



nz environmental

**ASSESSMENT OF ECOLOGICAL VALUES
AT 57C HALL ROAD AND 22 LIMELIGHT LANE, KERIKERI**

Report 2018 268

**Prepared for
KERIKERI LAND LIMITED**

Consultation

HAIL Reports

Ecological
Assessments

Resource Consent
Applications

Compliance
Monitoring

Water Quality
Monitoring

Environmental
Management

Pest Reduction
Advice

Enrichment
Planting

Restoration
Advice

NZE Quality System:

Document Reference	:	p:\ Projects\2018 268 Kerikeri Land
Report Revision	:	2
Report Status	:	Final
Prepared by	:	Dr Gary Bramley
Reviewed by	:	Tricia Scott
Approved by	:	Tricia Scott
Date Created	:	3 December 2018
Date Issued	:	11 February 2020

TABLE OF CONTENTS

SECTIONS

1.	INTRODUCTION.....	1-3
1.1	BACKGROUND	1-3
1.2	SCOPE AND METHODS.....	1-4
2.	ECOLOGICAL CONTEXT AND VALUES.....	2-5
2.1	ECOLOGICAL CONTEXT	2-5
2.2	ECOLOGICAL VALUES	2-6
2.3	FAUNA VALUES.....	2-9
2.3.1	Aquatic Fauna.....	2-9
2.3.2	Terrestrial fauna	2-10
2.4	ASSESSMENT OF ECOLOGICAL VALUE	2-10
3.	ECOLOGICAL CONSTRAINTS AT THE SITE	3-11
3.1	RIPARIAN CONSTRAINTS	3-11
3.2	OTHER CONSTRAINTS.....	3-13
4.	PLANNING MATTERS	4-14
4.1	FAR NORTH DISTRICT PLAN.....	4-14
5.	CONCLUSION	5-16
6.	REFERENCES.....	6-17

APPENDICES:

Appendix A: Plant Species List

Appendix B: Bird Species List

EXECUTIVE SUMMARY

Kerikeri Land Limited proposes to undertake a staged development of an approximately 16.66ha site it owns in Hall Road, Kerikeri to create a retirement village with 200 villas and 76 aged care beds.

With respect to vegetation the Site includes areas of kiwifruit orchard, areas of rough pasture and areas of zucchini garden. Native species are limited to opportunistic individuals regenerating within the shelterbelts or in riparian areas, planted individuals in gardens associated with the dwellings and a small riparian area that has been planted, but requires weed management to reach its full potential. Overall these areas are of low – moderate ecological value. They provide habitat for exotic and common native species of fauna including tui, fantails, kingfisher and likely copper skinks. The proposal would result in the removal of habitat for these species in the short – medium term which would have noticeable local, effects.

In terms of aquatic fauna the Wairoa Stream is known to support shortfin eels and banded kokopu and may support longfin eels as well. Downstream Te Wairere Falls provides a significant barrier to fish movement inland and only species which are good climbers are likely to occur in the upper catchment. Overall the ecological value of the aquatic habitats is assessed as moderate.

There are no particular ecological constraints which would preclude the development of the site, but the margins of the Wairoa Stream and its unnamed tributary have been identified as an esplanade priority area in the District Plan for their conservation or recreational values. The proposal would encroach upon the riparian setback area at the eastern end of the Site, but the effects of that encroachment are generally less than minor and would not detract in any significant way from the positive ecological effects of the proposed riparian planting and management.

We recommend that the riparian margins and wetland areas be planted and managed in accordance with a management plan prepared by a suitably qualified and experienced ecologist. In order to substantially mitigate the effects of habitat removal on native birds in the short term we recommend riparian plantings and management commence early in the development so as to replace habitats (such as shelterbelts) lost as the development proceeds. Best practice soil and sediment control will be required, including management of surplus soil from the site to prevent spread of weeds. We also recommend a lizard management plan is implemented in order to mitigate adverse effects on native lizards. Provided these recommendations are implemented effectively we expect that the effects of the proposal on the terrestrial and aquatic ecological values present would be less than minor in the short term and generally positive in the medium to longer term.

1. INTRODUCTION

1.1 BACKGROUND

Kerikeri Land Limited is the owner of a property located at Hall Road, Kerikeri, which comprises four lots as follows: Lot 1 DP 173449 (7.38ha), Lot 2 DP 435929 (665m²), Lot 2 DP 149521 (3.66ha) and Lot 1 DP 164771 (5.55ha). Together the four allotments (which are held in three titles) occupy approximately 16.66ha which are referred to together here as 'the Site'. The north-eastern and western boundary of the Site mostly adjoin Wairoa Stream and a tributary of Wairoa Stream which merge at the northern corner of the Site. Wairoa Stream then flows north to the Kerikeri Basin, entering the Kerikeri Inlet just west of Pa Road. Wairoa Stream originates at several locations west of State Highway 10 and north of Pukewhau Pa / Bulls Gorge.

The current land-use at the Site is as an orchard and market garden with an existing dwelling accessed from Limelight Lane/Shephard Road. The Site is zoned Residential in the Far North District Plan which anticipates expansion of the Kerikeri township. The location of the site is shown in Figure 1.1.

Kerikeri Land Limited proposes a staged development of the Site to create a retirement village comprising some 200 villas and 76 aged care beds.

