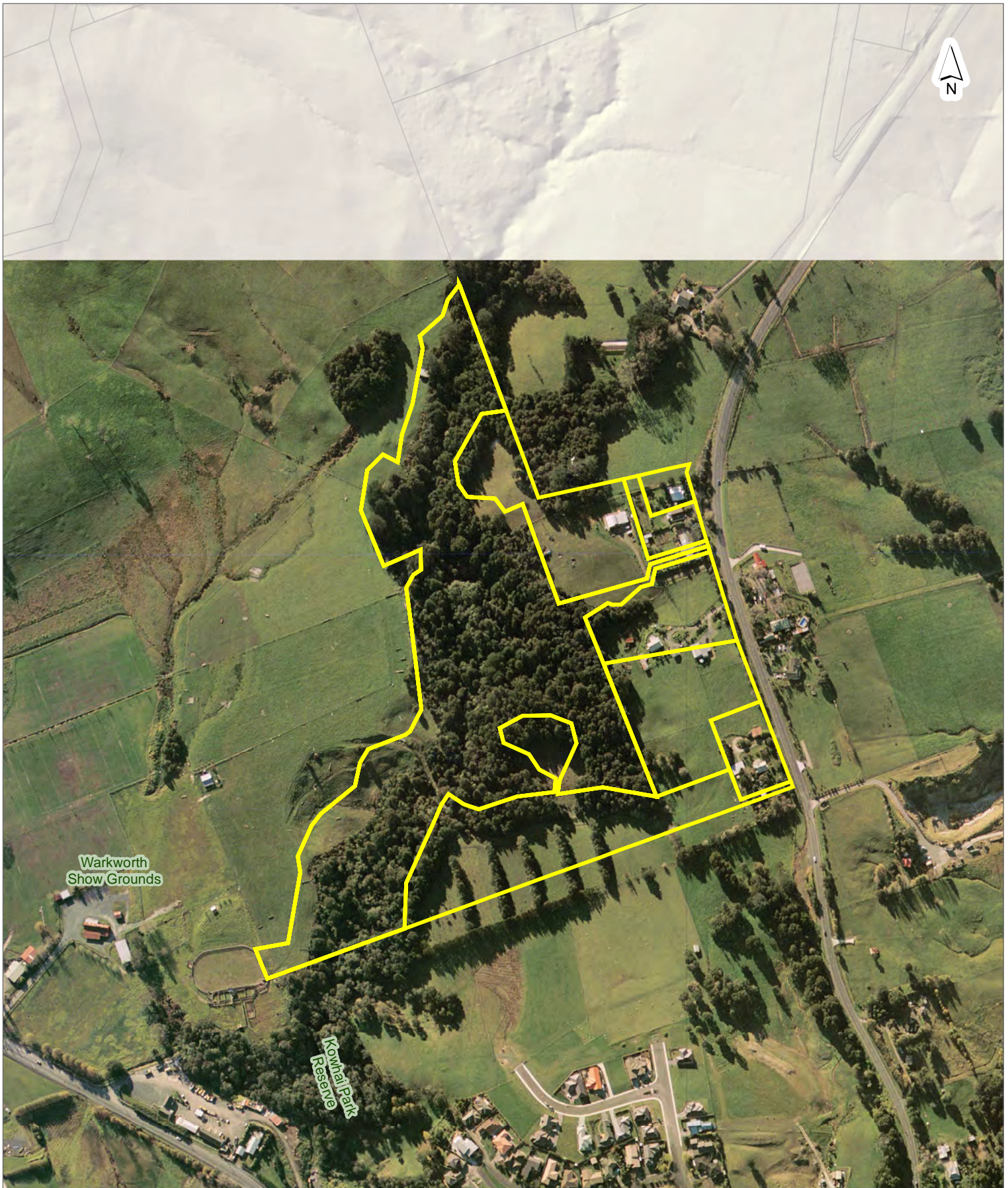


Source: NZ Aerial Mapping

1996 Historical Photograph



Source: Auckland Council GeoMaps



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2001 Historical Photograph

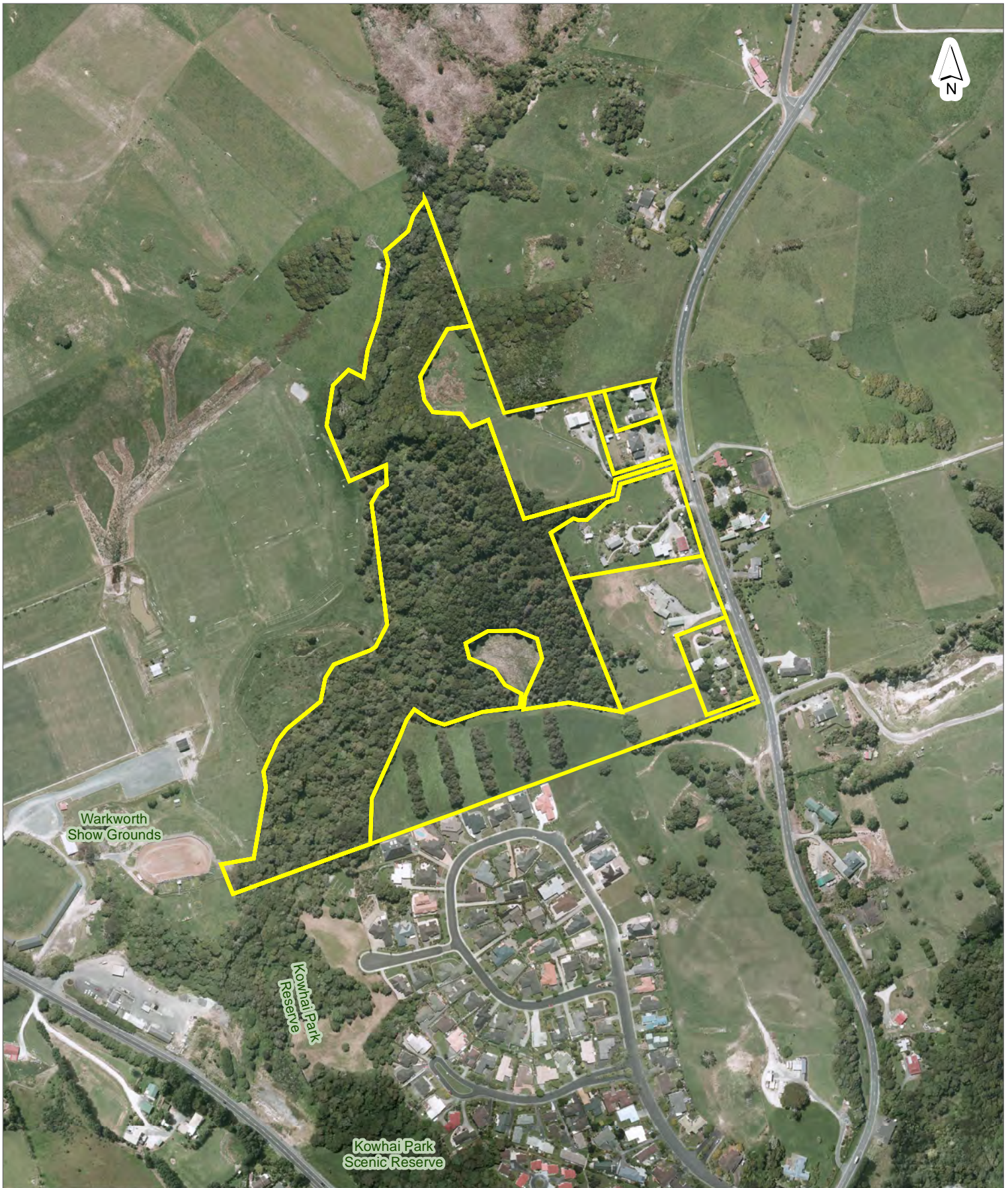
1217

0 25 50 75
Meters

Scale @ A4
= 1:5,000

Date Printed:
3/12/2019





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2011 Historical Photograph

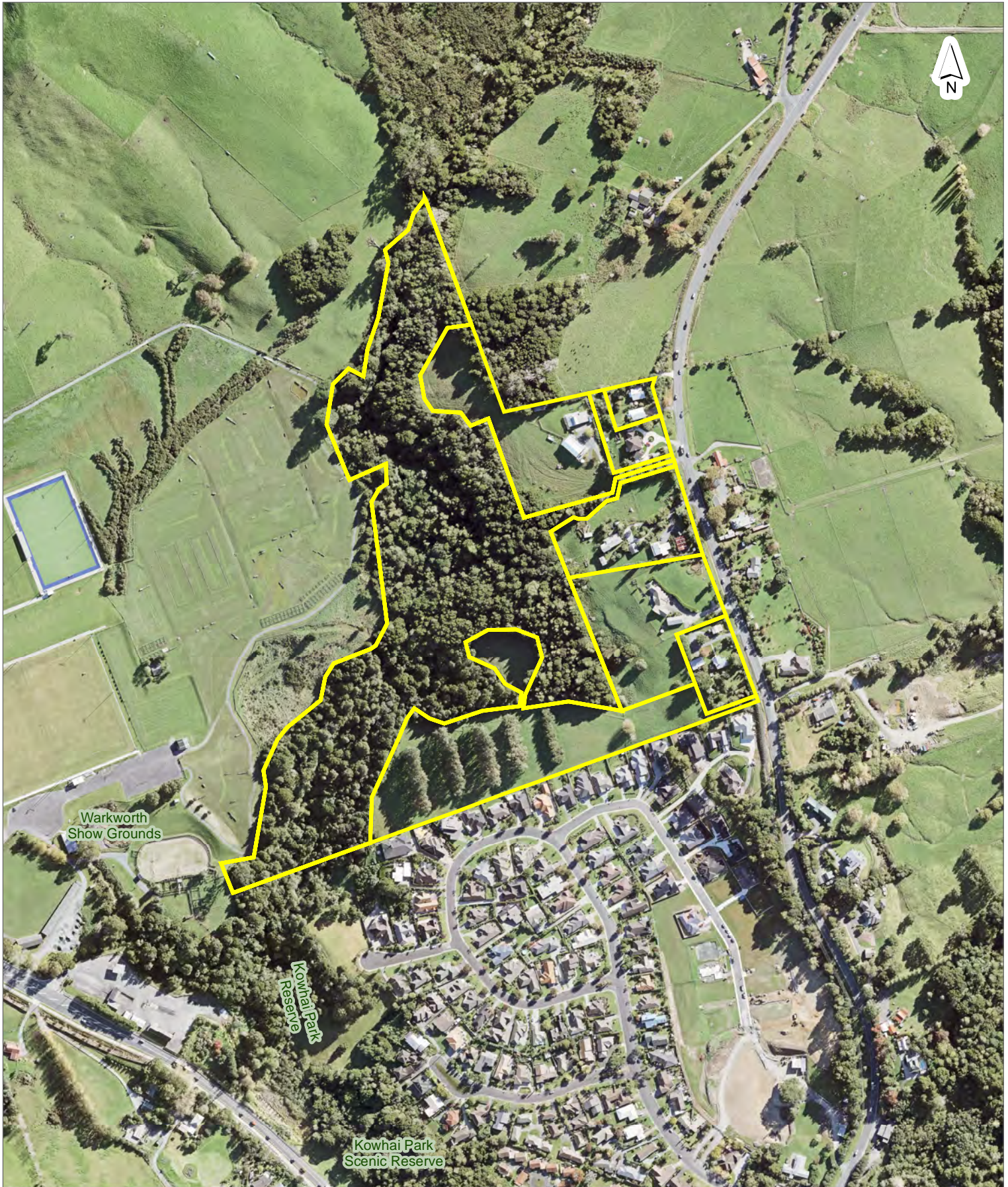
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Scale @ A4
= 1:5,000

Date Printed:
3/12/2019

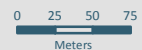




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2017 Historical Photograph

1219



Scale @ A4
= 1:5,000

Date Printed:
3/12/2019



Appendix D - Site Contamination Enquiry

25 May 2018

Riley Consultants Limited
PO Box 100253
North Shore 0745
Attention: Ali Anwar

Dear Ali

Site Contamination Enquiry – Lot 3 DP199755, Goatley Road, Lot 4 DP492431, Clayden Road, Dome Valley, Pt Allot 97 SO27C, Pt Lot 1 DP61693, SH1

This letter is in response to your enquiry requesting available site contamination information for the above site. The following details are based on information available from the former Auckland Regional Council records system and information currently held by the Auckland Council Natural Resources and Specialist Input Unit. The details provided below exclude any property information held by the former district/city councils.

The general catchment file and site visit file for the catchment (1-40 -SV) were not searched. These files contain pollution incidents where the source of pollution was not traced to a particular site, site visits where no follow-up correspondence was required and some information from archived files.

If the above site is coastal or beside a river, it is possible that historic, unconsented reclamation may have occurred. The Auckland Council Specialists Unit Coastal Team may be able to provide further information.

The records reviewed as part of this Site Contamination Enquiry search do not identify individual horticultural sites in the region. However, there is a possibility that horticultural activities may have occurred at the site. The local Auckland Council customer service centre, specific to the area of the site may be able to provide relevant information where former horticultural sites have been mapped.

If you are concerned that a historic land use (such as filling) may have caused the underlying soils to become contaminated, it is recommended that you obtain an independent environmental assessment of the site. Staff from the Auckland Council Earthworks and Contaminated Land Team can provide advice on the results of any evaluation in terms of site remediation and/or potential consent requirements.

The former Auckland Regional Council and current databases were searched for records of closed landfills, bores, air discharge, industrial and trade process consents, contaminated site discharge consents, and environmental assessments within approximately 200 metres of the site. Relevant details of the pollution incidents and identified consents are appended to this letter as an excel spreadsheet. **Please refer to the column labelled ‘Property Address’ and Incident/Consent/Bored ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.**

The details provided are in accordance with the obligation to make information publicly available upon request. While the Auckland Council has carried out the search using its best practical endeavours, it does not warrant its completeness or accuracy and disclaims any responsibility or liability in respect of the information. If you or any other person wishes to act or to rely on this information, or make any financial commitment based upon it, it is recommended that you seek appropriate technical and/or professional advice.

In addition, further site specific pollution incidents may be held at area office below. It is recommended that you contact the local customer service centre of the Auckland Council, specific to the site being investigated: 50 Centreway Road, Orewa, as they also may hold files with further relevant information.

I trust that this answers your query. If you wish to discuss the matter further, please contact Andrew Kalbarczyk on 301 0101. Should you wish to request any of the files listed above for viewing, please contact the Auckland Council Call Centre on 301 0101 and note you are requesting former Auckland Regional Council records (the records department requires three working days' notice to ensure files will be available).

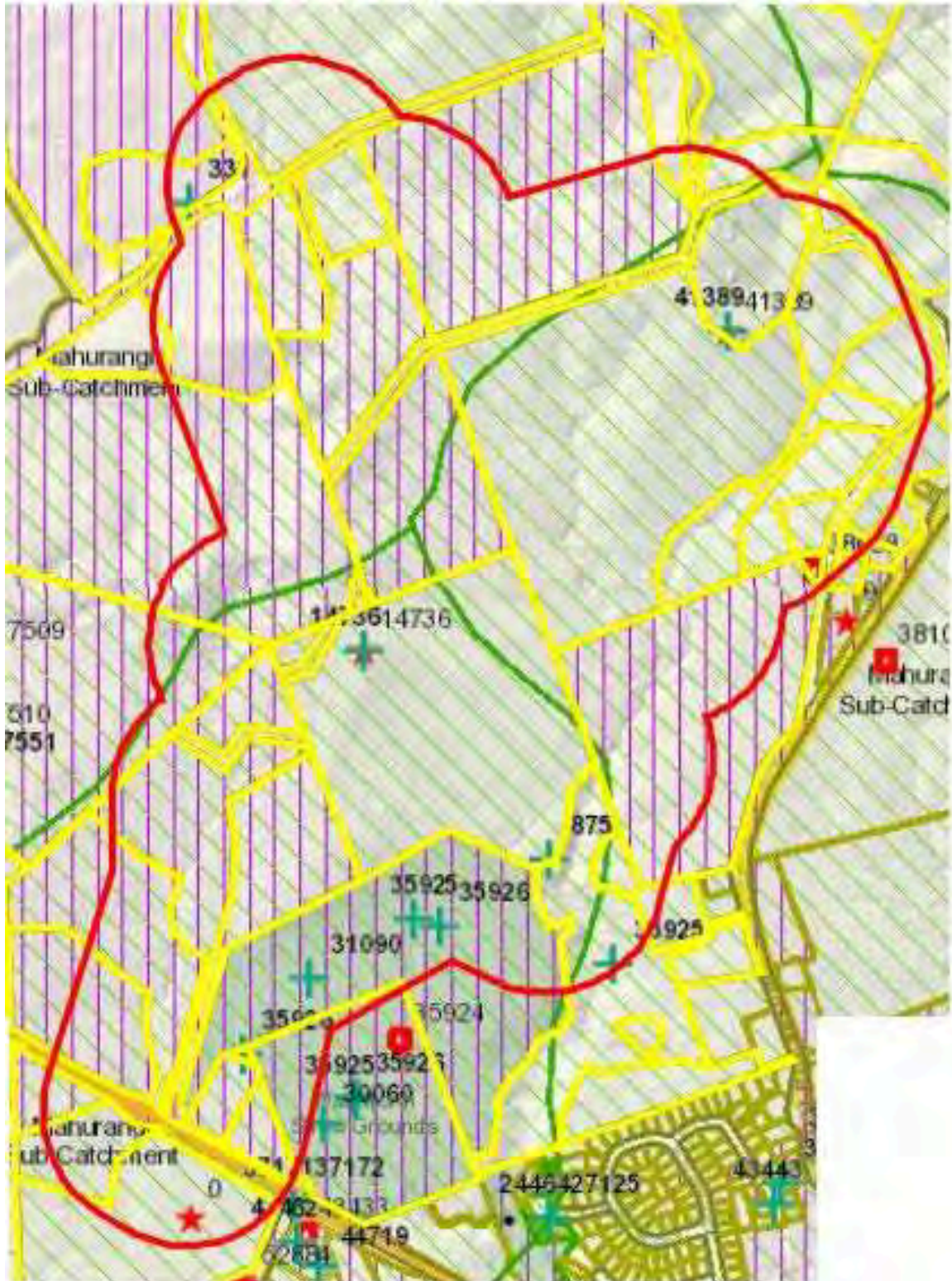
Please note: the Auckland Council cost recovers officer's time for all site enquiries. A basic enquiry takes approximately 1 - 2.5 hours to search the files and databases in which information is held. As such an invoice for the time involved in this enquiry will follow shortly.

Yours sincerely



Jared Osman
Team Leader – Contaminated Air, Noise
Specialist Unit | Resource Consents

Please refer to the column labelled 'Property Address' and Incident/Consent/Bored ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.



10 September 2019

Focus Environmental Services

PO Box 11455

Auckland 1542

Attention: Cari Llewellyn

Dear Cari

Site Contamination Enquiry – 43 Clayden Road, Dome Valley

This letter is in response to your enquiry requesting available site contamination information for the above site. The following details are based on information available from the former Auckland Regional Council records system and information currently held by the Auckland Council Natural Resources and Specialist Input Unit. The details provided below exclude any property information held by the former district/city councils.

No pollution incident files regarding spills/contamination were found for the above site. The general catchment file and site visit file for the catchment 130 & 140 were not searched. These files contain pollution incidents where the source of pollution was not traced to a particular site, site visits where no follow-up correspondence was required and some information from archived files.

If the above site is coastal or beside a river, it is possible that historic, unconsented reclamation may have occurred. The Auckland Council Specialists Unit Coastal Team may be able to provide further information.

The records reviewed as part of this Site Contamination Enquiry search do not identify individual horticultural sites in the region. However, there is a possibility that horticultural activities may have occurred at the site. The local Auckland Council customer service centre, specific to the area of the site may be able to provide relevant information where former horticultural sites have been mapped.

