Te Kaunihera o Te Hiku o te Ika
Far North District Council

Office Use Only
Application Number:

# Application for resource consent or fast-track resource consent

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Form 9). Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

## 1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement?

☑ **Yes** ☐ **No**

If yes, who have you spoken with? Swetha Maharaj, Nikki Callinana, Sujeet Tikaram

## 2. Type of consent being applied for

***(more than one circle can be ticked):***

☐ **Land Use**
☐ **Fast Track Land Use***
☑ **Subdivision**
☐ **Consent under National Environmental Standard**
(e.g. Assessing and Managing Contaminants in Soil)
☐ **Discharge**
☐ **Change of Consent Notice (s.221(3))**
☐ **Extension of time (s.125)**
☐ **Other (please specify)**

**The fast track is for simple land use consents and is restricted to consents with a controlled activity status.*

## 3. Would you like to opt out of the fast track process?

☐ **Yes** ☐ **No**

## 4. Consultation

Have you consulted with Iwi/Hapū? ☐ **Yes** ☑ **No**

If yes, which groups have you consulted with?

Who else have you consulted with?

*For any questions or information regarding iwi/hapū consultation, please contact Te Hono at Far North District Council, **tehonosupport@fndc.govt.nz***

## 5. Applicant details

**Name/s:** Bella Max & Kemp Family Trust

**Email:** [redacted]

**Phone number:** [redacted]

**Postal address:**
(or alternative method of service under section 352 of the act)

Have you been the subject of abatement notices, enforcement orders, infringement notices and/or convictions under the Resource Management Act 1991? ◯ **Yes** ◯ **No**

If yes, please provide details.

## 6. Address for correspondence

***Name and address for service and correspondence (if using an Agent write their details here)***

**Name/s:** Harrison Grierson (Attention: Philip Comer)

**Email:** [redacted]

**Phone number:**

**Postal address:**
(or alternative method of service under section 352 of the act)

All correspondence will be sent by email in the first instance. Please advise us if you would prefer an alternative means of communication.

## 7. Details of property owner/s and occupier/s

***Name and Address of the owner/occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)***

**Name/s:** Bella Max & Kemp Family Trust

Property address/
location: 438A and 438B Redcliffs Road, Kerikeri

Postcode

## 8. Application site details

*Location and/or property street address of the proposed activity:*

**Name/s:**

**Site address/ location:** 438A & 438B Redcliffs Road, Kerikeri

Postcode

**Legal description:** Lot 1 DP 557844, Lot 2 DP 55784 **Val Number:**

**Certificate of title:** RoTs 978317 & 978318

Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

**Site visit requirements:**

Is there a locked gate or security system restricting access by Council staff? ☑ **Yes** ○ **No**

Is there a dog on the property? ○ **Yes** ○ **No**

Please provide details of any other entry restrictions that Council staff should be aware of, e.g. health and safety, caretaker's details. This is important to avoid a wasted trip and having to re-arrange a second visit.

Please contact agent planner to arrange site visit.

## 9. Description of the proposal

Please enter a brief description of the proposal here. Please refer to Chapter 4 of the *District Plan, and Guidance Notes*, for further details of information requirements.

Please refer to the application report and AEE

If this is an application for a Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s), with reasons for requesting them.

## 10. Would you like to request public notification?

○ **Yes** ☑ **No**

## 11. Other consent required/being applied for under different legislation

*(more than one circle can be ticked):*

○ **Building Consent** Enter BC ref # here (if known)

○ **Regional Council Consent (ref # if known)** Ref # here (if known)

○ **National Environmental Standard Consent** Consent here (if known)

○ **Other (please specify)** Specify 'other' here

## 12. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health:

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following:

Is the piece of land currently being used or has it historically ever been used for an activity or industry on the Hazardous Industries and Activities List (HAIL)? ◯ **Yes** ✔ **No** ◯ **Don't know**

Is the proposed activity an activity covered by the NES? Please tick if any of the following apply to your proposal, as the NESCS may apply as a result? ◯ **Yes** ◯ **No** ◯ **Don't know**

◯ **Subdividing land**

◯ **Changing the use of a piece of land**

◯ **Disturbing, removing or sampling soil**

◯ **Removing or replacing a fuel storage system**

## 13. Assessment of environmental effects:

*Every application for resource consent must be accompanied by an Assessment of Environmental Effects (AEE). This is a requirement of Schedule 4 of the Resource Management Act 1991 and an application can be rejected if an adequate AEE is not provided. The information in an AEE must be specified in sufficient detail to satisfy the purpose for which it is required. Your AEE may include additional information such as written approvals from adjoining property owners, or affected parties.*

**Your AEE is attached to this application** ✔ **Yes**

## 14. Draft conditions:

Do you wish to see the draft conditions prior to the release of the resource consent decision? ✔ **Yes** ◯ **No**

If yes, please be advised that the timeframe will be suspended for 5 working days as per s107G of the RMA to enable consideration for the draft conditions.

## 15. Billing Details:

This identifies the person or entity that will be responsible for paying any invoices or receiving any refunds associated with processing this resource consent. Please also refer to Council's Fees and Charges Schedule.

**Name/s:** **(please write in full)** Bella Max & Kemp Family Trust

**Email:** [redacted]

**Phone number:**

**Postal address:**
(or alternative method of service under section 352 of the act)

**Fees Information**

An instalment fee for processing this application is payable at the time of lodgement and must accompany your application in order for it to be lodged. Please note that if the instalment fee is insufficient to cover the actual and reasonable costs of work undertaken to process the application you will be required to pay any additional costs. Invoiced amounts are payable by the 20th of the month following invoice date. You may also be required to make additional payments if your application requires notification.

## *15. Billing details* continued...

**Declaration concerning Payment of Fees**

I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

**Name:** (please write in full) Bella Max & Kemp Family Trust

**Signature:** [redacted] Date 10-2-26

(signature of bill payer)

**MANDATORY**

## 16. Important Information:

**Note to applicant**

You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for 2 or more resource consents that are needed for the same activity on the same form.

You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

**Fast-track application**

Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement.

A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

**Privacy Information:**

Once this application is lodged with the Council it becomes public information. Please advise Council if there is sensitive information in the proposal. The information you have provided on this form is required so that your application for consent pursuant to the Resource Management Act 1991 can be processed under that Act. The information will be stored on a public register and held by the Far North District Council. The details of your application may also be made available to the public on the Council's website, www.fndc.govt.nz. These details are collected to inform the general public and community groups about all consents which have been issued through the Far North District Council.

## 17. Declaration

The information I have supplied with this application is true and complete to the best of my knowledge.

**Name** (please write in full) Janine Budden

**Signature** [redacted] Date 10-2-26

***A signature is not required if the application is made by electronic means***

*See overleaf for a checklist of your information...*

## Checklist

***Please tick if information is provided***

- ◯ Payment (cheques payable to Far North District Council)
- ◯ A current Certificate of Title (Search Copy not more than 6 months old)
- ◯ Details of your consultation with Iwi and hapū
- ◯ Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- ◯ Applicant / Agent / Property Owner / Bill Payer details provided
- ◯ Location of property and description of proposal
- ◯ Assessment of Environmental Effects
- ◯ Written Approvals / correspondence from consulted parties
- ◯ Reports from technical experts (if required)
- ◯ Copies of other relevant consents associated with this application
- ◯ Location and Site plans (land use) AND/OR
- ◯ Location and Scheme Plan (subdivision)
- ◯ Elevations / Floor plans
- ◯ Topographical / contour plans

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website. This contains more helpful hints as to what information needs to be shown on plans.

HARRISON GRIERSON

# Assessment of Environmental Effects - Proposed Management Plan Subdivision

Subdivision Resource Consent Application

438A & 438B Redcliffs Road, Kerikeri

09 February 2026

# Document control record

| | |
|---|---|
| **Client** | Bella Max & Kemp Family Trust |
| **Project** | Proposed Management Plan Subdivision,<br>438A & 438B Redcliffs Road, Kerikeri |
| **HG Project No.** | A2415321.01 |
| **HG Document No.** | REP002-A2415321.01-AEZ |
| **Document** | Subdivision Resource Consent Application and AEE |

# Issue and revision record

| | |
|---|---|
| **Date of Issue** | 09 February 2026 |
| **Status** | Final |
| **Originator** | Alice Zhou - Planner |
| **Reviewed** | Philip Comer - Technical Director |
| **Approved for Issue** | Philip Comer - Technical Director |
| **Office of Origin** | Auckland - Planning |

| | |
|---|---|
| **Date of Issue** | 09 February 2026 |
| **Telephone** | +64 9 212 6486 |
| **Email** | a.zhou@harrisongrierson.com |

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# 1.0
# The applicant and property details

| | |
|---|---|
| **Applicant** | Bella Max & Kemp Family Trust |
| **Site Address** | 438A & 438B Redcliffs Road, Kerikeri |
| **Address for Service** | Harrison Grierson Consultants Limited<br>PO Box 5760, Victoria St West<br>Auckland 1142<br>**Attention: Alice Zhou** |
| **Legal Description** | Lot 1 DP 557844 (Held in RoT 978317)<br>Lot 2 DP 557844 and Lot 1 DP 194534 (Held in RoT 978318) |
| **Title limitations** | RoTs 978317 & 978318 (**Appendix 1**)<br>See section 3.2 below |
| **Site area** | 34.1633 ha (as per RoTs) |
| **District Plan** | Operative Far North District Plan 2009 (ODP) |
| **District Plan zoning** | General Coastal Zone |
| **District Plan overlays** | Resource Map – Outstanding Landscape |
| **Proposed District Plan** | Proposed Far North District Plan (PDP) |
| **Proposed District Plan zoning** | Rural Production Zone |
| **Proposed District Plan overlays** | Coastal Environment<br>High Natural Character |

| | |
|---|---|
| | Coastal Flood (1:50 year scenario) |
| **Activity status** | Discretionary |

**Locality diagram**

# 2.0 Introduction

This Assessment of Environmental Effects (AEE) report has been prepared on behalf of Bella Max & Kemp Family Trust to support a resource consent application to subdivide the lots into three lots through a Management Plan at 438A and 438B Redcliffs Road, Kerikeri, legally described as Lot 1 DP 557844, Lot 2 DP 557844 and Lot 1 DP 194534.

The application includes the following supporting information:

- A copy of the records of title.
- Proposed scheme plans.
- Assessment against the rules of the Far North Operative District Plan (ODP) and Proposed District Plan (PDP).
- Subdivision history.
- Geotechnical Site Assessment report
- Civil Engineering Assessment report
- Ecological Impact Assessment report
- Ecological Management Plan
- Assessments of Environmental Effects
- Objectives and policies assessments (ODP and PDP)

Resource consent is required as a Discretionary Activity through a management plan subdivision within the General Coastal Zone, and with outstanding landscape overlay as shown on the resource map, under the ODP.

This report has been prepared to address the applicable information as required by Schedule 4 of the Resource Management Act 1991 (the 'Act') in appropriate detail relative to the scale and complexity of the proposal. This resource consent application addresses the subject site and its context, the scope of the proposal, and the consent requirements. The corresponding assessment of effects on the environment concludes that the actual and potential effects of the proposed activity will be appropriate for the receiving environment.

Having assessed the steps in sections 95A and 95B of the Act, it is considered that the application does not require public or limited notification and should be processed on a non-notified basis.

The assessment confirms that the proposal is consistent with the relevant objectives and policies of the ODP and the PDP, and that it will promote the sustainable management of natural and physical resources. Accordingly, Far North District Council (FNDC) may grant this application subject to appropriate conditions of consent.

# 3.0 The site and surrounding area

## 3.1 Locality context

The application site comprises two titles and three parcels of land forming a large rural block. The site is located at 438A Redcliffs Road, legally described as Lot 1 DP 557844 held in Record of Title (RoT Reference 978317), and 438B Redcliffs Road, legally described as Lot 2 DP 557844 and Lot 1 DP 194534, held in one RoT 978318.

The site is situated on the eastern side of Redcliffs Road. The northeastern boundary adjoins a strip of coastal reserve land owned by the Crown. The northwestern and southern boundaries adjoin neighbouring rural lifestyle properties containing a mix of grassland and bush areas. The site location is shown on the Locality Diagram in section 1.0 of this report.

The wider environment surrounding the subject site is predominantly zoned General Coastal Zone, with Coastal Living Zone and Rural Production Zone located to the south and west. The character of the immediate surrounding area is therefore defined by established rural residential development. The Te Puna Inlet lies to the northeast of the site, and the Kerikeri Inlet is situated to the south. The Kerikeri township is located approximately 10 kilometres south of the site.

## 3.2 Land information

A copy of the RoTs and interests are included as **Appendix 1**.

### 3.2.1 Land areas

The existing titles have a total area of 34.1633ha, comprising the following allotments:

RoT 978317

- Lot 1 DP 557844 - 1.342ha

RoT 978318

- Lot 1 DP 194534 - 30.6555ha
- Lot 2 DP 557844 - 2.1658ha

An error in the registered survey plan has been identified, resulting in incorrect land areas being carried onto the existing title records. Consequently, a discrepancy exists between the land areas shown on the existing titles and the proposed lot areas shown on the subdivision scheme plan in this application (33.92ha).

The areas shown on the proposed scheme plan (**Appendix 2**) are correct. The discrepancy is minor and will be resolved when new titles are issued.

### 3.2.2 Title instruments

The following legal instruments are registered on both titles, which are subject to existing easements and appurtenant easements, including rights of way, water supply, drain water, electricity and telecommunications.

These easements are relevant to the proposed subdivision. The existing easements will continue to benefit and burden the relevant new lots and will be carried forward onto the new titles when issued. These are shown on the proposed scheme plan (**Appendix 2**) and are further detailed in section 5.0 of this report.

**Figure 1** shows the title plan used for both titles. The registered easements are summarised below:

- Easement D066530.11 (registered 1996) - Right of way and rights to convey water, electricity, and telecommunications over part Lot 2 DP 557844, marked A on DP 557844.
- Easement D349890.4 (registered 1999) - Appurtenant to Lot 1 DP 194534 and Lot 1 DP 557844, providing a right of way and rights to convey water supply, electricity, and telecommunications over part Lot 5 DP 348644, marked B on DP 192248.
- Easement 12468770.3 (registered 2022) – Right of way, rights to convey water, electricity, and telecommunications, and a right to drain water over part Lot 2 DP 557844, marked C on DP 557844.

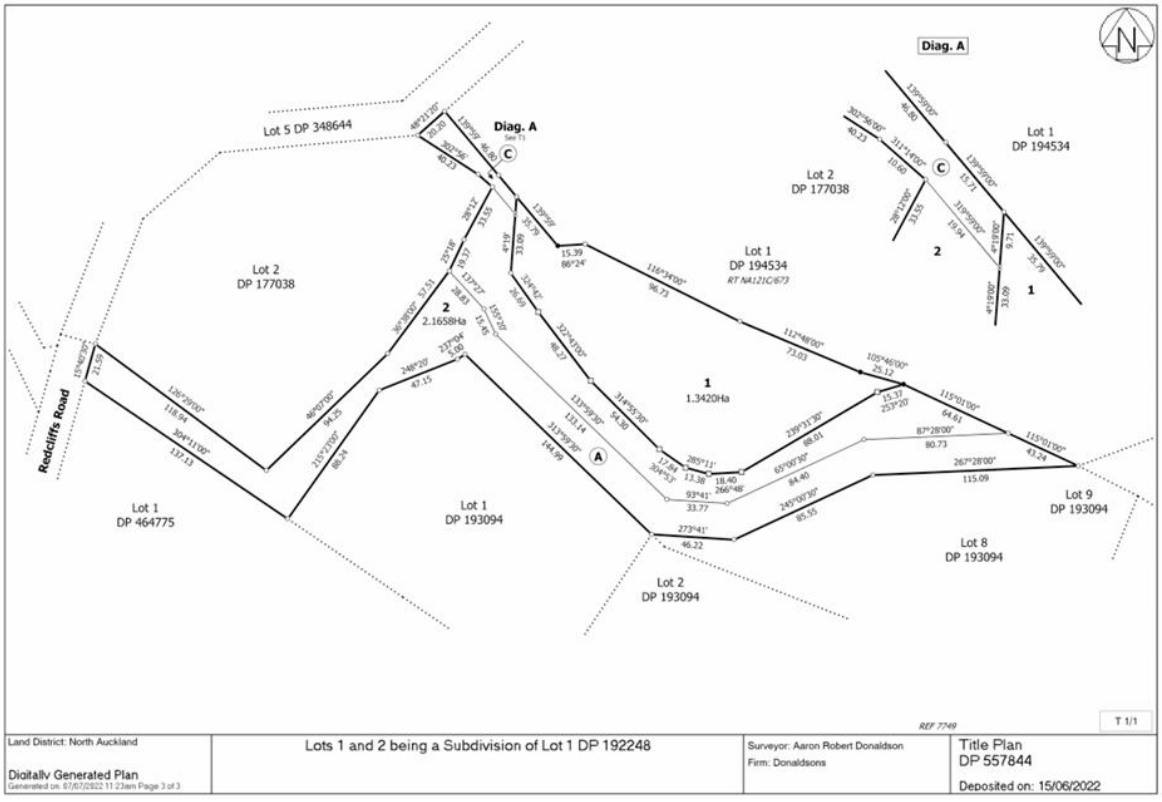


**Figure 1:** Title Plan DP 557844

## 3.3 Existing built environment

### 3.3.1 Existing buildings

**Figure 2** below identifies the two existing residential dwellings and the shed located on the site.

The first dwelling, known as "Top House", is located near the southwestern corner of the site (**Figure 3**). The second dwelling, known as the "Koru House", is positioned within the northeastern part of the site on a flat plateau (**Figure 4**). An existing shed is located approximately midway between the two dwellings, adjacent to the driveway leading to Koru House (**Figure 5**).

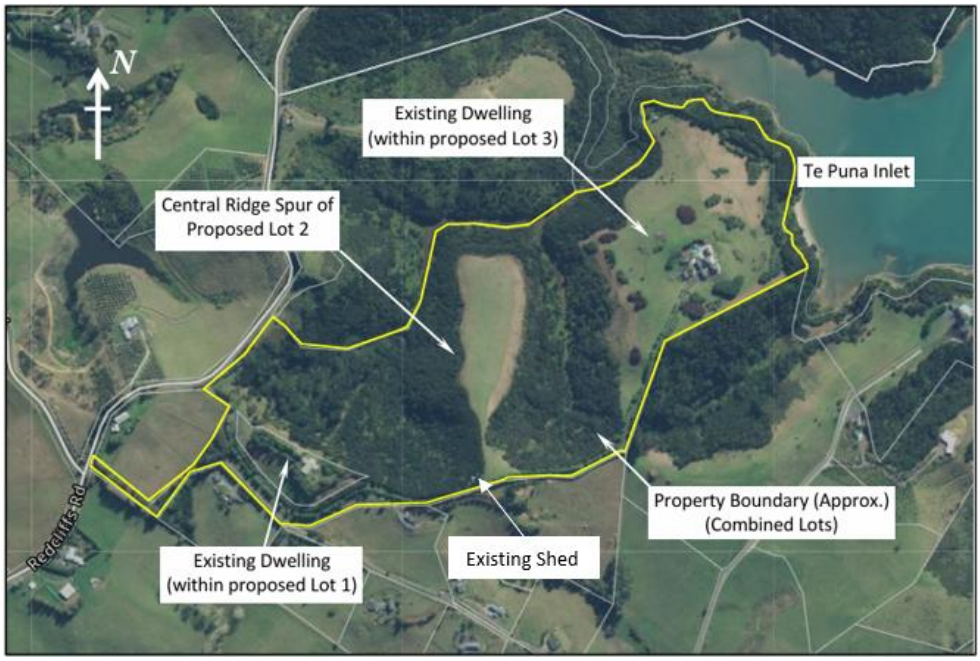


**Figure 2:** Existing structures

**Figure 3:** Top House

**Figure 4:** Koru House

**Figure 5:** Existing shed

### 3.3.2 Access

Access to the site is gained via a shared vehicle crossing and accessway off Redcliffs Road. It comprises a 3.9m wide sealed accessway (**Figure 6**) that extends approximately 1km from Redcliffs Road, leading to Koru House. The accessway has been formed to a good standard and is sealed over the full length. The sealed pavement comprises a nib plus kerb and channel with drainage via cesspit outlets.

The access from 480 Redcliffs Road, Kerikeri (Lot 5 DP 348644) also provides right of way to Top House. This right of way is identified as the area marked B over part Lot 5 DP 348644, and is established by the easement D349890.4, as described in section 3.2.2 above. This access connects to the right of way access to the Top House. This right of way is identified as the area marked C over part Lot 2 DP 557844 and is established by the easement 12468770.3 as described in section 3.2.2 above.

Further details of the access arrangements and site investigations are provided in the Civil Engineering Assessment prepared by Haigh Workman Ltd (**Appendix 6**).

**Figure 6:** The sealed accessway

### 3.3.3 Existing servicing

The site is not connected to the public three waters reticulation network, which is typical of rural properties. The Civil Engineering Assessment Report (**Appendix 6**) outlines details of the existing servicing arrangements.

Stormwater runoff from the existing developed surfaces, including roof tank overflows, is discharged to ground within the site. There were no observable effects caused by the discharge of stormwater.

The site contains existing onsite wastewater treatment systems for the two established dwellings, which have been regularly maintained and serviced. The Civil Engineering Assessment Report confirms that both treatment plants are in satisfactory working order, with no odour issues and no visible signs of surface leakage or breakout.

Domestic water supply is provided via rainwater collection tanks.

## 3.4 Physical characteristics

The site is irregular in shape with varied, rolling topography. A Geotechnical Site Assessment Report prepared by Haigh Workman Ltd (**Appendix 5**) contains detailed information on the topography, underlying geology, and geotechnical conditions, with particular focus on proposed Lot 2 where a new building platform is identified for a future dwelling.

The site does not contain any biodiversity wetlands, Top 150 wetlands, or known wetlands as mapped by the Northland Regional Council on their online maps. The application site is also not located within, or directly adjoining, the Coastal Marine Area as shown in the Regional Coastal Plan Maps.

Land Use Capability (LUC) mapping (**Figure 7**) indicates that the gullies and vegetated flanks of the site are classified as LUC Class 6, reflecting the shrubland and tree covered areas. The grassland areas are identified as LUC Class 4 soils.

The site is not identified as containing any Hazardous Activities and Industries List (HAIL) land or Selected Land Use Sites within the Northland Regional Council's online mapping system.

The NZAA map indicates there is a recorded archaeological site with NZAA Site Number P05/487. However, the location is closer to the beach area situated on Crown-owned land. The proposed building platform and servicing areas are located well away and will not affect this archaeological site.

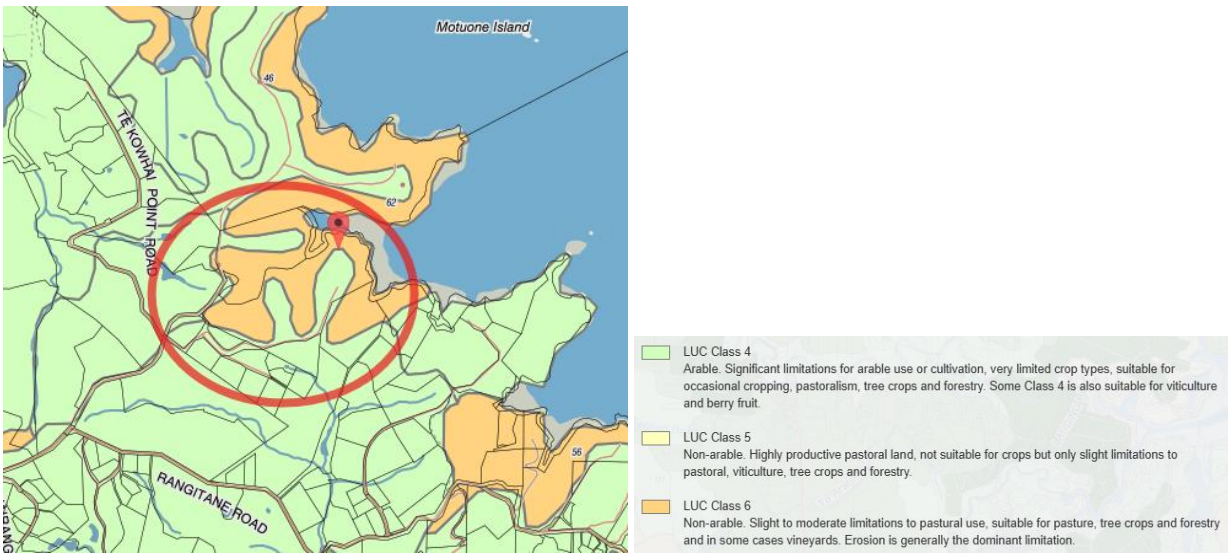


**Figure 7:** Land Use Capability Map

## 3.5 Natural and ecological characteristics

An Ecological Impact Assessment Report (EIA) has been prepared by ecoLogical Solutions (**Appendix 7**). The report describes the ecological setting of the site and identifies existing terrestrial flora and fauna based on a walk-through survey and supporting research undertaken by a qualified ecologist.

The EIA identifies that the site is located within the Kerikeri Ecological District and contains an area of coastal forest associated with the "Rangitane Coastal Vegetation" potential Significant Natural Area (SNA) (FN417). The extent of the mapped SNA within the site is illustrated by the EIA (**Figure 8**).

The site comprises a mixture of managed lawns and plantings, along with vegetated gullies containing native shrubland. Within the mapped SNA, the EIA recorded an approximate 0.46ha canopy gap (**Figure 8**).

The EIA notes that 17 'threatened' or 'at risk' avifauna species have been recorded within the Rangitane Coastal Vegetation area. However, many of these species are water or forest birds and are unlikely to utilise the open pasture areas on site. Fourteen common bird species were observed or heard during the walk-through survey, all of which are classified as either 'not threatened' or 'introduced and naturalised'.

The EIA also identifies that vegetation within the Rangitane Coastal Vegetation portion of the site provides potential habitat for long-tailed bats. The vegetated gullies are considered to provide suitable habitat for copper skink, while shore skink may be present closest to the coast.

The assessment notes that effective mammalian pest control is being undertaken across the site as part of wider Predator Free 2050 program in the wider region.

Overall, the EIA concludes that the ecological value of the highly managed lawn areas is 'negligible', and the planted specimen trees are of 'low' ecological value. The area of mapped SNA within the site is assessed as having 'moderate' ecological value due to the representativeness of coastal shrubland and the good quality habitat it provides for a range of fauna. These values are also supported by the ongoing pest control regime.

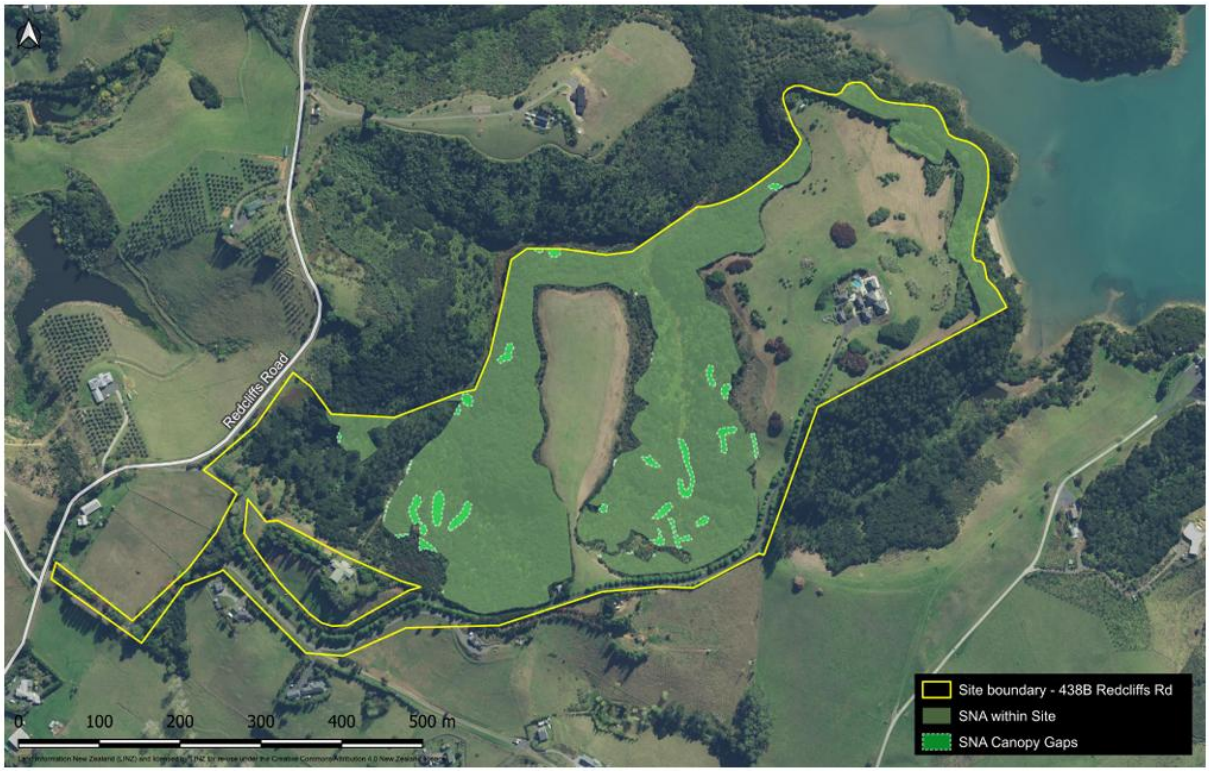


**Figure 8:** Extent of SNA within the site mapped by the EIA

## 3.6 District Plan context

### 3.6.1 ODP Zoning

The site is zoned General Coastal zone (**Figure 9**) under the ODP with a strip of outstanding landscape overlay illustrated on the Resource Map (**Figure 10**). No recorded sites of cultural significance to Māori are identified on the site.