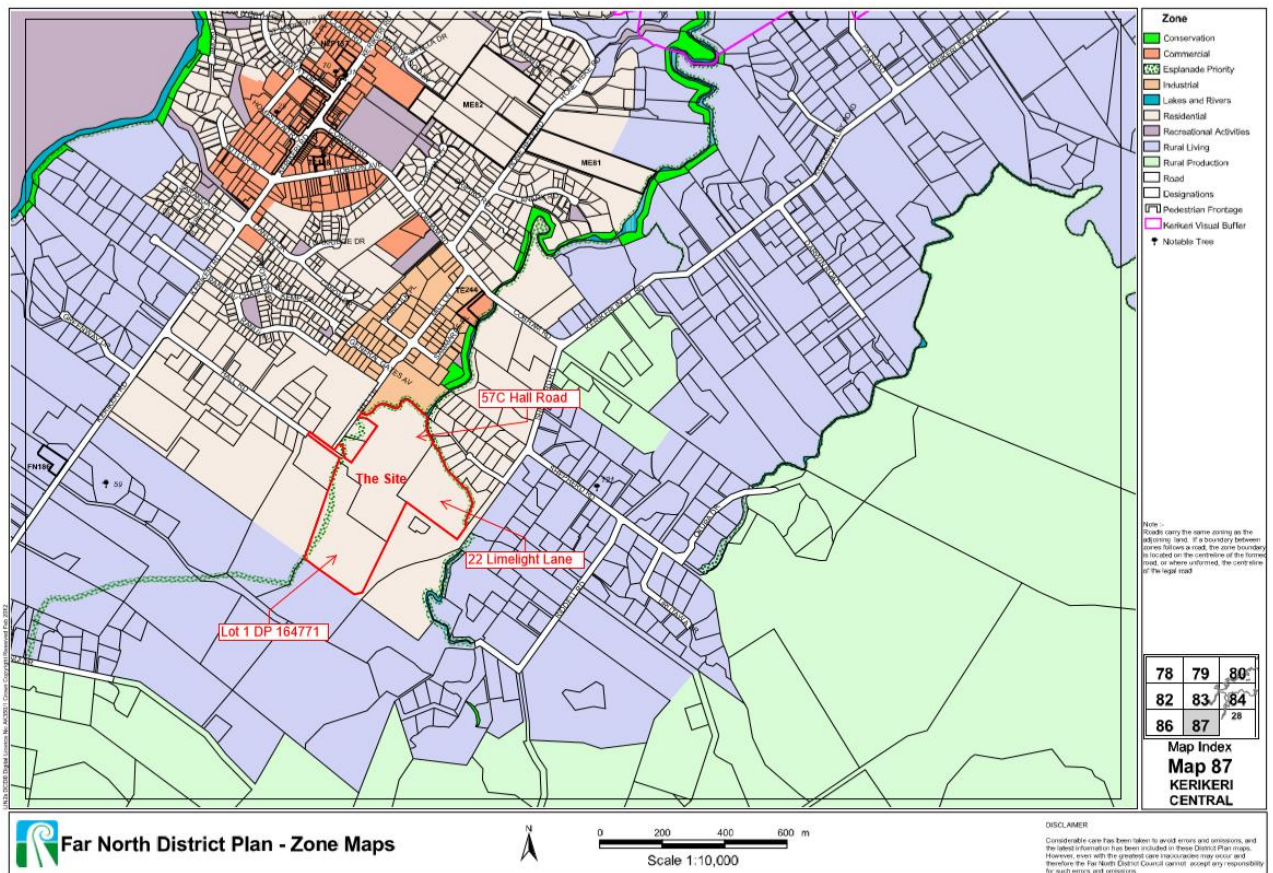


Figure 1.1: Approximate location of the Kerikeri Land Limited Property, Hall Road, Kerikeri.

1.2 SCOPE AND METHODS

NZ Environmental Limited was retained to assess the ecological values of the Site and the adjacent streams, identify any ecological constraints which are relevant to the proposed development and offer solutions where appropriate. This report is intended to inform overall site planning and engineering works, and may be included in subsequent resource consent applications. This report is based on a walk-through survey of the site carried out by Gary Bramley on 16 November 2018. Prior to the site visit relevant existing information was compiled and reviewed. High resolution aerial photographs of the site were obtained and printed at a scale suitable for field use.

Vegetation and habitat types were described, and representative photographs were taken. A list of vascular plant observed was compiled (Appendix A). All fauna observed during the site visit were recorded (Appendix B).

2. ECOLOGICAL CONTEXT AND VALUES

2.1 ECOLOGICAL CONTEXT

The Site is located within the Eastern Northland and Islands Ecological District of the Eastern Northland Ecological Region by McEwen (1987). McEwen's delineation of ecological districts was revised by Brook (1996) who placed the area in the Kerikeri Ecological District which covers approximately 67,600 ha centred on the Bay of Islands (Conning and Miller 1999). The Kerikeri Ecological District adjoins the Whangaroa Ecological District in the north, Kaikohe and Puketi Ecological Districts in the west and Whangaruru and Tangihua ecological districts to the south. The district extends from Tauranga Bay in the north to Kawakawa, Otiria, and Opuia in the south and includes offshore islands between Whangaroa Harbour and Cape Wiwiki (Purerua Peninsula) as well as the inshore islands of the northern Bay of Islands and Kerikeri Inlet (Conning and Miller 1999).

Conning and Miller (1999) mapped and briefly described most of the areas of indigenous natural vegetation within the Kerikeri Ecological District and also provided an analysis of the main vegetation types as well as information on threatened species and other taxa of scientific interest present. They concluded that natural areas constituted approximately 21% of the Kerikeri Ecological District. Of these, 31% were forest, 52% shrubland, 7% estuarine, 4% freshwater wetlands, and 6% island habitats. A high degree of fragmentation is a feature of many of the habitats in the Kerikeri Ecological District with almost no original coastal vegetation remaining. Despite this, the Kerikeri Ecological District has one of the highest density of North Island Brown kiwi (*Apteryx mantelli*) known. Kerikeri is also the type locality for many indigenous species, reflecting early visits by western naturalists (particularly the brothers Alan and Richard Cunningham, botanists who visited Northland in 1826-27 and 1833-34 respectively).

Conning and Miller identified a number of constructed ponds and associated wetlands, as well as natural raupo wetland areas throughout the Kerikeri Ecological District (particularly on the Purerua Peninsula) which they considered to have high value as wildlife habitat, and their protection and restoration was recommended by Conning and Miller (1999). Within the Kerikeri Ecological District wetland areas provide important habitat for Spotless crane (*Porzana tabuensis*), Australasian bittern (*Botaurus poiciloptilus*) and North Island fernbirds (*Bowdleria punctata vealeae*) as well as refugia for North Island brown kiwi during droughts (G Bramley pers. obs.). All of these bird species are regionally or nationally significant species of conservation interest. Constructed ponds are also potential habitat for brown teal (pateke, *Anas chlorotis*), another regionally significant species of conservation interest.

Having evaluated the sites with indigenous vegetation throughout the district, Conning and Miller grouped them according to two levels of ecological significance, with Level 1 sites being of the highest ecological value and Level 2 sites supporting populations of indigenous flora and fauna, but of generally lower ecological value than Level 1 sites. There are no such sites identified within the Site, the nearest being Site P05103 (Kerikeri Airport Gumland) approximately 4km southwest of the site and Site P05086 (Kerikeri River Riparian Remnants) approximately 1.9km northwest of the site (across Kerikeri township).

The Site is surrounded by areas of similar orchards and market gardens, lifestyle properties, commercial developments (at Mill Lane located to the north of the property across Wairoa Stream) and residential housing to the west (in Hall Road) and east (at Campbell Lane and Riddell Road, both of which originate at Shepherd Road).

The Wairoa Stream and a tributary of that stream meander along most of the Site's north-eastern and western boundaries. Parts of the Wairoa Stream downstream of the Site have been the subject of planting and weed management undertaken by a group of volunteers known as "Friends of Wairoa Stream" under the auspices of Vision Kerikeri. This stage stream restoration project involves planting and weed control as well as the formation of walking tracks. Restoration of the stream adjacent to the Site is planned for the near future.

as funding allows. The ultimate goal is for the entire catchment to be planted from the source to the sea (R. Brown, Vision Kerikeri pers. comm. 22 November 2018).

2.2 ECOLOGICAL VALUES

The vegetation at the site comprises a mixture of kiwifruit (*Actinidia deliciosa*) orchard, rank pasture and courgette (zucchini, *Cucurbita pepo*) garden separated by shelterbelts of exotic tree species including Japanese cedar (*Cryptomeria japonica*) and Oldham's bamboo (*Bambusa oldhamii*). Native plant species are limited to opportunistic seedlings and saplings growing within the shelterbelts, planted specimens near the dwellings and planted and naturally established individuals within riparian areas.

Pasture at the site includes a range of exotic grasses including kikuyu (*Cenchrus clandestinus*), cocksfoot (*Dactylis glomerata*), perennial rye (*Lolium perenne*), paspalum (*Paspalum dilatatum*), prairie grass (*Bromus willdenowii*), browntop (*Agrostis capillaris*) and Yorkshire fog (*Holcus lanatus*). Common herbs include parsley dropwort (*Oenanthe pimpinelloides*), red clover (*Trifolium pratense*), white clover (*T. repens*), selfheal (*Prunella vulgaris*), oxeye daisy (*Leucanthemum vulgare*), broad-leaved dock (*Rumex obtusifolius*) and wild turnip (*Brassica rapa* var. *oleifera*). Examples of this vegetation are shown in Plates 1 and 2.