If you are concerned that a historic land use (such as filling) may have caused the underlying soils to become contaminated, it is recommended that you obtain an independent environmental assessment of the site. Staff from the Auckland Council Earthworks and Contaminated Land Team can provide advice on the results of any evaluation in terms of site remediation and/or potential consent requirements.

The former Auckland Regional Council and current databases were searched for records of closed landfills, bores, air discharge, industrial and trade process consents, contaminated site discharge consents, and environmental assessments within a 200m radius. Relevant details of the pollution incidents and identified consents are appended to this letter as an excel spreadsheet. **Please refer to the column labelled 'Property Address' and Incident/Consent/Bores ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.**

The details provided are in accordance with the obligation to make information publicly available upon request. While the Auckland Council has carried out the search using its best practical endeavours, it does not warrant its completeness or accuracy and disclaims any responsibility or liability in respect of the information. If you or any other person wishes to act or to rely on this information, or make any financial commitment based upon it, it is recommended that you seek appropriate technical and/or professional advice.

In addition, further site specific pollution incidents may be held at the area office below. It is recommended that you contact the local customer service centre of the Auckland Council, specific to the site being investigated: 50 Centreway Road, Orewa, as they also may hold files with further relevant information.

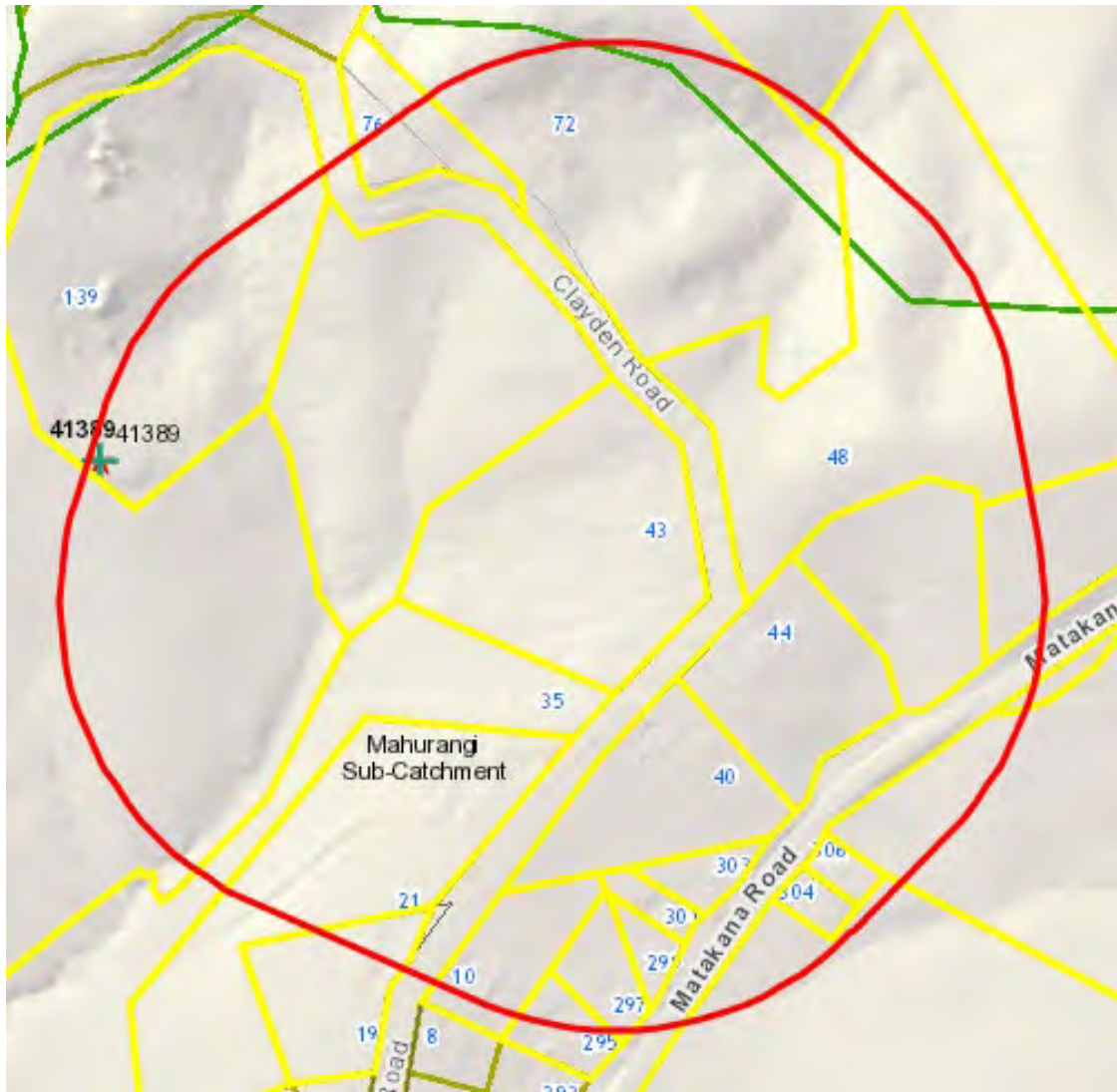
I trust that this answers your query. If you wish to discuss the matter further, please contact **Andrew Kalbarczyk** on 301 0101. Should you wish to request any of the files listed above for viewing, please contact the Auckland Council Call Centre on 301 0101 and note you are requesting former Auckland Regional Council records (the records department requires three working days' notice to ensure files will be available).

Please note: the Auckland Council cost recovers officer's time for all site enquiries. A basic enquiry takes approximately 1 - 2.5 hours to search the files and databases in which information is held. As such an invoice for the time involved in this enquiry will follow shortly.

Yours sincerely,

Pp CU
Jared Osman
**Team Leader – Contaminated Air, Noise
Specialist Unit | Resource Consents**

Please refer to the column labelled 'Property Address' and Incident/Consent/Bores ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.



Subject: FW: RE: Matakana Properties

----- Original message -----

From: RECContamination <recontamination@aklc.govt.nz>

Date: 4/12/19 7:36 PM (GMT+12:00)

To: Paula Stevenson <paula@focusenvironmental.co.nz>

Subject: RE: Matakana Properties

Hi Paula,

This email is in response to your recent enquiry requesting available site contamination information that was held within the Environmental Health Unit of the Licensing and Compliance Services Department (LCS).

There is no contamination information held within our records for the site 157 Matakana Road, Warworth.

There is no contamination information held within our records for the site 165 Matakana Road, Warkworth.

There is no contamination information held within our records for the site 171 Makakana Road, Warkworth.

There is no contamination information held within our records for the site 185 Matakana Road, Warkworth.

There is no contamination information held within our records for the site 207 Matakana Road, Warkworth.

There is no contamination information held within our records for the site 211 Matakana Road, Warkworth.

There is no contamination information held within our records for the site 223 Matakana Road, Warkworth.

Please note that only council's soil contamination records within the LCS department and GIS map have been checked. There may be other soil contamination information held within:

1. A Contaminated Sites Enquiry report, which contains the following information only:

(A search area of radius 200m is applied by default)

- Pollution Incidents (incl. air discharges, oil or diesel spills)
- Bores
- Contaminated site, air discharge and industrial trade process consents
- Closed Landfills (council- owned closed landfill sites only)
- Air quality permitted activities

How to apply for a Contaminated Sites Enquiry Response: DO NOT apply for this as part of a Property File request. Please follow this link --> <https://www.aucklandcouncil.govt.nz/building-and-consents/types-resource-consents/earthworks/Pages/order-site-contamination-enquiry-report.aspx>

Please take note of the following when applying:

- Apply under the Company Name if request is on behalf of the company.
- Legal Description(s) of the physical site(s) is/are stated clearly. This is to ensure accurate representation of data.
- Enter preferred Postal Address or PO Box instead of physical address of company.
- Contact Person: Please enter your full name, including e-mail address.

2. Property File for viewing reports or all relevant information relating to the property -Requested from the local service centre, by phone, 09 3010101.

Please note:

If you are demolishing any building that may have asbestos containing materials (ACM) in it:

1. *You have obligations under the relevant regulations for the management and removal of asbestos, including the need to engage a Competent Asbestos Surveyor to confirm the presence or absence of any ACM.*
2. *Work may have to be carried out under the control of the person holding a WorkSafe NZ Certificate of Competence (CoC) for restricted works.*
3. *If any ACM is found, removal or demolition will have to meet the requirements of the Health and Safety at Work (Asbestos) Regulations 2016.*
4. *Information on asbestos containing materials and your obligations can be found at www.worksafe.govt.nz.*

If ACM is found on site following the demolition or removal of the existing buildings, you may be required to remediate the site and carry out validation sampling. Dependent on the amount of soil disturbance a further consent application may be required.

Paints used on external parts of properties up until the mid-1970's routinely contained lead, a poison and a persistent environmental pollutant. Older paints dating from before 1945 often contained extremely high levels of lead. Dust and flakes from painted surfaces in poor condition are a major cause of lead poisoning in both adults and children.

You are advised to ensure that soils affected by old, peeling or flaking paint are assessed in relation to the proposed use of the property. Very sensitive uses such as residential with young children, childcare centres, play areas or recreational land should be considered as high risk. In services or working environments other regulatory requirements may require risk assessment and mitigation.

Ngā mihi,

Rachel

Rachel Terlinden | Technical Officer – Contamination, Air & Noise

Specialist Input | Resource Consents

Mob 021956763

Auckland Council, Level 2, 35 Graham Street, Auckland

Visit our website: www.aucklandcouncil.govt.nz

From: Paula Stevenson <paula@focusenvironmental.co.nz>
Sent: Friday, 29 November 2019 2:21 PM
To: RECContamination <reccontamination@aklc.govt.nz>
Subject: Matakana Properties

Good afternoon,

I have attached a map below showing the areas of 157, 165, 171, 185, 207, 211, 223 Matakana Road, and Lot 8 DP135480.

Can you please advise whether there are any contaminated land records held by Auckland Council for these sites?

Kind Regards,

Paula Stevenson

Environmental Scientist

Focus Environmental Services Limited

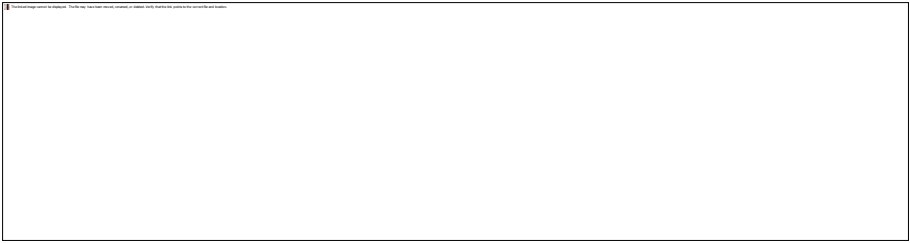
Tel. +64 9 579 4155

Mob. +64 276 662232

PO Box 11455

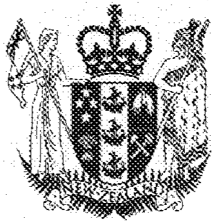
Ellerslie, Auckland 1542

Web. www.focusenvironmental.co.nz



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Appendix E - Historical Certificate of Title



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA57B/189
Land Registration District North Auckland
Date Issued 16 April 1984

Prior References

NA891/260

Estate Fee Simple
Area 14.7499 hectares more or less
Legal Description Lot 1 Deposited Plan 101758

Original Registered Owners

Peter John Membery as to a 1/2 share
Lynn Membery as to a 1/2 share

Interests

D171255.1 STATUTORY LAND CHARGE PURSUANT TO SECTION 162 RATING POWERS ACT 1988 - 15.7.1997 AT 10.00 AM
6919351.2 Transfer to Peter John Membery, Lynette Ann Membery and Withers & Co Trustee Company Limited - 23.6.2006 at 9:00 am
7868638.1 Discharge of Statutory Land Charge D171255.1 - 9.7.2008 at 3:15 pm
7868638.2 Transfer to Alastair Joseph Membery and Deborah Anne Steel - 9.7.2008 at 3:15 pm
8188484.9 STATUTORY LAND CHARGE PURSUANT TO SECTION 87 LOCAL GOVERNMENT (RATING) ACT 2002 - 9.6.2009 at 9:00 am
8370518.1 Mortgage to ASB Bank Limited - 15.12.2009 at 11:50 am
8384376.1 Discharge of Statutory Land Charge 8188484.9 - 23.12.2009 at 9:54 am
9126244.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 18.7.2012 at 12:40 pm

References

Prior C/T 891/260

Transfer No.

N/C. Order No. B.281553.2



REGISTER

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 16th day of April one thousand nine hundred and eightyfour under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that PETER JOHN MEMBERY of Warkworth farmer

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 14.7499 hectares

more or less being Lot 1 Deposited Plan 101758 and being part Allotment 175 Parish of Mahurangi



Assistant Land Registrar

Interests at date of issue

A262408 Mortgage to (Now Peter John Membery and Simon Hugh Withers) 19.3.1968 at 10.20 oc and varied 20.3.1968 at 10.32 oc (See 129486.2) and 17.11.1978 at 1.51 oc (See 735174.4).

C.169675.2 Mortgage to Bank of New Zealand - 31.7.1990 at 10.00 oc

735174.5 Mortgage to Australian Mutual Provident Society - 1970 at 1.51 oc

D171255.1 CHARGE UNDER SECTION 162(4) RATING POWERS ACT 1988 15.7.1997 AT 10.00

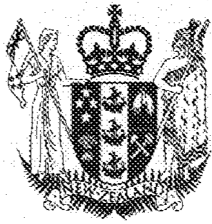
735174.6 Memorandum of Priority making Mortgage 735174.5 a first Mortgage and Mortgage A262408 a second Mortgage - 17.11.1978 at 1.51 oc

B.346552.1 Transfer of an undivided one-half share to Lynn Membery of Warkworth, Farmer - 6.11.1984 at 16.20 oc

C.008477.2 Mortgage to Australian Mutual Provident Society - 12.06.1989 at 11.14 oc

Measurements are Metric

No. 57B / 189



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier **715679**
Land Registration District **North Auckland**
Date Issued 18 January 2016

Prior References

NA108A/794

Estate Fee Simple
Area 3.1513 hectares more or less
Legal Description Lot 1 Deposited Plan 492431

Original Registered Owners

Michael Ross Clayden

Interests

Appurtenant hereto is a water supply and electricity right created by Transfer D460910.1 - produced 9.12.1999 at 2.29 pm and entered 21.12.1999 at 9.00 am

9233040.1 Mortgage to ASB Bank Limited - 13.11.2012 at 10:15 am

10155609.1 NOTICE OF CLAIM OF INTEREST PURSUANT TO SECTION 42(2) PROPERTY (RELATIONSHIPS) ACT 1976 BY JANET KAY ROWORTH - 13.8.2015 at 3:07 pm

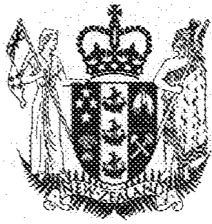
10244801.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 18.1.2016 at 4:01 pm

10327167.1 Discharge of Mortgage 9233040.1 - 24.2.2016 at 1:42 pm

10327167.2 Withdrawal of Notice of Claim 10155609.1 - 24.2.2016 at 1:42 pm

10327167.4 Transfer to Leanne Toni Stenbeck and Gail Elizabeth Paddison (1/2 share) and R Mills Trustees Limited (1/2 share) - 24.2.2016 at 1:42 pm

10383497.1 Mortgage to ANZ Bank New Zealand Limited - 26.4.2016 at 9:28 am



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA108A/793
Land Registration District North Auckland
Date Issued 27 June 1997

Prior References

NA102A/461

Estate Fee Simple
Area 2.3880 hectares more or less
Legal Description Lot 2 Deposited Plan 175763

Original Registered Owners

Robert Irving Shaw and Judith Shaw

Interests

D379668.2 Mortgage to ASB Bank Limited - 20.4.1999 at 12.04 pm

5404730.1 Transfer to Robert Irving Shaw, Donna Michelle Shaw and Owen William John Vaughan - 18.11.2002 at 9:00 am

9005163.1 Discharge of Mortgage D379668.2 - 8.3.2012 at 9:28 am

9331004.1 Transfer to Robert Irving Shaw, Donna Michelle Shaw and Kaurilands Trustee Limited - 21.5.2013 at 12:01 pm

Reference:
Prior CT: 102A/461
Document No.: D164084.2



REGISTER

LT69

108A/793

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT 1952

This Certificate dated the 27th day of June One Thousand Nine Hundred and Ninety Seven under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that MICHAEL ROSS CLAYDEN

is seised of an estate in *fee simple* (subject to such reservations, restrictions, encumbrances and interests as are notified by memorial endorsed hercon) in the land hereinafter described, delineated on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 2.3880 hectares, more or less being **LOT 2 DEPOSITED PLAN 175763**



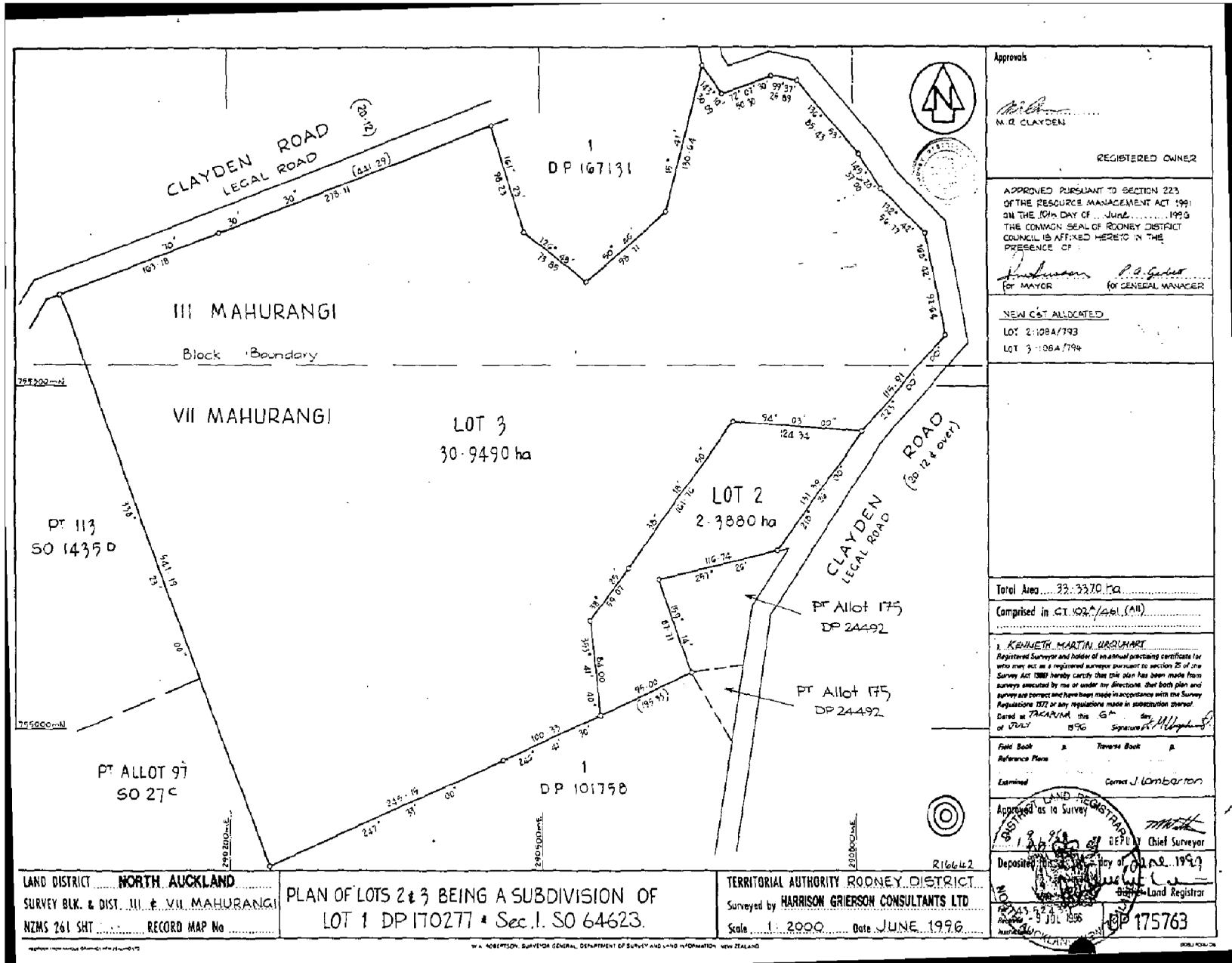
D379668.1 Transfer to Robert Irving Shaw and Judith Shaw