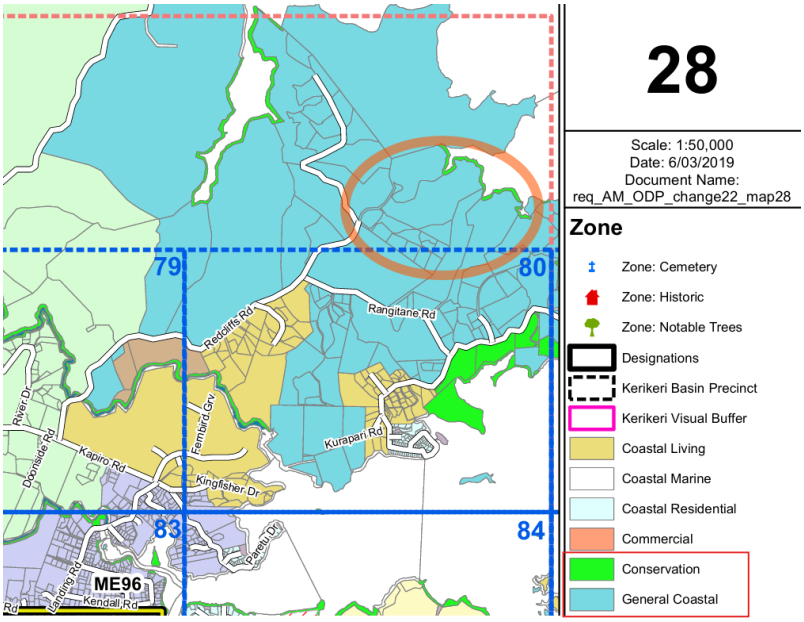


**Figure 9:** Zoning Map No.28 under the ODP

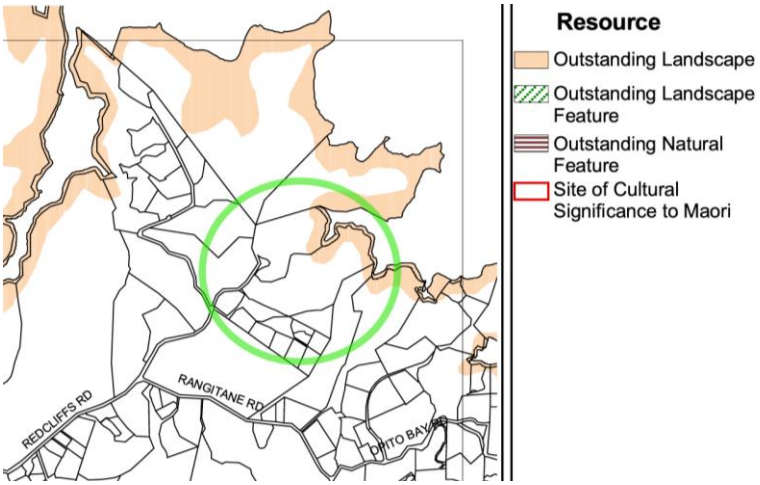


**Figure 10:** Resource Map No.28 under the ODP

### 3.6.2 PDP Zoning and Overlays

Under the notified PDP, the application site is proposed to be zoned Rural Production Zone, with the Coastal Environment overlay applying to most of the site. The High Natural Character overlay applies to the area of vegetated shrublands within the gullies on the site, and a small northern portion of the site is subject to the Coastal Flood (1:50 year scenario) overlay. **Figure 11** below shows the proposed zoning and overlay mapping of the site associated with the notified PDP.

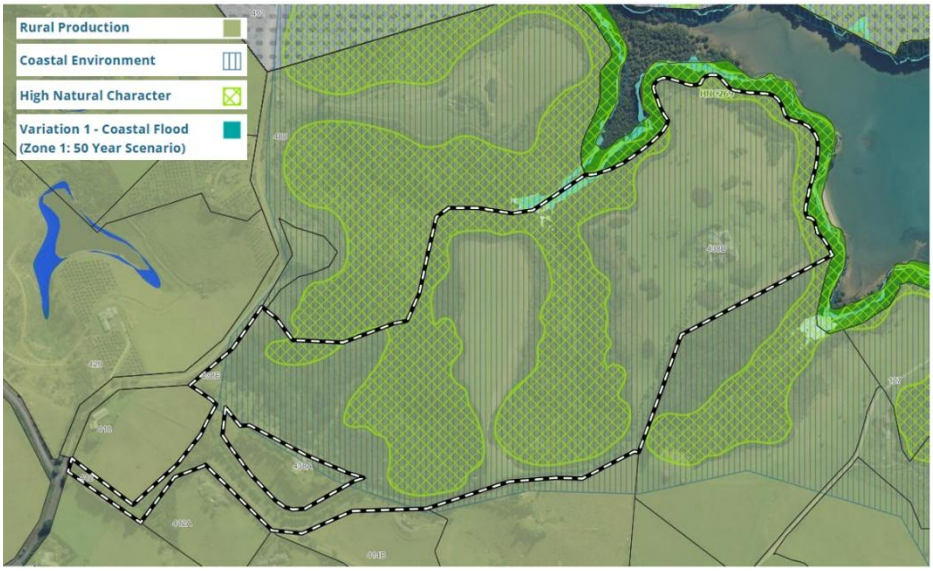


**Figure 11:** Subject site under the PDP planning maps

# 4.0 Background

## 4.1 Pre-application meeting with FNDC

A pre-application meeting was held with the FNDC on 14 February 2025 to discuss the feasibility of the proposed subdivision. The meeting was attended by the applicants, Janine Budden and Tony Kemp; Hitu Patel and Philip Comer, Planners at Harrison Grierson; and Simon Connolly and Chad Croft, Ecologists at ecoLogical Solutions Ltd. Council representatives present included Swetha Maharaj (Senior Resource Consent Planner), Nikki Callinana (Senior Resource Consent Planner) and Sujeet Tikaram (Senior Resource Consent Engineer).

The following key matters were discussed:

- Clarification of the relevant planning provisions applicable to a management plan subdivision, and confirmation of the expected outcomes under this pathway.
- The current status and weighting of the ODP and PDP, including whether any changes to the management plan subdivision provisions are anticipated through the district plan review process (i.e., through submissions and hearings).
- Ecological values: whether there was in-principle agreement between ecoLogical Solutions and Council regarding the ecological values of the site. Council was asked to confirm general agreement with the findings of the ecological site assessment and report, and to provide direction on the specific ecological measures required in the Management Plan.
- Access arrangements: whether the existing private accessway was sufficient to serve an additional lot and dwelling without the need for significant upgrade works.

Council expressed general support for the concept and provided guidance on the key matters to be addressed as part of the application. The advice received during the meeting has informed the preparation of this resource consent application and the proposal detailed in this report.

No meeting minute was provided by FNDC following the pre-application meeting.

## 4.2 Subdivision history

A review of the property files confirms that a Management Plan subdivision has not previously been undertaken on the application site. The subdivision history relevant to the site is summarised below.

### 4.2.1 Subdivision RC4601

The application site was originally created as Lot 3 and Lot 5 shown in **Figure 12**, the lots subdivided from the parent parcel historically described as Pt Sec 22 Blk VIII Kerikeri S.D under subdivision consent **RC4601**, granted on 2 March 1995.

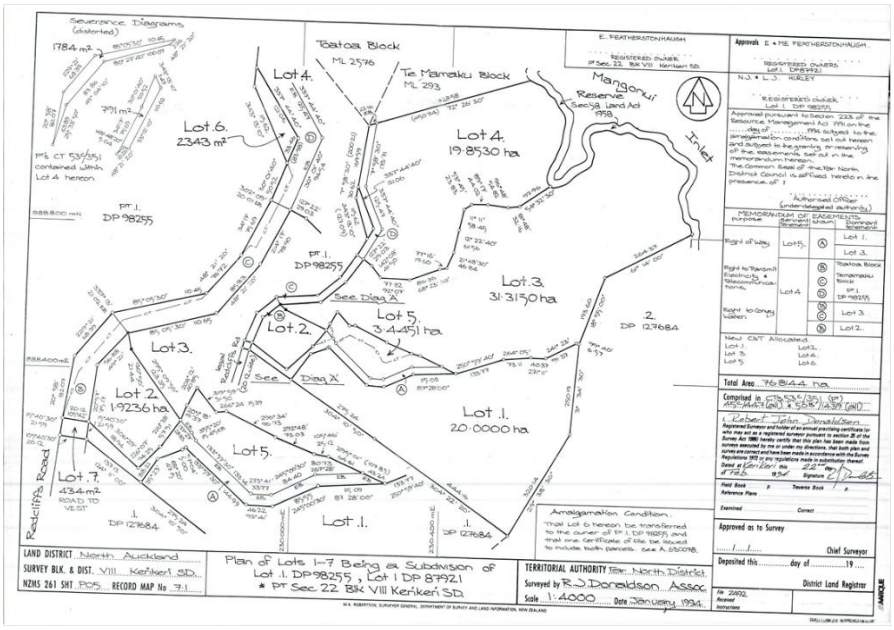


**Figure 12:** Approved Scheme Plan from RC4601

### 4.2.2 Boundary Adjustment Consent (Council Reference 2300253-RMASUB)

On 1st April 2021, a boundary adjustment subdivision consent was approved to adjust the boundaries between two adjoining properties under the same ownership at 412 and 418 Redcliffs Road. The approved decision is provided in **Appendix 4**. The approved scheme plan is shown in **Figure 13**.

As part of this consent, easement 12468770.3 was created over Lot 2 DP 557844 to provide Lot 1 DP 557844 right of way to access, right to transit electricity, telecommunications, and to convey water and drain water, as described in section 3.2.2 above.

Although ownership has since changed, the two properties affected by the boundary adjustment now form this application site and remain under one ownership.

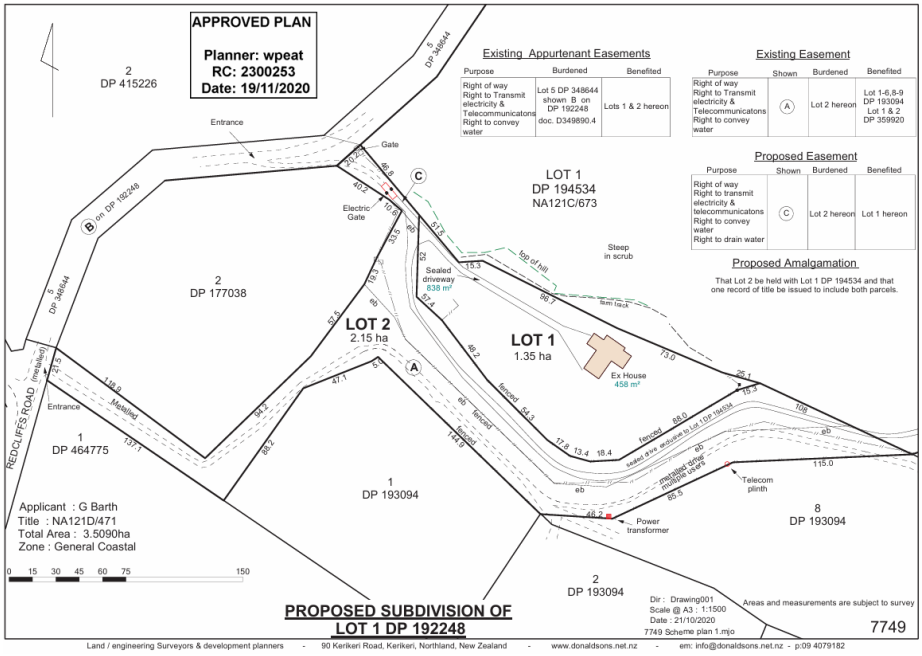


**Figure 13:** Approved Scheme Plan from 2300253-RMASUB

# 5.0 The proposal

## 5.1 Subdivision

The proposal seeks resource consent for a Management Plan subdivision.

Subdivision consent is sought to subdivide the site, legally described as Lot 1 DP 557844 (held in RoT 978317), Lot 2 DP 557844 and Lot 1 DP 194534 (held in RoT 978318), into three new lots, as shown on the Proposed Scheme Plan (**Appendix 2**, also **Figure 14**).

The correct total site area is 33.92ha. The subdivision proposes to create the following three allotments:

- Proposed Lot 1 - 6.02ha
- Proposed Lot 2 - 10.99ha
- Proposed Lot 3 - 16.91ha

Proposed Lots 1 and 3 will each accommodate one of the existing two dwellings and no further development is proposed.

A new (future) house platform has been identified for proposed Lot 2, as indicated by the 30m x 30m square (**Figure 14**) adjacent to the existing private accessway. The ODP includes provisions to control the bulk and location of buildings. The proposed building platform on proposed Lot 2 is setback 10m from the proposed boundary and is located within an area currently comprising mown lawn/paddock.

No physical works are proposed as part of this application. No earthworks, or vegetation clearance are required. A future dwelling on proposed Lot 2 will be assessed under a future land use resource consent application process.

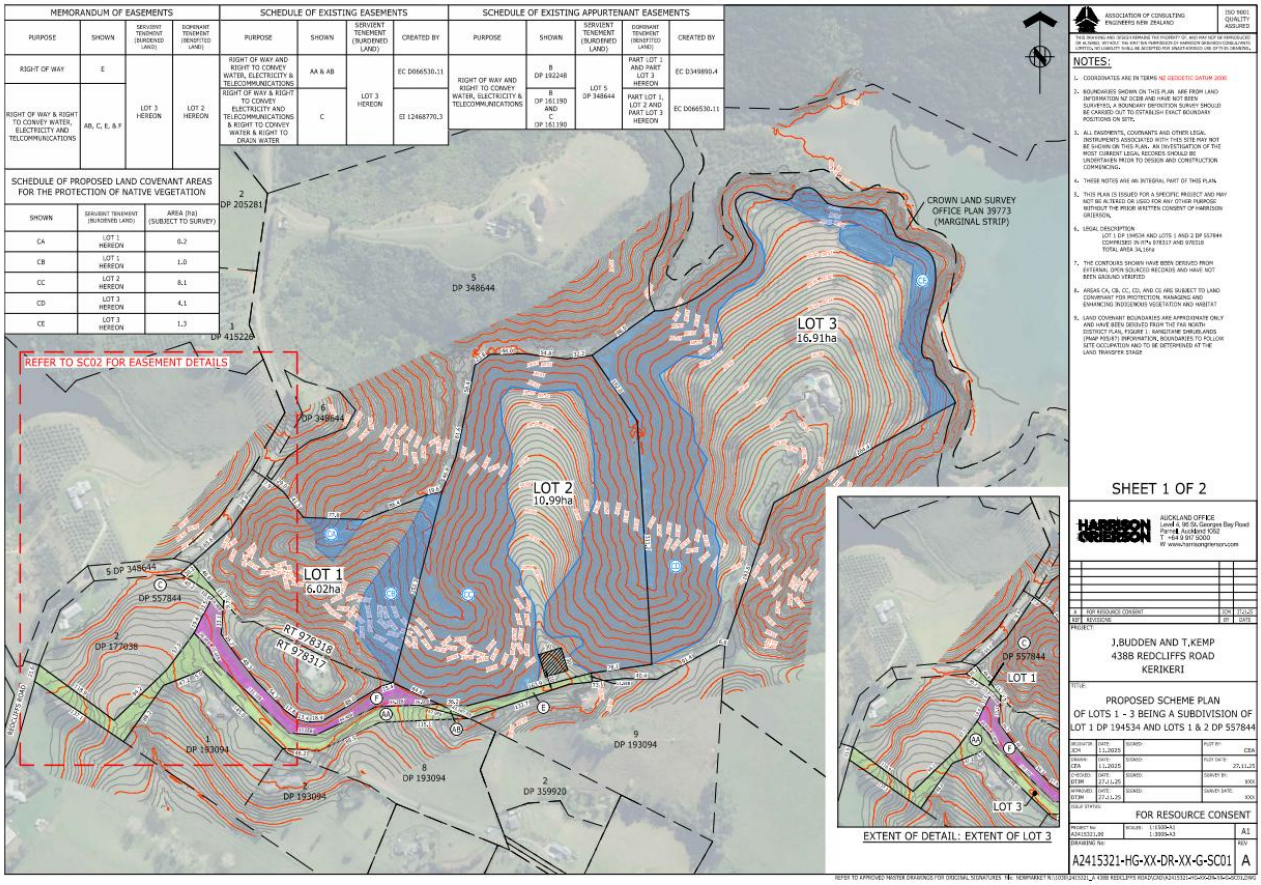


**Figure 14:** The proposed scheme plan

## 5.2 Ecological Management Plan

An Ecological Management Plan (EMP) has been prepared by ecoLogical Solutions and is provided in **Appendix 8** to support this subdivision proposal.

The EMP outlines the ecological objectives for the site and sets out the proposed management measures to maintain and enhance ecological values.

The proposed management measures include the following:

**Revegetation and infill planting**

Revegetation and infill planting are proposed within the indicative locations identified in the EIA, as shown in **Figure 8** above. The EMP specifies the native plant species to be used, planting timing, planting guidelines, and the requirements for monitoring, maintenance, and reporting of planting completion and establishment.

**Weed control**

Weed control will be undertaken twice annually, in spring and summer, for a period of at least five years or until weed infestations are controlled. Weed control methods include hand pull, cut and paste, and herbicide. All weed control activities will be monitored and recorded.

**Pest Animal Control**

Pest animal control will continue as part of the existing pest control regime currently active on the site, forming an ongoing component of site management.

## 5.3 Proposed legal mechanisms

### 5.3.1 Proposed land covenant

The SNA area within the site, along with the identified ecological values, will be legally protected via land covenant.

A Schedule of Proposed Land Covenant Areas for the Protection of Native Vegetation (**Figure 15**) is provided on the proposed scheme plan (**Appendix 2**), identifying the areas to be protected.

The extent of these covenant areas corresponds directly with the SNA area identified in both the EIA and EMP.

| SCHEDULE OF PROPOSED LAND COVENANT AREAS FOR THE PROTECTION OF NATIVE VEGETATION | | |
|---|---|---|
| SHOWN | SERVIENT TENEMENT (BURDENED LAND) | AREA (ha) (SUBJECT TO SURVEY) |
| CA | LOT 1 HEREON | 0.2 |
| CB | LOT 1 HEREON | 1.0 |
| CC | LOT 2 HEREON | 8.1 |
| CD | LOT 3 HEREON | 4.1 |
| CE | LOT 3 HEREON | 1.3 |

**Figure 15:** Proposed schedule of land covenant

### 5.3.2 Proposed easements

A suite of easements is proposed to be registered against the relevant records of title for the new lots to be established.

Proposed easements AB, C, E, and F will provide right of way access, and enable the conveyance of water, electricity, and telecommunications, to proposed Lot 2.

## 5.4 Servicing

The Civil Engineering Assessment Report and drawings (**Appendix 6**) provide details of the stormwater and wastewater arrangements supporting this subdivision proposal.

The existing stormwater management systems for proposed Lots 1 and 3 will remain unchanged. Stormwater for proposed Lot 2 will be managed in the same manner, with design measures to control stormwater runoff, reduce scour, and ensure compliance with the applicable District and Regional Plan requirements.

The existing wastewater treatment systems servicing the existing dwellings on proposed Lots 1 and 3 will remain unchanged. A proposed wastewater management plan for proposed Lot 2 is included in **Appendix 6**. A 290m² effluent disposal field, along with a suitable reserve area equal to 100% of the effluent disposal area, has been calculated based on the assumption of a future four-bedroom residential dwelling. The feasible location is indicated in **Figure 16**.

No changes are required to the existing water supply arrangements for proposed Lots 1 and 3. Domestic water supply for proposed Lot 2 can be provided on site through rainwater collection to onsite tanks.

Power supply and telecommunications can be made available to the dwelling on proposed Lot 2 when developed.

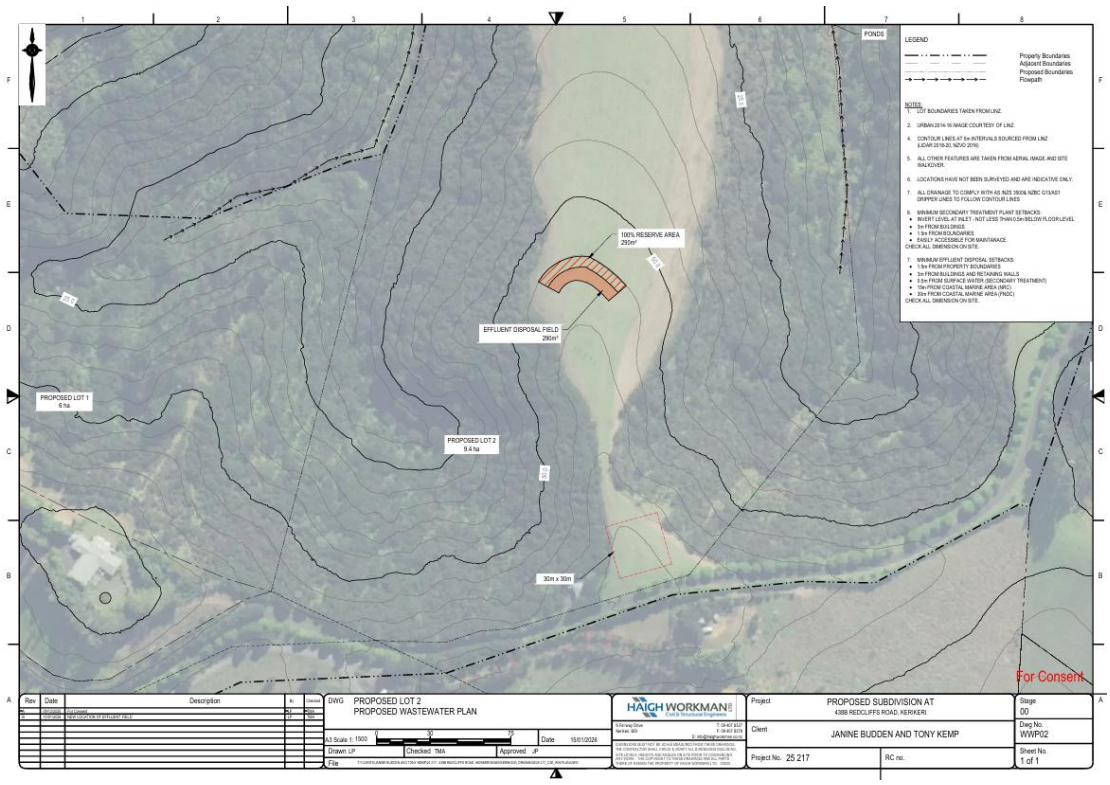


**Figure 16:** Proposed wastewater plan

## 5.5 Access

Site access following subdivision will remain unchanged from the existing situation. All three lots will gain access via the proposed Lot 3 driveway with right of way easements in favour of the proposed Lots 1 and 2 as outlined in section 5.3.2.

# 6.0 Reasons for the application

## 6.1 Operative Far North District Plan 2009

### 6.1.1 Operative District Plan (ODP) assessment

An assessment of the proposal against the relevant provisions of the ODP is contained in **Appendix 3 Table 1**. This assessment is summarised below:

**Reason for consent**

***Chapter 13 - Subdivision***

- Resource consent is sought under Rule 13.7.2.1 (viii) for a **Discretionary Activity** for a subdivision via a management plan, as per Rule 13.9.2 in the General Coastal Zone.
- Resource consent is sought under Rule 13.7.2.1 (xix) for a **Discretionary Activity** for a subdivision via a management plan, as per Rule 13.9.2 in the General Coastal Zone where the site contains Outstanding Landscape, as shown on the resource map.

## 6.2 Proposed Far North District Plan (PDP)

### 6.2.1 Status of the proposed plan

It is noted that the Far North District Council (FNDC) publicly notified the PDP in 2022. Formal Council decisions on submissions are expected to be released by 27 May 2026.

In 2022, FNDC removed mapping showing Significant Natural Areas (SNAs) with high ecological values from the PDP. The EIA Report (**Appendix 7**) provides the background on the matter and notes that the status of the already mapped SNAs remains uncertain.

While still subject to change, provisions relating to hazardous substances, historic and cultural heritage, notable trees, indigenous biodiversity, activities on the surface of water, some rules in earthworks, subdivision, and signs have immediate legal effect. Provisions relating to a management plan subdivision within the proposed zone for the application site are not yet operative and remain subject to change. We note that the PDP is well-advanced through the statutory process and the

reporting officers' recommendations provide an indication of direction for the next generation of the district plan.

### 6.2.2 Relevant provisions in the PDP

The latest reporting officer's recommendations have been reviewed. The Section 42A Report Writers Right of Reply[1] published on the FNDC website as of 24/05/2024, included the latest update relating to provisions for Management Plan Subdivision (Rule SUB-R7) in the Rural Production Zone under the PDP.

Under Rule SUB-R7, a Management Plan Subdivision remains a Discretionary Activity provided that:

- the average lot size is no less than 2ha within the Rural Production Zone;
- only one Management Plan Subdivision is undertaken for the specific portion of the site; and
- the application includes the required Management Plan information.

These requirements are largely consistent with the ODP, except that the PDP provides for a smaller minimum average lot size (2ha compared with 6ha under the ODP). This indicates that the proposal would satisfy the Management Plan Subdivision provisions even under the PDP.

Under the PDP, subdivision within Coastal Hazard Areas (Rule SUB-R12) would trigger a Restricted Discretionary consent, provided all building platforms and associated access for each allotment are located wholly outside the mapped Coastal Hazard Area. Only a small portion of the site is shown as coastal flood hazard in the PDP maps, located within a bush-covered gully. No building platforms or accessways are proposed within this area. Subdivision creating one or more additional allotments within the Coastal Environment overlay (Rule SUB-R20) would trigger a Discretionary Activity under the PDP.

An assessment of the proposal against the relevant provisions of the PDP is provided in **Appendix 3 Table 2**. There are no rules with immediate legal effect relevant to the proposal.

Accordingly, no reasons for consent are required under the PDP.

## 6.3 Status of the application

Overall, the proposal requires assessment as a **Discretionary activity**.

[1] Appendix 1 Officer's Recommended Amendments (Subdivision, Right of Reply) published on the FNDC website

# 7.0 Schedule 4 information requirements

## 7.1 Assessment against Part 2 of the Act

Sections 5 to 8 of the Act contain its purpose and principles. The proposal will be an appropriate and sustainable use of the site (and consistent with these sections) because:

- The proposal is considered to be consistent with Section 5 of the Act as it represents sustainable management of natural and physical resources through an ecological management plan and protects the coastal environment and the natural features for future generations.
- The proposal is considered to be consistent with Section 6 of the Act as it protects the natural character and landscapes of the coastal environment, and protects areas of significant indigenous vegetation and significant habitats of indigenous fauna, from inappropriate subdivision, allowing additional rural lifestyle land while delivering enduring protection and enhancement of coastal ecological values.
- Section 7 identifies a number of 'other matters' to be given particular regard to. The proposal is considered to be an efficient use of physical resources, consistent with clause (b), a maintenance and enhancement of amenity values, consistent with clause (c), a protection of intrinsic values of ecosystems, consistent with clause (d), a maintenance and enhancement of the quality of the environment, consistent with clause (f), a protection of finite characteristics of natural and physical resources, consistent with clause (g), through the proposed long term ecological management plan. The proposal is not considered to be contrary to any of the other matters.
- The principles of Te Tiriti o Waitangi have been taken into account in the development of this proposal (Section 8). The proposal is not contrary to Te Tiriti o Waitangi.

## 7.2 Assessment of effects on the environment

Section 104 (1)(a) and Clause 2(3) of Schedule 4 require an assessment of the activity's effects on the environment. The detail of this should correspond with the scale and significance of the effects that the activity may have on the environment.

The following assessment includes, where relevant, the information required by Clause 6 and the matters outlined in Clause 7.

In assessing an application for a discretionary activity subdivision in accordance with a management plan, the ODP includes assessment criteria in relation to the relevant matters set out in 13.9.2.3 in addition to other relevant matters set out in Rule 13.10. These matters have been grouped into themes below:

- Allotment size and building platform;
- Management plan adequacy and legal mechanisms;
- Indigenous biodiversity and ecological restoration;
- Character of the coastal environment, visual and amenity values;
- Natural and other hazards;
- Access and servicing;
- Land use compatibility; and
- Positive effects.

### 7.2.1 Allotment size and building platform

The proposed allotment design complies with the minimum 6ha lot size requirement, with lot areas ranging from 6.02ha to 16.91ha. No changes are proposed to existing buildings, and no additional development is proposed on Lots 1 and 3. Each allotment provides sufficient area and dimensions to accommodate a residential dwelling and associated activities. The subdivision pattern and access arrangements are consistent with adjoining subdivision activities in the Kerikeri Inlet area and are compatible with the anticipated scale and character of development within the General Coastal Zone. The reconfiguration creates one additional lot while continuing to meet the operational and functional needs of all allotments.

While no specific building design is proposed at this stage, the proposed scheme plan demonstrates that a compliant and feasible residential dwelling can be accommodated on Lot 2.

The proposed 30m × 30m building platform on Lot 2 is setback 10m from the proposed lot boundary, complying with General Coastal Zone setback requirements. Its location adjacent to the existing shared accessway is logical and appropriate. The indicative building platform is located within a highly managed lawn area with negligible ecological values, as confirmed by the EIA.

The geotechnical investigation notes that no ground instability or soil creep was observed within the proposed Lot 2 development area. The geotechnical report concludes that the broad, gently sloping central areas of the ridge spur, including the proposed building platform, are currently stable and suitable for development, subject to detailed future building design. Any future dwelling will be assessed at the Building Consent stage, supported by site-specific geotechnical investigations and detailed engineering design. On this basis it is considered that the proposed Lot 2 can be established with a suitable foundation design.

Overall, the proposed allotment size and building platform will meet the requirements of the ODP provisions providing lots that are suitably sized and building platform can be established on the proposed Lot 2 that are capable of siting a residential dwelling.

### 7.2.2 Management plan adequacy and legal mechanisms

The proposed EMP has been prepared by suitably qualified ecologists and are informed by the site-specific EIA. The EMP is specifically tailored to the ecological values and environmental context of the site.

The EMP includes all relevant information required under the ODP management plan subdivision provisions, including clear aims and objectives, site-specific management measures to protect, manage, and enhance indigenous vegetation, habitats, outstanding landscapes, and natural features. The EMP also provides implementation methods, maintenance requirements, monitoring, and reporting procedures to ensure ongoing effectiveness.

Implementation and long-term effectiveness of the EMP will be reinforced through the land covenants to be registered on the relevant new titles. This legal mechanism will ensure that the management plan requirements apply to and bind all future owners in perpetuity.

Overall, the EMP provides sufficient detail and certainty to appropriately manage the potential effects of the management plan subdivision and adequately support the proposal.

### 7.2.3 Indigenous biodiversity and ecological restoration

The proposed subdivision involves the creation of one additional lot, with a future residential dwelling anticipated on proposed Lot 2. Ecological effects associated with the subdivision and future development will be managed through the implementation of the proposed EMP, which includes infill canopy planting, weed control, and ongoing pest control across the site.

The EIA provides a detailed assessment of existing ecological values and the potential effects arising from the subdivision and the indicative building platform on Lot 2. The EIA concludes that, while there is potential for minor adverse effects on fauna and fauna habitats from introduced mammalian predators, and on botanical values through the accidental introduction of weed species, these effects can be effectively managed through the proposed EMP.

The EMP has been informed by EIA to provide significant positive improvements for indigenous biodiversity and ecological integrity through the infilling of canopy gaps, removal of invasive weeds, continuation of pest control programmes, and legal protection of ecological areas in perpetuity. In particular, planting proposals specifies indigenous flora appropriate to the locality, with an emphasis on the use of local genetic stock.

Overall, it is considered that the proposed measures within the EMP will protect, manage, and enhance indigenous vegetation and habitats across the site, with contributes to the ecological restoration of the site. Accordingly, any adverse effects on the indigenous biodiversity from the proposed subdivision will be less than minor.

### 7.2.4 Character of the coastal environment, visual and amenity values

Residential intensity will be limited to a single residential dwelling on each of the proposed lots. Following subdivision, the lots will maintain the low-density rural-residential development pattern and character that is consistent with the existing surrounding area.

The civil engineering assessment confirms that impervious surface coverage on all three lots will remain well below the permitted 10% limit. Adequate setbacks from lot boundaries will continue to be achieved, ensuring that the existing and future buildings remain visually recessive and does not dominate the surrounding landscape.