Within the shelterbelts bird- and wind-dispersed adventive and native seedlings have established in places including mapou (*Myrsine australis*), Chinese privet (*Ligustrum sinense*), moth plant (*Araujia sericifera*), jasmine (*Jasminum polyanthum*), woolly nightshade (*Solanum mauritianum*), Taiwanese cherry (*Prunus campanulata*), mahoe (*Melicotus ramiflorus*) and lilly pilly (*Acmena smithii*). Wandering jew (*Tradescantia fluminensis*) is also present at some locations.

The riparian areas adjoining Wairoa Stream and the unnamed tributary are either fenced or separated from the orchard activities by a shelterbelt planting. Fences are typically 5 – 8m from the stream edge and comprise post and wires. Where Wairoa Stream enters the property from the south, native species have been planted on the true left bank (adjoining the Site) as shown in Plates 3 and 4. This vegetation is dominated by early seral species such as manuka (*Leptospermum scoparium* agg.) and kanuka (*Kunzea robusta*) but includes a range of terminal species such as puriri (*Vitex lucens*) and titoki (*Alectryon excelsus* subsp. *excelsus*). The plantings have been poorly maintained and include a significant proportion of gorse (*Ulex europaeus*) and woolly nightshade.



Plate 1: Exotic pasture and shelterbelt at the Site, Hall Road.



Plate 2: Exotic pasture and former zucchini beds, Hall Road.



Plate 3: Riparian planting on Wairoa Stream.



Plate 4: Riparian planting at Hall Road, Kerikeri.

Elsewhere the riparian vegetation comprises mostly weeds including rank pasture and shrubs such as Chinese privet, crack willow (*Salix fragilis*) and Taiwanese cherry and lianes

such as Japanese honeysuckle (*Lonicera japonica*), moth plant and blue morning glory (*Ipomoea indica*). An example of this vegetation is shown in Plate 5.



Plate 5: Riparian vegetation at the Site is dominated by weeds.

Methods 12.7.5.4 and 12.7.5.5 of the Far North District Plan relate to improving physical access to, and along, existing esplanade reserves and strips, and marginal strips where appropriate, as well as identification of some riparian areas in the Kerikeri area that, because of their high recreational or conservation value, will be given priority when determining requirements for esplanade reserves or strips (shown as Esplanade Priority Areas on the Zone Maps). The Wairoa Stream, which meanders along most of the Site's north-eastern and western boundaries, and the tributary of that stream are identified in the District Plan as Esplanade Priority Areas. As no subdivision is being proposed by KLL, we understand that there is no requirement under the RMA for the vesting of esplanade reserves or the creation of esplanade strips. Downstream the ecological values are being improved by the "Friends of Wairoa Stream" group as described above.

2.3 FAUNA VALUES

2.3.1 Aquatic Fauna

The waterfall on the Wairoa Stream (Te Wairere Falls located downstream of Cobham Road) is a serious barrier for upstream migration of native fish, however both banded kokopu (*Galaxias fasciatus*) and eels (most likely longfin eels (*Anguilla dieffenbachii*)) have been recorded a few hundred metres downstream of the Site at the Shepherd Road bridge. Shortfin eels (*Anguilla australis*), banded kokopu and exotic gambusia (*Gambusia affinis*) were trapped from the wetland area above the culvert in September 2011¹. Despite the

¹ NIWA card number 33634. [P05 25969/66617]

habitat within the upper wetland being superficially suitable, no Northland mudfish (*Neochanna heleioides*) have been recorded there.

Both the stream and the wetland upstream of the Site contain excellent habitats for banded kokopu and eels. Banded kokopu and longfin eels have a conservation threat status of “At Risk (declining)” whilst shortfin eels are regarded as “Not threatened” (Dunn et al. 2018). Wairoa Stream provides habitat of moderate ecological quality for native fish species.

2.3.2 Terrestrial fauna

The birds observed at the site were common exotic and tolerant native species including sparrows (*Passer domesticus*), Californian quail (*Callipepla californica*), blackbird (*Turdus merula*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*) and kingfisher (*Todiramphus sanctus*). Birds were commonly encountered at the site and bird song was nearly continuous. A list of species encountered is provided in Appendix B. No night time surveys were undertaken at the site, but morepork (*Ninox novaeseelandiae*) are likely to use the site. North Island brown kiwi are not known to use the area, although young birds from elsewhere in the Kerikeri Basin and township area may move through the Site looking for suitable habitat as they disperse.

The site is also likely to provide habitat for copper skink (*Oligosoma aeneum*). Copper skink are regarded as “not threatened” (Hitchmough et al. 2016) but are protected wildlife under the Wildlife Act (1953), meaning that a permit from the Department of Conservation is required to capture, handle or disturb them.

2.4 ASSESSMENT OF ECOLOGICAL VALUE

The terrestrial vegetation at the Site comprises mostly exotic species in the form of pasture and shelterbelts. This vegetation is of low ecological quality, but it does provide seasonal feeding and nesting habitat for common native species such as tui, fantail and the like. It is also likely to provide habitat for native copper skink.

Overall the ecological value of the riparian vegetation at the Site is low, but the planted areas are of moderate ecological quality and there is considerable potential for improvement in the riparian values by increasing the width of the planted area, weed control and planting of areas which are not currently planted.

The stream provides moderate quality habitat and includes two species which are considered “At Risk (declining)” (banded kokopu and longfin eel). Downstream ecological values are high and upstream there is a wetland which also has high ecological values.

3. ECOLOGICAL CONSTRAINTS AT THE SITE

3.1 RIPARIAN CONSTRAINTS

The Site is free of any ecological overlays/schedules under the Far North District Plan, however the riparian areas are the subject of an Esplanade Priority Area notation, meaning that they have been identified as being of conservation and/or recreation value and future development should take account of those values. With respect to Wairoa Stream the values are both ecological and recreational. Recreational values are located generally downstream of the Site in the form of a constructed walkway allowing access. The ecological values are as a corridor for wildlife through Kerikeri township and the Kerikeri Basin area and as riparian vegetation which increases the quality and value of instream habitat for native fish and invertebrates.

Most proposed buildings would be set back a minimum of 26m from the stream as required by the Far North District Plan rules, except for five villas located near the eastern end of the site which would encroach into the riparian setback to varying degrees as shown in Figure 3.1. Encroachment into the riparian setback area would be a discretionary activity in accordance with Rule 12.7.6.3 of the operative Far North District Plan as discussed in Section 4 below.

Kerikeri Land Limited propose to undertake weed clearance and infill planting of native species within existing riparian vegetation, weed clearance and replanting of the wetland area and revegetation of riparian areas currently lacking vegetation as shown in Drawing 18132LP-01 of the Landscape Architecture Design Report (Cocker 2020). This will result in between approximately 2m and approximately 25m of riparian vegetation immediately adjacent to the stream throughout its entire length at the Site, as well as surrounding the wetland nearest Hall Road. The proposed landscaping plan also provides for grassed areas and a walkway between the stream and the residential areas.