D379668.2 Mortgage to ASB Bank Limited

All 20.4.1999 at 12.04

M.R.C.
for RGL

108A/793



Identifier
NA108A/793



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier 353189
Land Registration District North Auckland
Date Issued 02 May 2007

Prior References

NA79D/811

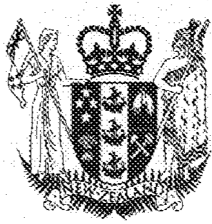
Estate Fee Simple
Area 1.4445 hectares more or less
Legal Description Lot 3 Deposited Plan 135480

Original Registered Owners

Lloyd Hamilton Denny and Julia Denny

Interests

7404967.1 Mortgage to ASB Bank Limited - 13.6.2007 at 11:32 am



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA79D/810
Land Registration District North Auckland
Date Issued 20 March 1991

Prior References

NA42A/681 NA768/143

Estate Fee Simple
Area 2.6660 hectares more or less
Legal Description Lot 2 Deposited Plan 135480

Original Registered Owners

Phillip William Tomlinson

Estate Fee Simple - 1/4 share
Area 8.8440 hectares more or less
Legal Description Lot 8 Deposited Plan 135480

Original Registered Owners

Phillip William Tomlinson

Interests

Subject to Section 308 (4) Local Government Act 1974

B943022.1 Open Space Covenant affecting parts marked A and B on Plan 127065 pursuant to Section 22 Queen Elizabeth The Second National Trust Act 1977 - 20.1.1989 at 1.33 pm

Appurtenant hereto are rights of way specified in Easement Certificate C248630.6 - 20.3.1991 at 11.15 am (affects Lot 2 DP 135480)

Subject to a right of way over part marked C on DP 135480 specified in Easement Certificate C248630.6 - 20.3.1991 at 11.15 am (affects Lot 8 DP 135480)

Subject to a water supply right over part marked A on Plan 156041 created by Transfer C496792.2 - 9.7.1993 at 11.02 am (affects Lot 8 DP 135480)

D452406.1 Mortgage to Westpac Banking Corporation - 16.11.1999 at 2.22 pm

D672529.1 Variation of Mortgage D452406.1 - 16.1.2002 at 1.51 pm

5246796.1 Discharge of Mortgage D452406.1 - 7.6.2002 at 9:00 am

5246796.2 Transfer to Bruce Lionel Milne, Mark Laurence Milne and Lisa Cherie Watkins - 7.6.2002 at 9:00 am

10206388.1 Transfer to Bruce Lionel Milne, Lisa Cherie Watkins and Glenys May Milne - 3.2.2016 at 10:37 am

References
Prior C/T 768/143 and 42A/681
Transfer No.
N/C. Order No. C.248630.4



REGISTER

Land and Deeds 69

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 20th day of March one thousand nine hundred and ninety one under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares

~~more or less being~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 2.6660 hectares more or less being Lot 2 Deposited Plan 135480 and being part Allotments 97 and 101 Parish of Mahurangi AND THIS CERTIFICATE FURTHER WITNESSETH that the aforementioned WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares (subject as aforesaid) as to an undivided one quarter share in all that parcel of land containing 8.8440 hectares more or less being Lot 8 Deposited Plan 135480 and being part Allotments 97 and 101 Parish of Mahurangi

CT File: 24.3.93



Assistant Land Registrar

Subject to Section 308 (4) Local Government Act 1974

B.943022.1 Open Space Covenant affecting parts herein marked 'A' and 'B' on Plan 127065 pursuant to Section 22 Queen Elizabeth the Second National Trust Act 1977 - 20.1.1989 at 1.33 o/c

C.481828.1 Transfer to Phillip William Tomlinson of Warkworth farmer - 19.5.1993 at 2.56 o/c

C.496792.2 Transfer granting water supply and electricity easements over part Lot 8 (herein shown marked "A" on Plan 156041 appurtenant to part Allotment 97 Parish of Mahurangi - 9.7.1993 at 11.02 o/c

C.248630.6 Easement Certificate affecting Lots on Plan 135480

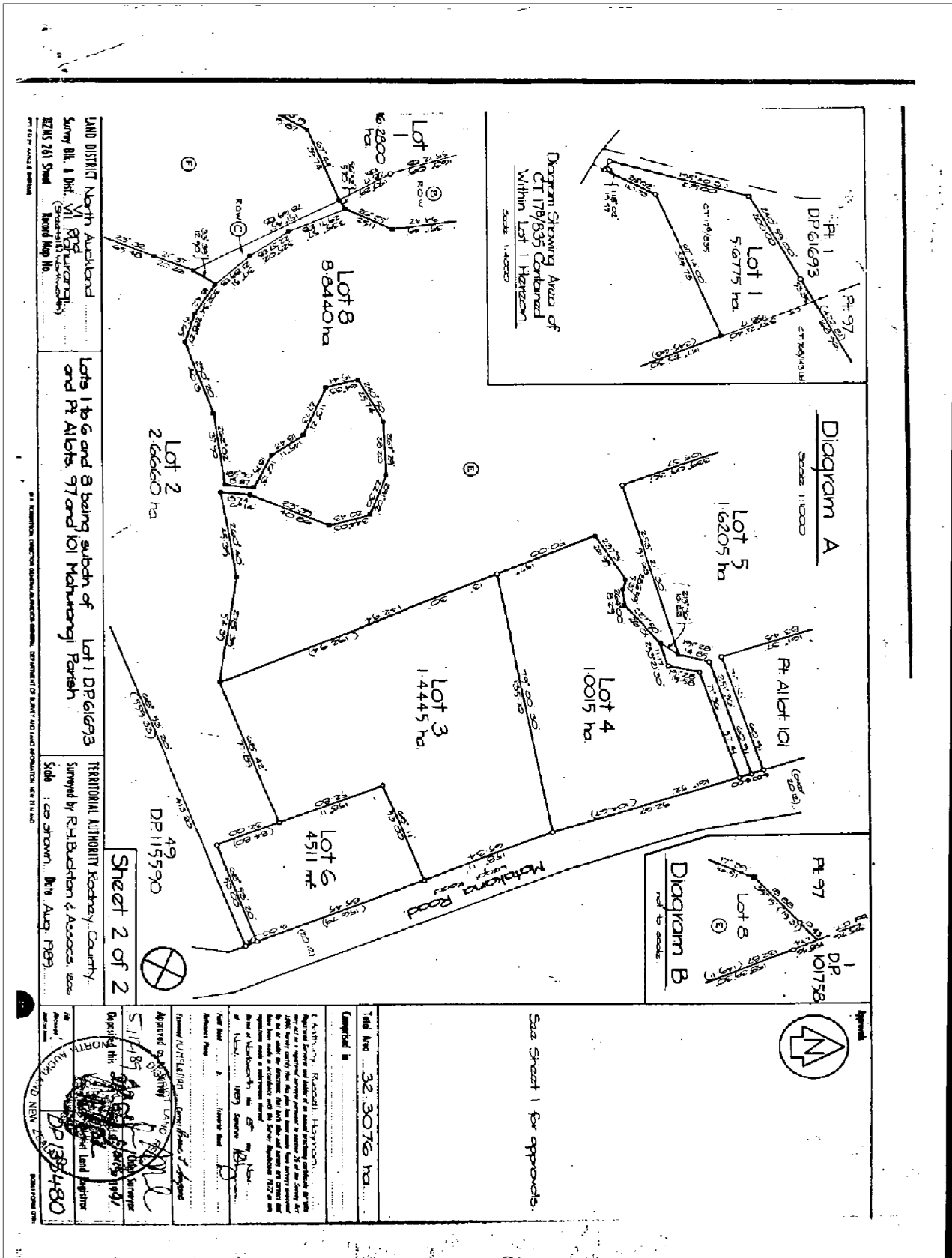
Nature	Servient Land	Dominant Land
R.O.W	Part Lot 1 Marked 'B' (CT 79D/809)	Lot 2 Herein
R.O.W	Part Lot 8 herein marked 'C'	Lot 2 Herein

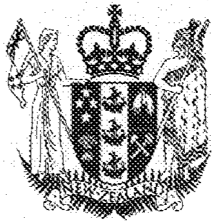
D452406.1 Mortgage to Westpac Banking Corporation 16.11.1999 at 2.22

D672529.1 Variation of Mortgage D452406.1 16.1.2002 at 1.51

Measurements are Metric A.L.R.
Plan 156041 Lodged 4-5-93

No. 79D/810





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA79D/812
Land Registration District North Auckland
Date Issued 20 March 1991

Prior References

NA42A/681

Estate Fee Simple
Area 1.0015 hectares more or less
Legal Description Lot 4 Deposited Plan 135480

Original Registered Owners

Bruce Rex Tomlinson

Estate Fee Simple - 1/4 share
Area 8.8440 hectares more or less
Legal Description Lot 8 Deposited Plan 135480

Original Registered Owners

Bruce Rex Tomlinson

Interests

Subject to Section 308 (4) Local Government Act 1974

B943022.1 Open Space Covenant affecting parts herein marked A and B on Plan 127065 pursuant to Section 22 Queen Elizabeth The Second National Trust Act 1977 - 20.1.1989 at 1.33 pm

Subject to a right of way over part marked C on DP 135480 specified in Easement Certificate C248630.6 - 20.3.1991 at 11.15 am (affects Lot 8 DP 135480)

Subject to water supply and electricity rights over part marked A on Plan 156041 created by Transfer C496792.4 - 9.7.1993 at 11.02 am (affects Lot 8 DP 135480)

D249752.1 Mortgage to Westpac Banking Corporation - 6.3.1998 at 12.58 pm

7095691.1 Application pursuant to Section 99A Land Transfer Act 1952 vesting Mortgage D249752.1 in Westpac New Zealand Limited - 2.11.2006 at 9:00 am

8748489.6 Variation of Mortgage D249752.1 - 21.4.2011 at 8:17 am

References
Prior C/T 42A/681

Transfer No.
N/C. Order No. C.248630.4



REGISTER Land and Deeds 69

No. 79D/812

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 20th day of March one thousand nine hundred and ninety one under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares

~~to be taken as one estate~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 1.0015 hectares

more or less being Lot 4 Deposited Plan 135480 and being part Allotment 101 Parish of Mahurangi

AND THIS CERTIFICATE FURTHER WITNESSETH that the aforementioned WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares (subject as aforesaid) as to an undivided one quarter share in all that parcel of land containing 8.8440 hectares more or less being Lot 8 Deposited Plan 135480 and being part Allotments 97 and 101 Parish of Mahurangi

ct. File 24.3.93



Assistant Land Registrar

Subject to Section 308 (4) Local Government Act 1974

B.943022.1 Open Space Covenant affecting parts herein marked 'A' and 'B' on Plan 127065 pursuant to Section 22 Queen Elizabeth the Second National Trust Act 1977 - 20.1.1989 at 1.33 o/c

C.481828.2 Transfer to Bruce Rex Tomlinson of Warkworth farmer - 19.5.1993 at 2.56 o/c

C.248630.6 Easement Certificate affects Lots on Plan 135480

C.496792.4 Transfer granting water supply and electricity easements over part Lot 8 (herein) shown marked "A" on Plan 156041 appurtenant to part Allotment 97 Parish of Mahurangi - 9.7.1993 at 11.02 o/c

Nature Servient Land Dominant Land

R.O.W Part Lot 8 Herein Marked 'C' Lot 2 (CT 79D/810)

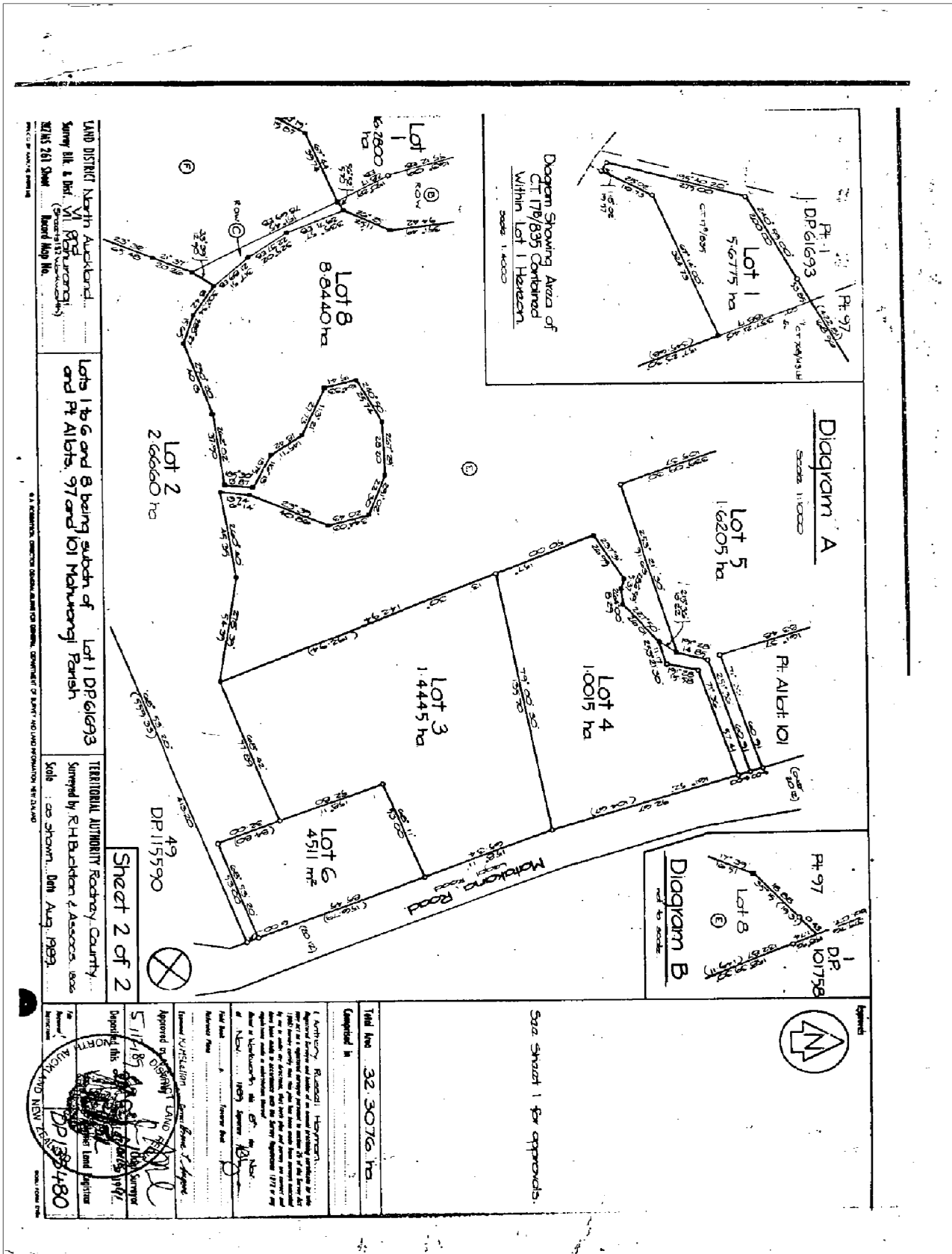
D249752.1 Mortgage to Westpac Banking Corporation 6.3.1998 at 12.58

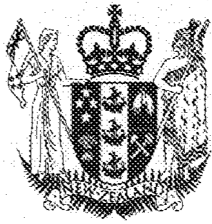
- 20.3.1991 at 11.15 o/c

Plan 156041 Lodged 6-5-93

Measurements are Metric

No. 79D/812





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA79D/813
Land Registration District North Auckland
Date Issued 20 March 1991

Prior References

NA42A/681 NA768/143

Estate Fee Simple
Area 1.6205 hectares more or less
Legal Description Lot 5 Deposited Plan 135480

Original Registered Owners

Donn Richard Tomlinson

Estate Fee Simple - 1/4 share
Area 8.8440 hectares more or less
Legal Description Lot 8 Deposited Plan 135480

Original Registered Owners

Donn Richard Tomlinson

Interests

Subject to Section 308 (4) Local Government Act 1974

B943022.1 Open Space Covenant affecting parts herein marked A and B on Plan 127065 pursuant to Section 22 Queen Elizabeth The Second National Trust Act 1977 - 20.1.1989 at 1.33 pm

Subject to a right of way over part marked C on DP 135480 specified in Easement Certificate C248630.6 - 20.3.1991 at 11.15 am (affects Lot 8 DP 135480)

C483824.1 Mortgage to Westpac Banking Corporation - 26.5.1993 at 2.51 pm

Subject to water supply and electricity rights over part marked A on Plan 156041 created by Transfer C496792.5 - 9.7.1993 at 11.02 am (affects Lot 8 DP 135480)

D254685.1 Variation of Mortgage C483824.1 - 23.3.1998 at 12.57 pm

6020349.1 Variation of Mortgage C483824.1 - 27.5.2004 at 9:00 am

6535849.1 Variation of Mortgage C483824.1 - 16.8.2005 at 9:00 am

7095691.1 Application pursuant to Section 99A Land Transfer Act 1952 vesting Mortgage C483824.1 in Westpac New Zealand Limited - 2.11.2006 at 9:00 am

No. 79D / 813.

References
Prior C/T 42A/681 and 768/143

Transfer No.
N/C. Order No. C.248630.4



REGISTER

Land and Deeds 69

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 20th day of March one thousand nine hundred and ninety one under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares ~~to be held for the use of the said~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 1.6205 hectares more or less being Lot 5 Deposited Plan 135480 and being part Allotments 97 and 101 Parish of Mahurangi AND THIS CERTIFICATE FURTHER WITNESSETH that the aforementioned WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares (subject as aforesaid) as to an undivided one quarter share in all that parcel of land containing 8.8440 hectares more or less being Lot 8 Deposited Plan 135480 and being part Allotments 97 and 101 Parish of Mahurangi

CT. File 24.3.93



Assistant Land Registrar

Subject to Section 308 (4) Local Government Act 1974

B.943022.1 Open Space Covenant affecting parts herein marked 'A' and 'B' on Plan 127065 pursuant to Section 22 Queen Elizabeth the Second National Trust Act 1977 - 20.1.1989 at 1.33 o/c

A.L.R.

C.481828.3 Transfer to Donn Richard Tomlinson of Warkworth farmer - 19.5.1993 at 2.56 o/c

[Signature]
A.L.R.

C.483824.1 Mortgage to Westpac Banking Corporation - 26.5.1993 at 2.51 o/c

[Signature]
A.L.R.

C.248630.6 Easement Certificate affects Lots on Plan 135480

Nature Servient Land Dominant Land

R.O.W Part Lot 8 Herein Marked 'C' Lot 2 (CT 79D/810)

- 20.3.1991 at 11.15 o/c

C.496792.5 Transfer granting water supply and electricity easements over part Lot 8 (herein shown marked "A" on Plan 156041 appurtenant to part Allotment 97 Parish of Mahurangi - 9.7.1993 at 11.02 o/c

[Signature]
A.L.R.

A.L.R.