The two existing dwellings utilise external materials, colours, and design forms that are compatible with the coastal environment and are designed with high-quality landscaping. The anticipated future dwelling on proposed Lot 2 will be subject to detailed building design and a future resource consent application process. Given the scale of development, retained lot sizes, and compliance with setback provisions, the proposal is not expected to result in noticeable change to landscape character or visual amenity.

The natural character of the coastal environment will be maintained. The implementation of the EMP will protect the significant natural areas, including coastal shrubland and high-quality fauna habitat, secured through a registered land covenant, will preserve existing natural character of the coastal environment and provide for ongoing ecological restoration and enhancement.

Overall, any adverse effects on the natural character of the coastal environment, visual and amenity values are considered to be less than minor.

### 7.2.5 Natural and other hazards

No physical works are proposed as part of this subdivision application. The geotechnical investigation confirms that a suitable building platform is available on proposed Lot 2. The proposed development area is generally stable, subject to detailed engineering and foundation design at the Building Consent stage. The proposed building platform for Lot 2 will be located on an elevated, flat plateau and is outside identified coastal flooding area.

Overall, any potential adverse effects relating to natural and other hazards arising from the proposed subdivision are considered to be less than minor.

### 7.2.6 Access and servicing

The civil engineering assessment provides a detailed evaluation of site access, stormwater management, and wastewater servicing.

Access arrangements following subdivision will remain unchanged from the existing condition. The existing driveway is formed to a good standard, with all lots accessed via a well-formed sealed entrance off the Lot 3 right of way. An entrance to proposed Lot 2 will be formed in the future at the time that a new dwelling is proposed within the identified building platform, with adequate sight distances able to be achieved. All lots have sufficient land available to accommodate on-site parking and vehicle manoeuvring.

Adverse stormwater runoff effects are expected to be minimal. All proposed lots exceed 6ha in area, and impervious surface coverage will remain well below the permitted 10% threshold. No changes are proposed to impervious areas associated with the two existing dwellings. Stormwater from any future development on Lot 2 will be managed in the same manner.

The report also confirms that adequate wastewater disposal fields can be accommodated within Lot 2.

Overall, it is considered that any potential adverse effects arising from utilising the existing access and driveway, the stormwater discharge, and wastewater disposal can be managed and will be less than minor.

### 7.2.7 Land use compatibility

The site is located within an established rural-residential setting. No changes or additional development are proposed for Lots 1 and 3. While no physical works are proposed as part of this proposal, the proposed Lot 2 is intended to accommodate a residential dwelling. This land use is consistent and compatible with the surrounding character and existing development pattern. No reverse sensitivity effects are anticipated.

### 7.2.8 Positive effects

The EMP includes targeted infill planting and weed control measures that are more than sufficient to address the negligible ecological effects identified. The EIA concludes that the EMP will result in an overall positive effect on the botanical values of the site and a net gain in biodiversity.

The proposal will generate positive effects by providing additional rural lifestyle land while delivering enduring protection and enhancement of coastal ecological values for future generations. The ecological value of the site following implementation of the EMP will exceed its current condition.

The use of a management plan provision also provides flexibility to deliver innovative, site-specific ecological outcomes tailored to the characteristics of the site.

### 7.2.9 Summary

Overall, any potential and actual adverse effects of the proposed subdivision are considered to be less than minor.

## 7.3 Section 104 provisions

The matters Council must have regard to when considering an application for resource consent are listed in section 104 of the Act.

This section provides an assessment of the matters that are required to be assessed within section 104 of the Act and, by doing so, also meets the requirements of Clauses 2(1)(g) and 2(2) in Schedule 4.

### 7.3.1 Relevant standards, statement and plans

**New Zealand Coastal Policy Statement 2010 (NZCPS)**

The NZCPS provides national direction for managing activities within the coastal environment. The application will be consistent with the objectives and policies of the NZCPS because the proposal is limited in scale and compliance of the retained lot size. The subdivision remains compatible with the surrounding rural-residential setting. The implementation of the EMP will protect and enhance the significant indigenous vegetation and high-quality fauna habitat, preserve existing natural character of the coastal environment.

**National Policy Statement for Indigenous Biodiversity (NPSIB)**

The NPSIB provides direction to councils to protect, maintain, and restore indigenous biodiversity, with a requirement of at least no further national reduction. The NPSIB applies to land (terrestrial) ecosystems, recognises the intrinsic value of indigenous biodiversity, and acknowledges the connections and relationships of people with indigenous biodiversity.

The proposed subdivision is consistent with the objectives and policies of the NPSIB. The proposed EMP provides for the protection of significant indigenous vegetation and significant habitats of indigenous fauna, while enabling restoration and enhancement of indigenous ecosystems. The subdivision represents an appropriate balance between biodiversity protection and enabling social, economic, and cultural wellbeing of people and communities, both now and into the future.

**National Policy Statement for Natural Hazards 2025 (NPS-NH)**

This NPS-NH comes into force on 15 January 2026 and applies to all environments and zones, including coastal environments. However, where there is conflict between the provisions of the NPS-NH and the NZCPS, the NZCPS prevails.

This NPS-NH provides national direction on managing natural hazard risk, including flooding, landslips, coastal erosion, coastal inundation, active faults, liquefaction, and tsunami.

The proposal is consistent with the objectives and policies of the NPS-NH. The proposed building platform is located on an elevated ridge spur, well away from the mapped small coastal flooding areas. The retained lot size is sufficient to accommodate a single residential dwelling, and detailed building design and engineering solutions will be addressed at the building consent stage to ensure natural hazard risks are appropriately managed.

**Regional Policy Statement for Northland (RPS)**

The RPS provides the broad direction and framework for managing Northland's natural and physical resources. It identifies significant resource management issues for the region and sets out how resources such as land, water, soil, minerals, plants, animals and structures will be managed. The proposed subdivision and associated EMP are consistent with the RPS objectives and policies, as the proposal has been designed to avoid inappropriate subdivision and to appropriately manage effects on ecological and landscape values.

The proposal is consistent with Objectives in 3.4 Indigenous ecosystems and biodiversity) and Policies 4.4.1 and 4.4.2, which represents safeguarding Northland's ecological integrity by protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, maintaining the extent and diversity of indigenous ecosystems, and providing for restoration and enhancement where practicable through the EMP. These measures also contribute to the reduction in the overall threat status of regionally and nationally threatened species.

The proposal is consistent with Objectives in 3.14 and Policy 4.6.1, as it appropriately manages effects on the natural character of the coastal environment and does not compromise the qualities and characteristics of any outstanding landscapes from inappropriate subdivision.

**ODP - Objectives and Policies**

The proposal is considered to be consistent with the relevant objectives and policies of the ODP.

***Chapter 13 - Subdivision***

The proposal is consistent with Objectives 13.3.1, 13.3.2, and 13.3.3, as it aligns with the purpose of the underlying General Coastal Zone and promotes the sustainable management of natural and physical resources, as the subdivision is appropriately designed to avoid adverse environmental effects and to ensure the protection of outstanding landscapes and natural features within the coastal environment.

In particular, the proposal is consistent with Objective 13.3.6 and Policies 13.4.12 and 13.4.13 by adopting an innovative, management plan subdivision approach that responds to specific site characteristics. This integrated design enables the protection, restoration, and enhancement of areas with ecological, landscape, and natural character value, achieving superior environmental outcomes compared with conventional subdivision patterns.

The proposal is also in consistent with Policy 13.4.1, allotment size, layout, and distribution have been designed to manage effects on natural character of the coastal environment, ecological and landscape values, amenity, and existing land uses. Policies 13.4.2 and 13.4.3 are addressed through the provision of safe access and the consideration of natural hazards in the proposal. Policies 13.4.4 and 13.4.6 are met through appropriate servicing solutions that avoid visual effects and through measures that protect and enhance significant indigenous vegetation, habitats of indigenous fauna, and landscape values. Overall, consistent with Policy 13.4.14, the intensity, design, and layout of the subdivision appropriately reflect the objectives and policies of the applicable environment, zone, and Part 3 of the ODP.

***Chapter 10 - Coastal Environment***

The proposal is consistent with Objectives 10.6.3.1, 10.6.3.2, and 10.6.3.3, and Policy 10.6.4.3 as stated above with national and regional directions, it provides for appropriate subdivision while preserving the natural character of the coastal environment and protecting it from inappropriate development. The subdivision enables the sustainable use of natural and physical resources in the General Coastal Zone, ensuring the needs of future generations are appropriately provided for.

The proposal also aligns with Policies 10.6.4.1 and 10.6.4.2, as the proposed building platform on Lot 2 can comply with permitted boundary setback requirements and maintains an impermeable area well below the 10% threshold. As a result, the anticipated development effects are compatible with the preservation of natural character, and the visual and landscape qualities of the coastal environment are protected.

**PDP - Objectives and Policies**

As outlined in the background section 4.2, the PDP is at the hearings stage, with no formal decisions released and all provisions relevant to this proposal subject to change. A brief assessment concludes that the relevant objectives and policies proposed in the PDP are considered consistent with those of the ODP.

***Subdivision***

The proposal is consistent with Objectives SUB-O1 to SUB-O3 and Policies SUB-P3, SUB-P4, SUB-P6, SUB-P8, SUB-P9, and SUB-P11. The subdivision achieves efficient use of land in a manner consistent with the objectives of the relevant zones, overlays, and district-wide provisions, while reinforcing local character and sense of place. It provides for the protection, restoration, and enhancement of areas of high natural character within the coastal environment and Significant Natural Areas and ensures that appropriate infrastructure is planned to service the subdivision.

***Coastal Environment and Rural Production Zone***

The proposal is consistent with Objectives CE-O1 to CE-O3 and Policies CE-P3, CE-P4, CE-P5, and CE-P8, as land use is compatible with its surroundings and coastal natural character is protected and enhanced without compromising coastal values. The subdivision is also generally consistent with RPROZ-O3 and RPROZ-O4 and Policies RPROZ-P4, RPROZ-P6, and RPROZ-P7, as it complements existing rural-residential development, maintains rural character and amenity, and reflects low-density development. The site does not comprise highly productive land, and the proposal enables rural lifestyle living while delivering significant environmental benefits.

***Ecosystems and Indigenous Biodiversity***

The proposal aligns with Objectives IB-O1, IB-O2, and IB-O5 and Policies IB-P1, IB-P2, IB-P6, IB-P7, IB-P8, IB-P9, and IB-P10. Significant Natural Areas are identified and protected for present and future generations, while indigenous biodiversity is managed to maintain its extent and diversity. Restoration and enhancement are promoted through active pest plant and animal management and the use of eco-sourced planting, including species endemic to Northland, supporting long-term ecological resilience alongside social, economic, and cultural wellbeing.

### 7.3.2 Other matters

Section 104(1)(c) allows Council to consider any other matters that are relevant and reasonably necessary to determine the application.

There are no other matters that are relevant or necessary to assist Council in determining this application.

### 7.3.3 Section 104 assessment conclusion

The potential adverse effects of this proposal are considered to be less than minor, and acceptable.

This assessment has also demonstrated that this proposal is not contrary to the relevant objectives and policies and meets the assessment criteria.

Overall, the relevant matters of section 104 of the Act have been comprehensively covered within this section and provides Council with sufficient information to make a determination under section 104B of the Act.

# 8.0
# Notification assessment

## 8.1 Public notification

An assessment of the steps that a consent authority must follow to determine whether to publicly notify an application for resource consent is undertaken in the following tables.

**Table 1: Section 95A – Steps for determining whether public notification of consent applications is required under S95A of the RMA**

| Step | RMA section | Response | Comment |
|---|---|---|---|
| ONE:<br>Mandatory public notification in certain circumstances | 95A(3)(a) | No | The applicant does not request public notification. |
| | 95A(3)(b) | No | This is not a relevant consideration at this stage as it relates to further information requests under s95C. |
| | 95A(3)(c) | No | This application does not involve the exchange of reserve land under the Reserves Act. |
| TWO:<br>Public notification precluded in certain circumstances | 95A(5)(a) | No | Not every applicable rule under which resource consent is being sought (in the District Plan) precludes public notification. |
| | 95A(5)(b)(i) | No | The overall activity status is not controlled under the District Plan. |
| | 95A(5)(b)(iii) | No | The proposed activity is not a boundary activity. |
| THREE: | 95A(8)(a) | No | No rule under which resource consent is being sought (in the District Plan) requires public notification. |

| Step | RMA section | Response | Comment |
|---|---|---|---|
| Public notification required in certain circumstances | 95A(8)(b) | No | In accordance with s95D of the RMA (refer to assessment below) the potential adverse effects of the proposal are considered to be no more than minor. |
| FOUR:<br>Public notification in special circumstances | 95A(9) | No | There is nothing exceptional or out of the ordinary in this application that would constitute a special circumstance to warrant public notification. |

**Table 2: Section 95D – Consent Authority decides if adverse effects likely to be more than minor**

| **A Consent Authority that is deciding, for the purpose of Section 95A(8)(B), whether an activity will have or is likely to have adverse effects on the environment that are more than minor...** | |
|---|---|
| **RMA Section** | **Comment** |
| (a) must disregard any effects on persons who own or occupy –<br>(i) the land in, on, or over which the activity will occur; or<br>(ii) any land adjacent to that land; and | The effects on the persons identified in 95D(a) (i) and (ii) have been disregarded. |
| (b) may disregard an adverse effect of the activity if a rule or national environmental standard permits an activity with that effect; and | The permitted baseline has not been applied to this application. |
| (c) in the case of a restricted discretionary activity, must disregard an adverse effect of the activity that does not relate to a matter for which a rule or national environmental standard restricts discretion; and | The matters of discretion for particular infringements have been considered and detailed in section 7.2 of this report. |
| (d) must disregard trade competition and the effects of trade competition; and | The proposal will not result in trade competition. |
| (e) must disregard any effect on a person who has given written approval to the relevant application. | No written approvals have been sought/ obtained. |
| **Assessment** | |
| The potential adverse effects of this proposal are considered in section 7.2 of this report, and it is concluded that they will be no more than minor. | |

Our notification assessment has demonstrated that:

- Public notification is not mandatory under Step One;
- Public notification is not precluded under Step Two;
- Under Step Three, the activity is not expected to have adverse effects that are more than minor; and
- No special circumstances exist under Step Four.

Accordingly, it is considered appropriate for this application to be processed without the need for public notification.

## 8.2 Limited notification

Having determined that public notification of the application under s95A of the RMA is not necessary, an assessment of the steps that a consent authority must follow to determine whether to give limited notification of an application is undertaken in the following tables.

**Table 3: Section 95B – Steps for determining whether limited notification of Consent applications is required under S95B of the RMA**

| Step | RMA section | Response | Comment |
|---|---|---|---|
| ONE:<br>Certain affected groups and parties must be notified | 95B(2) | No | There are no affected customary rights groups or affected customary marine titles groups. |
| | 95B(3) | No | The proposed activity is not on or adjacent to land that is subject to a statutory acknowledgement nor will it affect any land that is subject to a statutory acknowledgement. |
| TWO:<br>Limited notification precluded in certain circumstances | 95B(6)(a) | No | Not every applicable rule under which resource consent is being sought (in the ODP) precludes limited notification. |
| | 95B(6)(b) | No | The overall activity status is not controlled under the ODP. |
| THREE:<br>Certain other affected persons must be notified | 95B(7) | No | The proposal does not involve a boundary activity. |
| | 95B(8) | No | No persons are considered to be adversely affected (in accordance with s95E of the RMA) as any actual or potential effects will be less than minor– refer to assessment in the table below. |
| FOUR:<br>Further notification in special circumstances | 95B(10) | No | There is nothing exceptional or out of the ordinary in this application that would constitute a special circumstance to warrant limited notification. |

**Table 4: Section 95E – Consent Authority decides if person is an affected person**

| RMA Section | Comment |
|---|---|
| (1) For the purpose of giving limited notification of an application for a resource consent for an activity to a person under section 95B(4) and (9) (as applicable), a person is an affected person if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor). | |
| (2) The consent authority, in assessing an activity's adverse effects on a person for the purpose of this section, – | |

| RMA Section | Comment |
|---|---|
| (a) may disregard an adverse effect of the activity on the person if a rule or a national environmental standard permits an activity with that effect; and | The permitted baseline has not been applied to this application. |
| (b) must, if the activity is a controlled activity or a restricted discretionary activity, disregard an adverse effect of the activity on the person if the effect does not relate to a matter for which a rule or a national environmental standard reserves control or restricts discretion; and | The matters of discretion for particular infringements have been considered and detailed in section 7.2 of this report. |
| (c) must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11. | There are no statutory acknowledgements relevant to the subject site or the proposed activity. |
| (3) A person is not an affected person in relation to an application for a resource consent for an activity if – | |
| (a) the person has given, and not withdrawn, approval for the proposed activity in a written notice received by the consent authority before the authority has decided whether there are any affected persons; or | No written approvals have been sought. |
| (b) the consent authority is satisfied that it is unreasonable in the circumstances for the applicant to seek the person's written approval. | This is not a relevant consideration. |
| **Assessment** | |
| A full assessment of effects is provided in Section 7.2, which concludes that the potential adverse effects of the proposal are considered less than minor. | |

Our assessment has demonstrated that:

- There are no certain affected groups or persons under Step One;
- Limited notification is not precluded by Step Two;
- There are no other identified affected persons by Step Three; and
- There are no special circumstances under Step Four.

Accordingly, it is considered appropriate for this application to be considered without the need for limited notification.

## 8.3 Notification summary

Based on the assessment in the preceding sections, it is considered that this application can be considered without the need for either public or limited notification.

# 9.0
# Conclusion

The applicant seeks resource consent to subdivide the lots into three lots through a Management Plan subdivision at 438A and 438B Redcliffs Road, Kerikeri, legally described as Lot 1 DP 557844, Lot 2 DP 557844 and Lot 1 DP 194534.

An assessment of the proposal has been prepared in accordance with Schedule 4 of the Act and assesses the matters that Council must consider when making a decision on an application under section 104 of the Act. The assessment has:

- Demonstrated that the proposal is consistent with the purpose and principles of the Act;
- Found that the potential adverse effects on the environment of the proposal will be less than minor;
- Identified the positive effects that approval of this application will generate; and
- Concluded that the proposal is consistent with the relevant objectives, policies and assessment criteria of the applicable statutory documents.

A consideration of this proposal against both the public and limited notification requirements of the Act has concluded that this application does not warrant notification under sections 95A-95E of the Act.

Taking all of the above into account, the Council has sufficient information to make a decision on this application and it is appropriate for consent to be granted in accordance with section 104B of the Act.

# 10.0 Limitations

## 10.1 General

This report is for the use by Bella Max & Kemp Family Trust only and should not be used or relied upon by any other person or entity or for any other project.

This report has been prepared for the particular project described to us and its extent is limited to the scope of work agreed between the client and Harrison Grierson Consultants Limited. No responsibility is accepted by Harrison Grierson Consultants Limited or its directors, servants, agents, staff or employees for the accuracy of information provided by third parties and/or the use of any part of this report in any other context or for any other purposes.

# 2.0

# Appendices

# Appendix 1
# Records of Title

**Bound separately**

# Appendix 2
# Proposed Scheme Plan

**Bound separately**

# Appendix 3
# District Plan Rules Assessment

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| Chapter 13 - Subdivision | | |
| 13.6 Relevant General Rules | | |
| **Rule** | **Rule Description** | **Comment** |
| **13.6.5**<br>**Legal Road Frontage** | All new allotments shall be provided with frontage to a legal road, or to a road to be vested on the application, except where access by a private road or right of way is included, and approved, within the subdivision consent application or where prior consent pursuant to s348 of the Local Government Act 1974 has been obtained | The proposed Lot 3 will be provided frontage to Redcliffs Road.<br>The proposed access for Lots 1 and 2 will be provided through existing and proposed rights of way. |
| **13.6.6**<br>**Bonds** | The Council may require bonds as a condition of a subdivision consent. The bond is repaid on the completion of some specified work or action. The purpose of a bond is to provide an incentive to resource consent holders to give effect to the conditions of consent. A bond also gives the Council the ability to arrange for the work or action required to be carried out even if the resource consent holder does not. | **Noted.** |
| **13.6.7**<br>**Consent Notices** | Where there is any on-going condition of a subdivision consent, a consent notice pursuant to s221 of the Act shall be registered against the Certificate of Title to the allotment to which the condition applies. Examples of the matters that may be included in a consent notice could be any encumbrances on the Title and any provision for the protection of transmission lines | **Noted.** |
| **13.7.2 Allotment Sizes, Dimensions and Other Standards**<br>**13.7.2.1 Minimum Area for Vacant New Lots and New Lots Which Already Accommodate Structures**<br>Every allotment to be created by a subdivision shall comply either with the conditions of a resource consent or with the minimum standards specified as follows in **Table 13.7.2.1**, and shall comply with all other relevant zone rules, except as provided for in **Rules 13.7.2.4, 13.7.2.5, 13.7.2.6 and 13.7.2.7** below. | | |
| **Table 13.7.2.1: Minimum Lot Sizes**<br>**(viii) General Coastal Zone**<br>**Discretionary Activity Status (Refer also to 13.9)**<br>A subdivision in terms of via a management plan as per **Rule 13.9.2** may be approved.<br>**(xix) Outstanding Landscape,** Outstanding Landscape Features and Outstanding Natural Features, **As Shown on the Resource Maps - Refer Also to Rule 13.7.2.5** | | |

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| Discretionary Activity Status (Refer also to 13.9)<br>1. For the General Coastal subdivision via a management plan as per **Rule 13.9.2**; | | |
| **Rule** | **Rule Description** | **Comment** |
| **13.7.2.2 Allotment Dimensions** | Any allotment created in terms of these rules must be able to accommodate a square building envelope of the minimum dimensions specified below; which does not encroach into the permitted activity boundary setbacks for the relevant zones:<br><br>General Coastal Zone - Minimum Dimension 30m x 30m | **Complies**<br>The 30m x 30m building platform is indicated on the proposed scheme plan (Appendix 2). |
| **13.7.2.5 Sites Divided by An Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature** | The subdivision rules relating to the size of allotments in areas covered by an Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature, as shown on the Resource Maps, take precedence over the comparable rules for zones.<br><br>Where a site contains, or is divided by the boundary of an Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature, for those parts of the site not covered by the landscape or feature, rules relating to allotment size for the particular zone apply as if the legal boundary of the site was located along the boundary of the landscape or feature.<br><br>Where a site contains, or is divided by the boundary of an Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature, minimum lot sizes for that part of the site within the landscape or feature is specified within Rule 13.7.2.1(xix) of Table 13.7.2.1.<br><br>Where a site contains, or is divided by the boundary of an Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature, and the area within the landscape or feature is smaller than the lot sizes provided for in Rule 13.7.2.1(xix) of Table 13.7.2.1, the whole of the site must be taken as Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature and Rule 13.7.2.1(xix) applies over the entire site. | **Complies**<br>The proposed subdivision is via a management plan as per Rule 13.9.2 outlined below. |
| **13.7.2.6**<br>**Access, Utilities, Roads, Reserves** | Notwithstanding the standards for minimum net area, there shall be no minimum allotment areas in any zone for allotments created for access, utilities, roads and reserves. Within areas covered by a structure plan, appropriate provision shall be made for access, utilities, roads and reserves in terms of those structure plans.<br><br>A consent notice may be registered on the Certificate of Title, pursuant to Rule 13.6.7, in respect of any lot occupied by a utility, requiring enforcement of a condition that, in the event of the utility being removed, the lot be amalgamated with an adjoining allotment unless it is a fully complying allotment for the respective zone. | **Not applicable** |

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| **13.7.3.1**<br>**Property Access** | Refer to Rules 15.1.6C.1.1 - 15.1.6C.1.11 | **Complies**<br>The property access will remain as per the existing situation. A detailed assessment is provided in the Civil Engineering Assessment (Appendix 6). |
| **13.7.3.2**<br>**Natural And Other Hazards** | Any proposed subdivision shall avoid, remedy or mitigate any adverse effects of natural hazards. | **Complies**<br>As assessed in section 7.2 above. |
| **13.7.3.3**<br>**Water Supply** | All new allotments shall be provided with the ability to connect to a safe potable water supply with an adequate capacity for the respective potential land uses, except where the allotment is for a utility, road, reserve or access purposes, by means of one of the following:<br>(a) a lawfully established reticulated water supply system; or<br>(b) where no reticulated water supply is available, the ability to provide an individual water supply on the respective allotment. | **Complies**<br>The two existing dwellings will remain as per the existing arrangement. Individual water supply can be provided to the proposed Lot 2. |
| **13.7.3.4**<br>**Stormwater Disposal** | (a) All allotments shall be provided, within their net area, with a means for the disposal of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces, in such a way so as to avoid or mitigate any adverse effects of stormwater runoff on receiving environments, including downstream properties. This shall be done for a rainfall event with a 10% Annual Exceedance Probability (AEP).<br>(d) All subdivision applications creating sites 2ha or less shall include a detailed report from a Chartered Professional Engineer or other suitably qualified person addressing stormwater disposal.<br>(d) Where flow rate control is required to protect downstream properties and/or the receiving environment then the stormwater disposal system shall be designed in accordance with the onsite control practices as contained in "Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual" Auckland Regional Council (2003). | **Complies**<br>All the proposed lots will be greater than 2ha in area.<br>A detailed assessment is provided in the Civil Engineering Assessment (Appendix 6). |
| **13.7.3.5**<br>**Sanitary Sewage Disposal** | (b) Where connection is not available, all allotments in urban, rural and coastal zones shall be provided with a means of disposing of sanitary sewage within the net area of the allotment, except where the allotment is for a road, or for access purposes, or for a purpose or activity for which sewerage is not necessary (such as a transformer). | **Complies**<br>A suitable wastewater system is feasible on the proposed Lot 2 as provided in the Civil Engineering Assessment report (Appendix 6). |

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| **13.7.3.6**<br>**Energy Supply** | All urban allotments (Residential, Commercial, Industrial Zones) including the Coastal Residential, Russell Township, and Rural Living Zones, shall be provided with the ability to connect to an electrical utility system and applications for subdivision consent should indicate how this could be done. | **Not compulsory**<br>The site is not located within the urban area. |
| **13.7.3.7**<br>**Telecommunications** | All urban allotments (Residential, Commercial, Industrial Zones) including the Coastal Residential, Russell Township, and Rural Living Zones, shall be provided with the ability to connect to a telecommunications system at the boundary of the site. | **Not compulsory**<br>The site is not located within the urban area. |
| **13.7.3.8**<br>**Easements For Any Purpose** | Easements shall be provided where necessary for public works and utility services | **Noted.**<br>Appropriate easements have been provided as shown in Appendix 2. |
| **13.7.3.9**<br>**Preservation of heritage resources, vegetation, fauna and landscape, and land set aside for conservation purposes** | The continued preservation of that resource, area or feature shall be an ongoing condition for approval to the subdivision consent. | **Noted.**<br>While the site does not contain items in the schedules under this rule, the proposed subdivision utilises the management plan provisions where covenants are proposed to protect indigenous vegetation and fauna habitats. |
| **13.7.3.11**<br>**Land Use Compatibility** | Subdivision shall avoid, remedy or mitigate any adverse effects of incompatible land uses (reverse sensitivity). | **Complies**<br>The proposal will remain the rural lifestyle character. |

**13.9 Discretionary (Subdivision) Activities**

Subdivision is a discretionary activity where:

(a) it does not comply with one or more of the standards for controlled or restricted-discretionary (subdivision) activities set out in rules under 13.7 and 13.8, but

(b) it complies with the rules **under 13.9.1, 13.9.2 or 13.9.3;**

(c) it is located in the Pouerua Heritage Precinct.