Parkyn et al. (2000) concluded that riparian buffers of less than approximately 10m will require on-going maintenance to keep the vegetation weed free and facilitate natural indigenous regeneration and, depending on the size of the stream, might not be sufficient to completely restore all aquatic functions. The riparian margins will support a dual ecological and recreational / amenity role. The narrower riparian plantings (and in some limited places, no plantings...grassed margin) are to enable interaction with the watercourses which is focused in specified areas. The loss of ecological function in these limited areas, which provide important amenity benefits, is an acceptable outcome.

We recommend that the riparian planting be carried out in accordance with a planting and weed control plan prepared by a suitably qualified and experienced ecologist and undertaken prior to removal of the shelterbelts and other vegetation at the site so that habitat is created to replace habitats removed as development proceeds. We further recommend ongoing weed management of the riparian plantings so as to maximise the ecological value of the narrower riparian buffers at particular locations.



Figure 3.1: Proposed encroachment into the riparian setback (green dotted line) at the eastern end of the Hall Road site.

3.2 OTHER CONSTRAINTS

Development of the Site will include vegetation removal and earthworks, and this will remove habitat for common native species, including birds and copper skink. We recommend that these works be carried out in accordance with best practice and a site Erosion and Sediment Control Plan to prevent mobilisation of sediment to Wairoa Stream or the higher value wetland and riparian areas at the Site. In addition, we recommend a Lizard Management Plan be prepared to provide for the capture and relocation of any lizards at the Site so as to protect them from the proposed works.

The Site is very weedy, and movement of surplus soil from the Site has the potential to spread these weeds to other areas and adversely affect the ecological values either there or in surrounding areas. On that basis we recommend that any soil disposed of from the Site be managed appropriately so as to avoid that risk (i.e. buried deeply at the disposal location or subject to a weed management plan for at least five years after deposition) and in accordance with the Detailed Site Investigation recommendations prepared by Haigh Workman.

4. PLANNING MATTERS

4.1 FAR NORTH DISTRICT PLAN

The vegetation clearance proposed would not affect indigenous vegetation or significant habitats of indigenous fauna and as such is a permitted activity in accordance with the operative Far North District Plan ('the Plan'). As discussed in Section 3.1 above, encroachment into the riparian setback area would require resource consent as a discretionary activity in accordance with Rule 12.7.6.3 of the Plan. The relevant assessment criteria are set out in Section 12.7.7 of the Plan as follows:

The matters set out in s104 and s105, and in Part II of the Act, apply to the consideration of all resource consents for land use activities.

In addition to these matters, the Council shall also apply the relevant assessment matters set out below:

- (a) the extent to which the activity may adversely affect cultural and spiritual values;
- (b) the extent to which the activity may adversely affect wetlands;
- (c) the extent to which the activity may exacerbate or be adversely affected by natural hazards;
- (d) the potential effects of the activity on the natural character and amenity values of lakes, rivers, wetlands and their margins or the coastal environment;
- (e) the history of the site and the extent to which it has been modified by human intervention;
- (f) the potential effects on the biodiversity and life supporting capacity of the water body or coastal marine area or riparian margins;
- (g) the potential and cumulative effects on water quality and quantity, and in particular, whether the activity is within a water catchment that serves a public water supply;
- (h) the extent to which any proposed measures will mitigate adverse effects on water quality or on vegetation on riparian margins;
- (i) whether there are better alternatives for effluent disposal;
- (j) the extent to which the activity has a functional need to establish adjacent to a water body;
- (k) whether there is a need to restrict public access or the type of public access in situations where adverse safety or operational considerations could result if an esplanade reserve or strip were to vest.

Of those matters listed above, items (b), (e), (f), (g) and (h) are relevant ecological considerations. Each of these matters is discussed in more detail below.

(b) the extent to which the activity may adversely affect wetlands.

Vegetation surrounding the wetland near Hall Road currently includes a high proportion of weeds and only limited tall indigenous vegetation of the type that would contribute to improved riparian/ecological function. This vegetation is proposed to be subject to weed

clearance and replanting with wetland, marginal and riparian species. This is expected to improve the habitat value of the wetland and thus it would not be adversely affected by the proposal.

(e) the history of the site and the extent to which it has been modified by human intervention

The site has previously been an orchard and market garden and as such has been substantially modified with no indigenous vegetation remaining and only very limited, generally young and patchily distributed, secondary vegetation. The proposal includes riparian and wetland revegetation and is expected to result in an improved ecological outcome in the medium term provided that plantings are ecologically appropriate and managed effectively to prevent spread of weeds.

(f) the potential effects on the biodiversity and life supporting capacity of the water body or coastal marine area or riparian margins

If the plantings are undertaken in accordance with a management plan, then the indigenous biodiversity of the riparian margins is expected to increase. The quality and diversity of aquatic habitats is also expected to improve overall. Thus, the potential effects on the biodiversity and life supporting capacity of the riparian areas are positive in the medium to longer term.

(g) the potential and cumulative effects on water quality and quantity, and in particular whether the activity is within a water catchment that serves a public water supply

The activity is not within a catchment that serves as a public water supply. The proposed riparian and wetland plantings is expected to result in water quality improvements because of reduced sedimentation and improved riparian buffering and ecological connectivity.

(h) the extent to which any proposed measures will mitigate adverse effects on water quality or on vegetation on riparian margins

Except for a small area of previous planting at the eastern end of the site, the existing riparian margins are narrow and weedy. The existing plantings would not be affected by the proposal, and the additional planting areas would improve the ecological connection and function of the site for both terrestrial and aquatic species.

The overall proposal, including the encroachment into the riparian setback illustrated in Figure 3.1, is not expected to result in adverse effects in relation to matters (b), (e), (f), (g) and (h).

5. CONCLUSION

The ecological values of the Site are low – moderate, but it does support good numbers of common native birds and probably lizards such as copper skinks. The proposal would have minor (local) effects on the terrestrial ecological values, in that the number of birds and lizards would be reduced locally for several years and at a local population level these effects would likely be noticeable. However, such effects would be temporary, as bird numbers would recover once riparian habitats are established and gardens and amenity plantings at the Site mature.

The ecological value of riparian areas at the Site could be improved considerably and these areas are potentially important for conservation values since they could act as a wildlife corridor and also increase the quality of aquatic habitats and water quality entering the Kerikeri Basin. Since the proposal includes retention and enhancement of the riparian areas it would be possible to create habitat for species which would be displaced by the development prior to construction commencing. Staging the development in this way would substantially reduce the adverse effects of the proposal on fauna.

If lizards are salvaged and relocated, ecologically appropriate riparian plantings are established early in the development and managed effectively in accordance with a planting and weed management plan, best practice erosion and sediment control is implemented throughout and surplus soil from the site is appropriately managed so as to prevent weed spread and in accordance with NESCS 2012, then the overall effects of the proposal on terrestrial and aquatic ecological values would be generally positive.