D254685.1 Variation of Mortgage C483824.1 23.3.1998 at 12.57

[Signature]
For DJR

Measurements are Metric

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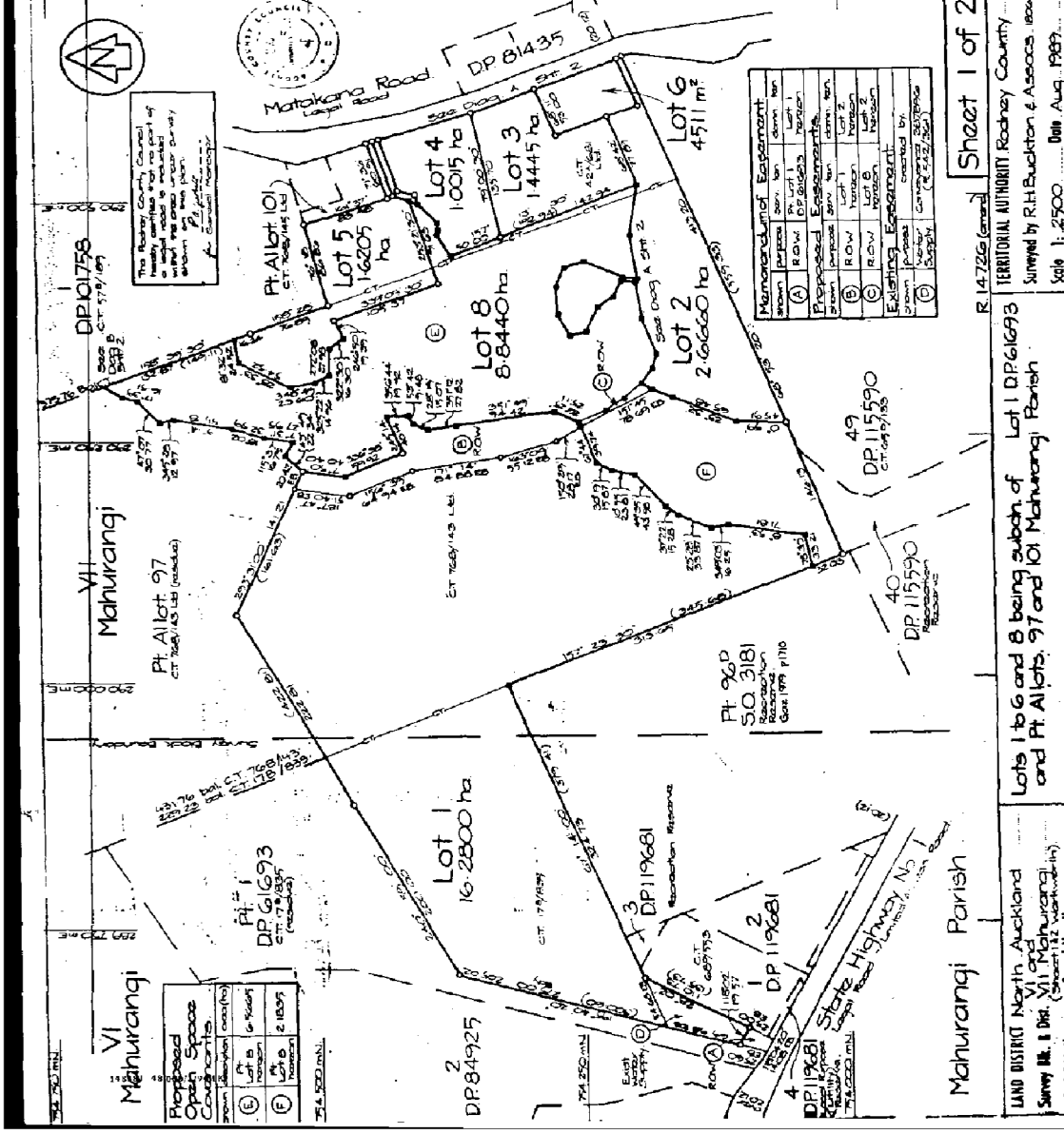
No. 79D / 813

CERTIFICATE OF TITLE No.

Particulars of the Land
 The land shown on the plan is situated in the City of Auckland, and is bounded to the north by the City of Auckland, to the east by the City of Auckland, to the south by the City of Auckland, and to the west by the City of Auckland.

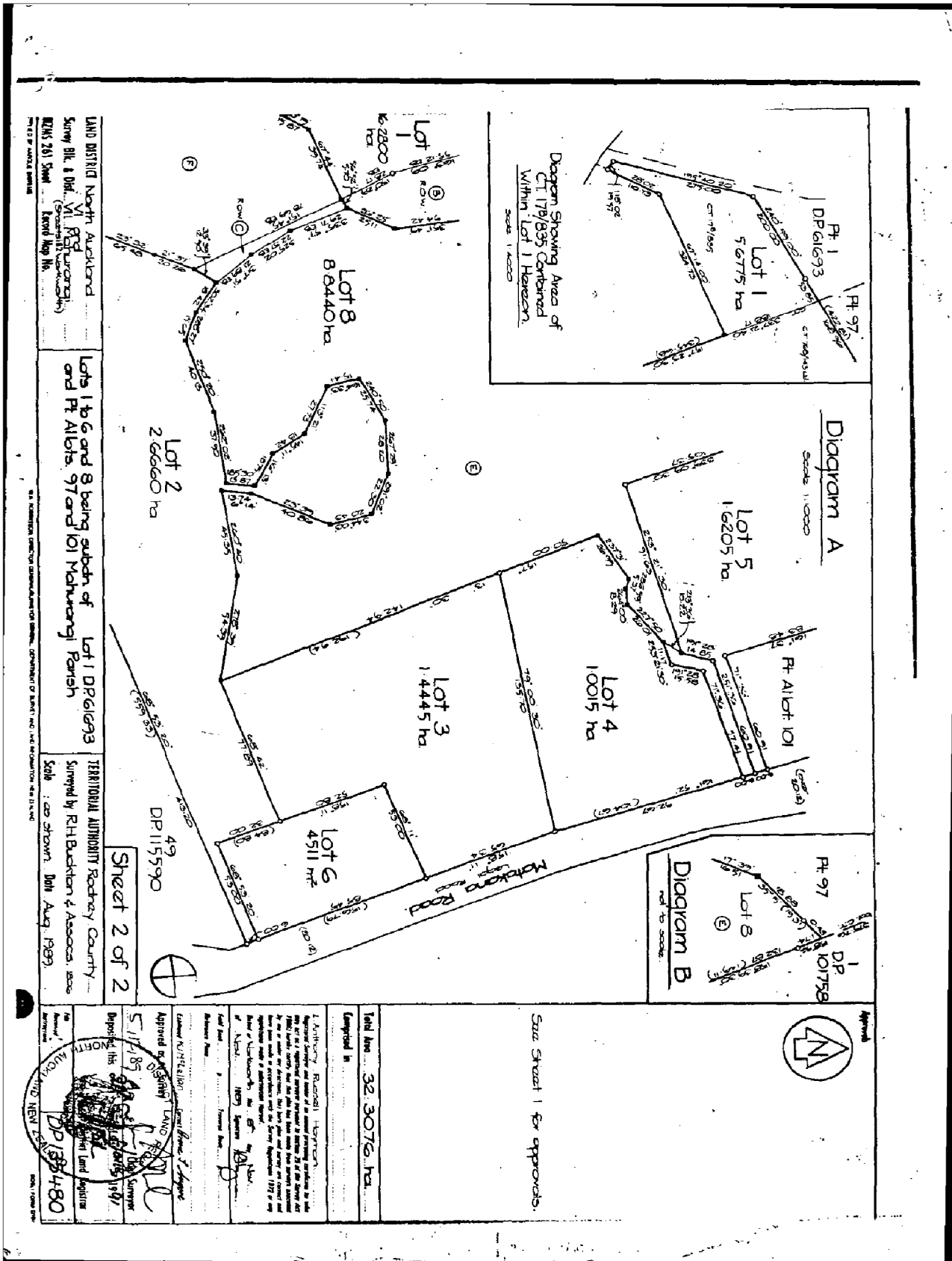
Particulars of the Land
 The land shown on the plan is situated in the City of Auckland, and is bounded to the north by the City of Auckland, to the east by the City of Auckland, to the south by the City of Auckland, and to the west by the City of Auckland.

Particulars of the Land
 The land shown on the plan is situated in the City of Auckland, and is bounded to the north by the City of Auckland, to the east by the City of Auckland, to the south by the City of Auckland, and to the west by the City of Auckland.



Matters of Interest	
(A) Proposed Easement	shown on plan
(B) Proposed Easement	shown on plan
(C) Proposed Easement	shown on plan
(D) Proposed Easement	shown on plan
(E) Existing Easement	shown on plan
(F) Existing Easement	shown on plan

Particulars of the Land
 The land shown on the plan is situated in the City of Auckland, and is bounded to the north by the City of Auckland, to the east by the City of Auckland, to the south by the City of Auckland, and to the west by the City of Auckland.



LAND DISTRICT North Auckland
Survey 816 & Dist. VI, RD (Auroral),
(Subsequent to 1977/835)
NZMS 261 Show
Road Map No.

Lots 1 to 6 and 8 being subdn of Lot 1 DP 61693
and Pt Alots. 97 and 101 Matahanga Parish

TERRITORIAL AUTHORITY Rodney County
Surveyed by R.H. Buckton & Associates 1988
Scale: as shown Date Aug. 1989

49
DP 115590
Sheet 2 of 2

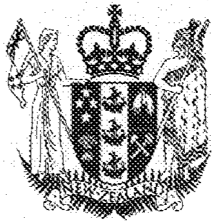
Total Area ... 32,307.6 ha

Employed in

See Sheet 1 for approvals.



1. Authority: Russell, Norman
Registered Survey and name of a surveying institution in the
NZ Act of 1977 (Registered Surveyors Act 1977) 2. Date of Survey: 1989
3. Date of this Survey: 1989 4. Date of this Survey: 1989
5. Date of this Survey: 1989 6. Date of this Survey: 1989
7. Date of this Survey: 1989 8. Date of this Survey: 1989
9. Date of this Survey: 1989 10. Date of this Survey: 1989
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73. Date of this Survey: 1989 74. Date of this Survey: 1989
75. Date of this Survey: 1989 76. Date of this Survey: 1989
77. Date of this Survey: 1989 78. Date of this Survey: 1989
79. Date of this Survey: 1989 80. Date of this Survey: 1989
81. Date of this Survey: 1989 82. Date of this Survey: 1989
83. Date of this Survey: 1989 84. Date of this Survey: 1989
85. Date of this Survey: 1989 86. Date of this Survey: 1989
87. Date of this Survey: 1989 88. Date of this Survey: 1989
89. Date of this Survey: 1989 90. Date of this Survey: 1989
91. Date of this Survey: 1989 92. Date of this Survey: 1989
93. Date of this Survey: 1989 94. Date of this Survey: 1989
95. Date of this Survey: 1989 96. Date of this Survey: 1989
97. Date of this Survey: 1989 98. Date of this Survey: 1989
99. Date of this Survey: 1989 100. Date of this Survey: 1989



**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA79D/814
Land Registration District North Auckland
Date Issued 20 March 1991

Prior References

NA42A/681

Estate Fee Simple
Area 4511 square metres more or less
Legal Description Lot 6 Deposited Plan 135480

Original Registered Owners

William Richard Tomlinson as to a 1/2 share

Phillip William Tomlinson, Bruce Rex Tomlinson and Donn Richard Tomlinson as to a 1/2 share

Interests

8702071.1 Transmission of a 1/2 share/interest William Richard Tomlinson to Phillip William Tomlinson as Executor, Bruce Rex Tomlinson as Executor and Donn Richard Tomlinson as Executor - 10.3.2011 at 9:22 am

8702071.2 Transfer to Phillip William Tomlinson (1/3 share), Bruce Rex Tomlinson (1/3 share) and Donn Richard Tomlinson (1/3 share) - 10.3.2011 at 9:22 am

References
Prior C/T 42A/681

Land and Deeds 69

Transfer No.
N/C. Order No. C. 248630.4



REGISTER

No. 79D/814

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 20th day of March one thousand nine hundred and ninety one under the seal of the District Land Registrar of the Land Registration District of NORTH AUCKLAND

WITNESSETH that WILLIAM RICHARD TOMLINSON of Warkworth farmer (as to an undivided one half share) and PHILLIP WILLIAM TOMLINSON, BRUCE REX TOMLINSON and DONN RICHARD TOMLINSON all of Warkworth farmers (as tenants in common in equal shares as to an undivided one half share) are seised of an estate in fee simple as tenants in common in equal shares ~~in fee simple~~ (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 4511 square metres more or less being Lot 6 Deposited Plan 135480 and being part Allotment 101 Parish of Mahurangi

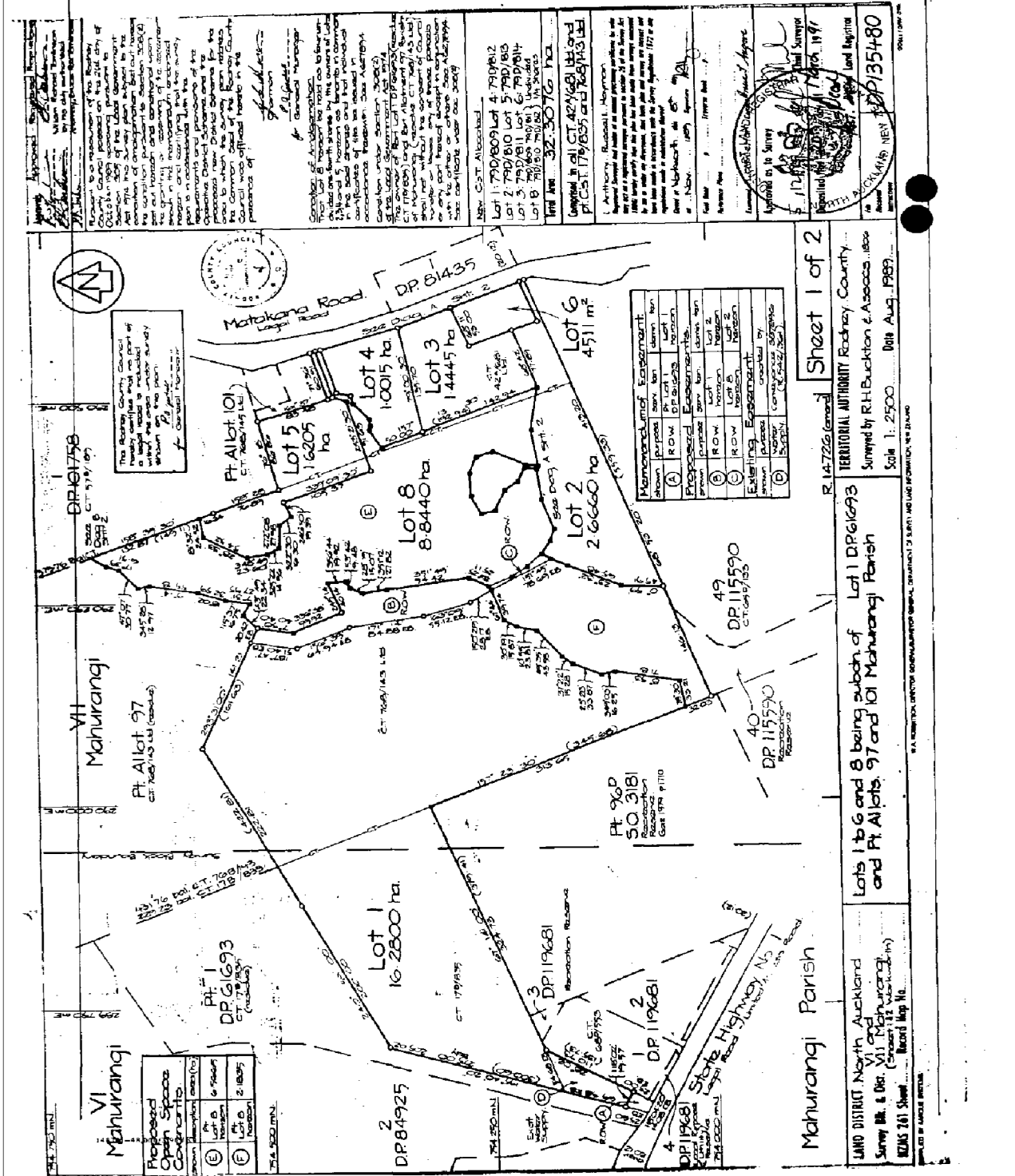
la



No. 79D/814

Measurements are Metric

CERTIFICATE OF TITLE No.



Proposed Open Space	Area (sqm)
(E) Lot 1	16,280.00
(E) Lot 2	2,180.00

Marked	Use	Remarks
(A)	ROW	DP 81435
(B)	ROW	DP 115590
(C)	ROW	DP 115590
(D)	ROW	DP 115590

Approved by the Surveyor General
 17th March 1997
 Registered
 17th March 1997
 Land Register
 DP/135480

Sheet 1 of 2
 R 14726 (Land)
 TERRITORIAL AUTHORITY Rodney County
 Surveyed by R.H. Buckton & Associates
 Scale 1: 2500
 10th Aug. 1989

Lots 1 to 6 and 8 being sublots of Lot 1 DP/61693
 and Pt. Allots 97 and 101 Mahurangi Parish

Mahurangi Parish
 LAND DISTRICT North Auckland
 Survey Blk. & Dist. VI Mahurangi
 NZMS 261 Sheet
 Board Map No.