If a subdivision activity does not comply with the standards for a discretionary (subdivision) activity, it will be a non-complying (subdivision) activity.

| Rule | Rule Description | Comment |
|---|---|---|
| **13.9.1 Minimum Net Area for Vacant New Lots and New Lots Which Already Accommodate Structures** | Refer to Table 13.7.2.1 under Rule **13.7.2.1** column headed "Discretionary Activity Status". | **Discretionary Activity**<br>The subdivision is via a proposed management plan as per Rule 13.9.2 outlined below. |

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| **13.9.2 Management Plans** | | |
| **Rule** | **Rule Description** | **Comment** |
| **13.9.2.1 Contents of Application** | An application for a management plan subdivision or development must, to the extent that it is relevant to the site and the proposal, provide within the application, including assessment of environmental effects and accompanying specialist reports, information on the following:<br>(a) Description of the Proposal<br>(b) Existing Site Characteristics<br>(c) Proposed Management Measures<br>(d) Draft Management Plan | **Complies**<br>The information has been detailed in the report sections above. |
| **13.9.2.2 Management Plan Standards**<br>Management plan subdivision is a discretionary activity in the General Coastal Zone where it complies with the standards set out below: | | |
| **Rule** | **Rule Description** | **Comment** |
| **13.9.2.2** | (a) The average size of all lots in the management plan subdivision, excluding lots used solely for access, utilities, roads and reserves shall be no less than:<br>(iii) 6ha in the General Coastal Zone;<br>over that specified portion of the site that is subject to the management plan. | **Complies**<br>All the proposed lots will be more than 6ha, the smallest proposed lot is 6.02ha in area. |
| | (b) Only one consent for a discretionary (subdivision) activity in terms of a management plan can be granted in respect of a site or any specified portion of a site provided that the averaging provisions contained within this rule can only be used for each specified portion of the site once. | **Complies and noted.**<br>Our review of the property files has found that no management plan subdivision consent has been granted in respect of this site. |
| | (c) Where a management plan subdivision or development is granted in respect of a specified portion of a site, separate title shall be obtained or amalgamated with another adjoining lot not within the management plan application for the portion of the site not subject to the management plan. The portion of a site that is not subject to the management plan shall be no less than:<br>(iii) 20ha in the General Coastal Zone | **Not applicable**<br>All the proposed lots are subject to the management plan. |
| | (d) The Development Bonuses available under Rules 12.1.6.3.1, 12.2.6.3.2, 12.5.6.3.1 and 18.3.6.4.3 will not be available on any site created by a consent granted under this rule, nor will they be available as part of the process of obtaining such a consent. | **Noted.** |
| | (e) Any further subdivision of any lot contained within a subdivision management plan shall be a non-complying activity. | **Noted.** |

| TABLE 1: Operative Far North District Plan 2009 - Rules Assessment | | |
|---|---|---|
| | (f) The application must include a draft management plan as described in Rule 13.9.2.1(d). | **Complies**<br>An Ecological Management Plan (EMP) has been prepared by ecoLogical Solutions Ltd and attached in **Appendix 8**. |

| TABLE 2: Far North Proposed District Plan (PDP) - Rules Assessment | | |
|---|---|---|
| Part 2 – District-Wide Matters - Subdivision | | |
| **Rule** | **Rule Description** | **Comment** |
| **SUB-R7**<br>**Management plan subdivision** | **Rural Production zone - Discretionary Activity**<br>**Where**:<br>**DIS-1**<br>1. the average size of all lots in the management plan subdivision, excluding lots used solely for access, utilities, roads and reserves is no less than 2ha in the Rural Production zone and 5,000m² in the Rural Lifestyle zone;<br>2. This is the only management plan subdivision for the specified portion of a site;<br>3. The portion of a site that is not subject to the management plan shall be no less than 8ha in the Rural Production and 2ha Rural Lifestyle zone; and<br>4. The application contains the information listed in APP3- Subdivision management plan criteria. | **Complies**<br>1. The average size of all lots will be more than 2ha, as the smallest lot size proposed is 6.02ha.<br>2. This is the only management plan.<br>3. The entire site is subject to the management plan.<br>4. Same as the ODP list. |
| **SUB-R12**<br>**Subdivision of a site within coastal hazard areas** | **Restricted Discretionary**<br>**Where:**<br>**RDIS-1**<br>All building platforms and associated access for each allotment are located wholly outside the spatial extent of the Coastal Hazard Area. | **Complies**<br>The proposed building platform and associated access will be located wholly outside the spatial extent of the Coastal Hazard Area. |
| **SUB-R20**<br>**Subdivision of a site within the Coastal Environment (excluding Outstanding Natural Character Areas)** | **Discretionary** | The application site is subject to coastal environment overlay. |
| **Standards** | **Standards Description** | **Comment** |
| **SUB-S1** | **Minimum allotment sizes**<br>Rural Production - 8ha - Discretionary | Not applicable as the proposal is via a management plan. |
| **SUB-S2** | **Requirements for building platforms for each allotment**<br>Rural Production zone - 30m x 30m | A 30m x 30m building platform is provided. |

| TABLE 2: Far North Proposed District Plan (PDP) - Rules Assessment | | |
|---|---|---|
| **SUB-S3** | **Water supply** | Water supply can be provided. |
| **SUB-S4** | **Stormwater management** | Stormwater management is assessed in Appendix 6. |
| **SUB-S5** | **Wastewater disposal** | Wastewater provisions are assessed in Appendix 6. |
| **SUB-S6** | **Telecommunications and power supply** | No requirement for Rural Production zone. |
| **SUB-S7** | **Easements for any purpose** | Relevant easement is proposed in the proposed scheme plan (Appendix 2). |

# Appendix 4
# Boundary Adjustment (2300253-RMASUB)

**Bound separately**

# Appendix 5
# Geotechnical Site Assessment Report

**Bound separately**

# Appendix 6
# Civil Engineering Assessment Report

**Bound separately**

# Appendix 7
# Ecological Impact Assessment Report

**Bound separately**

# Appendix 8
# Ecological Management Plan

**Bound separately**

HARRISON
GRIERSON

harrisongrierson.com

# RECORD OF TITLE
# UNDER LAND TRANSFER ACT 2017
# FREEHOLD

**Guaranteed Search Copy issued under Section 60 of the Land Transfer Act 2017**

R.W. Muir
Registrar-General
of Land

**Identifier** **978317**

**Land Registration District** **North Auckland**

**Date Issued** 15 June 2022

**Prior References**
NA121D/471

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**Estate** Fee Simple

**Area** 1.3420 hectares more or less

**Legal Description** Lot 1 Deposited Plan 557844

**Registered Owners**

Janine Maree Budden and Shale Chambers

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**Interests**

Subject to Section 8 Mining Act 1971

Subject to Section 168A Coal Mines Act 1925

Appurtenant to part formerly Lot 1 DP 187415 is a right of way and a right to convey water, and electricity & telecommunications rights specified in Easement Certificate D066530.11 - 12.11.1996 at 12.10 pm

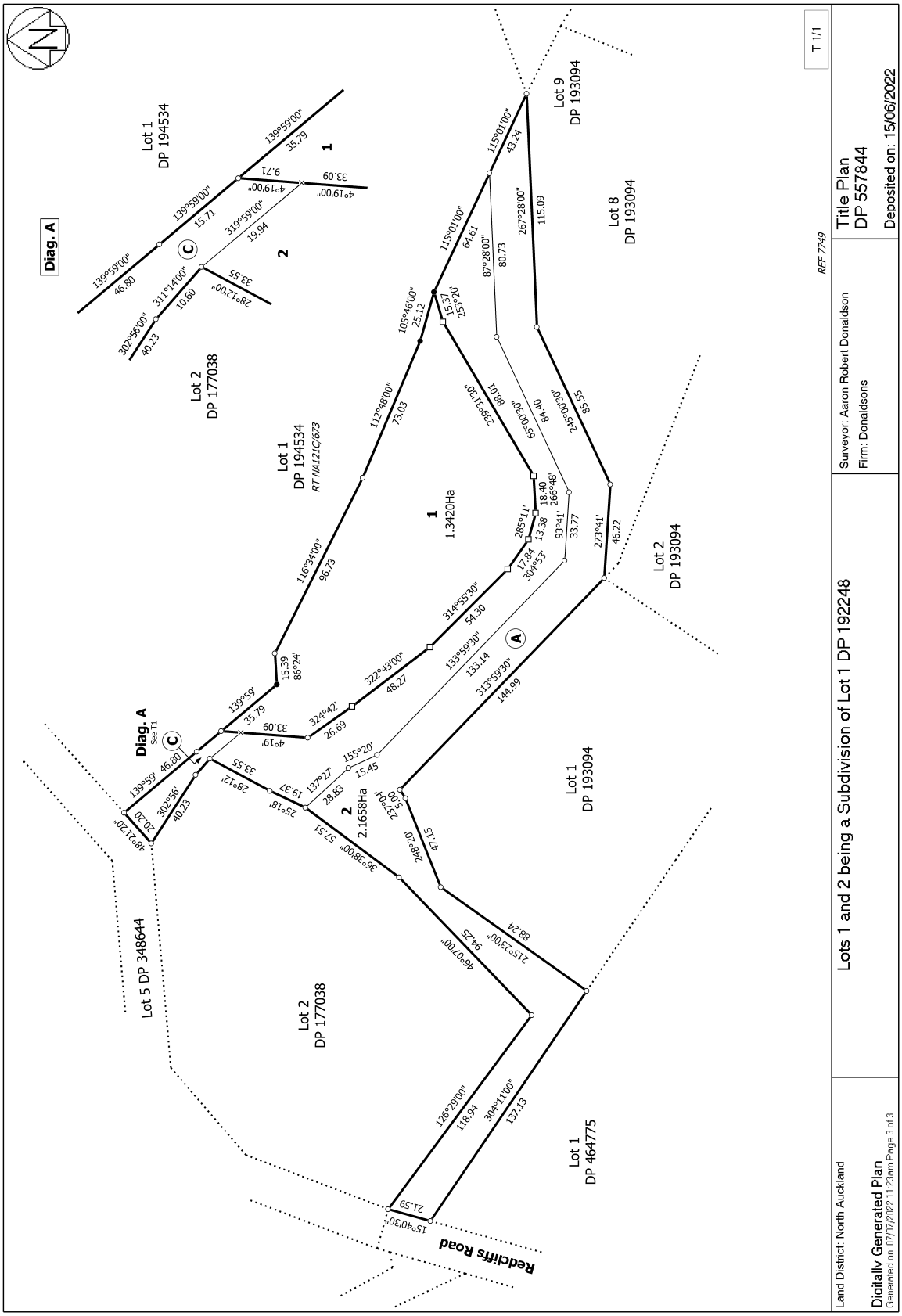
The easements specified in Easement Certificate D066530.11 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right of way, and power, telephone & water supply rights specified in Easement Certificate D349890.4 - 20.1.1999 at 3.40 pm

The easements specified in Easement Certificate D349890.4 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right of way, a right convey electricity, telecommunications and water, and a right to drain water created by Easement Instrument 12468770.3 - 15.6.2022 at 2:39 pm

The easements created by Easement Instrument 12468770.3 are subject to Section 243 (a) Resource Management Act 1991


Lots 1 and 2 being a Subdivision of Lot 1 DP 192248
Title Plan
DP 557844
Deposited on: 15/06/2022
Surveyor: Aaron Robert Donaldson
Firm: Donaldsons
Land District: North Auckland
Digitally Generated Plan
Generated on: 07/07/2022 11:23am Page 3 of 3
T 1/1
REF 7749
Diag. A
Diag. A
Lot 1 DP 194534
Lot 2 DP 177038
Lot 1 DP 194534
RT NA121C/673
Lot 9 DP 193094
Lot 8 DP 193094
Lot 2 DP 193094
Lot 1 DP 193094
Lot 2 DP 177038
Lot 5 DP 348644
Lot 1 DP 464775
1
1.3420Ha
2
2.1658Ha
Redcliffs Road

# RECORD OF TITLE
# UNDER LAND TRANSFER ACT 2017
# FREEHOLD

**Guaranteed Search Copy issued under Section 60 of the Land Transfer Act 2017**

R.W. Muir
Registrar-General
of Land

**Identifier** **978318**

**Land Registration District** **North Auckland**

**Date Issued** 15 June 2022

**Prior References**

NA121C/673 NA121D/471

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**Estate** Fee Simple

**Area** 32.8213 hectares more or less

**Legal Description** Lot 2 Deposited Plan 557844 and Lot 1 Deposited Plan 194534

**Registered Owners**

Janine Maree Budden and Shale Chambers as to a 2/3 share

Anthony Edward Kemp and Bruce Robert Sharrock as to a 1/3 share

---

**Interests**

Subject to Section 8 Mining Act 1971

Subject to Section 168A Coal Mines Act 1925

Subject to a right of way, and a right to convey water, electricity and telecommunications over part Lot 2 DP 557844 marked A on DP 557844 specified in Easement Certificate D066530.11 - 12.11.1996 at 12:10 pm

Appurtenant hereto is a right of way and a right to convey water, and electricity & telecommunications rights specified in Easement Certificate D066530.11 - 12.11.1996 at 12.10 pm

The easements specified in Easement Certificate D066530.11 are subject to Section 243 (a) Resource Management Act 1991

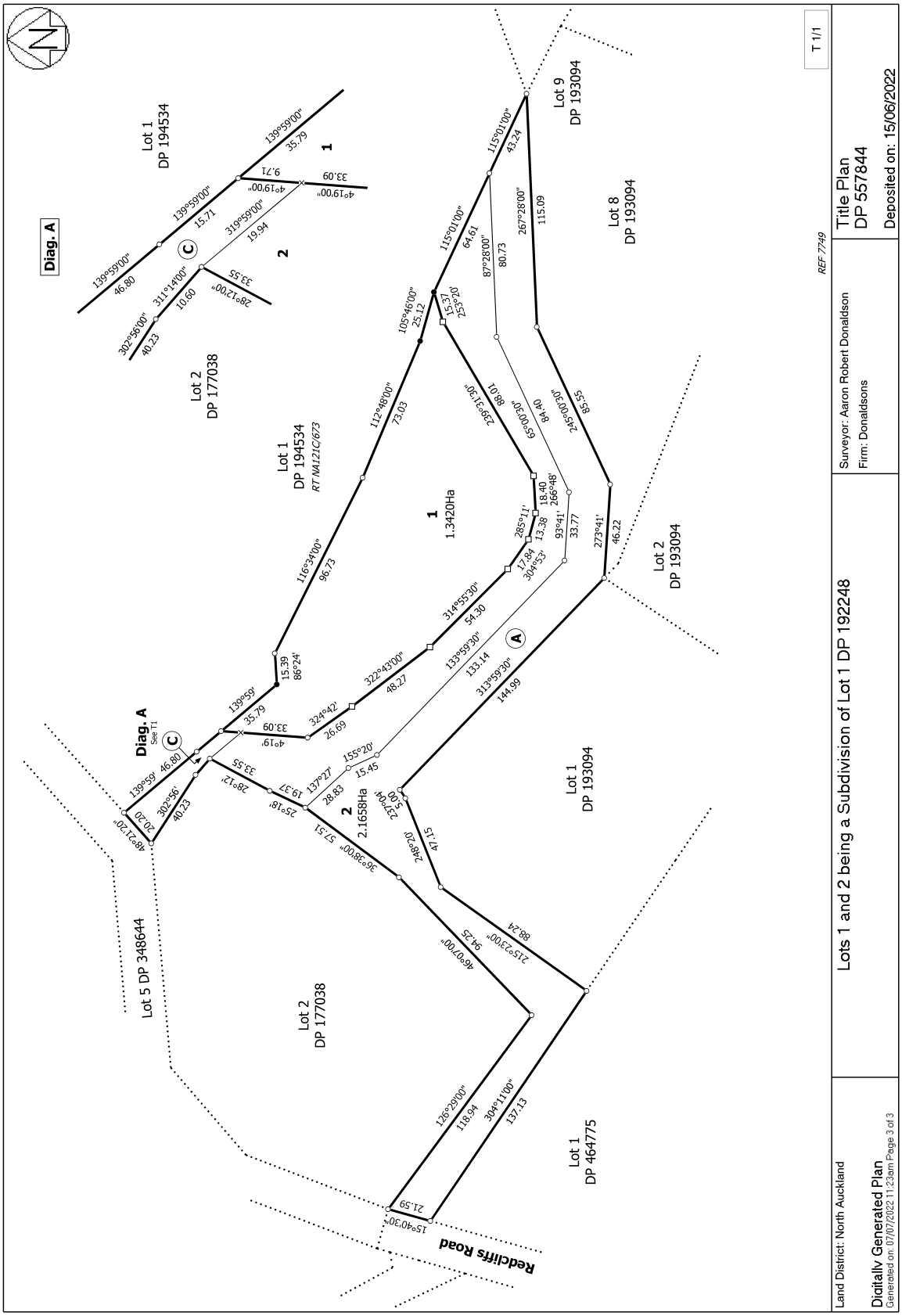
Appurtenant to Lot 1 DP 194534 herein is a right of way, and power, telephone & water supply rights specified in Easement Certificate D349890.4 - 20.1.1999 at 3.40 pm

The easements specified in Easement Certificate D349890.4 are subject to Section 243 (a) Resource Management Act 1991

Subject to Section 241(2) Resource Management Act 1991 (affects DP 557844)

Subject to a right of way, a right to convey electricity, telecommunications and water, and a right to drain water over part Lot 2 DP 557844 marked C on DP 557844 created by Easement Instrument 12468770.3 - 15.6.2022 at 2:39 pm

The easements created by Easement Instrument 12468770.3 are subject to Section 243 (a) Resource Management Act 1991


Lots 1 and 2 being a Subdivision of Lot 1 DP 192248
Title Plan
DP 557844
Deposited on: 15/06/2022
Surveyor: Aaron Robert Donaldson
Firm: Donaldsons
Land District: North Auckland
Digitally Generated Plan
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DP 194534
Lot 2
DP 177038
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DP 194534
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Lot 9
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Lot 8
DP 193094
Lot 2
DP 193094
Lot 1
DP 193094
Lot 1
DP 464775
Lot 2
DP 177038
Lot 5 DP 348644
Redcliffs Road
1
1.3420Ha
2
2.1658Ha
REF 7749
T 1/1

# View Instrument Details

| | |
|---|---|
| **Instrument No** | 12468770.3 |
| **Status** | Registered |
| **Date & Time Lodged** | 15 June 2022 14:39 |
| **Lodged By** | Maharaj, Charan Jeet |
| **Instrument Type** | Grant of Easement Without Transfer |

| Affected Records of Title | Land District |
|---|---|
| 978317 | North Auckland |
| 978318 | North Auckland |

**Annexure Schedule** Contains 1 Pages.

**Grantor Certifications**

| | |
|---|---|
| I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument | ☑ |
| I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument | ☑ |
| I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply | ☑ |
| I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period | ☑ |

**Signature**

Signed by Shale Chambers as Grantor Representative on 15/06/2022 12:00 PM

**Grantee Certifications**

| | |
|---|---|
| I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument | ☑ |
| I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument | ☑ |
| I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply | ☑ |
| I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period | ☑ |

**Signature**

Signed by Shale Chambers as Grantee Representative on 15/06/2022 12:00 PM

***** End of Report *****

Approved for ADLS by Registrar-General of Land under No. 2018/6266

# EASEMENT INSTRUMENT TO GRANT EASEMENT OR *PROFIT À PRENDRE*

*Sections 109 Land Transfer Act 2017*

Registrar-General of Land Approval 2018/6266 ADLS

**Grantor**

**Janine Maree BUDDEN and Shale CHAMBERS**

**Grantee**

**Janine Maree BUDDEN and Shale CHAMBERS**

**Grant of Easement or *Profit à prendre***

**The Grantor** being the registered owner of the burdened land set out in Schedule A **grants to the Grantee** (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s).

**Schedule A** *Continue in additional Annexure Schedule, if required*

| Purpose (Nature and extent) of easement, or *profit* | Shown (plan reference) | Burdened Land (Record of Title) | Benefited Land (Record of Title) or in gross |
|---|---|---|---|
| **Right of Way, Right to Convey Electricity and Telecommunications, Right to Convey Water and Right to Drain Water** | **"C" on DP 557844** | **Lot 2 on DP 557844 (RT 978318)** | **Lot 1 on DP 557844 (RT 978317)** |

**Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)**

*Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required*

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2018 and/or Schedule 5 of the Property Law Act 2007

~~The implied rights and powers are hereby **[varied] [negatived] [added to]** or **[substituted]** by:~~

~~[Memorandum number , registered under section 209 of the Land Transfer Act 2017]~~

~~[the provisions set out in Annexure Schedule ]~~

Approved by the District Land Registrar, South Auckland No. 351560
Approved by the District Land Registrar, North Auckland, No. 4380/81
Approved by the Registrar-General of Land, Wellington, No. 436748.1/81

D666530.11EC

# EASEMENT CERTIFICATE

(**IMPORTANT**: Registration of this certificate does not of itself create any of the easements specified herein).

I/We EDWARD FEATHERSTONHAUGH of Kerikeri farmer

being the registered proprietor(s) of the land described in the Schedule hereto hereby certify that the easements specified in that Schedule, the servient tenements in relation to which are shown on a plan of survey deposited in the Land Registry Office at Auckland
on the day of 19 under No. 161190
are the easements which it is intended shall be created by the operation of section 90A of the Land Transfer Act 1952.

## SCHEDULE

DEPOSITED PLAN NO. 161190

| Nature of Easement (e.g., Right of Way, etc.) | Servient Tenement | | Dominant Tenement Lot No.(s) or other Legal Description | Title Reference |
|---|---|---|---|---|
| | Lot No.(s) or other Legal Description | Colour, or Other Means of Identification, of Part Subject to Easement | | |
| Right of Way<br>Right to transmit electricity & telecommunications<br>Right to convey water | Lot 5<br>DP 161190 | A | Lots 1 & 3<br>DP 161190 | 96D/807<br>96D/809 |
| Right of Way<br>Right to transmit electricity & telecommunication<br>Right to convey water | Lot 4 | B, C | Lot 3<br>DP 161190 | 96D/809 |
| Right of Way<br>Right to transmit electricity & telecommunication<br>Right to convey water | Lot 4 | B | Lot 2<br>DP 161190 | 96D/808 |

State whether any rights or powers set out here are in addition to or in substitution for those set out in the Seventh Schedule to the Land Transfer Act 1952.

1. Rights and powers:

1. RIGHT OF WAY

The rights and powers and the terms conditions covenants or restrictions shall be those as set out in the Seventh Schedule to the Land Transfer Act 1952 and in the Ninth Schedule to the Property Law Act 1952

2. ELECTRICITY AND TELECOMMUNICATIONS TRANSMISSION

The full free uninterrupted and unrestricted right liberty and privilege for the Grantee and his tenants (in common with the Grantor its tenants, and any other person lawfully entitled so to do) from time to time and at all times to reticulate electricity and telecommunications by means of poles cables or wires or other conductors of electricity and telecommunications or other equipment and any pipes or other covering enclosing or poles supporting the same above or below the surface (hereinafter called "the reticulation systems") in a free and unimpeded supply (except when the supply is halted for any reasonable period necessary for essential repairs) from the source of supply or point of entry as the case may be across the easement area together with the additional rights following:

a. To use any reticulation systems already laid on the easement area or any reticulation systems or part thereof in replacement or in substitution therefor.

b. Where no such reticulation system exists to place and maintain or to have placed and maintained a reticulation system in conformity with the requirements of the duly authorised electricity and telecommunications supply authorities above or below the surface of the easement area.

c. In order to construct or maintain the efficiency of any such reticualtion system the full, free, uninterrupted and unrestricted right liberty and privilege for the Grantee his tenants, servants, agents, and workmen, with any tools, implements, machinery, vehicles, or equipment of whatsoever nature necessary for the purpose to enter upon the easement area and to remain there for any reasonable time for the purpose of placing, inspecting, altering, repairing, renewing, relaying and otherwise maintaining the reticulation systems or any part thereof and of opening up the soil of that land to such extent as may be necessary and reasonable in that regard, subject to the condition that as little disturbance as possible is caused to the surface of the land of the Grantor and that the surface is restored as nearly as possible to its original condition and any other damage done by reason of the aforesaid operations is repaired.

~~2. Terms, conditions, covenants, or restrictions in respect of any of the above easements~~:

d. The Grantor will not place any buildings or structures or other erections or plant or allow or suffer to grow any tree or shrub on the easement area.

3. RIGHT TO CONVEY WATER

The rights and powers and the terms conditions covenants or restrictions shall be those as set out in clauses 2 and 5 of the Seventh Schedule to the Land Transfer Act 1952.

In the event of dispute as to any matter relating to the aforementioned easements such dispute shall be referred to arbitration in accordance with the Arbitration Act 1908 and its amendments or any legislation passed in substitution therefor.

Dated this 11th day of June 1993

Signed by the above-named

EDWARD FEATHERSTONHAUGH

in the presence of

*Witness* .....

*Occupation* Solicitor

*Address* Wellington

**REGISTERED IN DUPLICATE**

# EASEMENT CERTIFICATE

**(IMPORTANT)**: Registration of this certificate does not of itself create any of the easements specified herein.

*Correct for the purposes of the Land Transfer Act*

*Solicitor for the registered proprietor*

The ~~above~~/within easements when created will ~~be~~/are subject to Section 243(a) Resource Management Act 1991

A.L.R.

12.10 12.NOV96 D 066

PARTICULARS ENTERED IN THE LAND REGISTRY NORTH AUCKLAND

119-109

URLICH McNAB KILPATRICK
Solicitors
Whangarei

D349890.4 EC

Registrar-General of Land Approval 98/6031EF A.D.L.S.

# EASEMENT CERTIFICATE

(IMPORTANT: Registration of this certificate does not of itself create any of the easements specified herein).

I/We **Margaret Ellen FEATHERSTONHAUGH, David John ROSS and Roko Marijan Jujaj URLICH**

being the registered proprietor(s) of the land described in the Schedule hereto hereby certify that the easements specified in that Schedule, the servient tenements in relation to which are shown on a plan of survey deposited in the Land Registry Office at **NORTH AUCKLAND**
on the day of under No. 192248
are the easements which it is intended shall be created by the operation of section 90A of the Land Transfer Act 1952.

**SCHEDULE**

DEPOSITED PLAN NO.

| Nature of Easement (e.g., Right of Way, etc.) | Servient Tenement | | Dominant Tenement Lot No.(s) or other Legal Description | Title Reference |
|---|---|---|---|---|
| | Lot No.(s) or other Legal Description | Colour, or Other Means of Identification, of Part Subject to Easement | | |
| **Right of way** | **Lot 4 DP161190** | **B** | **Lot 1 DP 192248** | 121D/471 |
| **Power** | **Lot 4 DP161190** | **B** | **Lot 1 DP 192248** | 121D/471 |
| **Telephone** | **Lot 4 DP161190** | **B** | **Lot 1 DP 192248** | 121D/471 |
| **Water Supply** | **Lot 4 DP161190** | **B** | **Lot 1 DP 192248** | 121D/471 |

REF: 4050 /1

State whether any rights of powers set out here are in addition to or in substitution for those set out in the Seventh Schedule to the Land Transfer Act 1952.

## 1. RIGHTS AND POWERS:

### 1. RIGHT OF WAY

The rights and powers and the terms conditions covenants or restrictions shall be those as set out in the Seventh Schedule to the Land Transfer Act 1952 and in the Ninth Schedule to the Property Law Act 1952 but they shall not be deemed to include heavy earth moving machinery without the consent of the registered proprietor of the servient tenement.

### 2. RIGHT TO TRANSMIT ELECTRICITY AND TELECOMMUNICATIONS

The full free uninterrupted and unrestricted right liberty and privilege for the Grantee and their tenants (in common with the Grantor their tenants. and any other person lawfully entitled so to do) from time to time and at all times to reticulate electricity and telecommunications by means of poles cables or wires or other conductors of electricity and telecommunications and other assisted equipment and any pipes or other covering enclosing or poles supporting the same above or below the surface (hereinafter called "the reticulation system") in a free and unimpeded supply (except when the supply is halted for any reasonable period necessary for essential repairs) from the source of supply or point of entry as the case may be across the easement area together with the additional rights following:

a) To use any reticulation system already laid on the easement area or any reticulation systems or part thereof in replacement or in substitution therefor.

b) Where no such reticulation system exists to place and maintain or to have placed and maintained a reticulation system in conformity with the requirements of the duly authorised electricity and telecommunications supply authorities above or below the surface of the easement area.

c) In order to construct or maintain the efficiency of any such reticulation system the full. free. uninterrupted and unrestricted right liberty and privilege for the Grantee his tenants. servants, agents and workmen. with any tools. implements. machinery. vehicles. or equipment of whatsoever nature necessary for the purpose to enter upon the easement area and to remain there for any reasonable time for the purpose of placing. inspecting. altering. repairing. renewing. relaying and otherwise maintaining the reticulation systems or any part thereof and of opening up the soil of that land to such extent as may be necessary and reasonable in that regard. subject to the condition that as little disturbance as possible is caused to the surface of the land of the Grantor and that the surface is restored as nearly as possible to its original condition and any other damage done by reason of the aforesaid operations is repaired.

d) The Grantor will not place any buildings or structures or other erections or plant or allow or suffer to grow any tree or shrub on the easement area which may unreasonably interfere with the reticulation system of the Grantee.

e) In the event of dispute between the parties hereto or their successors in title as to any matter relating to the aforementioned easements such dispute shall be referred to arbitration in accordance with the Arbitration Act 1908 and its amendments or any legislation passed in substitution therefor.

### 3. RIGHT TO CONVEY WATER

The Grantor grants to the Grantee the right for the Grantee and its tenants, agents, workmen. licensees and invitees (in common with the Grantor. its tenants and any other persons lawfully entitled to do so):

3.1 To take, convey and lead water at all times in any quantity in a free and unimpeded flow along the line of pipes described in sections 3.2 or 3.3 (as the case may be).

3.2 To use any line of pipes already laid in and under the soil of the easement area for the purpose described in section 3.1.

3.3 Where no line of pipes already exists. to lay and maintain a line of pipes in and under the soil of the easement area for the purpose described in section 3.1.

3.4 To enter on to their servient land (at such times. upon such notice and by such route as is reasonable in the circumstances) with any tools. equipment. machinery and vehicles as are necessary and to remain there for any reasonable time for the purpose of laying. inspecting. cleaning. repairing. maintaining and renewing the pipes and to dig up the soil of the servient land to the extent necessary and reasonable. but in doing so the Grantee shall cause as little disturbance as reasonably possible to the surface of the servient land and shall restore the surface of the servient land as nearly as possible to its original condition and shall restore any other consequential damage.

# CONSENT OF A CAVEATOR TO A DEALING SUBJECT TO CAVEAT

**IN THE MATTER** of the Land Transfer Act 1952

**A N D**

**IN THE MATTER** of Caveat Number D281896.1 (North Auckland Registry)

**HANSJORG BINZER** and **GABRIELE BARTH** the Caveator in whose name the abovementioned Caveat is lodged against the land comprised in Certificate of Title 96D/811 North Auckland Registry **HEREBY CONSENTS** to the deposit of a certain subdivision plan numbered 192248 and the issue of new certificates of title for the lots shown therein* **BUT SUBJECT AND WITHOUT PREJUDICE** to the rights of the Caveator protected by the said Caveat.

*and the registration of an easement certificate recording the easement defined on the said plan.

**DATED** this 27th day of November 1998

**SIGNED** by the said )
**HANSJORG BINZER** and )
**GABRIELE BARTH** )
as Caveator in the presence )
of: )

Erich Bachmann
Solicitor
Auckland

H. Binzer
G. Barth

**Correct for the purposes of the Land Transfer Act**

**Solicitor for the Caveator**

2. Terms, conditions, covenants, or restrictions in respect of any of the above easements:

**GENERAL COVENANTS**

**1. The grant of the easement rights shall be forever appurtenant to each and every part of the dominant land.**

**2. No power is implied for the Grantor to terminate the easement rights, it being the intention of the parties that the easement rights will continue forever unless surrendered.**

**3. The Grantor will not do anything which interferes with or restricts the rights of the Grantee or other authorised persons in relation to any of the easement rights.**

**4. The easement rights are in substitution for those set out in the Seventh Schedule to the Land Transfer Act 1952.**

Dated this 14th day of January 1999

Signed by the above-named
**Margaret Ellen FEATHERSTONHAUGH**

in the presence of
*Witness* GRT. Christine Harding
*Occupation* Legal Executive Whangarei
*Address* Whangarei

*Correct for the purposes of the Land Transfer Act 1952*

*(Solicitor for) the registered proprietor:*

Signed by the abovenamed
ROKO MARIJAN JUJAJ URLICH
in the presence of:
Witness:
Occupation: Christine Harding Legal Executive Whangarei
Address:

Signed by the abovenamed
DAVID JOHN ROSS in the
presence of:
Witness:
Occupation: Secretary
Address: Auckland

Elizabeth Steedman

Approved by Registrar-General
of Land under No. 1998/6031EF

Approval 98/6031EF A.D.L.S.