6. REFERENCES

- Brook, F.J. 1996: Classification of the ecological districts of Northland. Unpublished report prepared for Northland Conservancy, Department of Conservation, Whangarei.
- Conning, L. and Miller, N. 1999. Natural areas of Kerikeri Ecological District Reconnaissance Survey Report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme 42. Department of Conservation, Northland Conservancy, Whangarei. 254 pp.
- de Lange, P.J., Rolfe, J.R., Barkla, J.W., Courtney, S.P., Champion, P.D., Perrie, L.R., Beadel, S.M., Ford, K.A., Breitwieser, I., Schonberger, I., Hindmarsh-Walls, R., Heenan, P.B., Ladley, K. 2018: Conservation status of New Zealand indigenous vascular plants, 2017. New Zealand Threat Classification Series 22. Department of Conservation, Wellington. 82 pp.
- Dunn, N.R., Allibone, R.M., Closs, G.P., Crow, S.K., David, B.O., Goodman, J.M., Griffiths, M., Jack, D.C., Ling, N., Waters, J.M., Rolfe, J.R. 2018. Conservation status of New Zealand freshwater fishes, 2017. New Zealand Threat Classification Series 24. Department of Conservation, Wellington. 11 pp.
- Hitchmough, R., Barr, B., Lettink, M., Monks, J., Reardon, J., Tocher, M., van Winkel, D., Rolfe, J. 2016: Conservation status of New Zealand reptiles, 2015. New Zealand Threat Classification Series 17. Department of Conservation, Wellington. 14 pp.
- McEwen, W.M. 1987. Ecological Regions and Districts of New Zealand. Third Revised Edition in Four 1:500,000 Maps. New Zealand Biological Resources Centre, Department of Conservation, Wellington.
- Parkyn, S.; Shaw, W.; Eades, P. (2000). Review of information on riparian buffer widths necessary to support sustainable vegetation and meet aquatic functions. Prepared by NIWA for Auckland Regional Council. Auckland Regional Council Technical Publication Number 350, 38 pages
- Robertson, H.A., Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J., Sagar, P.M., Scofield, R.P., Taylor, G.A. 2017. Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington. 23 pp.

APPENDIX A Plant Species List

Latin Name	Common Name
Dicotyledonous trees and shrubs	
<i>Ackama rosifolia</i>	makamaka
<i>Acmena smithii</i> *	lilly pilly
<i>Alectryon excelsum</i>	titoki
<i>Betula pendula</i> *	silver birch
<i>Coprosma robusta</i>	karamu
<i>Corynocarpus laevigatus</i>	karaka
<i>Cryptomeria japonica</i> *	Japanese cedar
<i>Cupressus macrocarpa</i> *	macrocarpa
<i>Dodonaea viscosa</i>	akeake
<i>Erythrina x sykesii</i> *	coral tree
<i>Eucalyptus saligna</i> *	Sydney blue gum
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangehange
<i>Haloragis erecta</i>	shrubby haloragis
<i>Knightia excelsum</i>	rewarewa
<i>Kunzea robusta</i>	kanuka
<i>Leptospermum scoparium</i> agg.	manuka
<i>Ligustrum lucidum</i> *	tree privet
<i>Ligustrum sinense</i> *	small leaved privet, Chinese privet
<i>Liquidambar styraciflua</i> *	liquidambar
<i>Meliccytus ramiflorus</i>	mahoe
<i>Metrosideros excelsa</i>	pohutukawa

<i>Myrsine australis</i>	mapou
<i>Paraserianthes lophantha</i> *	brush wattle
<i>Pinus radiata</i>	radiata pine
<i>Piper excelsum</i>	kawakawa
<i>Pittosporum crassifolium</i>	karo
<i>Plumeria rubra</i> var. <i>acutifolia</i> *	frangipani
<i>Podocarpus totara</i>	totara
<i>Prunus campanulata</i> *	Taiwanese cherry
<i>Quercus robur</i> *	European oak
<i>Salix fragilis</i> *	crack willow
<i>Solanum mauritianum</i> *	woolly nightshade
<i>Ulex europaeus</i> *	gorse
<i>Vitex lucens</i>	puriri
<i>Weinmannia silvicola</i>	towai
Lianes and climbers	
<i>Actinidia deliciosa</i> *	kiwifruit
<i>Araujia sericifera</i> *	moth plant
<i>Calystegia sepium</i> subsp. <i>roseata</i>	pink bindweed
<i>Delairea odorata</i> *	German ivy
<i>Ipomoea indica</i> *	blue morning glory
<i>Lonicera japonica</i> *	Japanese honeysuckle
<i>Rubus fruticosus</i> agg*	blackberry
<i>Jasminum polyanthum</i> *	jasmine
Dicot herbs	
<i>Anagallis arvensis</i> subsp <i>arvensis</i> var. <i>arvensis</i> *	pimpernel

<i>Anthemis cotula</i> *	stinking mayweed
<i>Bellis perennis</i> *	Bellis daisy
<i>Brassica rapa</i> var. <i>oleifera</i> *	wild turnip
<i>Chenopodium album</i> *	fathen
<i>Cirsium vulgare</i> *	Scotch thistle
<i>Cucurbita pepo</i> *	zucchini
<i>Erigeron bonariensis</i> *	wavy-leaved fleabane
<i>Euphorbia peplus</i> *	milkweed
<i>Fumaria muralis</i> subsp. <i>muralis</i>	scrambling fumitory
<i>Gamochaeta simplicicaulis</i> *	cudweed
<i>Galium aparine</i> *	cleavers
<i>Geranium molle</i> *	dovesfoot crane's bill
<i>Gomphocarpus fruticosus</i> *	swan plant
<i>Hydrocotyle moschata</i>	hairy pennywort
<i>Leontodon taraxicoides</i> *	hawkbit
<i>Jacobaea vulgaris</i> *	ragwort
<i>Leucanthemum vulgare</i> *	oxeye daisy
<i>Lotus pedunculatus</i> *	lotus
<i>Nymphaea alba</i> *	common water lily
<i>Oenanthe pimpinelloides</i> *	parsley dropwort
<i>Parentucellia viscosa</i> *	tarweed
<i>Persicaria hydropiper</i> *	water pepper
<i>Persicaria maculosa</i> *	willow weed
<i>Plantago lanceolata</i> *	narrow-leaved plantain
<i>Plantago major</i> *	broad-leaved plantain
<i>Prunella vulgaris</i> *	selfheal
<i>Ranunculus repens</i> *	creeping buttercup

<i>Ranunculus sardous</i> *	hairy buttercup
<i>Rumex obtusifolius</i> *	broad-leaved dock
<i>Senecio bipinattisectus</i> *	Australian fireweed
<i>Senecio vulgaris</i> *	groundsel
<i>Solanum nigrum</i> *	black nightshade
<i>Sonchus olearaceus</i> *	puha, sow thistle
<i>Stachys arvensis</i> *	staggerweed
<i>Stachys sylvatica</i> *	hedge woundwort
<i>Trifolium pratense</i> *	red clover
<i>T. repens</i> *	white clover
<i>Tropaeolum majus</i> *	nasturtium
<i>Verbena bonariensis</i> *	purple top
<i>Veronica arvensis</i> *	field speedwell
Herbaceous monocots	
<i>Colocasia esculenta</i> *	taro
<i>Crocsmia x crocosmiiflora</i> *	montbretia
<i>Ottelia ovalifolia</i> *	swamp lily
<i>Hedychium</i> sp.	wild ginger
<i>Tradescantia fluminensis</i> *	wandering jew
<i>Zantedeschia aethiopica</i> *	arum lily
Monocot trees and shrubs	
<i>Bambusa oldhamii</i> *	Oldham's bamboo
<i>Cordyline australis</i>	ti kouka, cabbage tree
<i>Phormium tenax</i>	harakeke, flax
<i>Washingtonia robusta</i> *	Washington palm