APPROVED BY THE SURVEYOR GENERAL
 17th March 1997
 REGISTERED
 17th March 1997
 LAND REGISTER
 DP/135480

NEW GST ALLOCATED
 Lot 1: 79D/809 Lot 4: 79D/812
 Lot 2: 79D/810 Lot 5: 79D/813
 Lot 3: 79D/811 Lot 6: 79D/814
 Lot 8: 79D/815
 Lot 7: 79D/816
 All lots: 32.3076 ha
 Contained in all CT 424/681 431 and
 Pt. CT 179/835 and 789/831

MAHURANGI PARISH
 Pt. Allot 97
 Pt. Allot 101
 Lot 1
 Lot 2
 Lot 3
 Lot 4
 Lot 5
 Lot 6
 Lot 8

DP 81435
 DP 115590
 Pt. 90P 50 3181
 Pt. 49 115590

DP 119681
 DP 119681
 DP 119681

State Highway No. 1
 Mataikona Road

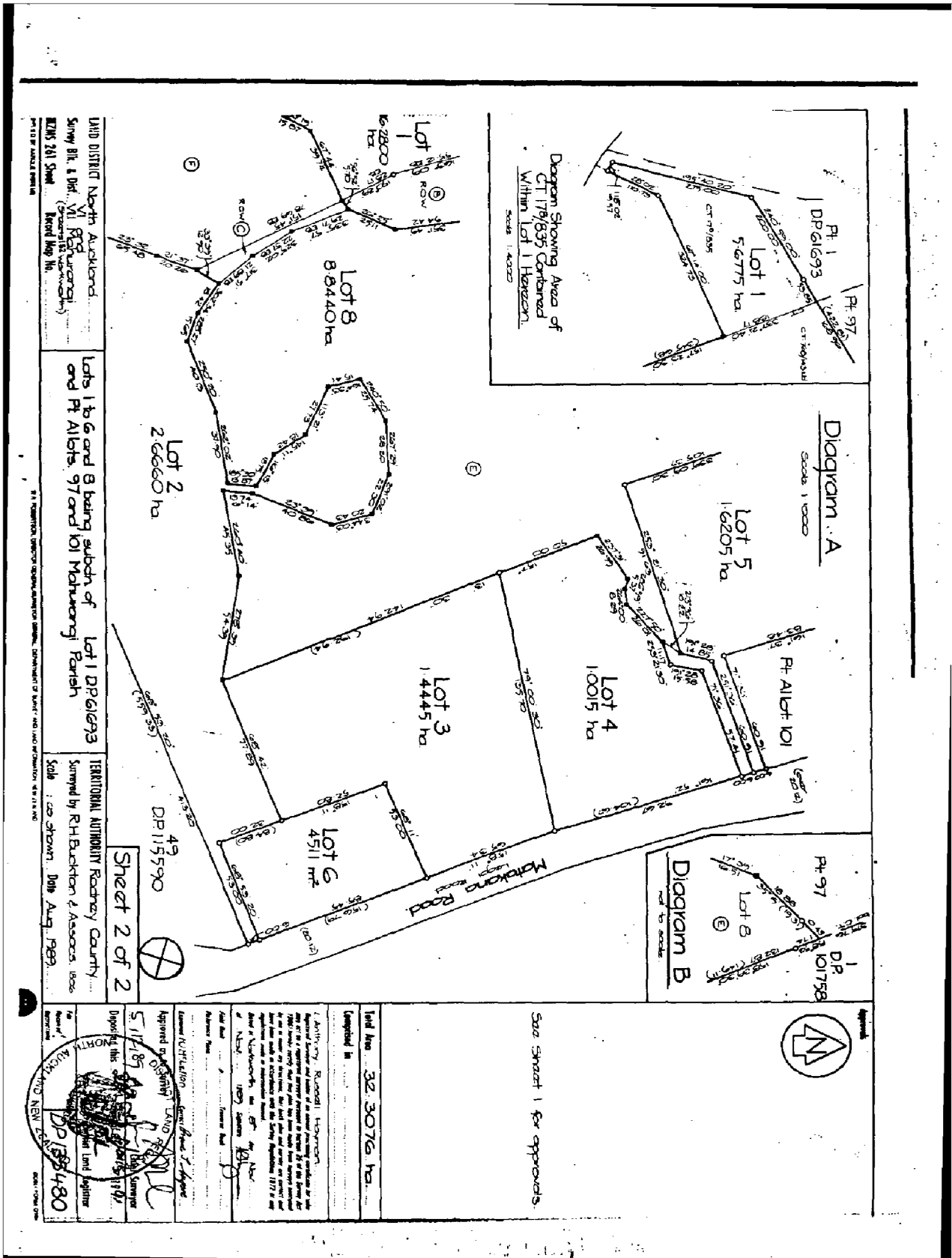
MAHURANGI PARISH

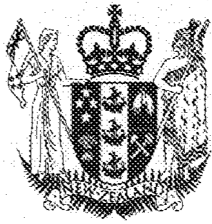
MAHURANGI PARISH

MAHURANGI PARISH

MAHURANGI PARISH

MAHURANGI PARISH





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Limited as to Parcels
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA768/144
Land Registration District North Auckland
Date Issued 20 April 1945

Prior References

DI 2B.392

Estate Fee Simple
Area 2023 square metres more or less
Legal Description Part Allotment 101 Parish of Mahurangi

Original Registered Owners

J.J.B.A. Limited

Interests

D239952.6 Mortgage to ASB Bank Limited - 2.2.1998 at 9:04 am
8382645.1 Departmental dealing linking the correct parcel ID - 21.12.2009 at 2:53 pm

768/144

NEW ZEALAND



(Land and Deeds—104)

Land Transfer (Compulsory Registration of Titles) Act, 1924.
Deeds Index: 2B.392
Application No. 34944

Register-book,
Vol. 768 folio 144

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT.
LIMITED AS TO PARCELS AND TITLE

This Certificate, dated the twentieth day of April one thousand nine hundred and forty-five
under the hand and seal of the District Land Registrar of the Land Registration District of AUCKLAND doth witness that
RONALD VIVIAN MCCRE of Warkworth, Builder,

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or endorsed hereon, subject also to any existing right of the Crown to take and lay off roads under the provisions of any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon bordered green be the several admeasurements a little more or less, that is to say: All that parcel of land containing two rods more or less being part of Allocation 101 of the Parish of Kohurangi

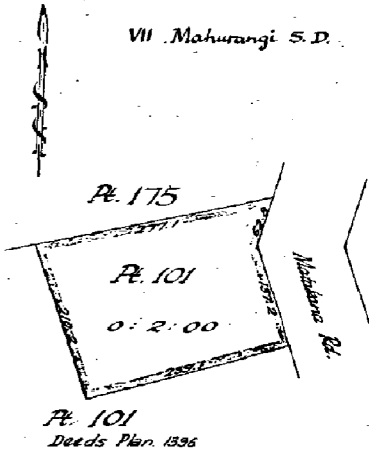
Plan 101758 lodged 17/2/84



R. Warkworth
Assistant District Land Registrar

VII Mahurangi S.D.

Outstanding interest registered in the Deeds Register Office at Auckland:-
Mortgage 419549 (2603/752) Ronald Vivian McCree to the Bank of New Zealand.
DISCHARGE
926602.1 *R. Warkworth*
A.L.R.



This certificate of title has ceased to be limited as to title entered 17/2/1984
R. Warkworth
Assistant District Land Registrar

THIS REPRODUCTION (ON A REDUCED SCALE) CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTER FOR THE PURPOSES OF SECTION 215A LAND TRANSFER ACT 1952.
L. G. Gorman
D.L.R.

926602.2 Transmission to Michael Davis Trotter of Warkworth farmer as executor - 3.11.1980 at 11.24 o/c

M. Davis
A.L.R.

926602.3 Transfer to Robert George Bimmer of Warkworth bank manager and Verna Lorraine Bimmer his wife - 3.11.1980 at 11.24 o/c

METRIC AREA IS 2024m²
2024m²
Conversion Factors:
1 Acre = 4046m²
1 Perch = 25.29m²
1 Link = 2012 metres

926602.4 Mortgage to **DISCHARGED** *M. Davis* Savings Bank - 3.11.1980 at 11.24 o/c
A.L.R.

M. Davis
A.L.R.

OVER

926602.5 Mortgage to ~~Bank of New Zealand~~ and Savings Bank
- 3.11.1980 at 10.58

DISCHARGED
16 MAR 1989
A.L.R.

[Signature]
A.L.R.

B.272614.1 Mortgage to ~~Bank of New Zealand~~
- 20.3.1984 at 10.58

DISCHARGED
16 MAR 1989
A.L.R.

[Signature]
A.L.R.

B.968153.4 Transfer to Verna Lorraine
Rimmer of Warkworth married woman -
16.3.1989 at 10.00 o'clock

[Signature]
A.L.R.

C.274541.2 Transfer to Dorothea
Kerrilyn Power of Warkworth widow
- 14.6.1991 at 10.11 o'clock

[Signature]
A.L.R.

C.274541.3 ~~Bank of New Zealand~~
- 18.11.1989 at 10.11 o'clock

DISCHARGED
18 FEB 1990
FOR DLR

[Signature]
A.L.R.

D.109336.3 Transfer to James Stephen Hook and
Jean Elizabeth Coop of Wellsford school
teachers - 18.2.1997 at 11.39 o'clock

[Signature]
A.L.R.

D.109336.4 Mortgage to ~~Bank of New Zealand~~ ASB Bank Limited
- 18.2.1998 at 9.04

DISCHARGED
04 FEB 1998
FOR DLR

[Signature]
A.L.R.

D.239952.5 Transfer to J.J.B.A. Limited

D.239952.6 Mortgage to ASB Bank Limited

All 2.2.1998 at 9.04

[Signature]
For DLR





**RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Limited as to Parcels
Historical Search Copy**




R. W. Muir
Registrar-General
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

Identifier NA768/145
Land Registration District North Auckland
Date Issued 20 April 1945

Prior References

DI 1B.280

Estate Fee Simple
Area 3035 square metres more or less
Legal Description Edged red Deeds Plan 1396

Original Registered Owners

Michael Jean Smith and Jessie Anne Smith

Interests

6033202.1 Transfer to Terence Robert Bayer and Colleen Joy Bayer - 8.6.2004 at 9:00 am
6033202.2 Mortgage to Mortgage Holding Trust Company Limited - 8.6.2004 at 9:00 am
6853785.1 Departmental dealing correcting the legal description to Part Allotment 101 Parish of Mahurangi and defined on Deeds Plan 1396 and correcting the prior reference to DI 1B.280 - 5.5.2006 at 11:00 am
7869697.1 Variation of Mortgage 6033202.2 - 7.7.2008 at 9:00 am
8382645.1 Departmental dealing linking the correct parcel ID - 21.12.2009 at 2:53 pm
11457251.1 Discharge of Mortgage 6033202.2 - 26.6.2019 at 1:46 pm
11457251.2 Transfer to Timothy Scott Brodie and Louanne Ruth Brodie - 26.6.2019 at 1:46 pm

768/145

Reference: Land Transfer (Compulsory Registration of Titles) Act, 1924.
 Deeds Index. 1B.28C
 Application No. 34945

NEW ZEALAND.



(Land and Deeds—104)

Register-book, Vol. 768, folio 145

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT.
LIMITED AS TO PARCELS AND TITLE

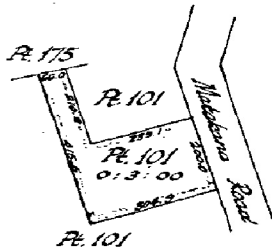
This Certificate, dated the twentieth day of April one thousand nine hundred and forty-five under the hand and seal of the District Land Registrar of the Land Registration District of AUCKLAND witnesses that CARL GISSLER of Warkworth, Farmer,

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under written or endorsed hereon, subject also to any existing right of the Crown to take and lay off roads under the provisions of any Act of the General Assembly of New Zealand) in the land hereinafter described, as the same is delineated by the plan hereon bordered green, be the several admeasurements a little more or less, that is to say: All that parcel of land containing three roods more or less being the land shown edged red on a plan lodged in the Deeds Register Office at Auckland as No.1396 (Town of Warkworth Extension No.5) and being part of Allotment 1C1 of the Parish of Mahurangi

Plan 10155 lodged 17/2/84



VII Mahurangi S.D.



METRIC AREA IS

3036m²

- Conversion Factors:
- 1 Acre = 4046m²
 - 1 Perch = 25.29m²
 - 1 Link = 3312 metres



Carl Worthington

Assistant District Land Registrar.

The provisions of Sections 16 and 17 of the Land Act 1924 are applicable to the abovescribed land.

Carl Worthington

A.L.R.

Fencing Covenant contained in Deed No.417369 (2601/412).

Carl Worthington

A.L.R.

This certificate of title has ceased to be limited as to title Entered 6/11/1945

Carl Worthington

Asst. Land Regisr.

Commission 282300 to Henry Weston
 Police of Warkworth, which, as
 specified, dated 21st 1857 at 1450'0"
W. Weston
 59268 to Cyril John Fisher,
 Highgate, of Auckland, Auckland.
 Produced 21st 1857 at 1450'0".
W. Weston

Transfer 392989 to Robert Stanley Chessum
 of Warkworth, schoolmaster. Produced 30.5.1947
 at N. 47'00".
Carl Worthington

A.L.R.

Mortgage 498643 to Bank of New Zealand
 Produced 3-2-1966 at 1445'
 DISCHARGED 28/11/1971
Carl Worthington

DISCHARGED

Carl Worthington

(over)

768/145

Carl Worthington

768/145

768/145 Me. Dent

193548 Settled Joint Family Property under
 This Joint Family Property of 1950 in
 Stanley b. [unclear]
 abo. [unclear]
 now [unclear] his wife [unclear]
 Entered [unclear] 1950-11-16
 ALR

THIS REPRODUCTION (ON A REDUCED SCALE)
 CERTIFIED TO BE A TRUE COPY OF THE
 ORIGINAL REGISTER FOR THE PURPOSES OF
 SECTION 213A LAND TRANSFER ACT 1952.
 L. G. G. [unclear] D.L.R.

C.282682.1 Transfer to Dorian Howard
 of Auckland surveyor and Glynis Anne
 his wife - 9.7.1991 at 1.44 o/c
 Dent

C.282682.2 Mortgage to [unclear] Banking Group
 (New Zealand) Limited - 9.7.1991 at 1.44
 o/c

C.542588.3 Transfer to Michael
 Jean Smith registry manager and
 Jessie Anne Smith relieving
 teacher both of Auckland -
 23.11.1993 at 2.45 o/c
 D.L.R.

112518.1 A600101 Cancellation Athol Allan
 Voback - 17.11.1977 at 9.49 o/c
 D.L.R. 58141

112518.2 Transfer to Athol Allan Voback
 of Wellsford linesman and Frances Emma
 Voback his wife - 15.8.1972 at 11.03 o/c

295350.4 Mortgage to Morseth Gould
 Securities Limited - 12.1974 at 9.18 o/c
 43364-1 for A.L.R.

815092.1 Transfer to Peter Griffith
 Ilesley of Matakana builder and
 Alison Mary Ilesley his wife -
 29.11.1979 at 12.03 o/c
 A.L.R.

815092.2 Mortgage to Auckland Savings
 Bank - 29.11.1979 at 12.03 o/c
 A.L.R.

B.324331.1 Transfer to Alison Mary Ilesley
 abovenamed - 29.8.1984 at 11.35 o/c

B.324331.2 Mortgage to Lillian Franconi
 29.8.1984 at 11.35 o/c
 A.L.R.

C.281200.1 Transfer to Dorian Howard Dent
 of Auckland surveyor and Glynis Anne Dent his
 wife - 4.7.1991 at 1.44 o/c

C.281200.2 Mortgage to [unclear] Banking Group (New
 Zealand) Limited - 4.7.1991 at 2.13 o/c
 A.L.R.

768/145

DISCHARGED
11 SEP 1993

DISCHARGED
11 SEP 1993

REJECTED



Appendix F - Site Inspection Photographs

Site Inspection Photographs 245 Matakana Road

By Focus Environmental Services
Limited



Southern Area



Eastern Area



Garage (1)



Dwelling



Dwelling



Dwelling (PACM soffits)



Minor Dwelling (PACM Soffits)



Garage (PACM Soffits)



Curtilage of Dwelling



Minor Dwelling



Southern Area



Curtilage of Dwelling



Western Area



Western Area



Western Area



Septic Tank in Western Area



Burn Pile in Curtilage of Dwelling



Shed (1)



Storage Containers



Shearing Shed



Stock Holding Area (Potential Spray Race Operation)



Shearers Barn



PACM sheeting outside Shearers Shed



Shearers Barn



Stock Holding Area (Potential Spray Race Operation)



Gravel Stockpiles



Burn Barrel



Deconstructed Shed



Temporary Shelter

Site Inspection Photographs 35 Clayden Road

By Focus Environmental Services
Limited



Entrance/Driveway



Entrance/Driveway



Hardstand Area



Concrete Lined Large Garage



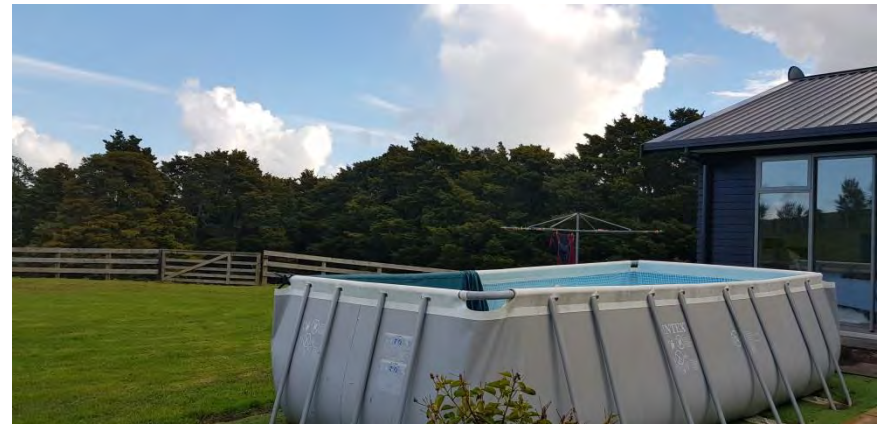
Burn Barrel



Dwelling (PACM Soffits)



Dwelling (PACM Soffits)



Curtilage of Dwelling

Site Inspection Photographs 21 Clayden Road

by Focus Environmental Services
Limited



Gravel Driveway Leading to Residential Dwelling



Plastic Water Tank



Paddock



In-Situ Water Tanks



Area of General Storage



Raised Treated Timber Stockpile



Gravel Track



Paddocks



Small Stock Holding Pen



Hard Stand Area and Two Raised Shipping Containers



Chemical Storage



Truck and Trailer Storage



Potential Area of Uncertified Fill



Potential Area of Uncertified Fill

Site Inspection Photographs 43 Clayden Road

by Focus Environmental Services
Limited



Residential Dwelling



Curtilage Area



Grazing Paddocks



Chicken Coup



Water Tanks



Shed

ATTACHMENT P
LAND CONTAMINATION REPORT BY RILEYS



**PRELIMINARY SITE INVESTIGATION
DUE DILIGENCE
WARKWORTH NORTH**

Engineers and Geologists

PRELIMINARY SITE INVESTIGATION DUE DILIGENCE WARKWORTH NORTH

Report prepared for: LJ Partnership (NZ) Ltd

Report prepared by: Ali Anwar, Geo-environmental Scientist



.....

Report reviewed and approved for issue by: Scott Vaughan, Managing Director



.....

Report reference: 180226-A

Date: 30 May 2018

Copies to: LJ Partnership (NZ) Ltd 1 electronic copy
Riley Consultants Ltd 1 copy

Issue:	Details:	Date:
1.0	Preliminary Site Investigation	30 May 2018

Contents

1.0	Introduction	1
1.1	Background and Objectives	1
2.0	Site Description	1
3.0	Proposed Development	2
4.0	Geology.....	2
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5.1	Aerial Photograph Search	2
5.2	Auckland Council File Search	3
5.2.1	Site Contamination Enquiry.....	3
5.2.2	Auckland Council Property File Search	3
5.2.3	Certificate of Titles Search	4
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5.4	Hazardous Activities and Industries List Activities	4
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6.1	NES Soil Activity Status	5
7.0	Conclusions.....	6
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Appendices

- Appendix A: Aerial Photographs
- Appendix B: Site Contamination Enquiry
- Appendix C: Site Walkover Photographs
- Appendix D: RILEY Dwg: 180226-FIG8

PRELIMINARY SITE INVESTIGATION DUE DILIGENCE WARKWORTH NORTH

1.0 Introduction

As requested by Mr Vaughan Bell of LJ Partnership (NZ) Ltd (LJ Partnership), Riley Consultants Ltd (RILEY) has carried out a preliminary site investigation (PSI) at the above property. This PSI has been undertaken to assess whether historic or current activities have occurred on-site that may have contaminated the soils, which may impact the proposed urbanisation and development of the site as per the Warkworth structure plan (WSP). The intention of the plan is to facilitate the urbanisation of the future urban zone at Warkworth.

This report has been prepared in accordance with Resource Management: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES Soil).

1.1 Background and Objectives

Auckland Council (Council) has included the site in the future urban zone of the WSP. LJ Partnership is now seeking a due diligence assessment to determine whether any current or previous activities have adversely impacted site soils. The past and present land uses at the site potentially include activities that may cause land contamination. These activities are defined by the Ministry for the Environment (MfE) Hazardous Activities and Industries List (HAIL). If an activity or industry on the HAIL is, or has occurred on a site, the NES Soil applies to the proposed rezoning and soil disturbance associated with the land development activities (described as the works herein).

The purpose of this PSI is to assess current and historical land use and make a preliminary assessment of the likely contaminants and potential exposure pathways relevant to the works and site end users. The findings of this PSI will be used to establish whether or not the works can occur as a permitted activity under the NES Soil. In order for the works to occur as a permitted activity under the NES Soil, it is necessary for a PSI to demonstrate that it is highly unlikely that there will be a risk to human health, given the intended activity. The NES Soil User's Guide states that highly unlikely should be interpreted "in a plain English way to mean a high probability that there is no serious or real and substantial risk."

2.0 Site Description

The site is located north-west of the Warkworth Township. It is an irregular shape with a total land area of approximately 60ha and comprises of Lot 4 DP492431, PT Allot 97 PSH of Mahurangi SO 27C, and Lot 3 and 4 DP199755. It is bounded by the Warkworth Showgrounds to the south, while to the north, west, and east it is bounded by existing rural and lifestyle blocks, Goatley Road and Clayden Road. An unnamed stream runs down the eastern boundary and discharges into the Mahurangi River.