# EASEMENT CERTIFICATE

**Land Transfer Act 1952**

960/810
1210/471

3.40 20.JAN99 D 349890 4

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY NORTH AUCKLAND
ASST LAND REGISTRAR

1210/471
960/810
Covenants covered

| Law Firm Acting |
| --- |
| URLICH McNAB KILPATRICK<br>SOLICITORS<br>WHANGAREI |

Auckland District Law Society
REF: 4050 /4

**This page is for Land Registry Office use only.**
*(except for "Law Firm Acting")*

LINZ COPY

# CSD Plan - DP 557844

| | |
|---|---|
| **Survey Number** | DP 557844 |
| **Surveyor Reference** | 7749 |
| **Surveyor** | Aaron Robert Donaldson |
| **Survey Firm** | Donaldsons |
| **Surveyor Declaration** | I Aaron Robert Donaldson, being a licensed cadastral surveyor, certify that:<br>(a) this dataset provided by me and its related survey are accurate, correct and in accordance with the Cadastral Survey Act 2002 and the Rules for Cadastral Survey 2010, and<br>(b)the survey was undertaken by me or under my personal direction.<br>Declared on 14 Apr 2021 09:54 AM |

**Survey Details**

| | | | |
|---|---|---|---|
| **Dataset Description** | Lots 1 and 2 being a Subdivision of Lot 1 DP 192248 | | |
| **Purpose** | LT Subdivision | | |
| **Status** | Deposited | **Type** | Survey |
| **Land District** | North Auckland | **Survey Class** | Class B |
| **Meridional Circuit** | Mount Eden 2000 | **Vertical Datum** | None |

**Survey Dates**

| | | | |
|---|---|---|---|
| **Surveyed Date** | 22/12/2020 | **Certified Date** | 14/04/2021 |
| **Submitted Date** | 14/04/2021 09:54:12 | **Survey Approval Date** | 23/04/2021 |
| **Deposit Date** | 15/06/2022 | | |

**Referenced Surveys**

| Survey Number | Land District | Bearing Correction |
|---|---|---|
| DP 192248 | North Auckland | 0°00'00" |
| DP 161190 | North Auckland | 0°00'00" |
| DP 177038 | North Auckland | 0°00'00" |
| DP 87921 | North Auckland | 0°01'00" |
| DP 98255 | North Auckland | 0°01'00" |
| DP 193094 | North Auckland | 0°00'00" |

**Territorial Authorities**

Far North District

**Comprised In**

RT NA121D/471

RT NA121C/673

**Created Parcels**

| Parcels | Parcel Intent | Area | RT Reference |
|---|---|---|---|
| Lot 1 Deposited Plan 557844 | Fee Simple Title | 1.3420 Ha | 978317 |
| Lot 2 Deposited Plan 557844 | Fee Simple Title | 2.1658 Ha | 978318 |
| Area A Deposited Plan 557844 | Easement | | |
| Area C Deposited Plan 557844 | Easement | | |
| **Total Area** | | 3.5078 Ha | |

# Mark and Vector

**Survey Number** DP 557844
**Meridional Circuit** Mount Eden 2000

| From | To | Code | Bearing | | Adpt Surv | Bearing Correction | Distance | | Adpt Surv | Class |
|---|---|---|---|---|---|---|---|---|---|---|
| IB VI DP 98255 | IB II DP 98255 | ob0 | 214°46'00" | A | DP 161190 | 0°00'00" | 345.23 | A | DP 161190 | |
| IB II DP 98255 | IB IV DP 161190 | ob1 | 96°47'30" | A | DP 161190 | 0°00'00" | 162.18 | A | DP 161190 | |
| IB IV DP 161190 | IS III DP 161190 | ob3 | 96°47'30" | A | DP 161190 | 0°00'00" | 6.43 | A | DP 161190 | |
| IS III DP 161190 | IS XVII DP 161190 | ob4 | 121°40'00" | M | | | 218.31 | M | | |
| IS XVII DP 161190 | IB VI DP 98255 | ob5 | 339°29'40" | A | DP 161190 | 0°00'00" | 446.42 | A | DP 161190 | |
| IS XVII DP 161190 | DISK 3 DP 557844 | ob6 | 116°44'00" | M | | | 13.51 | M | | |
| IS XVII DP 161190 | IB 1 DP 557844 | ob7 | 86°10'00" | M | | | 229.16 | M | | |
| IB 1 DP 557844 | IS III DP 161190 | ob9 | 283°28'20" | M | | | 426.18 | M | | |
| IB 1 DP 557844 | IB 2 DP 557844 | ob10 | 275°09'20" | M | | | 412.89 | M | | |
| IB 2 DP 557844 | DISK 9 DP 557844 | ob11 | 159°20'00" | M | | | 14.65 | M | | |
| IB 2 DP 557844 | PEG 10 DP 557844 | ob12 | 308°14'00" | M | | | 13.05 | M | | |
| IB 2 DP 557844 | IB IV DP 161190 | ob13 | 351°18'20" | M | | | 63.67 | M | | |
| IB 2 DP 557844 | IS III DP 161190 | ob14 | 357°01'00" | M | | | 62.26 | M | | |
| IB 2 DP 557844 | IB V DP 161190 | ob15 | 136°43'00" | M | | | 118.72 | M | | |
| IB V DP 161190 | DISK 6 DP 557844 | ob20 | 156°48'00" | M | | | 15.49 | M | | |
| IB V DP 161190 | DISK 7 DP 557844 | ob21 | 244°42'00" | M | | | 9.44 | M | | |
| IB V DP 161190 | DISK 8 DP 557844 | ob22 | 306°08'30" | M | | | 58.18 | M | | |
| IB V DP 161190 | IS VI DP 161190 | ob23 | 93°03'30" | M | | | 44.40 | M | | |
| IS VI DP 161190 | DISK 4 DP 557844 | ob24 | 205°51'00" | M | | | 15.94 | M | | |
| IS VI DP 161190 | DISK 5 DP 557844 | ob25 | 238°44'00" | M | | | 29.62 | M | | |
| IS VI DP 161190 | IS XVII DP 161190 | ob26 | 57°23'00" | M | | | 67.48 | M | | |
| IB 2 DP 557844 | IS VI DP 87921 | ob16 | 87°14'40" | M | | | 16.20 | M | | |
| IS VI DP 87921 | IB V DP 161190 | ob27 | 143°12'30" | A | DP 161190 | 0°00'00" | 108.88 | A | DP 161190 | |
| IB II DP 98255 | IS VI DP 87921 | ob2 | 113°31'00" | A | DP 161190 | 0°00'00" | 203.80 | A | DP 161190 | |
| IB 2 DP 557844 | IS V DP 87921 | ob17 | 343°47'00" | M | | | 61.67 | M | | |
| IS V DP 87921 | IS VI DP 87921 | ob28 | 150°15'00" | A | DP 87921 | 0°00'00" | 67.32 | A | DP 87921 | |
| IS V DP 87921 | PEG (1) DP 87921 | ob29 | 1°21'00" | A | DP 87921 | 0°00'00" | 3.56 | A | DP 87921 | |
| PEG (1) DP 87921 | PEG 1 DP 557844 | ob30 | 139°59'00" | A | DP 87921 | 0°00'00" | 15.71 | C | | Class B |
| PEG 1 DP 557844 | PEG (2) DP 87921 | ob33 | 139°59'00" | A | DP 87921 | 0°00'00" | 35.79 | C | | Class B |
| PEG (2) DP 87921 | IS VI DP 87921 | ob31 | 179°31'00" | A | DP 87921 | 0°01'00" | 22.57 | A | DP 87921 | |

# Mark and Vector

**Survey Number** DP 557844

**Meridional Circuit** Mount Eden 2000

| From | To | Code | Bearing | | Adpt Surv | Bearing Correction | Distance | | Adpt Surv | Class |
|---|---|---|---|---|---|---|---|---|---|---|
| IS XVII DP 161190 | PEG (3) DP 87921 | ob8 | 26°51'00" | M | | | 5.78 | M | | |
| PEG (3) DP 87921 | PEG 11 DP 557844 | ob42 | 105°46'00" | A | DP 161190 | 0°00'00" | 25.12 | A | DP 161190 | Class B |
| PEG 11 DP 557844 | IS XVII DP 161190 | ob43 | 273°34'00" | M | | | 26.84 | M | | |
| PEG (2) DP 87921 | PEG (4) DP 87921 | ob32 | 86°24'00" | A | DP 87921 | 0°00'00" | 15.39 | A | DP 87921 | Class B |
| PEG (4) DP 87921 | PEG (5) DP 87921 | ob46 | 116°34'00" | A | DP 87921 | 0°00'00" | 96.73 | A | DP 87921 | Class B |
| PEG (5) DP 87921 | PEG (3) DP 87921 | ob47 | 112°48'00" | A | DP 87921 | 0°00'00" | 73.03 | A | DP 87921 | Class B |
| PEG 11 DP 557844 | PEG (6) DP 161190 | ob44 | 115°01'00" | A | DP 161190 | 0°00'00" | 64.61 | A | DP 161190 | Class B |
| PEG (6) DP 161190 | PEG (7) DP 161190 | ob48 | 115°01'00" | A | DP 161190 | 0°00'00" | 43.24 | A | DP 161190 | Class B |
| PEG (7) DP 161190 | PEG (8) DP 161190 | ob49 | 267°28'00" | A | DP 193094 | 0°00'00" | 115.09 | A | DP 193094 | Class B |
| PEG (8) DP 161190 | PEG (9) DP 161190 | ob50 | 245°00'30" | A | DP 193094 | 0°00'00" | 85.55 | A | DP 193094 | Class B |
| PEG (9) DP 161190 | PEG (10) DP 161190 | ob51 | 273°41'00" | A | DP 193094 | 0°00'00" | 46.22 | A | DP 193094 | Class B |
| PEG (10) DP 161190 | PEG (11) DP 161190 | ob52 | 313°59'30" | A | DP 193094 | 0°00'00" | 144.99 | A | DP 193094 | Class B |
| PEG (11) DP 161190 | PEG (12) DP 87921 | ob53 | 237°04'00" | A | DP 161190 | 0°00'00" | 5.00 | A | DP 161190 | Class B |
| PEG (12) DP 87921 | PEG (13) DP 193094 | ob54 | 248°20'00" | A | DP 193094 | 0°00'00" | 47.15 | A | DP 193094 | Class B |
| PEG (13) DP 193094 | PEG (14) DP 193094 | ob55 | 215°23'00" | A | DP 193094 | 0°00'00" | 88.24 | A | DP 193094 | Class B |
| PEG (14) DP 193094 | PEG (15) SO 39773 | ob56 | 304°11'00" | A | DP 87921 | 0°00'00" | 137.13 | A | DP 87921 | Class B |
| PEG (15) SO 39773 | PEG (16) DP 87921 | ob57 | 15°40'30" | A | DP 87921 | 0°00'00" | 21.59 | A | DP 87921 | Class B |
| PEG (16) DP 87921 | PEG (17) DP 87921 | ob58 | 126°29'00" | A | DP 87921 | 0°00'00" | 118.94 | A | DP 87921 | Class B |
| PEG (17) DP 87921 | PEG (18) DP 87921 | ob59 | 46°07'00" | A | DP 87921 | 0°00'00" | 94.25 | A | DP 87921 | Class B |
| PEG (18) DP 87921 | PEG (19) DP 161190 | ob60 | 36°38'00" | A | DP 161190 | 0°00'00" | 57.51 | A | DP 161190 | Class B |
| PEG (19) DP 161190 | PEG (20) DP 87921 | ob61 | 25°18'00" | A | DP 161190 | 0°00'00" | 19.37 | A | DP 161190 | Class B |
| PEG (20) DP 87921 | PEG (21) DP 177038 | ob63 | 28°12'00" | A | DP 177038 | 0°00'00" | 33.55 | A | DP 177038 | Class B |
| PEG (21) DP 177038 | PEG (22) DP 177038 | ob64 | 311°14'00" | A | DP 177038 | 0°00'00" | 10.60 | A | DP 177038 | Class B |
| PEG (22) DP 177038 | PEG (23) DP 161190 | ob65 | 302°56'00" | A | DP 177038 | 0°00'00" | 40.23 | A | DP 177038 | Class B |

# Mark and Vector

**Survey Number** DP 557844

**Meridional Circuit** Mount Eden 2000

| From | To | Code | Bearing | | Adpt Surv | Bearing Correction | Distance | | Adpt Surv | Class |
|---|---|---|---|---|---|---|---|---|---|---|
| PEG (23) DP 161190 | PEG (24) DP 177038 | ob66 | 48°21'20" | A | DP 177038 | 0°00'00" | 20.20 | A | DP 177038 | Class B |
| PEG (24) DP 177038 | PEG (1) DP 87921 | ob67 | 139°59'00" | A | DP 192248 | 0°00'00" | 46.80 | A | DP 192248 | Class B |
| PEG (19) DP 161190 | PEG (25) DP 87921 | ob62 | 137°27'00" | A | DP 161190 | 0°00'00" | 28.83 | A | DP 161190 | Class B |
| PEG (25) DP 87921 | PEG (26) DP 161190 | ob68 | 155°20'00" | A | DP 161190 | 0°00'00" | 15.45 | A | DP 161190 | Class B |
| PEG (26) DP 161190 | PEG (27) DP 161190 | ob69 | 133°59'30" | A | DP 161190 | 0°00'00" | 133.14 | A | DP 161190 | Class B |
| PEG (27) DP 161190 | PEG (28) DP 161190 | ob70 | 93°41'00" | A | DP 161190 | 0°00'00" | 33.77 | A | DP 161190 | Class B |
| PEG (28) DP 161190 | PEG (29) DP 161190 | ob71 | 65°00'30" | A | DP 161190 | 0°00'00" | 84.40 | A | DP 161190 | Class B |
| PEG (29) DP 161190 | PEG (6) DP 161190 | ob72 | 87°28'00" | A | DP 161190 | 0°00'00" | 80.73 | A | DP 161190 | Class B |
| DISK 7 DP 557844 | DISK 8 DP 557844 | ob38 | 314°55'30" | C | | | 54.30 | C | | Class B |
| DISK 8 DP 557844 | DISK 9 DP 557844 | ob39 | 322°43'00" | C | | | 48.27 | C | | Class B |
| DISK 9 DP 557844 | PEG 10 DP 557844 | ob40 | 324°42'00" | C | | | 26.69 | C | | Class B |
| PEG 10 DP 557844 | UNMK 1 DP 557844 | ob41 | 4°19'00" | C | | | 33.09 | C | | Class B |
| UNMK 1 DP 557844 | PEG 1 DP 557844 | ob73 | 4°19'00" | C | | | 9.71 | C | | Class B |
| PEG 11 DP 557844 | DISK 3 DP 557844 | ob45 | 253°20'00" | C | | | 15.37 | C | | Class B |
| DISK 3 DP 557844 | DISK 4 DP 557844 | ob34 | 239°31'30" | C | | | 88.01 | C | | Class B |
| DISK 4 DP 557844 | DISK 5 DP 557844 | ob35 | 266°48'00" | C | | | 18.40 | C | | Class B |
| DISK 5 DP 557844 | DISK 6 DP 557844 | ob36 | 285°11'00" | C | | | 13.38 | C | | Class B |
| DISK 6 DP 557844 | DISK 7 DP 557844 | ob37 | 304°53'00" | C | | | 17.84 | C | | Class B |
| UNMK 1 DP 557844 | PEG (21) DP 177038 | ob74 | 319°59'00" | C | | | 19.94 | C | | Class B |
| IB 2 DP 557844 | PEG (2) DP 87921 | ob18 | 34°24'00" | M | | | 28.29 | M | | |
| IB 2 DP 557844 | PEG 1 DP 557844 | ob19 | 352°06'30" | M | | | 51.23 | M | | |

| Mark Name | Description |
|---|---|
| IB 1 DP 557844 | Iron Bar down 0.2 |
| IB 2 DP 557844 | Iron Bar down 0.2 |

# Mark and Vector

| | |
|---|---|
| **Survey Number** | DP 557844 |
| **Meridional Circuit** | Mount Eden 2000 |

| Mark Name | Description |
|---|---|
| PEG 11 DP 557844 | Peg DP 161190 Ren. |

***** End of Report *****

# Schedule / Memorandum

| Land Registration District | Survey Number |
|---|---|
| **North Auckland** | **LT 557844** |

Territorial Authority (the Council)

**Far North District**

## Memorandum of Easements

Last Edited: 23 Dec 2020 09:43:10

| Purpose | Shown | Servient Tenement (Burdened Land) | Dominant Tenement (Benefited Land) |
|---|---|---|---|
| Right of Way & right to convey electricity and telecommunications & right to convey water & right to drain water | C | Lot 2 | Lot 1 |

## Schedule of Existing Easements

Last Edited: 23 Dec 2020 09:46:45

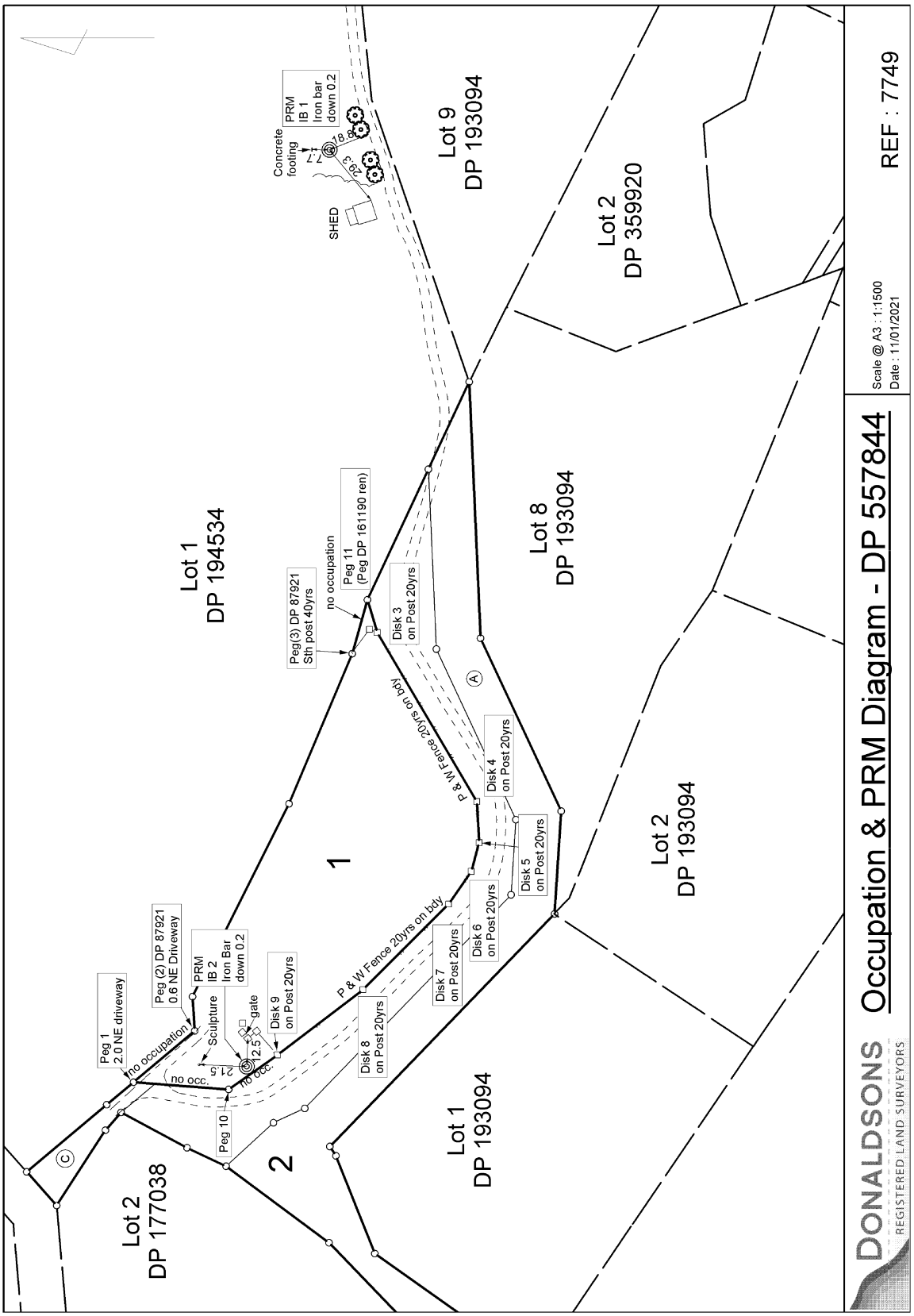
| Purpose | Shown | Servient Tenement (Burdened Land) | Creating Document Reference |
|---|---|---|---|
| Right of way and right to convey water, and electricity & telecommunications | A | Lot 2 | EC D066530.11 |

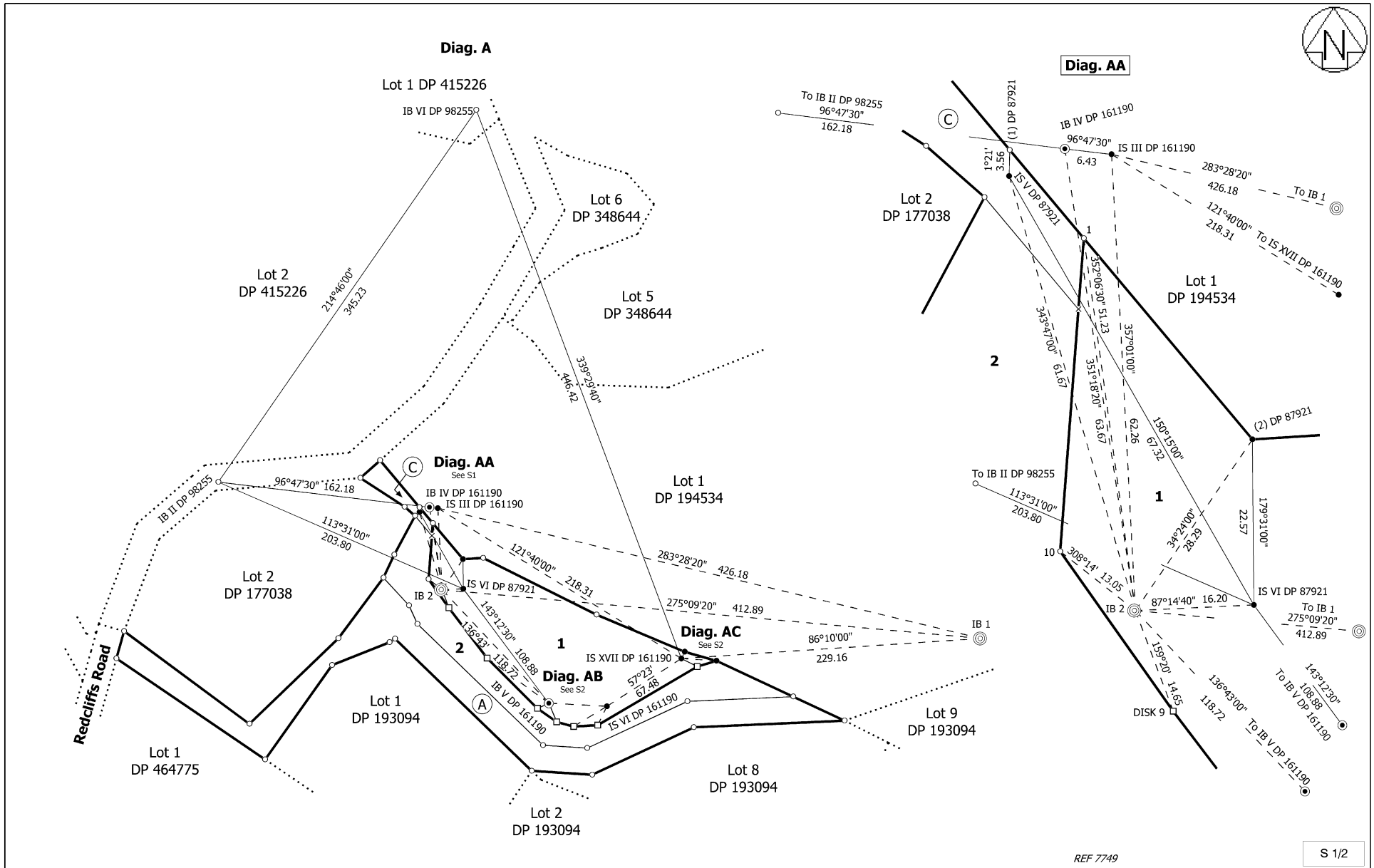
## Notes

Last Edited: 23 Dec 2020 09:49:51

Amalgamation Condition
That Lot 2 be held with Lot 1 DP 194534 and that one record of title be issued to include both parcels.
(CSN Request 1688359)

# Occupation Diagram

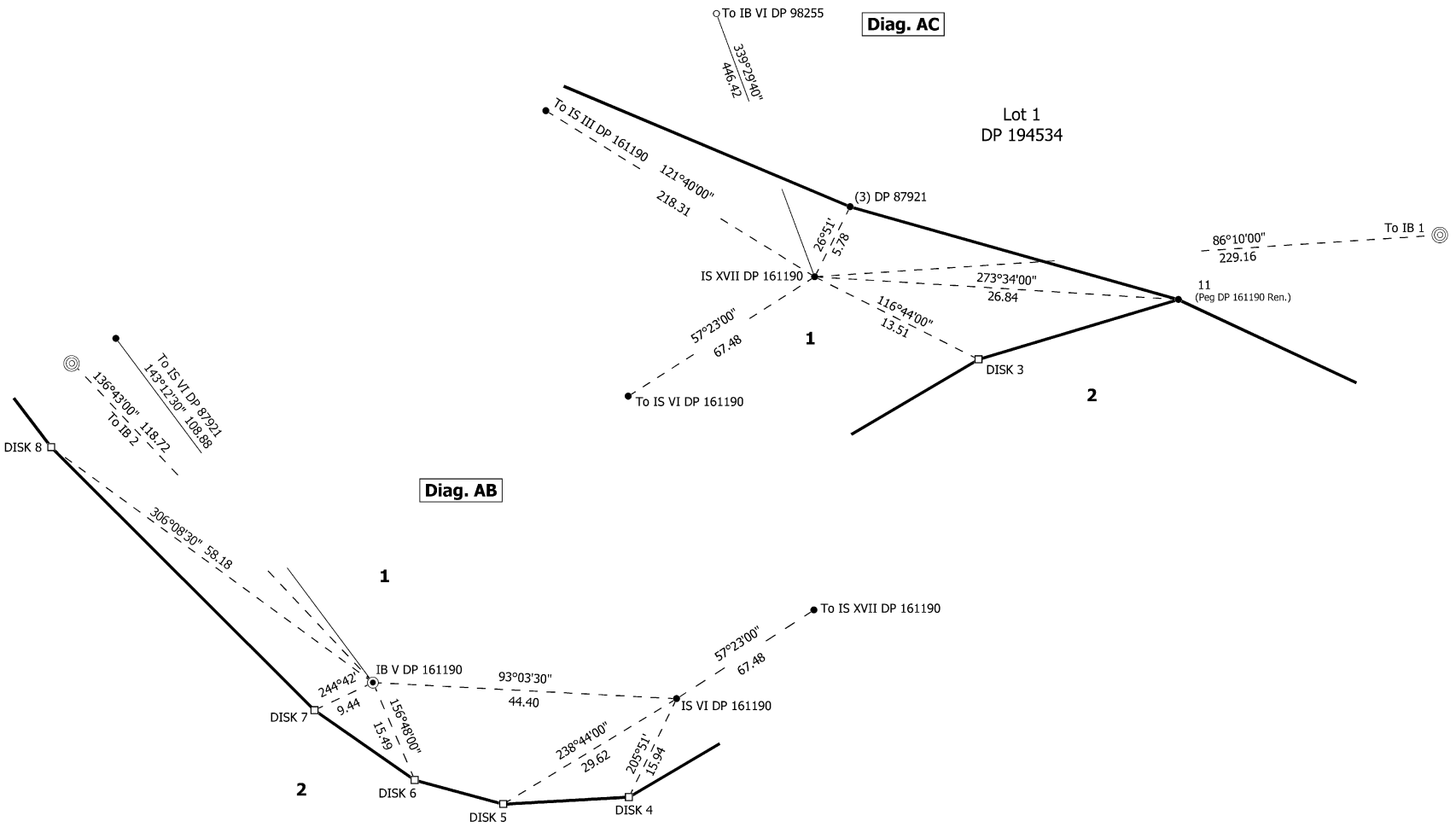





REF 7749

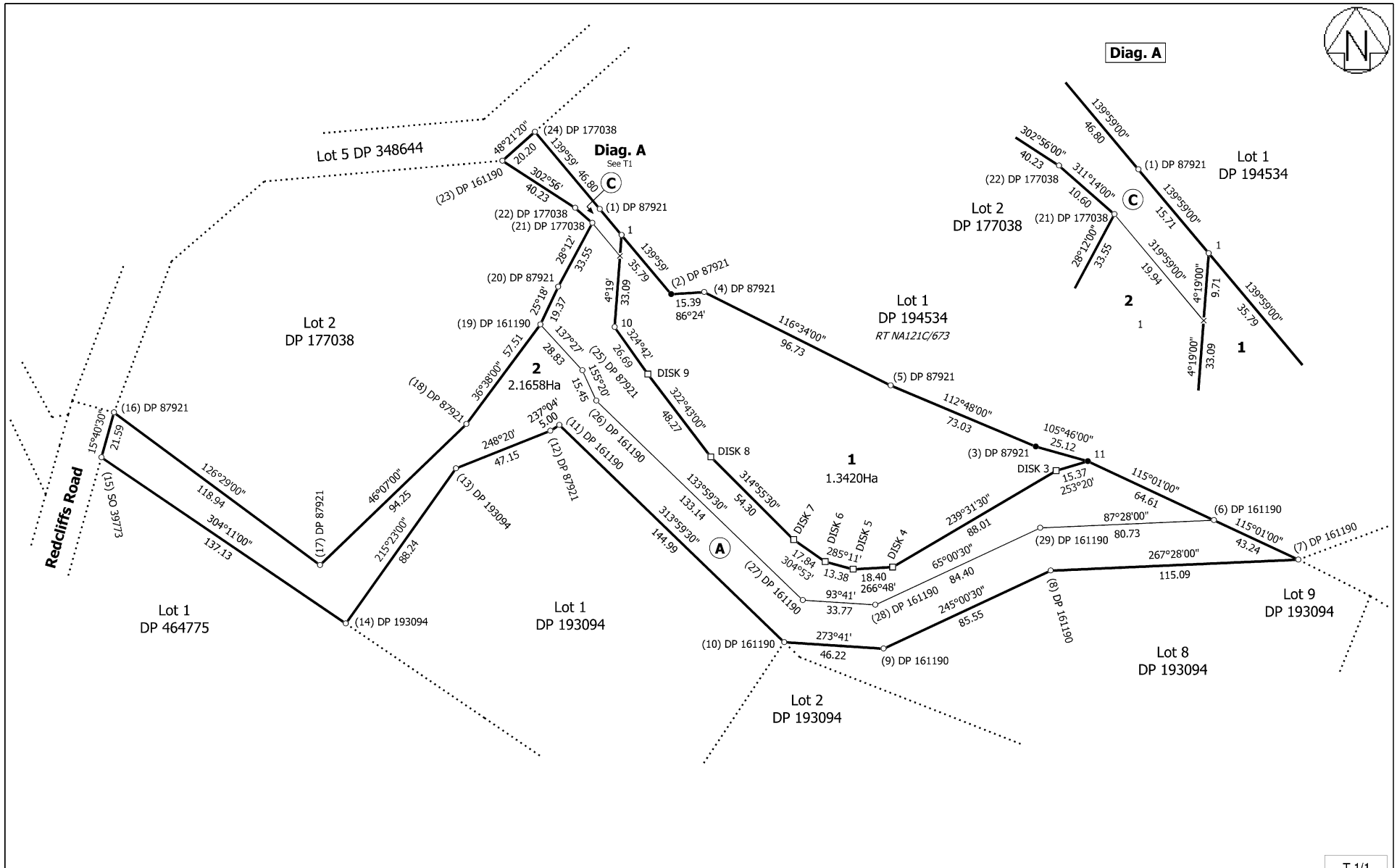
S 1/2

| | | | |
|---|---|---|---|
| Land District: North Auckland<br><br>Digitally Generated Plan<br>Generated on: 07/07/2022 11:23am Page 8 of 10 | Lots 1 and 2 being a Subdivision of Lot 1 DP 192248 | Surveyor: Aaron Robert Donaldson<br>Firm: Donaldsons<br>Survey Date: 22/12/2020 | CSD Plan<br>DP 557844<br><br>Deposited on: 15/06/2022 |