Grasses, sedges and rushes	
<i>Agrostis capillaris</i> *	browntop
<i>Anthoxantum odoratum</i> *	sweet vernal
<i>Bromus willdenowii</i> *	prairie grass
<i>Carex virgata</i>	pukio
<i>Carex geminata</i>	rautahi
<i>Cenchrus clandestinus</i> *	kikuyu
<i>Cortaderia selloana</i> *	pampas
<i>Dactylis glomerata</i> *	cocksfoot
<i>Holcus lanatus</i> *	Yorkshire fog
<i>Isolepis sepulcralis</i> *	
<i>Juncus edgariae</i>	Edgar's rush
<i>Lolium perenne</i> *	perennial ryegrass
<i>Paspalum dilatatum</i> *	paspalum
<i>Poa annua</i> *	annual poa
Ferns and Fern Allies	
<i>Cyathea dealbata</i>	silver fern
<i>Dicksonia squarrosa</i>	rough tree fern
<i>Nephrolepis cordiifolia</i> *	tuber sword fern
<i>Paesia scaberula</i>	ring fern
<i>Parablechnum novae-zelandiae</i>	kiokio

*denotes introduced and naturalised species

APPENDIX B Bird Species List

Latin name	Common name
<i>Acridotheres tristis</i> *	myna
<i>Emberiza citrinella</i> *	yellowhammer
<i>Callipepla californica</i> *	Californian quail
<i>Carduelis carduelis</i> *	goldfinch
<i>Circus approximans</i>	Australasian harrier
<i>Gerygone igata</i>	grey warbler
<i>Hirundo neoxena</i> *	welcome swallow
<i>Passer domesticus</i> *	house sparrow
<i>Phasianus colchicus</i> *	ring-necked pheasant
<i>Porphyrio melanotus</i> *	pukeko
<i>Prothemadera novaeseelandiae</i>	tui
<i>Rhipidura fuliginosa placabilis</i>	fantail
<i>Sturnus vulgaris</i> *	starling
<i>Tadorna variegata</i>	putangitangi, paradise shelduck
<i>Todiramphus sanctus</i>	kingfisher
<i>Turdus merula</i> *	blackbird
<i>Turdus philomelos</i> *	song thrush

*denotes introduced and naturalised species

HALL ROAD, KERIKERI: ARCHAEOLOGICAL APPRAISAL

Prepared for Arvida Group



November 2018

By

Charlotte Judge (MA Hons)

Rod Clough (PhD)

Clough
& ASSOCIATES LTD

321 Forest Hill Rd,
Waiatarua, Auckland 0612
Telephone: (09) 8141946
Mobile 0274 850 059
www.clough.co.nz

Contents

Introduction	1
Project Background	1
Methodology	1
Archaeological Background	3
Field Assessment	5
Field Survey Results	5
Discussion and Conclusions	10
Summary of Results	10
Maori Cultural Values	10
Survey Limitations	10
Archaeological Value and Significance	10
Effects of the Proposal	10
Resource Management Act 1991 Requirements	11
Heritage New Zealand Pouhere Taonga Act 2014 Requirements	11
Conclusions	12
Recommendations	13
Bibliography	14
Appendix A: Site Record Forms	15

INTRODUCTION

Project Background

The owners of a horticultural/rural block at Kerikeri are proposing a residential development of the property (Figure 1, Figure 2). The legal description of the property is Lot 1 DP 164771, Lot 1 DP 173449, Lot 2 DP 149521 and Lot 1 DP 163762. Final development plans are not yet available.

An archaeological appraisal was commissioned by David Haines of Haines Planning to establish whether the proposed work is likely to impact on archaeological values. This report has been prepared as part of the required assessment of effects accompanying 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). 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), District Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rāangi Kōrero were searched for information on sites recorded in the vicinity. Literature and archaeological reports relevant to the area were consulted (see Bibliography). Early survey plans were checked for information relating to past use of the property (see Bibliography).

A visual inspection of the property was conducted on 3 November 2018. The ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains). Exposed and disturbed soils across the property were examined for evidence of earlier modification, and an understanding of the local stratigraphy. Subsurface testing with a probe and spade was carried out where required to determine whether buried archaeological deposits could be identified or establish the nature of possible archaeological features. Photographs were taken to record the area and its immediate surrounds.



Figure 1. Map showing the location of the subject property (marked with star). Map source: Google 2018



Figure 2. Aerial showing the extent of the property included within this appraisal (overlaid in yellow).

ARCHAEOLOGICAL BACKGROUND

The Bay of Islands has the highest density of recorded archaeological sites in New Zealand, reflecting the important role it played in the history of Maori settlement. Not only was there intensive Maori settlement before the arrival of Europeans, but it was also the location of some of the earliest contacts between Maori and Europeans, and the focus of early European settlement in New Zealand.

The vast majority of recorded archaeological sites within the Kerikeri area are focussed around the harbour and basin as well as along the banks of navigable waterways (Figure 3). Very few sites have been recorded further inland. The majority of the sites relate to pre-European Maori settlement, although a considerable percentage also relate to post-European contact and early European settlement.

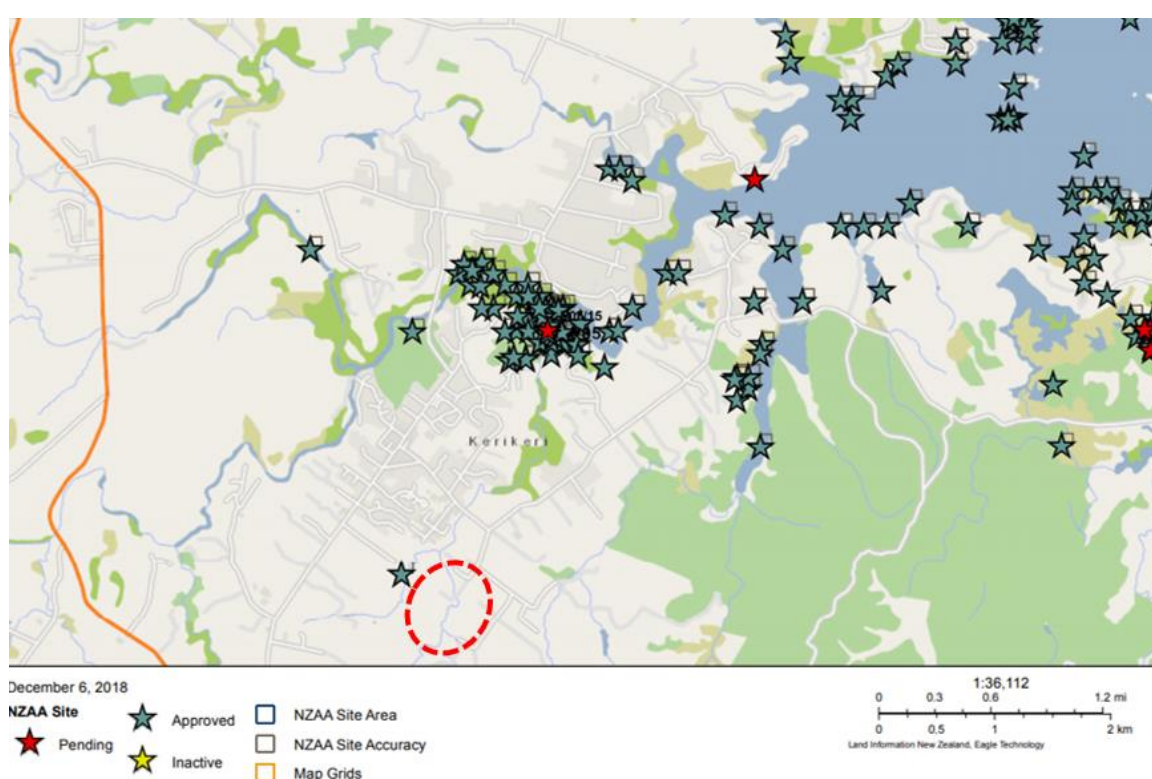


Figure 3. Map showing distribution of recorded archaeological sites within the Kerikeri area. The approximate location of the subject property is circled in red. Map source: Archsite 2018

One archaeological site (P05/42) has previously been recorded within or close to the bounds of the subject property (Figure 4). The site comprises a group of three or four possible 'indistinct' pits positioned in a square and located on the south side of a ridge, recorded by amateur archaeologist T.D. and J.C. Nugent in 1976.