The majority of the site is in pasture, which typically slopes from the north-west down to the south-east. Land gradients vary from gentle to steep. There are several gullies with streams in the base, oriented in a north-west to south-east direction. These discharge into the unnamed stream along the eastern boundary. Bush is present along the alignment of some of these gully bases and in the lower-lying parts of the site, adjacent to the eastern boundary.

A patch of bush is also present in the north-western part of the site. There is also an existing manmade pond located in a gully in the northern part of the site, just below Clayden Road.

3.0 Proposed Development

Based on information provided by LJ Partnership, we understand that it is proposed to subdivide the site to create approximately 500 residential lots. From high level discussions to date, and our experience, we understand that the site will require substantial re-contouring to create more uniform gently to moderately sloping building platforms, suitable for light industry and residential development.

We expect that earthworks will involve excavations in the elevated parts of the site and fills within the lower parts of the site. The preliminary earthworks profile prepared by RILEY indicates that a cut in the order of 920,000m³, with a maximum depth of cut and fill of 16m and 19m, respectively, are likely to be required.

4.0 Geology

With reference to the 1:250,000 Geological Map 3 of Auckland, we infer the site is underlain by alternating thick-bedded volcanic-rich graded sandstone and siltstone of the Pakiri Formation of the Warkworth Subgroup (Waitemata Group).

5.0 Preliminary Site Investigation

A PSI was undertaken to assess any potential risk of soil contamination relating to past and current activities carried out on-site. The PSI was carried out in accordance with the NES Soil.

The PSI includes the following:

- A review of historical aerial photographs.
- Obtaining and reviewing Council site contamination enquiry.
- Obtaining and reviewing Council property files.
- Obtaining and reviewing Certificates of Titles.
- A site walkover to identify and visually inspect any potential contamination risk areas and existing HAIL activities.

5.1 Aerial Photograph Search

A review of historic aerial photographs dated 1966 to 2017 (Appendix A) is presented below:

Table 1: Review of Available Historic Photographs

Date	Description
1966	The site appears to be pasture land covered in grass. Trees appear to occupy the northern portion (Lot 3 DP 199755) of the site.
1976	No significant changes to land use observed.
1999	The current pond on the eastern portion (Lot 4 DP 492431) of the site is now visible.
2010	No significant changes to land use observed.
2017	No significant changes to land use observed.

5.2 Auckland Council File Search

5.2.1 Site Contamination Enquiry

The site contamination enquiry did not identify any HAIL activities to have occurred on site.

As part of the enquiry, the former Auckland Regional Council and current databases were searched for records of closed landfills, bores, air discharge, industrial and trade process consents, contaminated site discharge consents, and environmental assessments within approximately 200m of the site. A single pre-lodgement consent application was identified for a proposed vehicle spare parts business to operate on 17 Clayden Road, which is off-site (approximately 200m away from closest portion of the subject site). The application status is labelled as “no longer required” however, a vehicle spare parts business was observed to be operating on 17 Clayden Road. The vehicle spare parts business is however, operating off-site and is highly unlikely to have adversely impacted the subject site.

A copy of the Council site contamination enquiry is included in Appendix B.

5.2.2 Auckland Council Property File Search

The following are applications/notifications found on the Council property files:

Lot 4 DP 492431 Clayden Road

- A native bush assessment report by Scrub Consultants Ltd, dated 4 February 2015, was prepared to accompany an application to subdivide Lot 1 to 4 Clayden Road. The report concluded that the regenerating native bush remnants proposed for formal protection qualify as significant natural area under the RDC assessment process.
- A Territorial Authority approval to subdivide Lot 2 DP 194468 and Lot 175763 into Lots 1, 2, 3 and 4.

Pt Allot 97 SO 27C State Highway 1

- An archaeological assessment for the Matakana Link Road prepared by Clough & Associates Ltd for Auckland transport (January 2018).
- A PSI by Jacobs for the proposed Matakana Link Road dated 26 February 2018. The PSI did not identify any HAIL activities within the footprint of the proposed Matakana Link Road.

Lot 3 DP 199755 Goatley Road

- Rodney District Council grants consent for the subdivision of the property on 18 September 1998.
- An application seeking consent to create a right-of-way through the property dated 19 January 1999 was lodged to Rodney District Council.

Pt Lot 1 DP 61693 State Highway 1

- An application for building permit to construct a garage was lodged to the Rodney County Council on 11 December 1973. Accompanying the application is a drawing showing a house and garage present on the site and indicates that the garage was removed on 6 December 1973.

5.2.3 Certificate of Titles Search

- The property has been owned by various private owners and farmers since the 1930s.
- The final farmers to own the properties are:
 - Alan Gower Stevenson and Janet Sutherland Stevenson.
 - Michael Ross Clayden.

5.3 Site Walkover

A site walkover was carried out by a RILEY geo-environmental scientist on 17 May 2018 (refer to Appendix C for site photographs).

The following observations were made:

- The entire site is pasture land with grazing livestock (Photo 1).
- The only infrastructure present on the property were fences and powerlines (Photo 2).
- A pond is located on the northern portion of Lot 4 DP 492431 (Photo 3).
- A potential ground contamination hotspot was encountered approximately 250m south of the pond where a car and truck have been dumped (Photo 4). Portions of the ground around the dumpsite appeared to be raised, which may indicate burial of waste materials (Photo 5).

5.4 Hazardous Activities and Industries List Activities

The historical desktop review and site walkover indicate that the site has historically been pastures used for livestock farming. Farming is not considered an activity that has the potential to cause ground contamination and is not included on the HAIL. However, a potential dumpsite was identified during the site walkover and is considered HAIL activity G5¹.

6.0 Applicability of NES Soil

The NES Soil is intended to provide nationally consistent planning controls appropriate to district and city councils for assessing contaminants in soil regarding human health. As a result, the NES Soil prevails over the rules in the District Plan, except where the rules permit or restrict effects that are not dealt with in the NES Soil.

The NES Soil applies to specific activities on land where a HAIL activity has, or is more likely than not to have, occurred. Activities covered under the NES Soil relevant to the proposed works are:

- Soil disturbance.
- Subdivision and land use change.

Table 2, as provided in the NES Soil Users Guide, confirms the NES Soil does apply for the proposed works.

¹ G5: Waste disposal to land (excluding where biosolids have been used as soil conditioners).

Table 2: PSI Checklist

NES Soil Requirement	Applicability
Is an activity described on the HAIL currently being undertaken on the piece of land to which this application applies?	No
Has an activity described on the HAIL ever been undertaken on the piece of land to which this application applies?	Yes
Is it more likely than not, that an activity described on HAIL, is being or has been undertaken on the piece of land to which this application applies?	Yes
Conclusion: The NES Soil applies.	

6.1 NES Soil Activity Status

An assessment against the relevant permitted activity standards of the NES Soil is provided in Table 3 for the activity of soil disturbance and for changing land use and subdivision.

Table 3: NES Soil Permitted Activity Assessment

NES Soil – Soil Disturbance Permitted Activity Conditions (Regulation 8(3))	Assessment
Controls to minimise the exposure of humans to mobilised contaminants.	CAN COMPLY Compliance based on the implementation of a site-specific management plan.
The soil must be reinstated to an erosion-resistant state within 1 month.	UNLIKELY TO COMPLY This will not be in compliance as the sealing of the surface is likely to take longer than approximately one month.
The volume of the disturbance of the soil of the piece of land must be no more than 25m ³ per 500m ² .	CANNOT COMPLY The preliminary earthworks profile estimates a ground disturbance volume of 920,000m ³ over 60ha.
Soil must not be taken away in the course of the activity, except for a maximum of 5m ³ per 500m ² of soil may be taken away.	CAN COMPLY The preliminary earthworks profile estimates an earthworks balance can be achieved and soil will not need to be removed from site.
Soil taken away during the activity must be disposed of at an authorised facility	CAN COMPLY If required, contaminated soil will be removed from site will be disposed to an approved facility.
The duration of the activity must be no longer than 2 months.	CANNOT COMPLY Development works are likely to take longer than two months.
Integrity structures designed to contain contaminated soil must not be compromised.	NOT APPLICABLE There is no indication that such a structure will be built.

NES Soil – Subdividing and Changing Land Use Permitted Activity Conditions (Regulation 8(4))	Assessment
A PSI for the site must exist.	CAN COMPLY - this document addresses this condition
The PSI must confirm it is highly unlikely that there will be a risk to human health if the activity is completed.	UNLIKELY TO COMPLY - it is likely that there will be a risk to human health if the activity is completed to the piece of land, as a potential ground contamination hotspot was identified.
The PSI must be accompanied by a relevant site plan.	CAN COMPLY - refer to Appendix D.
The consent authority must have the report and the site plan.	CAN COMPLY - this PSI will be included with the plan change application being prepared and submitted by LJ Partnership.

As indicated in Table 3, the proposed works do not meet the provisions of a Permitted Activity under the NES Soil Regulations 8(3) and 8(4) and a resource consent will be required. If no or insufficient sampling investigation was undertaken at the site i.e. a detailed site investigation (DSI), the proposed works would require a Discretionary activity resource consent. With a DSI, the application for soil disturbance and subdivision and land use change would be a Controlled Activity, or a Restricted Discretionary Activity under the NES Soil depending on the existence of and degree of ground contamination present.

7.0 Conclusions

RILEY has been commissioned by Developments Advisory Services Ltd. to undertake a PSI at the site. The purpose of this investigation was to assess current and historical HAIL activities at the site and assess the potential for ground contamination to exist and its potential implications for the proposed works.

The key findings of our investigation are as follows:

- HAIL activity G5 has occurred on the site approximately 250m south of the pond.
- We consider that the proposed works would not comply with the permitted activity criteria for soil disturbance or subdividing and changing land use as per Regulations 8(3) and 8(4).
- As it stands, a Discretionary Activity consent under the NES Soils will be required unless a DSI is carried out to assess the threat posed by the potential ground contamination hotspot (i.e. the potential dumpsite).
- It is recommended that a DSI is carried out to assess ground conditions at the hotspot and depending on the analytical results, the activity status may be downgraded to a Restricted Discretionary, Controlled Activity, or Permitted Activity status.

8.0 Limitation

This report has been prepared solely for the benefit of the Developments Advisory Services Ltd. as our client with respect to the brief given to us. The reliance by other parties on the information or opinions contained in the report shall, without our prior review and agreement in writing, be at such parties' sole risk.

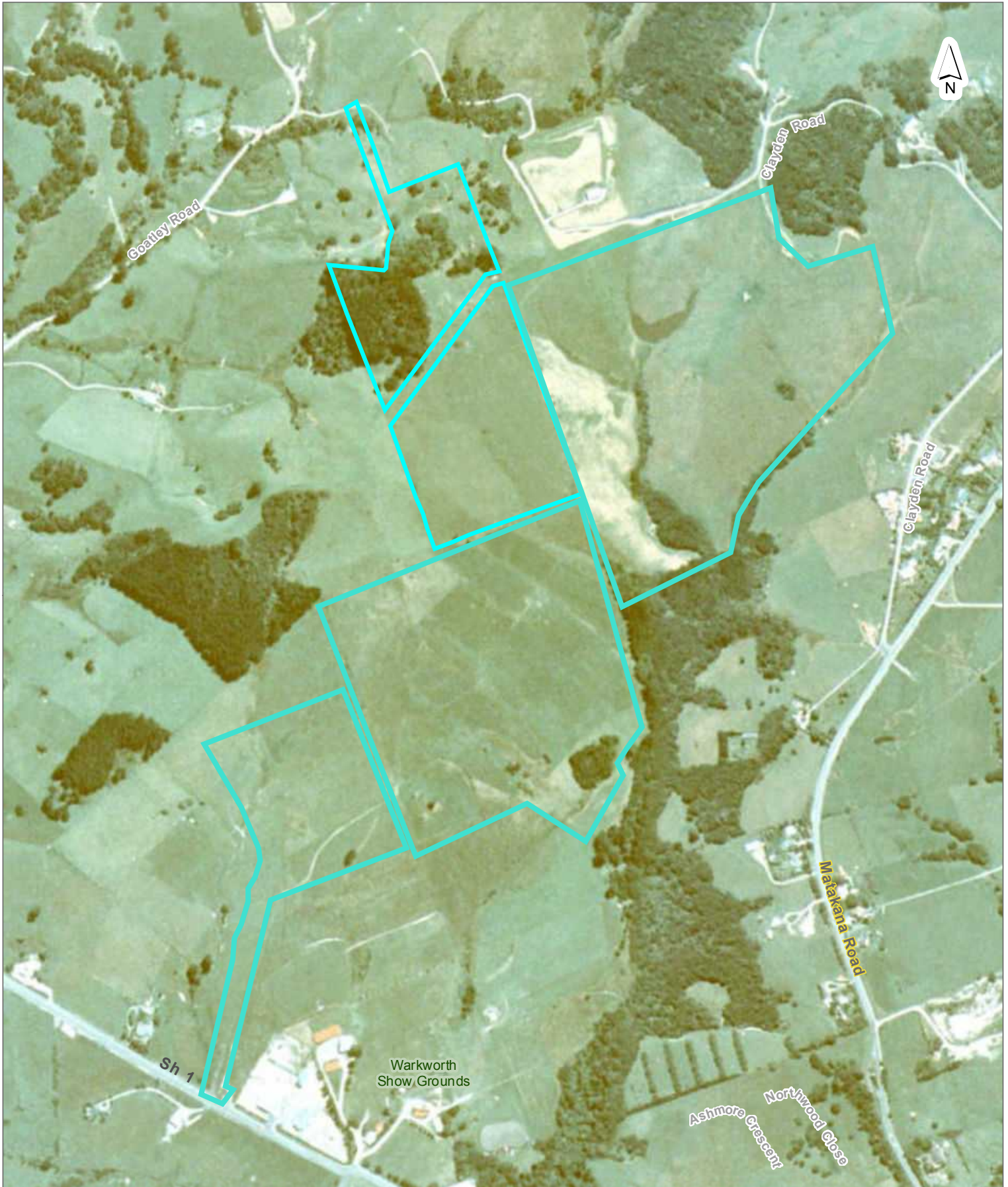
Opinions and judgements expressed herein are based on our understanding and interpretation of current regulatory standards, and should not be construed as legal or planning opinions. Where opinions or judgements are to be relied on they should be independently verified with appropriate advice.

APPENDIX A

Aerial Photographs







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1999 Aerial Image

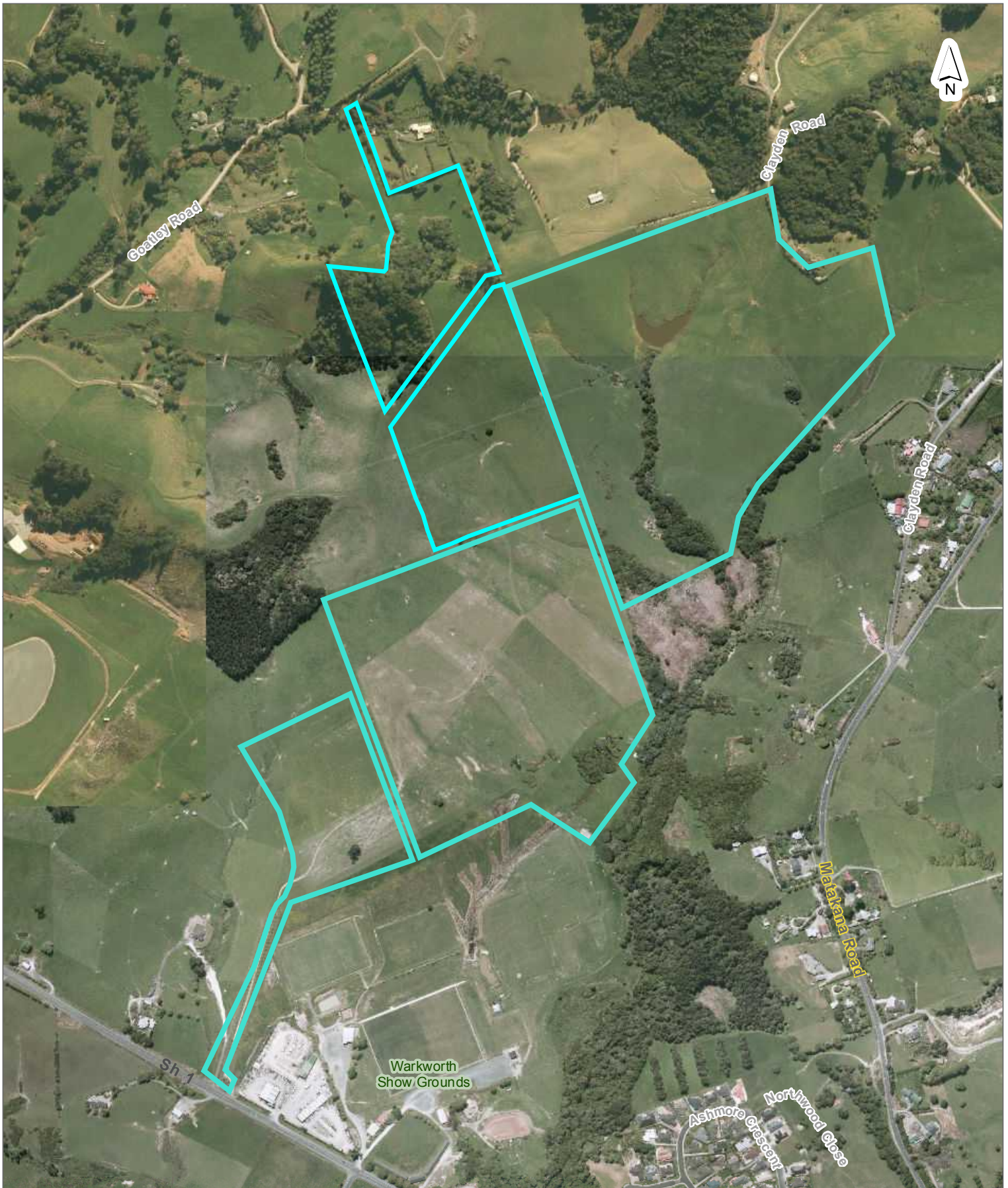
1303

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Scale @ A4
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Date Printed:
21/05/2018