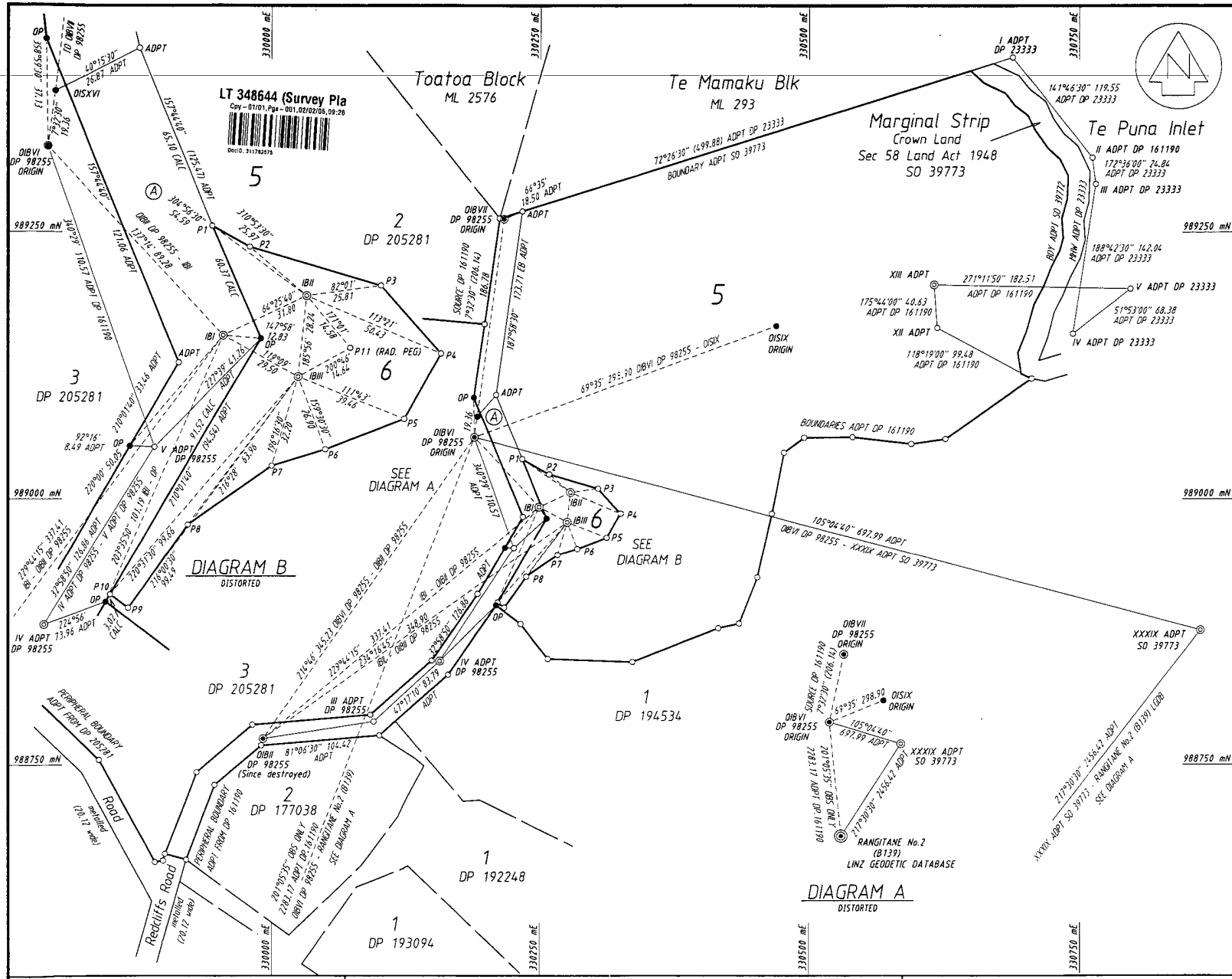



S 2/2

| | | | |
|---|---|---|---|
| Land District: North Auckland<br><br>Digitally Generated Plan<br>Generated on: 07/07/2022 11:23am Page 9 of 10 | Lots 1 and 2 being a Subdivision of Lot 1 DP 192248 | Surveyor: Aaron Robert Donaldson<br>Firm: Donaldsons<br>Survey Date: 22/12/2020 | CSD Plan<br>DP 557844<br><br>Deposited on: 15/06/2022 |




| | | | |
|---|---|---|---|
| Land District: North Auckland<br><br>Digitally Generated Plan<br>Generated on: 07/07/2022 11:23am Page 10 of 10 | Lots 1 and 2 being a Subdivision of Lot 1 DP 192248 | Surveyor: Aaron Robert Donaldson<br>Firm: Donaldsons<br>Survey Date: 22/12/2020 | CSD Plan<br>DP 557844<br><br>Deposited on: 15/06/2022 |




Geodetic Datum 2000
Meridional Circuit Mt.Eden 2000
False Origin : 800,000 mN 400,000 mE
Source of Coordinates : Geodetic Database

| | mN | mE |
|---|---|---|
| RANGITANE No.2 (B139) Origin | 986927.99 | 329367.51 |
| OIBVI DP 98255 | 989057.98 | 330189.12 |
| IBI | 988992.45 | 330249.73 |

Boundaries are not fenced unless otherwise shown

Bearings adopted from DP 98255, SO 39773 & DP 23333 have been adjusted by +01°00" to be in terms of Geodetic 2000 datum.
See DP 161190.

All old marks & adoptions from DP 161190 unless otherwise shown.

Class of Survey : I - Lot 6
III - Lot 5

I, Robert John Donaldson of Kerikeri, being a person entitled to practise as a licensed cadastral surveyor, certify that -
a) The surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor - General's Rules for Cadastral Survey 2002/2
b) This dataset is accurate, and has been created in accordance with that Act and those Rules.

Signed Dated 5/1/05

Field Book ..... p ..... Traverse Book ..... p .....
Reference Plans DP 98255, DP 161190, DP 192248, DP 194329, DP 179691, DP 205281, DP 23333 & SO 39773

Examined ..... Correct .....

Approved as to Survey by Land Information NZ on
16/2/2005

Deposited by Land Information NZ on
1/2/2006

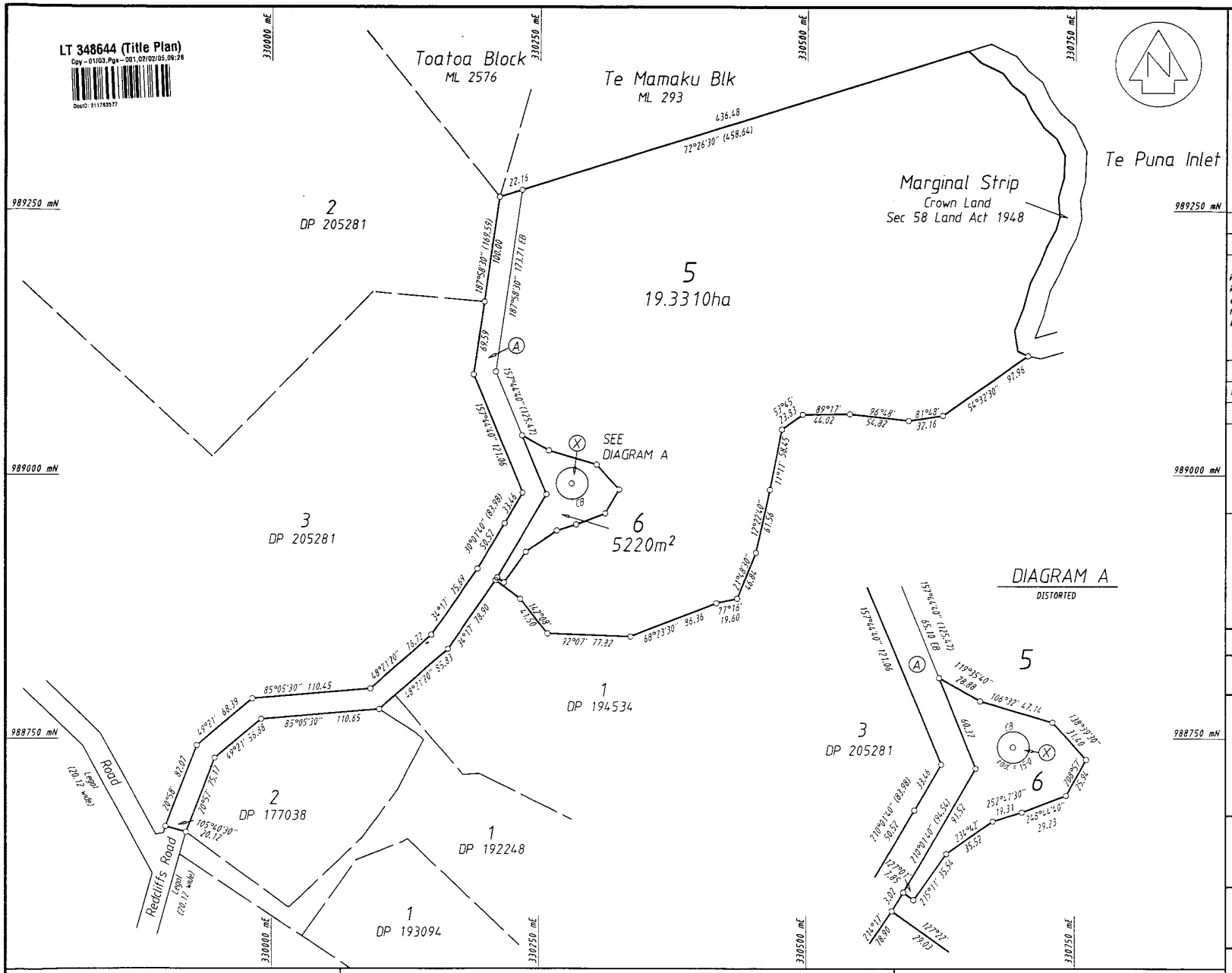
File
Received 02 FEB 2005
Instructions

**DP 348644**

LAND DISTRICT NORTH AUCKLAND

# LOTS 5 & 6 BEING A SUBDIVISION OF LOT 4 DP 161190

TERRITORIAL AUTHORITY FAR NORTH DISTRICT
Surveyed by R. J. DONALDSON & ASSOCIATES Ref. 4524
Scale 1 : 2500 Date DEC 2004




## Approvals

I hereby certify that this plan was approved pursuant to Section 223 of the Resource Management Act 1991 on the 19th day of January 2005 subject to the granting or reserving of the easements set out in the Memorandum endorsed hereon

Authorised Officer

RC.2050058

### MEMORANDUM OF EASEMENTS

| Purpose | Shown | Servient Tenement | Dominant Tenement |
|---|---|---|---|
| Right of Way, Right to transmit electricity, telecommunications & to convey water | (A) | LOT 5 HEREON | LOT 6 HEREON. |

### EXISTING EASEMENTS

| Purpose | Shown | Servient Tenement | Created by |
|---|---|---|---|
| Right of Way, Right to transmit electricity, telecommunications & to convey water | (A) | LOT 5 HEREON | T.D066530.8<br>EC.D066530.11<br>EC.D216287.4<br>EC.D349890.4 |

Area shown (X) subject to Land Covenant (house site) R=15m

New CT Allocations Lot 5 : 199534
Lot 6 : 199535

Class of Survey : I - Lot 6
III - Lot 5

**Total Area** 19.8530ha

**Comprised in** CT 96D/810 (all)

I, Robert John Donaldson of Kerikeri, being a person entitled to practise as a licensed cadastral surveyor, certify that -
a) The surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor - General's Rules for Cadastral Survey 2002/2
b) This dataset is accurate, and has been created in accordance with that Act and those Rules.

Signed Dated 5/1/5

Field Book ..... p ..... Traverse Book ..... p .....
Reference Plans .....

Examined ..... Correct .....

Approved as to Survey by Land Information NZ on
16/2/2005

Deposited by Land Information NZ on
1/2/2006

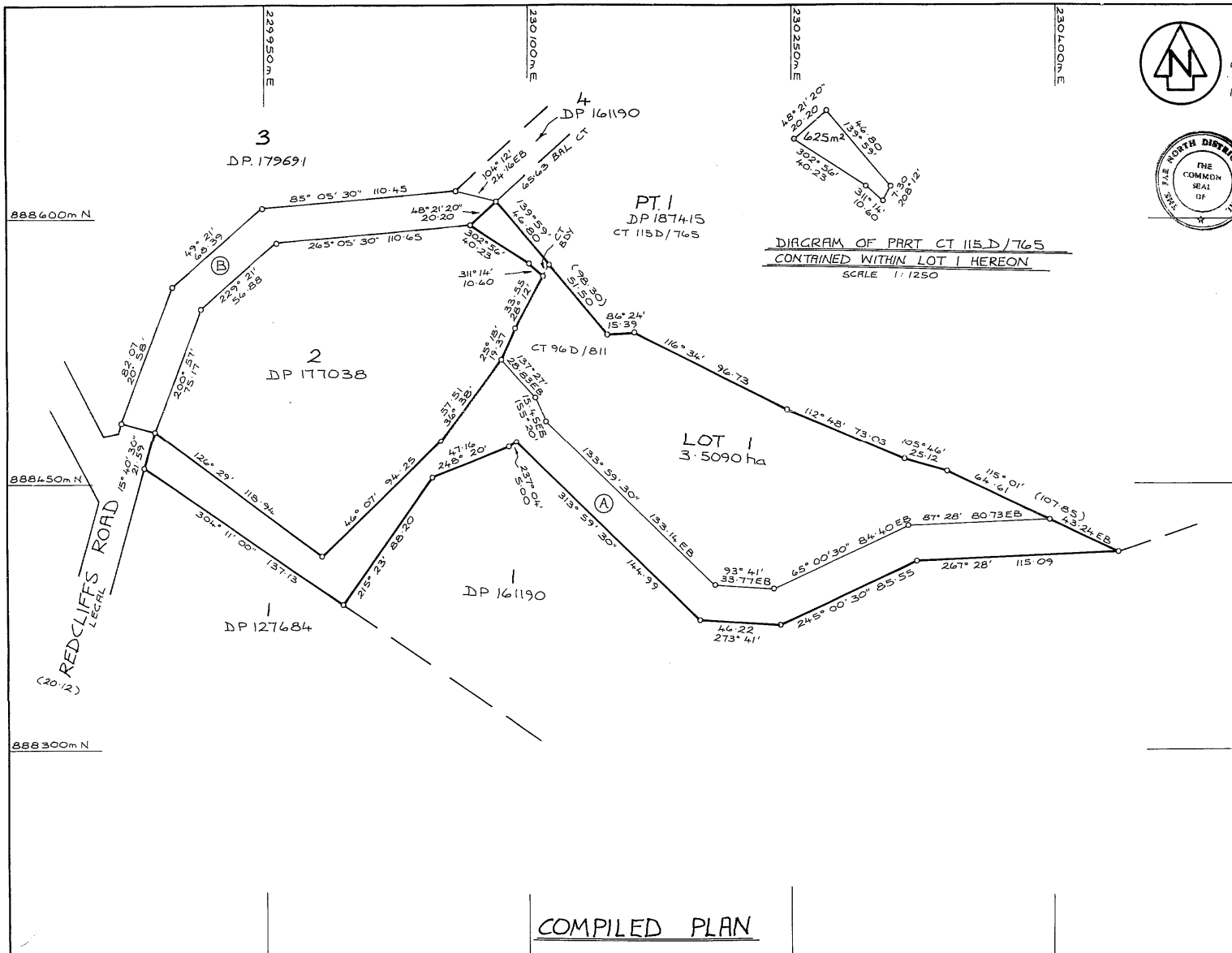
File Received 02 FEB 2005
Instructions

**DP 348644**

LAND DISTRICT NORTH AUCKLAND

# LOTS 5 & 6 BEING A SUBDIVISION OF LOT 4 DP 161190

**TERRITORIAL AUTHORITY** FAR NORTH DISTRICT
**Surveyed by** R.J.DONALDSON & ASSOCIATES Ref. 4524
**Scale** 1 : 2500 **Date** DEC 2004




COMPILED PLAN

**Approvals** REGISTERED OWNERS : R.M.J. URLICH, M.E. FEATHERSTONHAUGH, D.J. ROSS,

APPROVED PURSUANT TO SECTION 223 OF THE RESOURCE MANAGEMENT ACT 1991 ON THE 12th DAY OF March 1998 THE COMMON SEAL OF THE FAR NORTH DISTRICT COUNCIL IS AFFIXED HEREUTO IN THE PRESENCE OF :

AUTHORISED OFFICER (UNDER DELEGATED AUTHORITY) RC 1971027

THE FAR NORTH DISTRICT COUNCIL THE COMMON SEAL OF THE

**PROPOSED EASEMENTS**

| PURPOSE | SERVIENT TENEMENT | SHOWN | DOMINANT TENEMENT |
|---|---|---|---|
| RIGHT OF WAY POWER TELEPHONE WATER SUPPLY. | LOT 4 DP 161190 | B | LOT 1 HEREON |

**EXISTING EASEMENTS.**

| PURPOSE | SHOWN | CREATED BY |
|---|---|---|
| RIGHT OF WAY RIGHT TO TRANSMIT ELECTRICITY & TELECOMMUNICATIONS & RIGHT TO CONVEY WATER | A | D. 111157. 1. |

BEARING DATUM GEODETIC 1949
COORDINATE DATUM GEODETIC 1949
MT EDEN CIRCUIT COORDINATES
ORIGIN MT EDEN 700000mN 300000mE

NEW CT ALLOCATED
LOT 1: 121D/471

Total Area 3.5090ha

Comprised in CT 96D/811 (ALL) & CT 115D/765 (PT)

I, Robert John Donaldson Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.

Dated at Kerikeri this 15th day of February 1998 Signature

Field Book ..... p. ..... Traverse Book 1708. p. 34

Reference Plans DP 161190, 177038, 187415

Examined ..... Correct .....

Approved as to Survey 28/10/1998 Chief Surveyor

Deposited this 20th day of January 1999 District Land Registrar

File 3224 Received 26 SEP 1998 Instructions

DP 192248

LAND DISTRICT NORTH AUCKLAND
SURVEY BLK. & DIST. VIII KERIKERI
NZMS 261 SHT ..... RECORD MAP No POS/7.1.

PLAN OF LOT 1 BEING A SUBDIVISION OF LOT 5 DP161190 & LOT 1 DP187415, & PROPOSED EASEMENTS OVER LOT 4 DP161190.

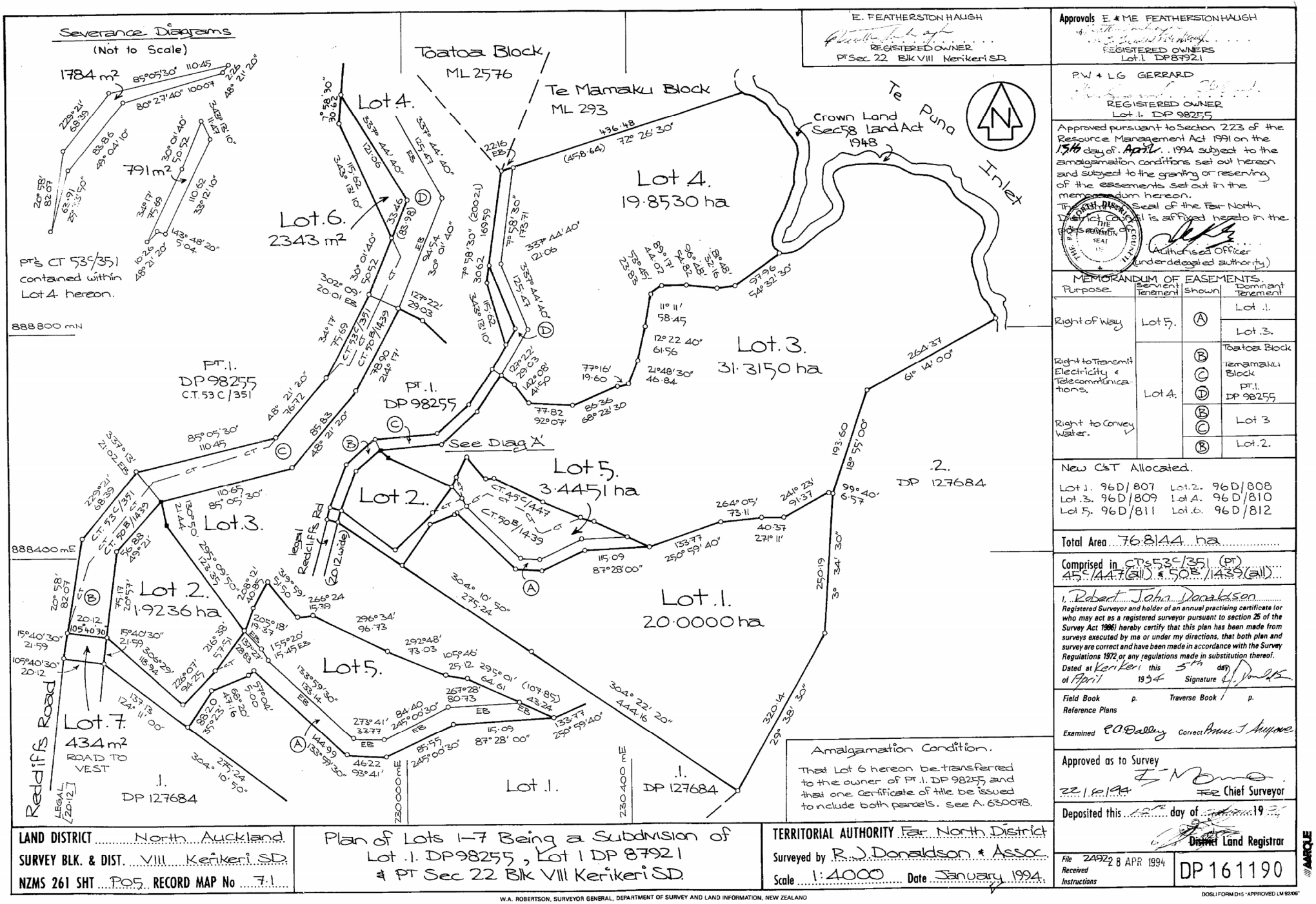
TERRITORIAL AUTHORITY FAR NORTH DISTRICT
Surveyed by R.J. DONALDSON & ASSOC.
Scale 1:1500 Date AUGUST 1997

A.J. BEVIN, SURVEYOR GENERAL, LAND INFORMATION, NEW ZEALAND.

L.I.N.Z. FORM 6/5 "APPROVED M92/03"

AARCYLE

11 FEB 1999




E. FEATHERSTON HAUGH
REGISTERED OWNER
Pt Sec 22 Blk VIII Kerikeri SD

Approvals E. & M.E. FEATHERSTON HAUGH
REGISTERED OWNERS
Lot 1 DP 87921

P.W. & L.G. GERRARD
REGISTERED OWNER
Lot 1. DP 98255

Approved pursuant to Section 223 of the Resource Management Act 1991 on the 15th day of April 1994 subject to the amalgamation conditions set out hereon and subject to the granting or reserving of the easements set out in the memorandum hereon.
The North Shore City Seal of the Far North District Council is affixed hereto in the presence of
Authorised Officer
(under delegated authority)

MEMORANDUM OF EASEMENTS.

| Purpose | Servient Tenement | Shown | Dominant Tenement |
|---|---|---|---|
| Right of Way | Lot 5. | A | Lot 1. |
| | | | Lot 3. |
| Right to Transmit Electricity & Telecommunications. | Lot 4. | B | Toatoa Block |
| | | C | Te Mamaku Block |
| | | D | Pt 1. DP 98255 |
| Right to Convey Water. | | B C | Lot 3 |
| | | B | Lot 2. |

New CsT Allocated.

Lot 1. 96D/807 Lot 2. 96D/808
Lot 3. 96D/809 Lot 4. 96D/810
Lot 5. 96D/811 Lot 6. 96D/812

Total Area 76.8144 ha

Comprised in CTs 53C/351 (Pt) 45C/447 (all) & 50B/1439 (all)

I, Robert John Donaldson
Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to section 25 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.
Dated at Kerikeri this 5th day of April 1994 Signature

Field Book p. Traverse Book p.
Reference Plans
Examined E.O. Dalley Correct Robert J. Donaldson

Approved as to Survey
22/6/1994
FOR Chief Surveyor

Deposited this 22nd day of June 1994
District Land Registrar

File 24972 28 APR 1994
Received
Instructions

DP 161190

Amalgamation Condition.
That Lot 6 hereon be transferred to the owner of Pt 1. DP 98255 and that one certificate of title be issued to include both parcels. See A. 630078.

LAND DISTRICT North Auckland
SURVEY BLK. & DIST. VIII Kerikeri SD
NZMS 261 SHT P05 RECORD MAP No 7.1

Plan of Lots 1–7 Being a Subdivision of Lot 1. DP 98255, Lot 1 DP 87921 & Pt Sec 22 Blk VIII Kerikeri SD.

TERRITORIAL AUTHORITY Far North District
Surveyed by R.J. Donaldson & Assoc.
Scale 1:4000 Date January 1994.

W.A. ROBERTSON, SURVEYOR GENERAL, DEPARTMENT OF SURVEY AND LAND INFORMATION, NEW ZEALAND

DOSLI FORM D15 "APPROVED LM 92/05"

CENTIMETRES 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

19 NOV 1996

## MEMORANDUM OF EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) |
|---|---|---|---|
| RIGHT OF WAY | E | LOT 3 HEREON | LOT 2 HEREON |
| RIGHT OF WAY & RIGHT TO CONVEY WATER, ELECTRICITY AND TELCOMMUNICATIONS | AB, C, E, & F | | |

## SCHEDULE OF EXISTING EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | CREATED BY |
|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | AA & AB | LOT 3 HEREON | EC D066530.11 |
| RIGHT OF WAY & RIGHT TO CONVEY ELECTRICITY AND TELECOMMUNICATIONS & RIGHT TO CONVEY WATER & RIGHT TO DRAIN WATER | C | | EI 12468770.3 |

## SCHEDULE OF EXISTING APPURTENANT EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) | CREATED BY |
|---|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | B DP 192248 | LOT 5 DP 348644 | PART LOT 1 AND PART LOT 3 HEREON | EC D349890.4 |
| | B DP 161190 AND C DP 161190 | | PART LOT 1, LOT 2 AND PART LOT 3 HEREON | EC D066530.11 |

## SCHEDULE OF PROPOSED LAND COVENANT AREAS FOR THE PROTECTION OF NATIVE VEGETATION

| SHOWN | SERVIENT TENEMENT (BURDENED LAND) | AREA (ha) (SUBJECT TO SURVEY) |
|---|---|---|
| CA | LOT 1 HEREON | 0.2 |
| CB | LOT 1 HEREON | 1.0 |
| CC | LOT 2 HEREON | 8.1 |
| CD | LOT 3 HEREON | 4.1 |
| CE | LOT 3 HEREON | 1.3 |

REFER TO SC02 FOR EASEMENT DETAILS

2 DP 205281

5 DP 348644

1 DP 415226

6 DP 348644

CROWN LAND SURVEY OFFICE PLAN 39773 (MARGINAL STRIP)

LOT 3
16.91ha

LOT 2
10.99ha

LOT 1
6.02ha

5 DP 348644

C DP 557844

2 DP 177038

RT 978318
RT 978317

REDCLIFFS ROAD

1 DP 193094

8 DP 193094

2 DP 193094

9 DP 193094

2 DP 359920

EXTENT OF DETAIL: EXTENT OF LOT 3

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED



## NOTES:

1. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
2. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
3. ALL EASEMENTS, COVENANTS AND OTHER LEGAL INSTRUMENTS ASSOCIATED WITH THIS SITE MAY NOT BE SHOWN ON THIS PLAN. AN INVESTIGATION OF THE MOST CURRENT LEGAL RECORDS SHOULD BE UNDERTAKEN PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
4. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.
5. THIS PLAN IS ISSUED FOR A SPECIFIC PROJECT AND MAY NOT BE ALTERED OR USED FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF HARRISON GRIERSON.
6. LEGAL DESCRIPTION
   LOT 1 DP 194534 AND LOTS 1 AND 2 DP 557844
   COMPRISED IN RT's 978317 AND 978318
   TOTAL AREA 34.16ha
7. THE CONTOURS SHOWN HAVE BEEN DERIVED FROM EXTERNAL OPEN SOURCED RECORDS AND HAVE NOT BEEN GROUND VERIFIED
8. AREAS CA, CB, CC, CD, AND CE ARE SUBJECT TO LAND CONVENANT FOR PROTECTION, MANAGING AND ENHANCING INDIGENOUS VEGETATION AND HABITAT
9. LAND COVENANT BOUNDARIES ARE APPROXIMATE ONLY AND HAVE BEEN DERIVED FROM THE FAR NORTH DISTRICT PLAN, FIGURE 1: RANGITANE SHRUBLANDS (PNAP P05/87) INFORMATION. BOUNDARIES TO FOLLOW SITE OCCUPATION AND TO BE DETERMINED AT THE LAND TRANSFER STAGE

SHEET 1 OF 2

HARRISON GRIERSON
AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR RESOURCE CONSENT | JCM | 27.11.25 |

PROJECT:

J.BUDDEN AND T.KEMP
438B REDCLIFFS ROAD
KERIKERI

TITLE:

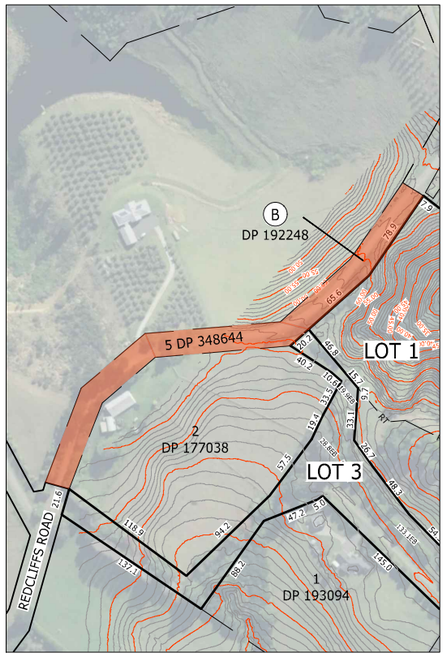
PROPOSED SCHEME PLAN
OF LOTS 1 - 3 BEING A SUBDIVISION OF
LOT 1 DP 194534 AND LOTS 1 & 2 DP 557844

| | | | |
|---|---|---|---|
| ORIGINATOR: JCM | DATE: 11.2025 | SIGNED: | PLOT BY: CEA |
| DRAWN: CEA | DATE: 11.2025 | SIGNED: | PLOT DATE: 27.11.25 |
| CHECKED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY BY: XXX |
| APPROVED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY DATE: XXX |