The area where site P05/42 was originally recorded was revisited by Northern Archaeological Research in 2006 during an assessment of Lot 1 DP 163762 (the far western Lot of the current project area). Archaeological site P05/42 was unable to be relocated and it was unclear whether the site had been subsequently modified, was not in fact located within this property or if the features had in fact constituted archaeological remains at all. No archaeological remains were identified within Lot 1 DP 163762 and it was considered

unlikely that any would be exposed as a result of works then proposed within the property (Johnson & Callaghan 2006).

No other sites have previously been recorded within or close to the bounds of the current project area. Nor were any sites identified from a review of historic survey plans or a 1920s geological map of the area (see bibliography).



Figure 4. Archaeological sites recorded within 2km of the subject property (outlined in blue).
Source: Archsite 2018

FIELD ASSESSMENT

Field Survey Results

A pedestrian field survey of the property was undertaken on 3 November 2018. The property covers a gently undulating block of land bounded to the north, east and west by small stream tributaries and to the south by further rural/horticultural blocks (Figure 5).

Sections of the property at the north-western corner had recently been cleared of kiwifruit vines while approximately 40% remained in vines. A residential property with associated garaging is located within the block at 58 Hall Road – the far western end of the project area. The remainder of the property comprises small paddocks at the southern end and a residential house and orchard sheds at the eastern end surrounded by a courgette plantation.

Visibility within the paddocks and the cleared blocks of kiwifruit was good. Extensive areas of exposed soils were evident within the cleared blocks of kiwifruit where the vines had been pulled from the ground (Figure 6, Figure 7) and within the paddocks where drainage channels had been excavated (Figure 8). Visibility was difficult through the existing kiwifruit blocks, but adequate (Figure 9). The block at the eastern end of the property was somewhat hard to assess due to the courgette plantation covering the ground surface (Figure 10). The natural soil is clearly very rocky throughout much of the property. Piles of rock are evident along the edges of the kiwifruit blocks where they were presumably removed to allow for planting (Figure 11, Figure 12).

No archaeological remains were identified within the project area or along the stream banks (where accessible) that run along the boundaries. No evidence of previously recorded site P05/42 was identified within the project area.



Figure 5. Aerial showing extent of the current project area (outlined in white). Source: Far North District Council 2018



Figure 6. View looking over one of the western blocks that has been recently cleared of kiwifruit



Figure 7. Exposed soils where kiwifruit vines have been pulled from the ground



Figure 8. Drainage channels evident along the edges of the paddocks



Figure 9. View beneath existing kiwifruit vines



Figure 10. View looking north over courgette plantation at far eastern end of project area



Figure 11. View looking east along northern boundary of kiwifruit block. The bank on the left side of the vehicle access has been formed with rock material presumably removed during planting.



Figure 12. Piles of rock evident along orchard block boundaries

DISCUSSION AND CONCLUSIONS

Summary of Results

No archaeological remains were identified within the subject property. One archaeological site has previously been recorded within or close to the bounds of the subject property (P05/42). The site comprises a possible pit site recorded in 1976 and not relocated since. No evidence of this site was identified within the current project boundaries.

Maori Cultural Values

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

The historical association of the general area with the tangata whenua is evident from the recorded sites, traditional histories and known Maori place names.

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 Maori, especially where these have no physical remains.

Visibility and access were restricted within the remaining kiwifruit blocks and within the courgette plantation.

Archaeological Value and Significance

No archaeological sites were identified within the bounds of the subject property. The property therefore has no known archaeological value.

Effects of the Proposal

The proposed development of the property will have no known effects on archaeological values.

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. While it is considered unlikely in this situation due to the results of the current assessment, the possibility can be provided for by putting procedures in place ensuring that Heritage NZ and the Council are contacted should this occur.

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 Maori and early European origin or human burials.

Resource Management Act 1991 Requirements

Section 6 of the RMA recognises as matters of national importance: ‘the relationship of Maori 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 Maori, 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 Far North District Council Plan 2009 is relevant to the proposed activity.

There are no scheduled historic heritage sites located on the property. This assessment has established that the proposed activity will have no effect on any known archaeological remains, and has little potential to affect unrecorded subsurface remains. If resource consent is granted, consent conditions relating to archaeological monitoring or protection would therefore not be required. A general condition relating to the accidental discovery of archaeological remains could be included, requiring that if any archaeological remains are exposed during development, work should cease in the immediate vicinity and the Council and Heritage NZ should 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)¹ that –

¹ Under Section 42(3) an Authority is not required to permit work on a pre-1900 building unless the building is to be demolished.

- (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 1900²; 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)²

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 Maori 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 Maori 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 redevelopment of the property as no known sites will be affected, and it is unlikely that any undetected sites are present. However, should any sites be exposed during development the provisions of the HNZPTA must be complied with.

Conclusions

No archaeological sites were identified within the subject property as a result of the current assessment. In this situation it is considered unlikely that archaeological remains will be exposed as a result of the proposed development, however the possibility cannot be excluded. In the unlikely event that archaeological remains are exposed during works, the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 must be complied with.

² Under Section 43(1) a place post-dating 1900 (including the site of a wreck that occurred after 1900) that could provide 'significant evidence relating to the historical and cultural heritage of New Zealand' can be declared by Heritage NZ to be an archaeological site.

RECOMMENDATIONS

- There should be no constraints on the proposed subdivision on archaeological grounds, since no archaeological sites are known to be present and it is considered unlikely that any will be exposed during development.
- If subsurface archaeological evidence should be unearthed during construction (e.g. intact shell midden, hangi, storage pits relating to Maori occupation, or cobbled floors, brick or stone foundation, and rubbish pits relating to 19th century European occupation), work should cease in the immediate vicinity of the remains and Heritage NZ and the Council should be notified.
- 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).
- Alternatively, consideration could be given to applying for an Authority in advance of works as a precaution, to minimise delays if archaeological remains are exposed once works are under way.
- 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 Maori, such as wahi tapu, the tangata whenua should be consulted regarding the possible existence of such sites on the property.