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2010 Aerial Image

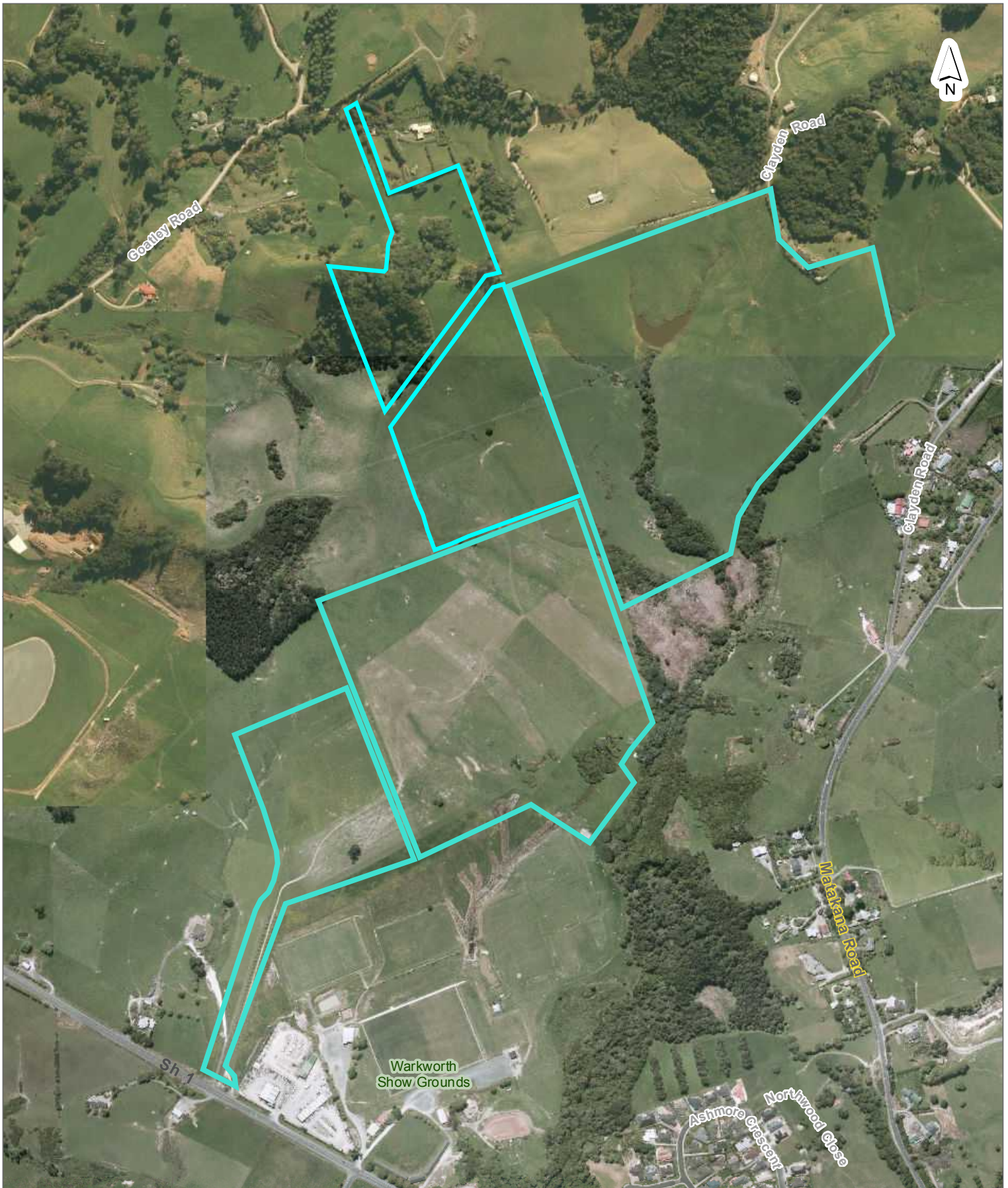
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 21/05/2018





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2017 Aerial Image

1305

0 40 80 120
 Metres

Scale @ A4
 = 1:8,000

Date Printed:
 21/05/2018



APPENDIX B

***Site Contamination
Enquiry***

25 May 2018

Riley Consultants Limited
PO Box 100253
North Shore 0745
Attention: Ali Anwar

Dear Ali

Site Contamination Enquiry – Lot 3 DP199755, Goatley Road, Lot 4 DP492431, Clayden Road, Dome Valley, Pt Allot 97 SO27C, Pt Lot 1 DP61693, SH1

This letter is in response to your enquiry requesting available site contamination information for the above site. The following details are based on information available from the former Auckland Regional Council records system and information currently held by the Auckland Council Natural Resources and Specialist Input Unit. The details provided below exclude any property information held by the former district/city councils.

The general catchment file and site visit file for the catchment (1-40 -SV) were not searched. These files contain pollution incidents where the source of pollution was not traced to a particular site, site visits where no follow-up correspondence was required and some information from archived files.

If the above site is coastal or beside a river, it is possible that historic, unconsented reclamation may have occurred. The Auckland Council Specialists Unit Coastal Team may be able to provide further information.

The records reviewed as part of this Site Contamination Enquiry search do not identify individual horticultural sites in the region. However, there is a possibility that horticultural activities may have occurred at the site. The local Auckland Council customer service centre, specific to the area of the site may be able to provide relevant information where former horticultural sites have been mapped.

If you are concerned that a historic land use (such as filling) may have caused the underlying soils to become contaminated, it is recommended that you obtain an independent environmental assessment of the site. Staff from the Auckland Council Earthworks and Contaminated Land Team can provide advice on the results of any evaluation in terms of site remediation and/or potential consent requirements.

The former Auckland Regional Council and current databases were searched for records of closed landfills, bores, air discharge, industrial and trade process consents, contaminated site discharge consents, and environmental assessments within approximately 200 metres of the site. Relevant details of the pollution incidents and identified consents are appended to this letter as an excel spreadsheet. **Please refer to the column labelled 'Property Address' and Incident/Consent/Bored ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.**

The details provided are in accordance with the obligation to make information publicly available upon request. While the Auckland Council has carried out the search using its best practical endeavours, it does not warrant its completeness or accuracy and disclaims any responsibility or liability in respect of the information. If you or any other person wishes to act or to rely on this information, or make any financial commitment based upon it, it is recommended that you seek appropriate technical and/or professional advice.

In addition, further site specific pollution incidents may be held at area office below. It is recommended that you contact the local customer service centre of the Auckland Council, specific to the site being investigated: 50 Centreway Road, Orewa, as they also may hold files with further relevant information.

I trust that this answers your query. If you wish to discuss the matter further, please contact Andrew Kalbarczyk on 301 0101. Should you wish to request any of the files listed above for viewing, please contact the Auckland Council Call Centre on 301 0101 and note you are requesting former Auckland Regional Council records (the records department requires three working days' notice to ensure files will be available).

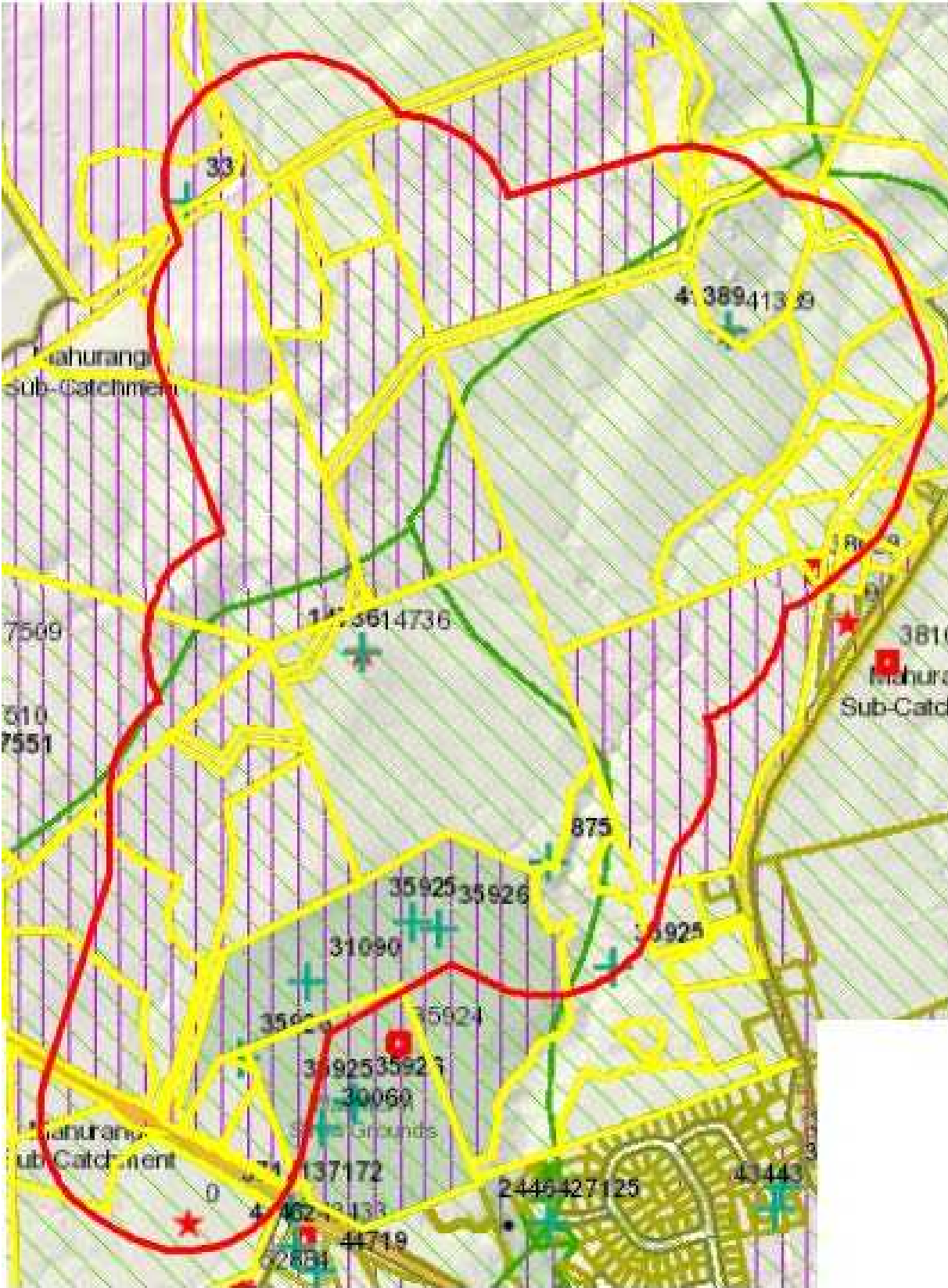
Please note: the Auckland Council cost recovers officer's time for all site enquiries. A basic enquiry takes approximately 1 - 2.5 hours to search the files and databases in which information is held. As such an invoice for the time involved in this enquiry will follow shortly.

Yours sincerely



Jared Osman
**Team Leader – Contaminated Air, Noise
Specialist Unit | Resource Consents**

Please refer to the column labelled 'Property Address' and Incident/Consent/Bored ID (where applicable) on the attached spreadsheet to aid in identifying corresponding data on the map.



APPENDIX C

***Site Walkover
Photographs***



Photo 1: Pastural land with livestock



Photo 2: Fences and powerlines only visible infrastructure onsite



Photo 3: Pond on the northern portion of Lot 4 DP 492431



Photo 4: Car and truck dumped 250m south of the pond.



Photo 5: Evidence of ground disturbance potentially due to burial of waste materials.

APPENDIX D

***RILEY Dwg:
180226-FIG8***

NOTES:
1. AERIAL PHOTO FROM AUCKLAND COUNCIL GIS.

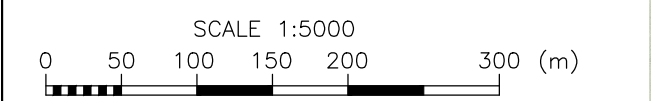
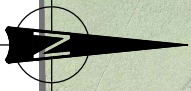
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STATE HIGHWAY 1
WARKWORTH 0981

PT ALLOT 97 SO
27C
STATE HIGHWAY 1
WARKWORTH 0985

LOT 3 DP 199755
GOATLEY ROAD DOME
VALLEY 0981

DUMP SITE

LOT 4 DP 492431
CLAYDEN ROAD DOME
VALLEY 0985



FOR INFORMATION

DESIGN AA	CHECKED AA	APPROVED FOR ISSUE: S. VAUGHAN
DRAWN JM	CHECKED JM	DATE: 30/05/18
1	FOR INFORMATION	DC 30.05.18
REV	DESCRIPTION	BY DATE

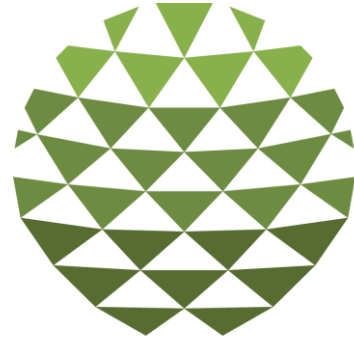
RILEY
CONSULTANTS

P.O. BOX 100 253
NORTH SHORE
AUCKLAND 0745
TEL. 09-4897872
FAX. 09-4897873

TITLE
LJ PARTNERSHIP (NZ) LTD
WARKWORTH NORTH DUE DILIGENCE
1315
SITE LAYOUT

CADFILE 180226-FIG 8	REV.
SCALES (A3) 1:5000	1
DRAWING No. 180226-FIG 8	

ATTACHMENT Q
ARBORIST REPORT – CRAIG WEBB



CRAIG WEBB
Consultant Arborist

CLAYDEN ROAD, WARKWORTH

*WARKWORTH LAND COMPANY
C/O DASL
ATTN: CORMAC TAGUE*

REPORT PREPARED BY: CRAIG WEBB

DATE: 24 FEBRUARY 2020

1 INTRODUCTION

- 1.1 *CWCA Limited* has been commissioned by *Tattico Limited* on behalf of Warkworth Land Company Limited to prepare this arboricultural report relating to a proposed zoning change at Clayden Road, Warkworth. The plan change is described in detail in the Tattico Limited report 'Warkworth Clayden Road: Plan Change Request to Auckland Unitary Plan', dated February 2020.
- 1.2 The purpose of this report is to provide an assessment of whether there are individual trees within the extent of the plan change that warrant consideration of inclusion in the Auckland Unitary Plan schedule of notable trees.

2 BRIEF/BACKGROUND/PLANS PROVIDED

- 2.1 My brief was to survey the site and assess individual trees against the Auckland Unitary Plan criteria for inclusion in the schedule of notable trees. The AUP 'Guidelines for Nominating a Notable Tree for Evaluation' has been used in the compilation of this report.
- 2.2 This report has been compiled with reference to the planning report by Tattico and the plan set by A Studio Architects. The Ecological Assessment by Northland Ecology and Fresh Water Solutions has also been provided to me for the purposes of my assessment.

3 LIMITATIONS

- 3.1 To my knowledge, the AUP 'Guidelines for Nominating a Notable Tree for Evaluation' has not been widely used or tested. The system contains criteria that are vague and unable to be accurately determined without significant amounts of further information relating to trees in the local and regional area that is unavailable. It is my opinion that the AUP 'Guidelines for Nominating a Notable Tree for Evaluation' is impractical, highly subjective and not supported by arboricultural best practices for tree evaluation. There are significant limitations in undertaking an assessment using this method.
- 3.2 The assessment of trees within the site was undertaken under significant time constraints.

4 SITE VISIT

- 4.1 A site visit to carry out an assessment of trees was carried out on 23 February 2020. This involved traversing a portion of the site to carry out a visual assessment of trees that stand out due to their size and visibility. The site visit included looking at native trees within the forest-clad gully through the centre of the site, however native trees within the forest have not been considered to have attributes that warrant consideration for scheduling as individual specimen trees.

5 SITE DESCRIPTION

- 5.1 The large site contains open farmland, bush gullies, and several homesteads. Native and exotic specimen trees are present within the land around the existing homes that front Clayden Road and Matakana Road. A detailed description of the site's features and flora is provided in the ecological assessment and application report.



6 ASSESSMENT

6.1 The methodology for this assessment was as follows:

- An assessment of aerial photos was used to inform the assessment of the areas of the site that contain trees of interest.
- A drive-by visual assessment was used to scope the site from Matakana Road and Clayden Road to pick out trees of significant stature or rare type.
- No trees of interest were identified on the parcels of land that no access was available to. This was verified using binoculars from vantage points within the site.
- Where access was permitted, a detailed assessment of individual trees was carried out, using an app designed to collect data that meets the AUP 'Guidelines for Nominating a Notable Tree for Evaluation'.
- Height measurements were taken using a Nikon Forestry Pro laser rangefinder. Trunk diameter measurements were recorded using a diameter tape. Crown spread radius was paced out on site.

6.2 Stand out trees were assessed in two locations within 245 Matakana Road. These were:

- a group of exotic ornamentals growing adjacent to the driveway containing two pin oak (*Quercus palustris*) and one oriental sweet gum (*Liquidambar orientalis*),
- large pine trees (*Pinus radiata*) growing at the edge of the bush gully.

6.3 Locations of these trees (red dots) are shown on the following plan.



6.4 The following table sets out specifications of the trees and the assessment of the trees using the criteria of the 'Guidelines for Nominating a Notable Tree for Evaluation' for the Auckland Unitary Plan.

Tree No.	Species		Dimensions			Age and health			Character	Size	Visual contribution	Total score	Special factors
	common name	botanical name	height (m)	trunk dia. (mm)	crown spread	Age	Vigour and Vitality	subtotal					
1.	pin oak	<i>Quercus palustris</i>	21.4	854	8.5	61-80 (2)	High (3)	(6)	Exceptional example locally (5)	Greater than average size (5)	Main Road/motorway (10)	26	No
2.	Oriental sweet gum	<i>Liquidambar orientalis</i>	13.5	2320	9.5	81-100 (3)	Low (2)	(6)	Not exceptional (0)	Substantially greater than average size (10)	Main Road/motorway (10)	26	Yes – Scientific
3.	pin oak	<i>Quercus palustris</i>	19.4	892	9.5	61-80 (2)	High (3)	(6)	Exceptional example locally (5)	Greater than average size (5)	Main Road/motorway (10)	26	No
4.	Monterey pine	<i>Pinus radiata</i>	36.8	1795	15	81-100 (3)	Low (2)	(3)	Not exceptional (0)	Greater than average size (5)	In backyard or gully (2)	10	No

Notes:

Age has been estimated based on size of the tree and expected growth rates.

Character and size ratings have been assumed without detailed assessment of other trees of the species in the local area or region.



7 DISCUSSION

- 7.1 According to my assessment the AUP 'Guidelines for Nominating a Notable Tree for Evaluation', three exotic trees at 245 Matakana Road may be considered worthy of consideration for notable status.
- 7.2 The trees do not display exceptional qualities that make them worthy of being notable trees, due to them being either average examples of a very common species (pin oaks) or poorly structured, though rare (Oriental sweet gum).
- 7.3 Trees 1 and 3 (pin oak) are good quality trees with balanced form, good structure and crown condition (from a limited ground-based visual inspection). The score of 26 points is sufficient to make them worthy of nomination. Further analysis and verification of the notable tree criteria is needed to confirm the method and inputs for evaluation.
- 7.4 Tree 2 (Oriental sweet gum) is a tree with poor form, structural defects and fair crown condition. A cable has been installed in the tree's crown to arrest failure (splitting) of main stems. Decay is evident in the basal region of main stems. The score of 26 points is sufficient to make this tree worthy of nomination for notable status. The tree species is very uncommon in the Auckland region (this is the first I have seen) and therefore the Scientific criteria of Special Factors in the AUP 'Guidelines for Nominating a Notable Tree for Evaluation' may apply. There is currently one tree of this species listed in the AUP Schedule of notable trees. No trees of this species are listed in the New Zealand Tree Register (nationwide). Further analysis and verification of the notable tree criteria is needed to confirm the method and inputs for evaluation.
- 7.5 At least four pine trees of substantial dimensions are present within the site. The trees do not warrant consideration as notable trees.
- 7.6 Native trees within the forest-clad gully within the site have not been considered as part of this exercise. This is due to the number of trees present and the large number of trees of this type locally. A cursory assessment of the native forest looked for trees of exceptional dimensions or outstanding characteristics, but none were found.

8 RECOMMENDATIONS

- 8.1 Three trees at 245 Matakana Road could be considered for nomination as notable trees, however, they are not considered to be worthy of inclusion on a list of the region's most important trees, for the reasons discussed above.
- 8.2 If the trees are retained and protected, sufficient space must be provided for them during any future subdivision of land. Arboricultural input would be required for any decisions made in relation to land-use and development in the vicinity of the trees.
- 8.3 Similarly, safe and healthy retention of native trees within the forest area requires that they are given adequate space in the design and layout of future subdivision schemes.