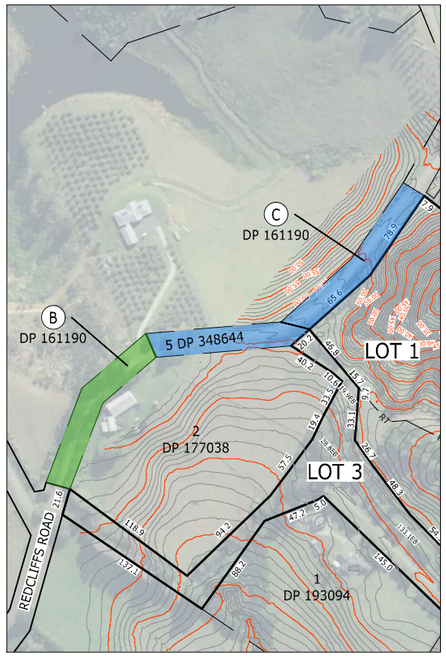
ISSUE STATUS: FOR RESOURCE CONSENT

| PROJECT No: | SCALES: | |
|---|---|---|
| A2415321.00 | 1:1500-A1<br>1:3000-A3 | A1 |

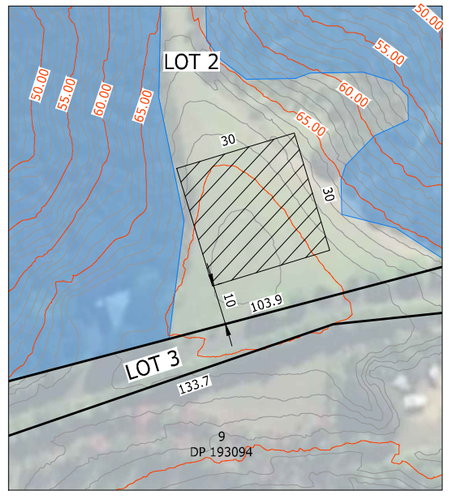
DRAWING No: A2415321-HG-XX-DR-XX-G-SC01 REV A




EASEMENT DETAIL: AREA B DP 192248




EASEMENT DETAIL: AREA B AND C DP 161190




LOT 2 PLATFORM DETAIL

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED



## NOTES:

1. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
2. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
3. ALL EASEMENTS, COVENANTS AND OTHER LEGAL INSTRUMENTS ASSOCIATED WITH THIS SITE MAY NOT BE SHOWN ON THIS PLAN. AN INVESTIGATION OF THE MOST CURRENT LEGAL RECORDS SHOULD BE UNDERTAKEN PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
4. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.
5. THIS PLAN IS ISSUED FOR A SPECIFIC PROJECT AND MAY NOT BE ALTERED OR USED FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF HARRISON GRIERSON.
6. LEGAL DESCRIPTION
   LOT 1 DP 194534 AND LOTS 1 AND 2 DP 557844
   COMPRISED IN RT's 978317 AND 978318
   TOTAL AREA 34.16ha
7. THE CONTOURS SHOWN HAVE BEEN DERIVED FROM EXTERNAL OPEN SOURCED RECORDS AND HAVE NOT BEEN GROUND VERIFIED
8. AREAS CA, CB, CC, CD, AND CE ARE SUBJECT TO LAND CONVENANT FOR PROTECTION, MANAGING AND ENHANCING INDIGENOUS VEGETATION AND HABITAT
9. LAND COVENANT BOUNDARIES ARE APPROXIMATE ONLY AND HAVE BEEN DERIVED FROM THE FAR NORTH DISTRICT PLAN, FIGURE 1: RANGITANE SHRUBLANDS (PNAP P05/87) INFORMATION. BOUNDARIES TO FOLLOW SITE OCCUPATION AND TO BE DETERMINED AT THE LAND TRANSFER STAGE

SHEET 2 OF 2

HARRISON GRIERSON
AUCKLAND OFFICE
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Parnell, Auckland 1052
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W www.harrisongrierson.com

| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR RESOURCE CONSENT | JCM | 27.11.25 |

PROJECT:

438B REDCLIFFS ROAD
KERIKERI

TITLE:

PROPOSED SCHEME PLAN DETAILS
OF LOTS 1 - 3 BEING A SUBDIVISION OF
LOT 1 DP 194534 AND LOTS 1 & 2 DP 557844

| | | | |
|---|---|---|---|
| ORIGINATOR: JCM | DATE: 11.2025 | SIGNED: | PLOT BY: CEA |
| DRAWN: CEA | DATE: 11.2025 | SIGNED: | PLOT DATE: 27.11.25 |
| CHECKED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY BY: XXX |
| APPROVED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY DATE: XXX |

ISSUE STATUS: FOR RESOURCE CONSENT

| | | |
|---|---|---|
| PROJECT No: A2415321.00 | SCALES: NOT TO SCALE | A1 |
| DRAWING No: A2415321-HG-XX-DR-XX-G-SC02 | | REV A |

Far North District Council

Far North District Council

**FAR NORTH DISTRICT COUNCIL**

**FAR NORTH OPERATIVE DISTRICT PLAN**

**DECISION ON RESOURCE CONSENT APPLICATION (SUBDIVISION)**

**Resource Consent Number: 2300253-RMASUB**

**Pursuant to section 104 A, and D of the Resource Management Act 1991 (the Act), the Far North District Council hereby grants resource consent to:**

**Gabriele Barth**

**The activity to which this decision relates:** To undertake a Non-Complying boundary adjustment in the General Coastal Zone

**Subject Site Details**

| | |
|---|---|
| Address: | **412 Redcliffs Road, Kerikeri** |
| Legal Description: | **LOT 1 DP 192248, LOT 1 DP 194534** |
| Certificate of Title reference: | **NA-121D/471, NA-121C/673** |

**Pursuant to Section 108 of the Act, this consent is issued subject to the following conditions:**

1. The subdivision shall be carried out in accordance with the approved plan of subdivision prepared by Donaldson's Registered Surveyors, referenced Proposed Subdivision of Lot 1 DP 192248, dated 21/10/2020, and attached to this consent with the Council's "Approved Stamp" affixed to it.

2. The survey plan, submitted for approval pursuant to Section 223 of the Act shall show:

   (a) All easements in the memorandum to be duly granted or reserved.

   (b) The endorsement of the following conditional amalgamation, pursuant to Section 220(3) Resource Management Act 1991

   *"That Lot 2 hereon and Lot 1 DP 194534 (RT NA121C/673) by held in the same record of title (CSN Request 1688359)"*

**Advice Notes**

1. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority issued pursuant to that Act. Should any site be inadvertently uncovered, the procedure is that work should cease, with the Trust and local iwi consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of Heritage New Zealand's Archaeological Discovery Protocol (ADP) is attached for your information. This should be made available to all person(s) working on site.

2. The proposed lots gain access from a right of way. In the event of further development consideration should be given as to whether this section of road should be vested as a road.

**Reasons for the Decision**

1. The Council has determined (by way of an earlier report and resolution) that the adverse environmental effects associated with the proposed activity are no more than minor and that there are no affected persons or affected customary rights group or customary marine title group.

2. District Plan Rules Affected:

   District Plan Rules Affected: The proposal passes the tests under s104D for Non-Complying activities.

   Adverse effects will be minor:

   It is considered the relevant and potential effects have been addressed within the assessment of effects above, and it has been concluded that the adverse effects will be less than minor.

   (a) The proposed subdivision will create allotments in keeping with the surrounding development pattern in the area. The coastal/residential character and current use of the area will not change as a result of the subdivision;

   (b) No changes to the existing dwelling and servicing of Lot 1 are proposed.

   (c) The proposal will not result in any adverse social, economic or cultural effects.

   Positive effects of the proposal:
   Under s104(1)(a) the positive and potential effects of the proposal are:

   a) No additional records of title are being created.

   Objectives and policies of the District Plan:
   The following objectives and policies of the District Plan have been considered:

   a) Chapter 10.6 – General Coastal Environment
   b) Chapter 13 – Subdivision

c) Chapter 12 – Natural and Physical Resources

The proposal involves the adjustment of boundaries between two sites which contain residential dwellings which accommodates the physical characteristics of the sites. The proposal will not create an increase in the number of titles. What is currently in existence will remain unchanged as a result of the subdivision. The site is zoned General Coastal; however, the Lot 1 and 2 are not located within the coastal environmental under the Regional Policy Statement maps, however Lot 2 is to be amalgamated with Lot 1 DP 194534 which is located within the coastal environment.

The existing residential dwellings have been in existence for many years and there will be no physical changes to the appearance or layout of the existing dwellings, and services. There is no associated vegetation clearance as part of the proposal as what is currently in existence will remain. There are no known sites of cultural or historic significance within the site, the application. The proposal is not contrary to the relevant objectives and policies of the District Plan.

**Section 104D Assessment**
Pursuant to section 104D of the Resource Management Act 1991 if a proposal is Non-Complying then it must satisfy one or both of the subsections of 104D(1) before a decision can be granted under section 104B of this Act. If the application does not pass either test of the section 104D(1) then the application must be declined.

It is considered that the proposal is not contrary to the Objectives and Policies of the District Plan; and it has been concluded that the adverse effects will be less than minor, as demonstrated above.

3. In accordance with an assessment under s104(1)(b) of the RMA the proposal is consistent with the relevant statutory documents.

    a) The Northland Regional Policy Statement 2018
    b) Northland Regional Plan 2019
    c) New Zealand Coastal Policy Statement 2010

4. In accordance with an assessment under s104(1)(c) of the RMA the following non – statutory documents are considered appropriate. No other non – statutory documents were considered relevant in making this decision.

5. No other matters were considered in relevant in making this decision.

6. Part 2 Matters
The Council has taken into account the purpose & principles outlined in sections 5, 6, 7 & 8 of the Act. It is considered that granting this resource consent application achieves the purpose of the Act.

7. In summary it is considered that the activity is consistent with the sustainable management purpose of the RMA.

**Approval**
This resource consent has been prepared by Whitney Peat Resource Planner and is granted under delegated authority (pursuant to section 34A of the Resource Management Act 1991) from the Far North District Council by:

**Louise Wilson**
**Team Leader Resource Consents**

**Date: 01.04.2021**

**Right of Objection**
If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Resource Management Act 1991) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by Council within 15 working days of the receipt of this decision.

**Lapsing of Consent**
Pursuant to section 125 of the Resource Management Act 1991, this resource consent will lapse 5 years after the date of commencement of consent unless, before the consent lapses;

The consent is given effect to; or

An application is made to the Council to extend the period of consent, and the council decides to grant an extension after taking into account the statutory considerations, set out in section 125(1)(b) of the Resource Management Act 1991.

# Geotechnical Site Assessment Report

## 438B Redcliffs Road, Kerikeri

## Lot 1, Deposited Plan 194534

## For Janine Budden and Tony Kemp

***Haigh Workman reference 25 217***

**January 2026**

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PO Box 89 • 6 Fairway Drive • Kerikeri 0245 • New Zealand

## Revision History

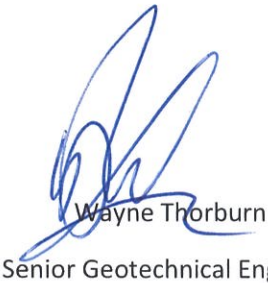
| Revision № | Issued By | Description | Date |
|---|---|---|---|
| A | John Power | Issue | 15/12/2025 |
| B | John Power | Minor edits as required | 27/01/2026 |
| | | | |
| | | | |
| | | | |

Prepared By

John Power

Geologist
Member NZGS

Approved By



Wayne Thorburn

Senior Geotechnical Engineer
CMEngNZ, CPEng, IntPE (NZ)

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# *Executive Summary*

Haigh Workman Ltd (Haigh Workman) have been engaged by Janine Budden and Tony Kemp (the Client) to prepare a geotechnical assessment report for use in support of a Subdivision application for a proposed residential Lot subdivision at 438B Redcliffs Road, Kerikeri.

This report contains information required for subdivisional earthworks, as well as outlining geotechnical design issues that need to be considered for subsequent building design and construction for proposed Lot 2 only. Harrison Grierson Limited have provided the scheme plan.

Subdivisional soil types are considered highly expansive (Class H) based on site observations and experience with nearby residential lots. Due to this classification, soils lie outside the definition of 'good ground' within NZS3604:2011. Building foundations will require either specific foundation design for expansive soils or foundation design in accordance with AS2870:2011 (with updated return periods from B1/AS1) and the New Zealand Building Code B1/AS1.

Subject to design issues outlined in Sections 5, 6 and 7, proposed Lot 2 is considered to have a building platform area suitable for residential development subject to specific geotechnical assessment and foundation design due to the presence of expansive soils and sloping ground. Refer Section 8 for summary of specific site investigation and foundation design requirements.

# 1 Introduction

## 1.1 Project Brief and Scope

Haigh Workman Ltd (Haigh Workman) has been engaged by Janine Budden and Tony Kemp (the Client) to prepare a geotechnical assessment report for use in support of a Resource Consent application for a proposed three (3) Lot subdivision at 438B Redcliffs Road, Kerikeri (Lot 1 DP 194534 and Lot 1 DP 557844). A scheme plan has been produced by Harrison Grierson (Proposed Scheme Plan of Lots 1 – 3 Being a Subdivision of Lot 1, DP 194534 and Lot 1 DP 557844 (dated 12/11/2025)) was made available at the time of writing this report.

This report addresses the suitability of the site for subdivision and subsequent residential development for proposed Lot 2 only, with proposed Lot 1 and Lot 3 being already developed with existing dwellings onsite and therefore do not form part of our scope of work. The scope of this report encompasses the geotechnical suitability in the context of the proposed end use as defined in the Short Form Agreement dated 30 October 2025. This appraisal has been designed to assess the subsoil conditions for foundation design and identify geotechnical constraints for the proposed subdivision.

As part of this assessment, the following work has been undertaken:

- A site walkover inspection of proposed Lot 2.
- A summary of the published geology with reference to the geotechnical investigations undertaken
- Analysis of the data obtained from site investigations and a geological ground model.
- Provide comment on ground stability.
- Geotechnical investigations, including 3 hand auger boreholes to assess near surface subsoil conditions and;
- Identification of any additional geotechnical risks and/or hazards.

This report summarises our findings and recommendations and may be used in Civil design and to support a Subdivision Consent application to Far North District Council.

The principal objectives of the investigation are to develop geotechnical models of the site so that geotechnical constraints to the proposed subdivision can be identified and to provide assurance to Council that a stable building platform is available or can be made available within proposed Lot 2 only. No geotechnical assessments or investigations were undertaken within proposed Lot 1 or proposed Lot 3, being established sites with existing dwellings within the boundaries of proposed Lot 1 and Lot 3.

# 2 Site Description and Proposed Development

## 2.1 General

Site address: 438B Redcliffs Road, Kerikeri

Legal description: Lot 1, DP 194534 and Lot 1, DP 557844.

Site area (combined Lots): 34.16 hectares.

The site is legally described as Lot 1 DP 194534 and Lot 1 DP 557844 with a total land area of 34.16 ha. The property is located 7.8km to the northeast of the Kerikeri Township on the western side of the Te Puna Inlet, east of Redcliffs Road.

The site comprises a large rural block of moderately to steeply rolling hill country. A west to east aligned ridge line forms the southern limits of the property with a two steep sided ridge spurs extending to the north. Dissected valleys either side of the ridge spurs drain to the north and east, draining into the Te Puna Inlet. The gentle to moderate slopes of the ridge spurs are vegetated with a mixture of pasture and mown lawns with some specimen trees located along the southern boundary and internal driveways. Regenerating bush covers much of the steeper slopes of the dissected valleys between the ridge spurs.

The eastern extent of the property is boarded by a small beach and coastline of the Te Puna Inlet. The remainder of the property, to the north and south is bordered by neighbouring rural lifestyle properties comprising pasture and bush blocks. Redcliffs Road forms the western extent of the property. Access to the property is gained from Redcliffs Road, with a sealed driveway closely following the southern property boundary, providing access to the existing dwelling (within proposed Lot 3) located on a broad ridge spur near the eastern extent of the property. A second driveway provides access to the existing dwelling located within proposed Lot 1 in the southwest of the property.

Proposed Lot 2 is to be located between the established dwellings of proposed Lot 1 and Lot 3, and is dominated by a generally broad, gentle to moderate sloping, north trending ridge spur with steeper bush covered slopes to the east and west. We understand that proposed Lot 2 will be accessed off the existing sealed driveway that extends along the southern boundary of proposed Lot 2, (refer Figure 1).

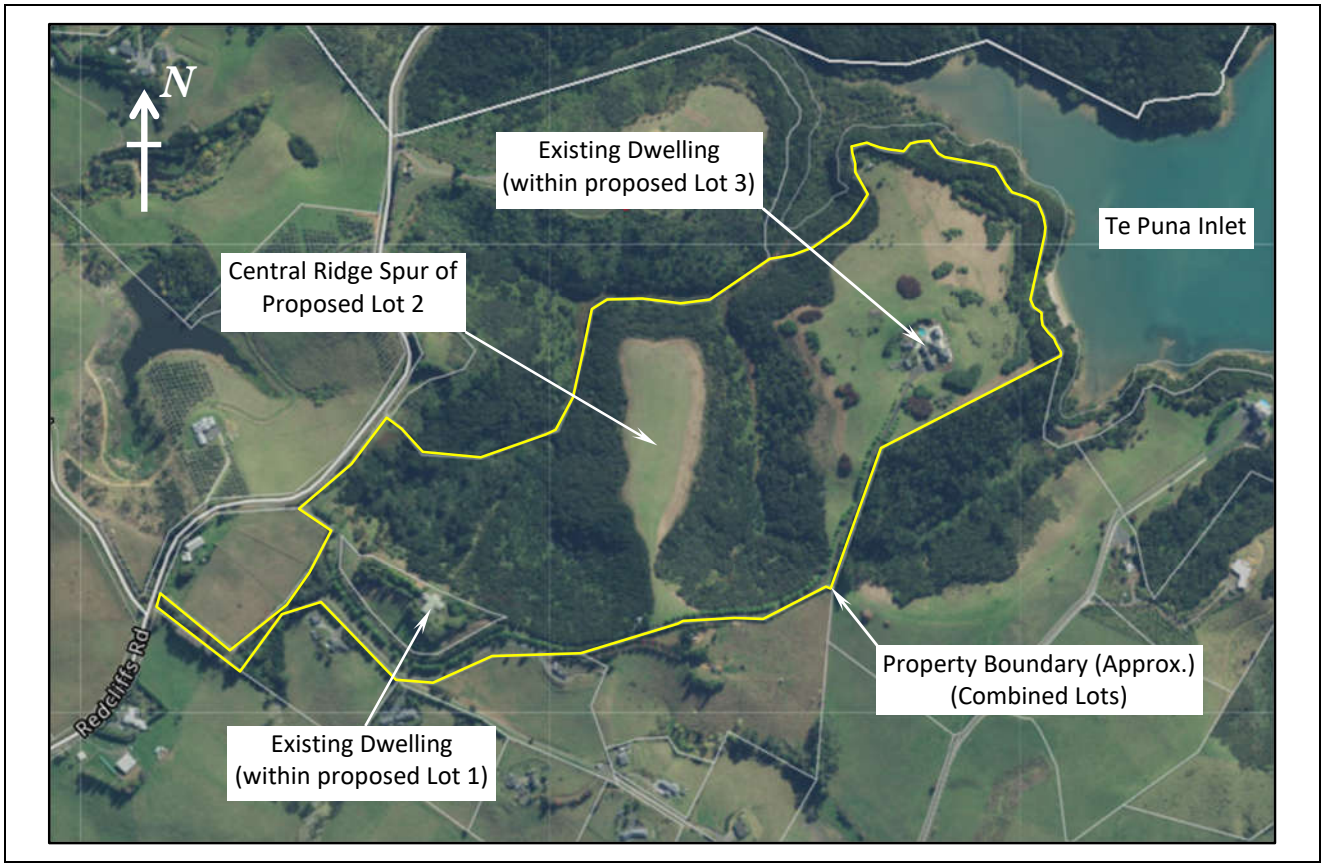


**Figure 1 - Site Location**

## 2.2 Site Walkover

An engineering geologist undertook a site walkover of proposed Lot 2 to determine site features and undertake site mapping. Due to size of proposed Lot 2 and the generally dense bush that covers the steeper slopes to the west, north and east of the Lot, site observations focused on the likely areas of development being the broader grassed areas of the ridge spur through the central part of proposed Lot 2.

No observable slope instability features were identified across the broad ridge spur during the site walkover. However, some instability features , including shallow soil creep, terracette formation and potential small scale, typically shallow failures can be expected within the steeper bush covered areas of proposed Lot 2, i.e., on slopes exceeding 20 degrees.

Based on the existing site topography, existing overland flows flow to the north, down either side of proposed Lot 2, with small creeks and streams forming within the gully features, either side of the central ridge spur that dominates proposed Lot 2. Any overland flows are expected to drain to the northeast, into the shallows of Te Puna Inlet.

# 3 Geology

## 3.1 Published Geology

Sources of Information:

- Institute of Geological & Nuclear Sciences, 1:250,000 Scale, 2009: "*Geology of the Whangarei area*".
- NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1980: "Whangaroa-Kaikohe" (Soils).
- NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1981: "Whangaroa-Kaikohe" (Rocks).

The site is within the bounds of the GNS Geological Map 2 "Geology of the Whangarei area", 1:250,000 scale*. The published geology indicates the site comprises massive to thin bedded, lithic volcaniclastic metasandstone and argillite of the Waipapa Group (TJw), which typically exhibits a deep weathering profile of fine-grained silts and clays. An extract of the geological map is shown in Figure 2 with geological units presented in Table 1.

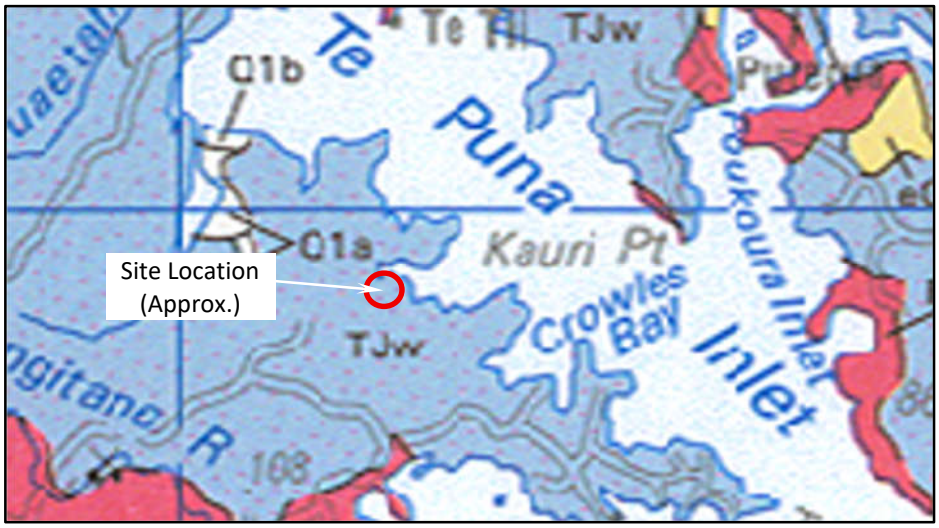


**Figure 2 - Geological Map (Geology of Whangarei area, 1:250,000)**

**Table 1 – Geological Legend**

| Symbol | Unit Name | Description |
|---|---|---|
| **TJw** | Waipapa Group | Massive to thin bedded, lithic volcaniclastic sandstone and argillite (TJw). Permian to Jurassic age. |

* Edbrooke, S.W; Brook, F.J. (compilers) 2009. Geology of the Whangarei area. Institute of Geological and Nuclear Sciences 1:250 000 geological Map 2. 1 sheet + 68 p. Lower Hutt, New Zealand: Institute of GNS Science.

Further reference to the published New Zealand land inventory maps (Whangaroa-Kaikohe), indicates the property is underlain by *'soils of the rolling hill land, imperfectly to very poorly drained Rangiora clay, clay loam and silty clay loam (RAH + RA)'.* The underlying material weathers *'to soft, brown, sandy clay with harder core stones to depths of 30m'.*

## 3.2 Geomorphology and Site Walkover Observations

Proposed Lot 2 is dominated by a generally broad, gentle to moderate sloping, north trending ridge spur with steeper bush covered slopes to the east and west. The proposed development area is located on a 50m (Approx.) wide grassed area at the southern extent of the north/south trending ridge spur. The proposed site sits on typically gentle to moderate (<10°) slopes with steep (>15°) slopes to the east and west, below the existing bush line. The progressively steepening, bush clad slopes descend to the valley floor on either side of the ridge. To the north of the proposed development location, the central ridge spur becomes broader, opening up to grassed, gentle to moderate north facing slope. The flanks of the central ridge spur become steep to very steep below the bush line with slopes in the order of 20 to 25°. Based on the proposed development location, the very steep, west facing slopes pose the greatest threat to the development location in terms of slope stability. We have undertaken a slope stability analysis of the steep west facing slopes immediately below the proposed development location, (refer Section 5).

Based on our site observation, LiDAR data and our understanding of the underlying geology, the site slopes can stand at moderately steep gradients due to the relatively high strength of the underlying Waipapa Group rock mass and residual soils. Shallow instabilities (e.g. terracettes and shallow slumping) within the residual soils of the Waipapa Group are often found on steeper slopes and are indicative of generally shallow soil creep, i.e., slow, downslope movement within the upper soil profile. Within the Waipapa Group residual soils, terracette formation typically start to develop where slopes exceed 18 to 20°, with shallow seated failures generally observed when slope angles exceed 20°.

LiDAR images of the north to south trending ridge spur highlight areas of slope movement below the existing bush line with multiple historic head scarps (red dashed line) apparent on the steep east and west facing slopes below the central ridge (see Figure 3 below). Across the broader grassed slopes of the central ridge spur, no observable instability features could be identified during our site walkover. This is reflected within the LIDAR image below, with no instability features identified along the central grassed ridge spur.

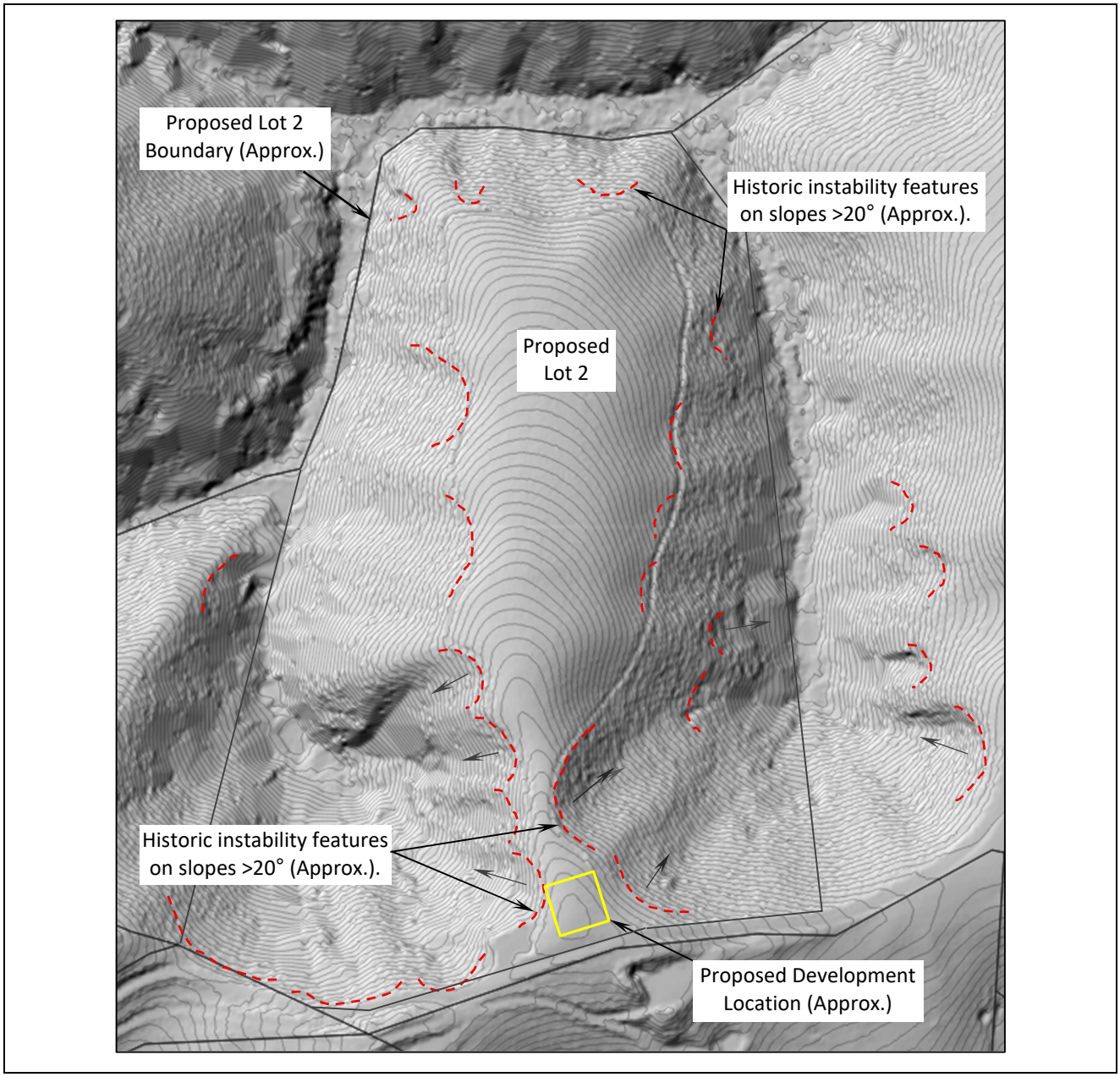


**Figure 3 – Geomorphology of Proposed Lot 2** (GIS LiDAR Image with hill shading and 1.0m Contour).

# 4 Geotech Investigations

## 4.1 Subsurface Investigations

Haigh Workman undertook subsurface investigations on 18 November 2025. The investigations comprised the drilling of three hand augers (BH01, BH02 & BH03) with all three hand augers located within the proposed development area for proposed Lot 2, refer Appendix A. A fourth hand auger, borehole (BH04) was undertaken to confirm subsoil conditions for a potential future wastewater disposal field.

The hand auger boreholes were drilled to a maximum depth of 3.0 metres below ground level (mbgl). Vane shear tests were undertaken within cohesive soils at regular intervals during the advancement of the hand auger boreholes. Unsuccessful tests where soils were too stiff to penetrate with the shear vane are recorded as unable to penetrate (UTP) and are inferred to represent soils with vane shear strengths in excess of 100kPa. All shear strengths shown on the appended logs are Vane Shear Strengths in accordance with NZGS; "Test Method for Determining the Vane Shear Strength of a Cohesive Soil using a Handheld Shear Vane", 2001.

Investigations were logged in accordance with The New Zealand Geotechnical Society, "Guidelines for the Field Classification and Description of Soil and Rock for Engineering Purposes" (2005). Investigation locations are shown on the appended drawings within Appendix A with hand auger borehole logs included within Appendix B.

## 4.2 Ground Conditions

Based on the results of the geotechnical investigation conducted by Haigh Workman and review of published geological maps, it is considered that the soils directly underlying the development area for proposed Lot 2 comprise very stiff natural soils of the Waipapa Group (TJw), below a thin (0.1m to 0.2m) veneer of topsoil. A thin (0.1m) veneer of fill material was found within borehole BH01, with underlying topsoil and Waipapa Group soils encountered beneath the fill material.

For the purposes of this report, subsoil conditions on the site have been interpolated between the boreholes and some variation between borehole positions are likely. Table 2 summarises the materials encountered, with depth to base of each unit provided.