BIBLIOGRAPHY



- Binney, J. (ed). 2007. Te Kerikeri 1770-1850. Bridget Williams Books in association with Craig Potton Publishing.
- Easdale, N. 1991. Missionary & Maori: Kerikeri 1819 – 1860. Te Waihora Press.
- Harris, G. E., W. H. Cropp, H. T. Ferrar. 1922. *Geological Map of Whakarara and Kerikeri Survey Districts*. Geological Survey Branch of the Mines Department.
- Heritage NZ. 2006. Writing Archaeological Assessments. Archaeological Guidelines Series No. 2. New Zealand Historic Places Trust Pouhere Taonga (now Heritage NZ).
- Heritage NZ. 2014. Investigation and Recording of Buildings and Standing Structures. Archaeological Guidelines Series No. 1.
- Johnson, L. and E. Callaghan. 2006. Archaeological Survey and Assessment of the Proposed Tinkerbell Partnership Ltd Subdivision of Lot 1 DP 163762, Hall Road, Kerikeri, Bay of Islands. Northern Archaeological Research report.
- New Zealand Archaeological Association ArchSite Database, accessed at <http://www.archsite.org.nz>.
- New Zealand Heritage List, accessed at <http://www.historic.org.nz>

Historic Survey Plans

OLC 3
DP 6703
DP 23281
DP 28897

APPENDIX A: SITE RECORD FORMS

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

 <p>Site Record Form</p>	<p>NZAA SITE NUMBER: P05/42</p> <p>SITE TYPE: Pit/Terrace</p> <p>SITE NAME(s):</p> <p>DATE RECORDED:</p>
<p>SITE COORDINATES (NZTM) Easting: 1688361 Northing: 6100183 Source: CINZAS</p>	
<p>IMPERIAL SITE NUMBER: N11/84 METRIC SITE NUMBER: P05/42</p>	
 <p>Scale 1:2,500</p> <p>Land Information New Zealand, Eagle Technology</p>	
<p>Finding aids to the location of the site</p>	
<p>Brief description</p> <p>PITS</p>	
<p>Recorded features</p> <p>Pit</p>	

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

SITE RECORD INVENTORY	NZAA SITE NUMBER: P05/42
-----------------------	--------------------------

Supporting documentation held in ArchSite

AM. AWAL BB AA AL

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION SITE RECORD FORM Map number N11 Map name Kerikeri Map edition 3rd, 1969 Grid Reference 457553		SITE NUMBER N11/34 SITE NAME: MAORI SITE TYPE Pits
1. Aids to relocation of site ^{E145700 N855300} See map of sites.		
2. State of site; possibility of damage or destruction Poor, and very indistinct. Possibility of stock damage.		
3. Description of site (NOTE: This section is to be completed ONLY if no separate Site Description Form is to be prepared.) Three pits located on the south side of the ridge. The pits are too indistinct to measure. A fourth pit may possibly be present. All pits are arranged in a square.		
4. Owner R. Bayly, Address Wairoa Bay, Paikia.		Tenant/Manager Address Attitude Co-operative. Attitude
5. Methods and equipment used Examined by two people. Photographs taken: Yes/No (Describe on Photograph Record Form) Date recorded 22/11/1976.		
6. Aerial photograph or mosaic No. 3406 4479/6.		Site shows: Clearly /not at all
7. Reported by T.D. & J.C. Nugent, Address C/- T. Nugent, 10 Herbert Ave., Palmerston North. Date 12/12/1976.		Filekeeper <i>AKS</i> Date 2/8/77

NORTHERN ARCHAEOLOGICAL RESEARCH LTD
Archaeological Consultants

14th September 2011

David Stringer
Thomson Survey Ltd
P O Box 372
KERIKERI

Dear David,

**Re: PROPOSED SUBDIVISION & EFFLUENT DISPOSAL AREA, 56 HALL RD,
KERIKERI (Thomson Survey Plan Ref:7955 dated 12.07.11).**

We surveyed the above property for archaeological sites in March 2006 in relation to a proposed subdivision at this time (Johnson & Callaghan 2006). A single previously recorded archaeological site consisting of a small number of possible pits was noted in the area by the amateur field recorders T.D. and J.C. Nugent in 1976. We attempted to relocate this site and this included digging a number of test pits. No site of the nature reported in 1976 could be relocated on the property. Unfortunately the "Aids to Relocation" on the original site record form were not sufficient to be able to determine whether the site actually existed on the property, occurs on a neighbouring property or has subsequently been modified. No other sites were found on the property and there appeared to us to be only a very low probability of unrecorded subsurface archaeological remains occurring here. We have no further concerns in relation to the proposed subdivision.

The original survey did not cover the proposed Disposal Area. However, our view of this area is the same as that for the subdivision area.

In the unlikely event that unrecorded archaeological remains are uncovered during development of the subdivision, all earthworks in the vicinity of the site should cease and Northern Archaeological Research Ltd be notified immediately so that appropriate action can be taken.

If you have any queries, or require any further information, please contact me.

Yours faithfully,



Leigh Johnson.

Encl. Thomson Survey Scheme Plan Ref: 7955 dated 12.07.11

Reference:

Johnson, L & Callaghan, E. 2006. Archaeological Survey and Assessment of the Proposed Tinkerbell Partnership Ltd Subdivision of Lot 1 DP 163762, Hall Road, Kerikeri, Bay of Islands. *Unpublished Client Report*. Auckland: NAR.

*Northern Archaeological Research Ltd, P O Box 32-583, Devonport, Auckland 0744.
Ph 09-446 0586. Mobile 0274-887 944. Fax 09-446 0560. e-mail: archaeology@vodafone.co.nz.*

Attachment 18 – KLL Masterplan Community Engagement Summary (since Oct 19)

Date	Attendees	Comms Method	Purpose	Key Outcomes
30/10/19	Comms to residents	Mail box drop	Outline of future intentions and contact details provided; notification of rubbish removal on site	Residents informed
13/11/19	Comms to residents	Mail box drop	Notification of works on 57 Hall Rd	Residents informed
22/11/19	Comms to residents	Email	Invitation to Arvida / residents' meeting 28/11/19	Residents invited
26/11/19	Comms to residents	Email	Invitation to site blessing	Residents invited
28/11/19	Approx. 30 residents	Meeting	Presentation of plans for stage 1 and enabling works including Hall Rd footpath	Residents informed & questions answered
04/12/19	8 Ngati Rehia representatives; 10 residents	Site Blessing	Initial site blessing	Site blessed and Ngati Rehia and residents attended "cup of tea" afterwards
09/12/19	Tui Shortland & Nora Rameka	Meeting	Discussion on MoU	Ongoing negotiations
11/12/19	Comms to residents	Email	Invitation to 2 nd meeting 20/1/20	Residents invited
10/01/20	Comms to residents	Email	Reminder of 2 nd meeting	Residents invited
20/01/20	Approx. 40 residents	Meeting	Presentation of plans for master plan consent application	Residents informed & questions answered
21/01/20	Grant & Dulcie Adams	Meeting	Discussion on development and removal of gum trees	Issues discussed
14/02/20		Site Blessing	First sod turned	
On going	Residents	Email, phone	Communication with Arvida, through Garth Dobney	
On going	Residents	Email, phone	Communication with Arvida, through John Papesch	
Various	To & From Tui Shortland and / or Nora Rameka	Email	Various discussions re site, site blessing, MoU etc	9/10, 16/10, 18/10, 19/10, 21/10, 24/10, 15/11, 19/11, 25/11, 6/12, 10/12, 11/12, 13/12, 16/1, 22/1, 23/1, 31/1.