ATTACHMENT R

NATIVE FROG ASSESSMENT BY ALLIANCE ECOLOGY



**Clayden Road Plan
Change Frog Survey**

Prepared for

Warkworth Land Company Ltd C/-
Land Development Advisory Services
Ltd

Prepared by

Alliance Ecology

Date

December 2019

Job Number

05.12.2019.v1

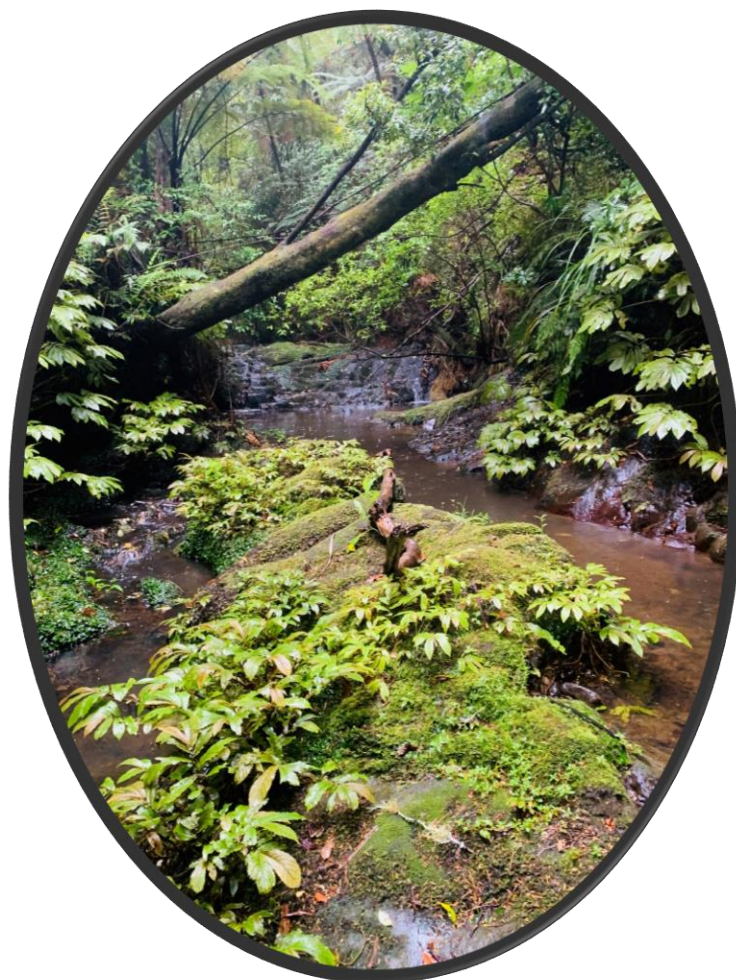


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1	Introduction	1
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3	Methods	2
4	Survey findings and implications	3
	4.1 Survey findings	3
	4.2 Survey implications and recommendations	4
5	Applicability	5
6	References	6

1 Introduction

The Warkworth Land Company Ltd is seeking a plan change to rezone approximately 105 ha of land within Warkworth between State Highway 1 and Clayden Road (herein the 'subject site') from future urban/light industry to a mix of residential zones (Freshwater Solutions, 2019: Figure 1).

This land-use change associated with the proposed rezoning is expected to have a range of potential effects on ecological values as described in the Ecological Assessment Report (EAR) submitted as part of the Plan Change application (Freshwater Solutions, 2019).

In addition to identifying other biodiversity values within the subject site, the EAR indicates the presence of suitable stream habitat for the native Hochstetter's frog (*Leiopelma hochstetteri*) and also the presence of Hochstetter's frog populations near the subject site (Freshwater Solutions, 2019: Figure 14). This species is classified as nationally 'At Risk' (Declining) under the Department of Conservation (DOC) National Threat Classification System (NZTCS) and is protected under the Wildlife Act 1953.

The purpose of this report is to present findings of a field survey to determine the presence and spatial distribution of Hochstetter's frog within the subject site, and the potential for adverse effects on this species associated with the proposed land use change¹.

2 Site context and stream characteristics

As described in the Ecological Assessment Report (Freshwater Solutions, 2019), the site is located within the Rodney Ecological District in the northern part of the Auckland region and is bound by rural farmland to the north and west and the Warkworth township to the south, with intensification and development to the south and east.

The site is predominantly in pasture with occasional mature trees and blocks of mature and regenerating native vegetation with variable understory and groundcover. A Significant Ecological Area (SEA) covers much of the vegetation located in the southern portion of the subject site and land covenants protect vegetation in some other parts of the site.

Watercourses within the subject site can be divided into streams that drain areas of indigenous vegetation and streams that drain pasture. The latter are influenced by a long history of rural land-use practices associated with stock grazing and riparian vegetation clearance and are generally of low ecological value.

Watercourses that drain areas of indigenous vegetation are predominately permanent with a smaller proportion of intermittent streams. These watercourses are mostly fenced from grazing and have natural stream channels. Stream channels had high ecological value and habitat diversity with variable widths (0.1 – 8.0 m), water depths (0.02 to >1 m), and flow velocities within riffles, run, pool, ramps. Streambeds include weather clay, bedrock, small/large cobbles, gravels and silt or sand with abundant woody debris and leaf litter.

3 Methods

A desktop review of available information and data relating to Hochstetter's frog was undertaken. This included a review of:

- The Clayden Road Plan Change Ecological Assessment Report and associated maps (Freshwater Solutions, 2019: Figures 1, 14 and 15);

¹ This report has been prepared in accordance with the Letter of Engagement between Alliance Ecology and the Warkworth Land Company dated 11 December 2019 and the Terms and Conditions therein.

- Herpetofauna records of the area (Department of Conservation Bioweb database);
- Existing literature for the site and wider Warkworth area;
- Significant Ecological Area (SEA) information obtained from Auckland Council Geomaps; and
- Covenant information obtained from Land Information New Zealand (LINZ) and the QEII National Trust.

A field survey was undertaken on 17 December 2019, in which all shaded or predominately shaded streams with > 10 m of mature riparian forest vegetation were searched.

Surveys followed standard protocol for Hochstetter's frogs (Thornsen, M. 1998; Whitaker & Alspach 1998; Baber et al., 2006; Baber et al, 2009; and Longsdon et al. 2017). Specifically, surveys were undertaken during the day by an experienced herpetologist² in warmer months and under low flow conditions when frogs are inactive and under cover. During searches, rocks or woody debris of manageable size close to stream or seepage areas were overturned, and a headlamp was used to improve the likelihood of detecting frogs. Searches were carried out in an upstream direction and searched cover objects were replaced in their original position. To address the requirements to cover a lot of ground, minimise disturbance, and optimise the likelihood of detecting frogs, only cover objects or crevices that were considered most likely to harbour frogs were searched.

Time spent searching was recorded in person-hours and the total number of cover objects and crevices searched was recorded.

Habitat suitability was assessed to estimate the amount and proportion of suitable stream habitat within the site. Accordingly, streams were assessed as being 'Ideal', 'Suitable' or 'Not Suitable' for Hochstetter's frog based on the following criteria:

- **Ideal habitat in which frogs are likely to be present**
 - Frogs are known to be present within the catchment or subcatchment;
 - Stream(s) are located within a large contiguous mature forest;
 - Stream(s) are small (< 1 m wide), fully shaded hard-bottom intermittent or permanent and on steep to moderate slopes; and
 - Streams include an abundance of habitat refugia, i.e., fist-sized to boulder-sized rocks or coarse woody debris (downed logs) positioned on top of other rocks to provide habitat refugia and cascade complexes/crevices.
- **Suitable habitat in which frogs may be present**
 - Frogs are known to be present in the wider landscape;
 - Stream(s) are located within a mature forest (native or exotic) riparian margin that includes a minimum of 30 metres of dense understory forest on each bank;
 - Streams are intermittent or permanent and < 3m wide and are fully or predominately shaded on steep to gentle slopes; and
 - Streams include habitat refugia.
- **Not suitable in which frogs are unlikely to be present**

² Matt Baber is the author of numerous publications technical reports or book chapters on amphibian ecology in New Zealand and abroad. This includes three scientific publications and 1 technical report on Hochstetter's frog survey findings and conservation management (see reference section):

- Frogs are not known or expected to be present within nearby catchments or sub-catchments; and
- Stream(s) are located within non-forested habitat (e.g. farmland) or are without shade or only lightly shaded; or
- Streams are ephemeral or are large > 5 m; or
- Streams are soft-bottom or subject to high sedimentation and lack suitable refugia.

Prior to commencement of fieldwork, TriGene™ was liberally applied to muddy boots and clothing to help prevent the potential spread of fungal pathogens (e.g., chytrid fungus, *Batrachochytrium dendrobatidis*), according to the Native Frog Recovery Group's recommendations.

4 Survey findings and implications

4.1 Survey findings

No frogs were detected during 6.75 person hours of intensive searching within approximately 2.5 km of forested stream habitat (Table 1). Searching included the overturning of 568 cover objects (mostly rocks) and searching within 38 crevices. Stream flow was relatively low at the time of survey but with periods of light to moderate rainfall towards the latter half of the survey³.

None of the stream habitat surveyed was considered 'Ideal' habitat in which frogs were likely present because:

- Frogs were not known to be present in the catchment;
- The surveyed streams were not located within a large contiguous tract of mature native forest and were likely to be compromised by historical and existing land use; and
- Few streams reaches were located within small (< 1 m wide) fully shaded hard-bottom intermittent or permanent stream on steep to moderate slopes.

Most of the stream habitat searched (i.e. 86% of 2,540 m) was considered 'Suitable' habitat in which frogs could potentially be present because:

- Frogs are known to be present in the wider landscape; and
- The surveyed streams were located within a mature forest fragment; and
- Most surveyed stream reaches were intermittent or permanent and small to medium in size (< 5m wide); and
- Streams include habitat refugia alongside the stream edge, predominately rocks but also fallen logs and crevices.

A small portion of the searched habitat (14% of 2,540 m) was considered 'Unsuitable' because

- Streams were only lightly shaded; and/or
- Streams were ephemeral; and/or
- Streams lacked suitable refugia.

³ The amount of rainfall did not notably increase stream flow and was considered unlikely to affect the likelihood of detecting frogs if present.

Table 1. Hochstetter’s frog stream habitat suitability assessment (see Freshwater Solutions, 2019 for stream classification assessment and stream numbering)

Surveyed Stream (Freshwater Solutions 2009: Figure 15)	Stream classification	Habitat suitability assessment	Approximate length searched
F	Permanent	Potentially suitable	110 m
G	Permanent	Potentially suitable	100 m
I	Permanent	Potentially suitable	200 m
K	Permanent	Potentially suitable	1400 m
N	Permanent	Potentially suitable	30 m
	Intermittent	Unsuitable	150 m
O	Intermittent	Potentially suitable	200 m
P	Intermittent	Potentially suitable	110 m
Q	Permanent	Potentially suitable	30 m
	Intermittent	Unsuitable	210 m
Total length of potentially suitable stream			2,180 m
Total length of stream searched			2,540 m

4.2 Survey implications and recommendations

Frogs were not detected during this survey and based on survey coverage and effort, it is unlikely that frogs were present⁴. On this basis, the potential for adverse effects on Hochstetter’s frog associated with the proposed land use change is likely to be negligible and efforts to address potential effects are therefore not required.

It is important to note however, that since potentially suitable habitat exists and not all refugia was searched, the presence of low numbers of Hochstetter’s frogs cannot be discounted. If frogs are detected in the future (e.g. through further surveys during the resource consent application phase), further work would be needed to determine the potential for adverse effects and appropriate measures for addressing these effects if required.

⁴ It is also considered unlikely that frogs would naturally recolonise the subject site due to the effects of habitat fragmentation increasing land use intensity in the surrounding landscape.

5 Applicability

This report has been prepared for the exclusive use of Warkworth Land Company Ltd C/- Land Development Advisory Services Ltd, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that this report will be used by Auckland Council in undertaking its regulatory functions in connection with the plan change application.

Report prepared by and authorised for Alliance Ecology by:



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Dr Matt Baber

Principal Ecologist and Director

c:\users\mxxb\desktop\alliance ecology\loes and contracts\warkworth land company ltd\warkworth land company native frog report 211219.docx

6 References

Baber, M.J. et al. 2006. Discovery and spatial assessment of a Hochstetter's frog (*Leiopelma hochstetteri*) population found in Maungatautari Scenic Reserve, New Zealand. *New Zealand Journal of Zoology* 33:2, 147-156

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Freshwater Solutions 2019. Warkworth: Clayden Road Ecology Plan Change. Prepared for Warkworth Land Company Ltd, October, 2019).

Longson C., R. Brejaart M.J. Baber and K.J. Babbitt J. 2017. Rapid recovery of a population of the cryptic and evolutionarily distinct Hochstetter's frog, *Leiopelma hochstetteri*, in a pest-free environment. *Ecological Management & Restoration* 18(1):26-31

Thorsen, M 1998. Determination of a standardized methodology for long-term monitoring of mainland *Leiopelma* species. Unpublished report, Waikato Conservancy, Hamilton, New Zealand, Department of Conservation. 34 p.

Whitaker, T. and Alspach PA 1998. Monitoring Hochstetter's frog (*Leiopelma hochstetteri*) populations near Golden Cross mine, Waitekauri Valley, Coromandel. *Science for Conservation* 130. Wellington, New Zealand, Department of Conservation. 36 p

ATTACHMENT S
VECTOR COMMENTS

Lucan Campbell

Subject: FW: Warkworth - Servicing Plans?

FYI

From: Daniel Mason <Daniel.Mason@vector.co.nz>

Sent: Monday, 9 December 2019 10:09 AM

To: Lucan Campbell <lucanc@maven.co.nz>

Subject: RE: Warkworth - Servicing Plans?

Hi Lucan,

Thanks for your enquiry regarding serviceability of the Warkworth North area. Most of our forward planning is based on the unitary plan. I personally haven't received much detail but that doesn't mean the business hasn't.

We already have large infrastructure in place in Warkworth, there is a 33kV zone sub on the Matakana Road and good 11kV coverage for reticulation of the proposed sub-divisions.

Difficult to provide any other details as yet as this is very early stages. The load will not all be coming on all at once so we can plan & build around the development to suit as and when detailed planning has begun.

If you want more information than high level comment you will need to provide more detail and I can possibly put you on to one of the network planning team.

Regards

Daniel Mason | Customer Contracts Lead
Vector Limited | PO Box 99882, Newmarket 1149 | Auckland 1023
DDI: 09 213 1515 | Mob: +64 21 726 631 | Ph: 09 978 7833
Daniel.Mason@vector.co.nz | www.vector.co.nz



Vector offices will be closed from 5pm Tuesday 24 December 2019 and re-opening on Monday 06 January 2020. Our Service Providers will be operating a skeleton crew over this time for emergency works only.

We will endeavour to design, contract and commence build activities for your project within reasonable timeframes. Please note, in some areas we are constrained by Auckland Council moratoriums, scheduling restrictions, supplier lead-times, and closures which may impact your project timeframes.

We will keep you well informed of these times.

ATTACHMENT T
CHORUS COMMENTS

Lucan Campbell

Subject: FW: Chorus | WW54044 | 42B SH 1 North, Warkworth

From: Chorus Property Developments <develop@chorus.co.nz>

Sent: Tuesday, 15 October 2019 6:25 PM

To: Lucan Campbell <lucanc@maven.co.nz>

Subject: RE: Chorus | WW54044 | 42B SH 1 North, Warkworth

Hi Lucan,

Thank you for providing an indication of your development plans in this area. I can confirm that we have infrastructure in the general land area that you are proposing to develop. Chorus will be able to extend our network to provide connection availability. However, please note that this undertaking would of course be subject to Chorus understanding the final total property connections that we would be providing, roll-out of property releases/dates and what investment may or may not be required from yourselves and Chorus to deliver the infrastructure to and throughout the site in as seamless and practical way as possible.

The cost involved would be a minimum of our current standard fee of \$1600 per lot excluding GST. The 1st stage would also incur the cost of establishing the feeder fibre to the subdivision. This cost can only be finalised at the time that you are ready to proceed with the 1st stage.

Chorus is happy to work with you on this project as the network infrastructure provider of choice. What this ultimately means is that the end customers (business and home owners) will have their choice of any retail service providers to take their end use services from once we work with you to provide the physical infrastructure.

Please reapply with a detailed site plan when you are ready to proceed with stage 1.

Kind Regards,

Khalill Marsh

Property Development Coordinator

T 0800 782 386 (opt1)

E Develop@chorus.co.nz

PO Box 9405

Hamilton

www.chorus.co.nz

C H ● R U S

From: Chorus Property Developments <develop@chorus.co.nz>

Sent: Friday, 13 September 2019 9:58 AM

To: Lucan Campbell <lucanc@maven.co.nz>

Subject: RE: Chorus acknowledgment: WW54044. 42B SH 1 North, Warkworth

Hello Lucan,

Thanks for your email and development plans. We'll assess your application and will be back in touch to advise next steps.

Here's your development ref #: **WW54044**

We're here to help – so please let us know if you need any further information.

Kind regards,

Rata Miller
Property Development Coordinator

T 0800 782 386 (opt1)
E Develop@chorus.co.nz
PO Box 9405
Hamilton
www.chorus.co.nz

C H ● R U S

ATTACHMENT U

**VISUAL SIMULATION PLAN SET VICTORIA ST
(provided post-notification)**

Visual Simulation Plan Set For:

Development Advisory Services Ltd

Victoria Street, Warkworth, Auckland

Drawing Number:	Drawing Description:
9076/1	- Visual Simulation Methodology
9076/2	- Viewpoint Location
9076/3	- Photograph from Victoria Street Warkworth
9076/4	- Current Warkworth Structure Plan - Visual Simulation 01 from Victoria Street
9076/4	- Warkworth Clayden Road: Plan Change Request to Auckland Unitary Plan - Visual Simulation 02 from Victoria Street



Drawing Issue Date:

- 28/05/20
- 28/05/20
- 28/05/20
- 28/05/20
- 28/05/20

<https://greenwoodassociates.co.nz>



Methodology for Photo Simulations

The photomontage images have been produced by Greenwood Associates Landscape Architects and are based on the following factors:

- The camera field of view with a 50mm lens.
 - The camera position in a 3D space located at a Longitude of 174.653629 and Latitude of -36.393937 for photograph
- The height of the placed survey staff is 2.5 meters, this is placed within the camera view to give an accurate reference point for height and position.

The specifications of the camera used to produce the base images include a lens focal length of 50 mm which were input into 3D modelling software to determine the correct camera settings for the model renders.

The camera positions are as per the viewpoint plan, using the survey staff as a reference of distance. These positions and approximate camera angles were then translated into a 3D scene in the modelling software. The chosen positions highlight the key areas that will have visual access to the proposed development.

The scene was cross-referenced by using ArchiCad and contour heights of the development to export an accurate scaled 3D model. To place the model in context, a map of site is placed within the 3D software to allow an accurate positioning of the model and buildings.

Building heights for Visual Simulation 01 are calculated as per the Current Warkworth Structure Plan and the Warkworth Clayden Road: Plan Change Request to Auckland Unitary Plan principles are demonstrated for Visual Simulation 02.

Individual renders of the 3D model were then created from all relevant camera positions and angles, The camera was positioned 45.7m above sea level, this includes the eye level height of the photographer.

The 3D renders were then overlaid onto the original images using Photoshop, any part of the render not required was deleted.

Note: all visualisations are to be viewed at 550mm from the eye when printed on A3 standard paper.



VIEWPOINT 1
 LAT: -36.393937, LONG: 174.653629
 RL: 45.7M (including photographer eye level height)



Image Specifications - Camera: EOS M 10
 - Sensor: APS-C 22.3x14.9mm
 - Lens: 15-45mm locked at 32mm for equivalent to 50mm focal length on a 35mm sensor camera
 - Printed Image Size: 360x240mm @ A3
 - Image Viewing Distance 550mm from eye at A3
 - Simulation Technique: Photomontage produced in Photoshop using scale model rendered in ArchiCad



Image Specifications - Camera: EOS M 10
 - Sensor: APS-C 22.3x14.9mm
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 - Simulation Technique: Photomontage produced in Photoshop using scale model rendered in ArchiCad

- Residential - Single House Zone

Business - Light Industry Zone
- Residential - Mixed Housing Suburban Zone

Residential - Mixed Housing Urban Zone



Image Specifications - Camera: EOS M 10
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Residential - Mixed Housing Urban Zone