**Table 2 - Summary of Subsoil Conditions**

| Borehole Number | Fill Material (mbgl) | Topsoil (mbgl) | Residual Waipapa Group (mbgl) | Groundwater Observations |
|---|---|---|---|---|
| BH01 | 0.0 to 0.1 | 0.1 to 0.2 | 0.2 to >3.0 | Groundwater not encountered. |
| BH02 | NE | 0.0 to 0.2 | 0.2 to >3.0 | Groundwater not encountered. |
| BH03 | NE | 0.0 to 0.2 | 0.2 to >3.0 | Groundwater not encountered. |
| BH04 (WW) | NE | 0.0 to 0.2 | 0.2 to >2.0 | Groundwater not encountered. |

NE Not Encountered
WW Wastewater

## 4.3 Subsoil Conditions

Based on the results of the geotechnical investigation conducted by Haigh Workman and review of published geological maps, the soils directly underlying the site are considered to comprise residual greywacke of the Waipapa Group.

The delineation between very stiff residual Waipapa Group and hard completely weathered Waipapa Group could not be determined during our site investigations due to the limited information at depth, i.e., less than 3.0 mbgl. However, based on experience of similar sites with the same underlying geology, a deep weathering profile can be assumed with a residual soil, weathered rock transition expected to be in the order of 10.0 m below ground level.

A ground model has been prepared based on the in-situ testing data and available LiDAR data. A geological cross section was developed to undertake slope stability modelling of the steep, west facing slopes below the proposed development location. The geological cross section shows the ground conditions across the site are relatively consistent, underlain by Waipapa Group residual soils. The geological cross section is included within Appendix A.

### 4.3.1 *Fill Material*

Fill material was encountered within hand auger borehole BH01 to 0.1 mbgl. The fill material comprised a brown and orange silt with minor clay content that was stiff, dry and of low plasticity. The fill material encountered is considered to be a mixture of topsoil and re-worked natural soils, placed during minor earthworks operations, likely during formation of the existing sealed driveway to the south of the proposed development area. The fill has been categorised as 'non-certified' and is not considered suitable for the support of foundations.

### 4.3.2 *Topsoil*

A thin veneer of topsoil was encountered within all boreholes to a maximum depth of 0.2 mbgl. The topsoil typically comprised a stiff, brown to dark brown silt that was dry to moist with no plasticity. Immediately below the topsoil, natural soils of the Waipapa Group were encountered.

### 4.3.3 *Waipapa Group Residual Soils*

Natural Waipapa Group residual soils were encountered within all four boreholes (BH01 to BH04). The natural soils typically comprised very stiff clayey silt and silt to a maximum drilled depth of 3.0 mbgl. The recovered soils were generally light brownish orange to light orange, becoming orange and light grey to white with increasing depth. The soils were further described as being moist, becoming moist to wet with increasing depth and having low to medium plasticity.

Vane shear strength test results within the Waipapa Group soils were in excess of 100 kPa, with results ranging from 175 kPa to greater than 204 kPa, indicative of very stiff soils. Unsuccessful tests where soils were too difficult to penetrate with the shear vane were recorded as 'unable to penetrate' (UTP) and are generally inferred to represent soils with vane shear strengths in excess of 100 kPa, i.e., very stiff. Recorded vane shear strengths are shown on the appended borehole logs within Appendix B.

### 4.4 Groundwater

Groundwater was not encountered during our site investigations. No evidence of groundwater seepage or static groundwater level was observed near the ground surface during the drilling of the hand auger boreholes. Soil moisture observations were recorded within the hand auger boreholes, with soils noted as being generally moist, becoming moist to wet with increasing depth. Groundwater levels can and do fluctuate and perched groundwater within the upper clayey layers may be encountered following periods of prolonged or heavy rainfall.

# 5 Geotechnical Assessment

### 5.1 Slope Stability - Visual Assessment (Proposed Lot 2)

The proposed development area for Lot 2 sits on typically gentle to moderate (<10°) north facing grassed slopes. To the east and west of the proposed development area, the existence of any instability features are largely masked by the existing bush cover on steeper slopes. During our site walkover of proposed Lot 2, no observable slope instability features were identified across the broad ridge spur or within the proposed development area for Lot 2.

However, the steep to very steep slopes below the bush line are in the order of 20 to 25° with the very steep, west facing slopes immediately to the west of the proposed development location exhibiting evidence of historic slope instability when viewed using Council LiDAR data (Figure 3). Due to the proximity of the steep west facing slopes to the proposed development location of Lot 2, we have undertaken a slope stability analysis of the steep west facing slopes immediately to the west and below the proposed development location.

### 5.2 Geotechnical Design Parameters

Geotechnical design parameters recommended in this report are based on in-situ test results, back analysis using slope stability models and local knowledge of the underlying geology. Refer Table 3 below for soil parameters adopted within this report.

**Table 3 - Geotechnical Parameters**

| Geological Unit | Bulk Unit Weight, $\gamma$ (kN/m$^3$) | Effective Cohesion, c' (kPa) | Effective Friction Angle, $\varphi$' (degrees) | Groundwater |
|---|---|---|---|---|
| Waipapa Group Residual Soils (Very stiff) | 18 | 7 | 32 | Ru 0.15 (0.3)* |
| Waipapa Group Residual Soils (Hard) | 18 | 10 | 34 | Water Surface (Assumed) |

Notes: * Values are for design groundwater. Parenthesis values represent elevated groundwater conditions.

For modelling purposes, we have assumed the proposed development at Lot 2 will comprise a single storey building located within the proposed development area (30m x 30m). We have adopted a surcharge of 10kN/m$^2$ for a potential future building at the site.

## 5.3 Seismic Hazard

Anticipated peak ground acceleration has been taken from Module 1: Overview of the guidelines – Earthquake geotechnical engineering practice, adopting the mean hazard value of 0.13 g as the principal parameter for pseudo-static analysis (500-year return period). Step-change behaviour response has been assessed adopting the recommended 'lower-bound' value of 0.19 g.

## 5.4 Slope Stability Assessment

### 5.4.1 *General*

We envisage that any future development will be located within the proposed development area (30m x 30m). Site contours across the proposed development area are typically flat to gently sloping to the north at slopes of less than 5° with fall to the east and west towards the eastern and western limits of the proposed development area. Along the western edge of the proposed development area, slope contours become steep to very steep, with slopes descending to the west in the order of 20° to 25°.

No ground instability or soil creep was observed within the proposed development area. However, the steep slopes to the west and east of the proposed development area display evidence of historic slope instability, this was very apparent on slopes steeper than 20 degrees as demonstrated by LiDAR images (Section 3.2). Stability analysis undertaken on the steep west facing slope below the proposed development area highlight the potential for slope instability on the steeper slopes (>20°).

### 5.4.2 *Geological Ground Model*

A simple geological ground model has been developed based on the investigation data and knowledge of the underlying geology of the area. The ground surface has been determined using the available LiDAR data. The purpose of developing the geological ground model was to assess the overall global stability of the west facing slopes for normal and elevated groundwater, and seismic conditions. Stability outputs for all scenarios are included within Appendix C. Geological cross section A-A' was developed for site assessment purposes. Refer Drawing 25 217/G03.

## 5.5 Stability Analysis

### 5.5.1 *Site Stability Assessment*

Stability modelling was undertaken on the west facing slopes below the proposed development area to determine if a safe building platform could be developed, and what engineering / stabilisation would be required to achieve a safe building platform.

Stability modelling was carried out using Slide (version 9.026). Geotechnical design parameters are presented in Table 3 above. A back analysis was undertaken to determine the effective stress parameters, assuming the steep west facing slopes have a factor of near unity (i.e., close to, but greater than 1.0) based on site observations. Selected outputs are presented in Appendix C. Groundwater has been modelled using an assumed groundwater surface, and a pore pressure coefficient (Ru) above the groundwater surface for the elevated groundwater condition, adopting Ru = 0.15 for normal conditions, and 0.30 for elevated conditions.

The criteria adopted for assessing the global stability is outlined in Table 4 below. A 10 kPa uniformly distributed load to the ground surface has been applied to represent a future building on the site.

**Table 4 – Design Factors of Safety (FOS) – FNDC Engineering Standards (NZS4404:2010)**

| Load Case | Design Factor of Safety |
|---|---|
| Static - Proposed development | ≥ 1.5 |
| Static - Elevated groundwater (highest credible groundwater level) | ≥ 1.3 |
| Seismic, 0.13 g (mean hazard level, 500-year return period) | ≥ 1.0* |

* Updated with recommendations from NZGS/MBIE Module 1.

### 5.5.2 *Stability Results*

Results of the stability modelling are summarised in Table 5 and selected outputs are presented in Appendix C.

**Table 5 - Stability results**

| Section I.D. | Scenario | Required | Result | Notes |
|---|---|---|---|---|
| **01** | Existing Site (Back Analysis) | 1.5 | 1.44 (>1.50)* | Ru = 0.15 (Normal groundwater conditions). Failure surfaces with a FOS <1.5 extend 3.8m east of slope crest (i.e., slopes <20°). |
| **02** | Proposed Structure, 10kPa surcharge. Ru = 0.2 (Assumed groundwater conditions). | 1.5 | 1.44 (>1.5)* | Failure surfaces with a FOS <1.5 extend 1.2m inside western edge of proposed development area (5m setback in place). |
| **03** | Proposed Structure, 10kPa surcharge. Ru = 0.35 (Elevated groundwater conditions). | 1.2 | 1.20 (>1.3)* | Failure surfaces with a FOS of <1.2 extend 2.2m inside western edge of proposed development area. 5.0m setback distance recommended. A setback of 5.0m (min) from slopes >20° is required to achieve FOS of >1.3. |
| **04** | Proposed Structure, 10kPa surcharge. Seismic, 0.13g. | 1.0 | 1.08 (>1.0)* | Failure surfaces with a FOS >1.1. OK. (5m setback in place). |
| **04A** | Proposed Structure, Seismic, 0.19g. (Step Change) | | | Failure surfaces with a FOS of <1.0 extend 15.0m inside western edge of proposed development area. |

* ( ) Values in parenthesis are stability result with recommended 5.0m setback distance in place.

Step change behaviour was assessed under seismic conditions by adopting 0.19 g, the results achieved a minimum factor of safety requirement (>1.0).

It is considered, that at present, the broad, gently sloping central areas of the ridge spur, including the majority of the proposed development location is currently stable and suitable for development, provided any proposed structure is located more than 5.0m from the crest of the steeper slopes (>20°) to the west or east of the proposed development location.

Any future development within the proposed development area will be subject to site specific investigations being undertaken at Building Consent stage with specific engineering design of foundations required if founding on sloping ground.

The stability results show acceptable factors of safety can be achieved without ground improvement or stabilisation, provided any proposed structure has a minimum setback distance of 5.0m from the crest of the steep west facing slopes. The crest of the slope is deemed to be any slope greater than 20 degrees, i.e., 5.0m setback from slopes steeper than 20°. The minimum 5.0m setback distance shall apply to all slopes steeper than 20°, or be subject to detailed stability analysis to demonstrate minimum factors of safety can be achieved. Slope stability outputs are included within Appendix E.

# 6 Building Design Considerations

## 6.1 Shrink / Swell Behaviour

The geotechnical investigations undertaken across the site indicate the near surface soils to comprise plastic fine-grained clayey soils. The reactivity and the typical range of movement that could be expected from soils underlying any given building site depend on the amount of clay present, clay mineral type, and proportion, depth, and distribution of clay throughout the soil profile. Moisture changes tend to occur slowly in clays and produce swelling upon wetting and shrinkage upon drying. In addition, subsequent building damage can be limited by good building practice, including wetting of clay subgrade at least 48 hours ahead of base filling and slab preparation.

Apart from seasonal moisture change (wet winters / dry summers) other factors that can influence soil moisture content include:

- Influence of garden watering and site drainage.
- The presence of large trees.
- Initial soil moisture content conditions at construction time.

Visually, expansive soils are noted for developing extensive cracking during dry periods (especially summer through autumn in Northland) and can be locally identified by this feature when sites are excavated and left to dry out.

Based on our knowledge of the underlying Waipapa Group soils and results of laboratory testing on Waipapa Group soils, the foundation soils lie outside the definition of ‘good ground’ as outlined in NZS3604:2011. In terms of B1/AS1, the soils present are considered to lie within Site Class H (highly expansive). Site specific laboratory testing is recommended to confirm engineering properties of the soil. We recommend samples are collected for Atterberg limits and linear shrinkage testing as part of a site specific geotechnical investigation and report to confirm the Site Class.

Accordingly, building foundations on this subdivision will need to be subject to specific foundation design by a Chartered Professional Engineer familiar with the contents of this report. Reference should be made to AS2870:2011 and the New Zealand Building Code (B1/AS1) for assistance.

## 6.2 Seismic Site Subsoil Category

The site comprises fine grained cohesive soils of the Waipapa Group. The site conditions have been assessed to be consistent with seismic subsoil Class C (shallow soil site) in accordance with NZS1170.5.

## 6.3 Liquefaction Potential

Liquefaction potential has been assessed using MBIE guidance: *planning and engineering guidance for potentially liquefaction prone ground*. The published geology and investigation data indicates the site is underlain by residual Waipapa Group soils of late Permian to Jurassic age (145-300 million years) and is not part of a landform that is commonly susceptible to liquefaction. The results of our investigation show the proposed development location is underlain by cohesive soils with a generally deep groundwater level (>3.0m). The site soils are considered too plastic to liquify under seismic conditions. Based on the underlying site soils and the low seismic hazard, we do not consider the proposed development location to be at risk of liquefaction during a seismic event.

## 6.4 Foundations

Ground investigations across the proposed development area identified that the subsoils are suitable for supporting shallow foundations, provided any unsuitable material is removed (i.e., fill and topsoil where encountered) and that any founding subsoils are subject to ground verification.

We recommend the foundations be designed in accordance with AS2870 and B1/AS1 with an allowance for class 'H', 'highly expansive' soil.

Based on the in-situ vane shear testing, an ultimate bearing capacity of 300kPa can be achieved. Shallow foundations will be suitable provided they are designed to mitigate against the seasonal effects of changes in soil moisture (Class H, highly expansive). Any proposed building site will be subject to site specific geotechnical investigations and reporting being undertaken at the Building Consent stage.

## 6.5 Filling and Settlement

Residential dwellings should be designed to tolerate angular distortion as a result of consolidation settlement of up to 1:240 (approximately 25mm over a 6.0m length) as required by the New Zealand Building Code (B1/VM4). Should filling across any proposed development site be considered, then this can result in consolidation settlement of the underlying soils and should be avoided if possible.

Should filling be proposed, then we recommend that a site-specific settlement and stability analyses be undertaken, prior to the placement of any proposed fill, to validate the stability of the site. Any earthworks undertaken shall remove all grass coverings, topsoil and unsuitable material and be approved by a Chartered Professional Engineer.

# 7 Development Recommendations

## 7.1 Earthworks

At the time of writing, no earthworks plans were available for proposed Lot 2. Any earthworks required as part of site developments will be subject to approval by a Chartered Professional Engineer familiar with the contents of this report.

All earthworks should be carried out in accordance with NZS 4404:2010 'Land Development and Subdivision Infrastructure' and NZS 4431:2022, 'Engineered Fill Construction of Lightweight Structures'. It is recommended that any unsuitable material identified during excavation be removed and replaced with granular hardfill or cohesive fill compacted to an engineered standard, under supervision by a Chartered Professional Engineer (CPEng, Geotechnical).

If filling is proposed as a part of site formation works (i.e., a level building platform is to be constructed for shallow foundations), it will be subject to specific design and approval by a Chartered Professional Engineer. Any fill placed beneath or within 1.0 m of any proposed structure, will need verification of compaction and confirmation by the Engineer that filling will not have a negative impact on stability and confirmation that settlement caused by filling will not cause adverse effects to the structure.

## 7.2 Site Trimming

Any topsoil or unsuitable material should be removed from below any proposed structure footprint. Stripped topsoil may be stockpiled away from proposed development areas, to be used as future landscaping material. Topsoil may be used as part of any proposed wastewater disposal field to aid in soakage and evapotranspiration.

## 7.3 Erosion and Sediment Control

Prior to commencing earthworks, a sediment control system needs to be constructed to ensure the Territorial and Regional Authority requirements are met. Typical details can be found in the Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, GD05, 2016. Erosion and sediment control should be undertaken as early as possible before soil particles become dislodged and mobilised. The use of contour drains, mulching and earth bunds to control erosion during the construction phase is recommended, as is maintaining vegetation cover where possible to reduce erosion potential.

## 7.4 Onsite Stormwater Disposal

Control of the stormwater runoff from any proposed development within the proposed Lot 2 will be required as part of the development of the site. It is anticipated that all stormwater runoff from any proposed development within Lot 2 will be channelled to the west or east of the proposed development area.

Concentrated stormwater flows from all impermeable areas must be collected, carried in sealed pipes and discharged in a manner that will not affect the stability of the ground. Concentrated stormwater flows must not be allowed to saturate the ground so as to adversely affect foundation conditions. Design of devices to collect, transport and discharge concentrated flows should be engineered.

### 7.5 Retaining Walls

At the time of writing, no known retaining walls were intended as part of the proposed development. However, it is considered that future retaining walls may be included at the detailed design stage. Should future retaining walls be intended, then, all retaining walls should be designed by a Chartered Professional Engineer familiar with the contents of this report.

Loading from any adjacent structures, traffic, slope surcharges above and/or below retaining wall cuts and fills shall be taken into account during wall design. Battering of cut slopes may be considered as an alternative to retaining walls. Cut slopes may become unstable if left exposed for extended periods of time. Cut sloes should either be battered back to a safe angle of 1V:2H with a maximum height of 2.0m or be retained by a retaining wall designed by a Chartered Professional Engineer with relevant experience in soil mechanics.

### 7.6 Services

All external service connections (power, water supply, stormwater, sewer, communication and others) should be detailed for seasonal movement such as the use of rubber ring joints for stormwater or wastewater, or looped power and water connections. Building foundations within a 45-degree zone of influence from the invert level of any service pipe shall adopt the standard engineering details within the Far North District Council plan and NZS4404:2010.

### 7.7 Planned Vegetation

The foundation designer and architect must take into account the proximity of trees when preparing designs as trees can exacerbate the normal seasonal variation of soil moisture levels and associated with that, the vertical and horizontal movement of the founding soils. Further, mechanical interference with foundations by tree roots should be considered.

### 7.8 Unexpected Ground Conditions

Areas of unsuitable ground could be encountered anywhere on the site during site excavations. If unsuitable material is encountered, the Engineer responsible for providing certification of the earthworks should be contacted immediately to provide advice.

# *8 Conclusion*

Geotechnical investigations indicate that the proposed subdivision to form proposed Lot 2, is stable, and the subsoil properties are appropriate for residential development. The extent of the geotechnical investigations are outlined within this report.

The development will need to be undertaken in accordance with current best engineering practice and the following guidelines applicable to proposed Lot 2:

- The natural ground within the proposed Lot 2 boundaries is considered suitable for residential development of light-framed, flexible clad residential buildings not requiring specific design in terms of NZS3604:2011, subject to the following conditions:

- Proposed Lot 2 will be subject to site specific geotechnical investigations. This recommendation may be superseded if individual engineers are able to demonstrate their specific design solutions are applicable to site soil conditions to the satisfaction of Far North District Council. Specific design may be undertaken by first principles or by reference to AS2870:2011, Section 4 and related documents and the updated return periods provided in B1/AS1.
- Foundation soils lie outside the definition of 'good ground' in NZS3604:2011 due to the presence of expansive clay soils. Soils are considered to lie in Site Class H (highly expansive) as defined in AS2870:2011 and New Zealand Building Code B1/AS1.
- Foundation design should limit the geotechnical ultimate bearing capacity to 300 kPa, with a geotechnical strength reduction factor of 0.5 for limit state design.
- Due to sloping ground across proposed Lot 2, we recommend any proposed structure shall have a minimum setback distance of 5.0m from the crest of slopes steeper than 20 degrees. A minimum 5.0m setback distance shall apply to all slopes steeper than 20°. Should any proposed structure be located less than the recommended 5.0m setback distance, then further engineering assessment and ground stabilisation may be required.
- Due to sloping ground across proposed Lot 2, slab on grade construction will require earthworks with recommendations outlined in Section 7. Problems can occur with slab construction on shrink/swell sensitive soils. In soils which become desiccated in summer, subsequent capillary moisture rise may cause dry soils to wet up and swell, causing slab uplift and building distress. Conversely, construction during winter may result in subgrade soils with high moisture contents drying out through summer, with subsequent soil shrinkage and possible building deformation. The structural engineer should take likely construction timeframes into account and confirm that their design, or construction methodologies, will accommodate the soil shrinkage or swelling that may occur.
- No earthworks involving fills or unsupported cuts in excess of 600mm should take place on proposed Lot 2 unless endorsed by a suitable design undertaken by a Chartered Professional Engineer with suitable geotechnical experience who is familiar with the contents of this report.
- All earthworks should be carried out to the requirements of NZS 4404:2010 'Land Development and Subdivision Infrastructure' and NZS 4431:2022. It is recommended that any unsuitable material identified during excavation be removed and replaced with granular hardfill or cohesive fill compacted to an engineered standard, under supervision by a Chartered Professional Engineer (CPEng, Geotechnical).

- Should future retaining walls be intended, then, all retaining walls should be designed by a Chartered Professional Engineer familiar with the contents of this report.
- Our assessment is based on interpolation between borehole positions and site observations. Local variations in ground conditions may occur. Unfavourable ground conditions may be encountered during earthworks. It is important that we are contacted in this eventuality or if any variation in subsoil conditions from this described in this report are found. Design assistance is available as required to accommodate any unforeseen ground conditions present.

Provided the recommendations in this report are followed, proposed Lot 2 is capable of being developed as proposed. All works should be carried under the guidance of a Chartered Professional Engineer familiar with the contents of this report.

This report is not intended to be used for foundation design, other than provide general framework for building platform suitability. Specific geotechnical investigations are recommended to confirm the subsoil conditions, confirm the soil expansivity, and provide site specific geotechnical recommendations for foundation design.

**Table 6 - Summary of Specific Site Investigation and Foundation Design Requirements**

| Lot No. | Comments on Nominated Building Platform | Shallow Bearing Capacity / Expansive Class | Anticipated scope of additional works following specific investigation and design. [Comments are given as a guide only – specific engineering to be undertaken by a Chartered Professional Engineer |
|---|---|---|---|
| Lot 2 (Proposed) | Detailed within the report. Building platform can be located within the proposed development area (30m x 30m) as shown on the appended drawings. | 300kPa / Class H | Detailed within this report.<br><br>Site specific geotechnical investigations and reporting required at the Building Consent stage. Specific foundation design or minimum 5.0m setback form slopes greater than 20 degrees. |
| Lot 2 (Proposed) | Earthworks | | All earthworks to be under the supervision of a Chartered Professional Engineer (CPEng, Geotechnical). |

# 9 Limitations

This report has been prepared for the use of Janine Budden and Tony Kemp with respect to the brief outlined to us. This report is to be used by our Client and their Consultants and may be relied upon when considering geotechnical advice. Furthermore, this report may be utilised in the preparation of building and/or resource consent applications with local authorities. The information and opinions contained within this report shall not be used in other context for any other purpose without prior review and agreement by Haigh Workman Ltd.

The recommendations given in this report are based on site data from discrete locations. If any changes are made, we must be allowed to review the new development proposal to ensure that the recommendations of this report remain valid Inferences about the subsoil conditions away from the test locations have been made but cannot be guaranteed. We have inferred an appropriate geotechnical model that can be applied for our analyses. However, variations in ground conditions from those described in this report could exist across the site. Should conditions encountered differ to those outlined in this report we ask that we be given the opportunity to review the continued applicability of our recommendations.

# *Appendix A – Drawings*

| Drawing No. | Title |
|---|---|
| 25 217/GEO01 | Site Location Plan |
| 25 217/GEO02 | Site Features and Investigation Location Plan |
| 25 217/GEO03 | Geological Cross Section A-A’ |
| | Proposed Scheme Plan (by Harrison Grierson) |

NOTES:

1. LOT BOUNDARIES AND AERIAL PHOTO INFORMATION TAKEN FROM LAND INFORMATION NEW ZEALAND (LINZ).


| Issue | Date | Revision |
|---|---|---|
| A | 08/12/2025 | FIRST ISSUE |
| | | |
| | | |
| | | |
| | | |

DWG: SITE LOCATION PLAN

Scale 1:2500 @A3 | Date 08/12/2025

Drawn JP | Checked WT | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 -438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\04_GEOTECH\GEO DWGS JP\DWGS JP 20251121 A.DWG

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Project: GEOTECHNICAL SITE ASSESSMENT
438B REDCLIFFS ROAD, KERIKERI (LOT 1, DP194534)

Client: JANINE BUDDEN AND TONY KEMP

Project No. 25 217 | RC no. N/A

DWG No. **G01**

Sheet No. **1** of **3**

Plotted By John Power at 8/12/2025 4:13:02 pm

NOTES:

1. LOT BOUNDARIES AND AERIAL PHOTO INFORMATION TAKEN FROM LAND INFORMATION NEW ZEALAND (LINZ).
2. LOCATIONS HAVE NOT BEEN SURVEYED AND ARE INDICATIVE ONLY.


| Issue | Date | Revision |
|---|---|---|
| A | 08/12/2025 | FIRST ISSUE |

DWG: SITE FEATURES AND INVESTIGATION LOCATION PLAN

Scale 1:1000 @A3 | Date 08/12/2025

Drawn JP | Checked WT | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 -438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\04_GEOTECH\GEO DWGS JP\DWGS JP 20251121 A.DWG


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Project No. 25 217 | RC no. N/A

DWG No. **G02**

Sheet No. **2** of **3**

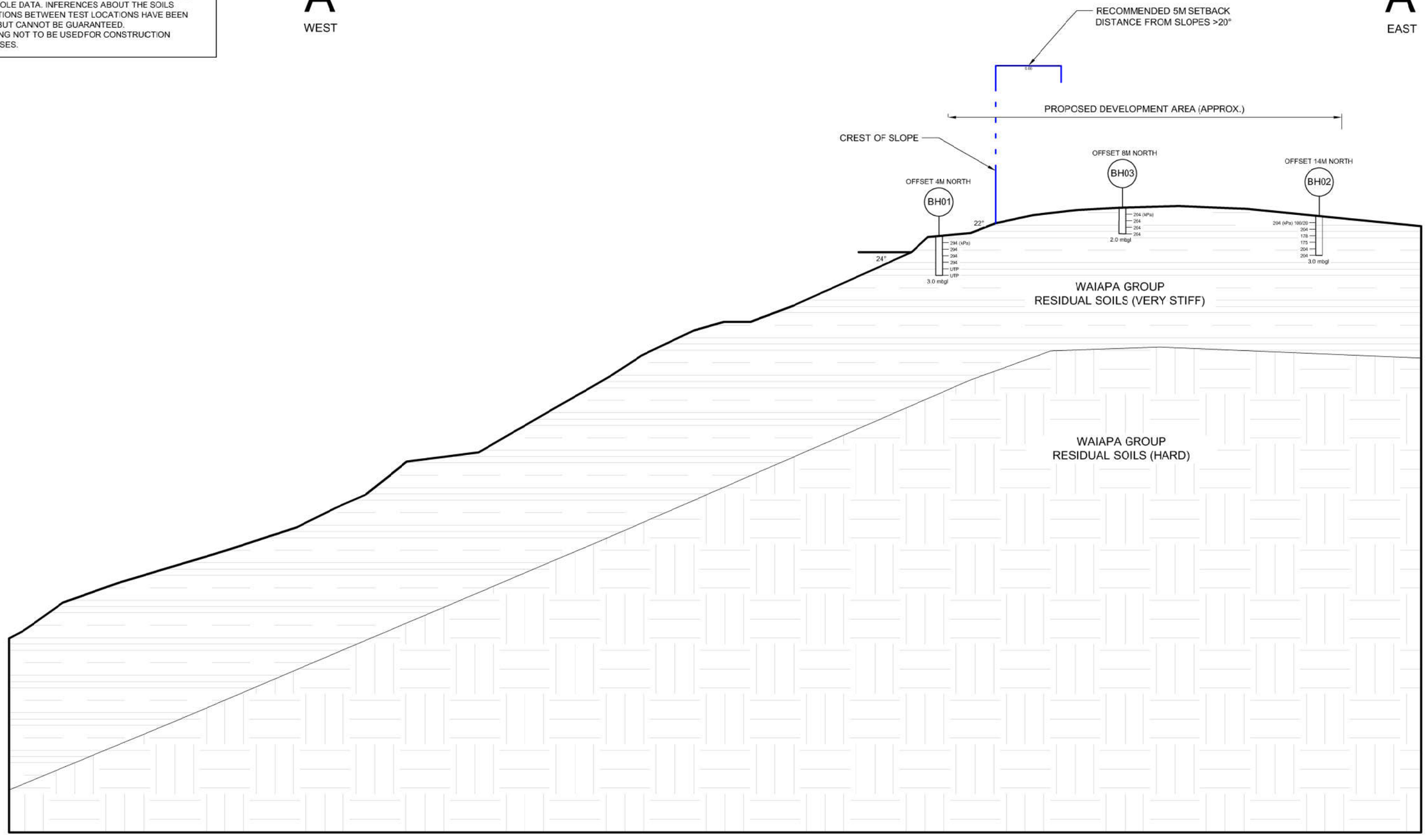
Plotted By John Power at 15/12/2025 12:50:26 pm

NOTES:

1. THIS DRAWING IS BASED ON MEASUREMENTS BY TAPE AND CLINOMETER AND IS APPROXIMATE ONLY.
2. THE GROUND MODEL HAS BEEN INFERRED FROM THE BOREHOLE DATA. INFERENCES ABOUT THE SOILS CONDITIONS BETWEEN TEST LOCATIONS HAVE BEEN MADE BUT CANNOT BE GUARANTEED.
3. DRAWING NOT TO BE USEDFOR CONSTRUCTION PURPOSES.

A
WEST

A'
EAST




| Issue | Date | Revision |
|---|---|---|
| A | 01/01/2024 | FIRST ISSUE |
| | | |
| | | |
| | | |
| | | |

DWG: GEOLOGICAL CROSS SECTION A-A'

Scale 1:300 @A3 | Date 08/12/2025
Drawn JP | Checked WT | Approved JP
File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 -438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\3_GEOTECH\GEO DWGS JP\DWGS JP 20251121 A.DWG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Project: GEOTECHNICAL SITE ASSESSMENT
438B REDCLIFFS ROAD, KERIKERI (LOT 1, DP194534)

Client: JANINE BUDDEN AND TONY KEMP

Project No. 25 217 | RC no. N/A

DWG No. **G03**

Sheet No. **3** of **3**


Plotted By John Power at 15/12/2025 12:58:48 pm

## MEMORANDUM OF EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) |
|---|---|---|---|
| RIGHT OF WAY | E | LOT 3 HEREON | LOT 2 HEREON |
| RIGHT OF WAY & RIGHT TO CONVEY WATER, ELECTRICITY AND TELCOMMUNICATIONS | AB, C, E, & F | | |

## SCHEDULE OF EXISTING EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | CREATED BY |
|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | AA & AB | LOT 3 HEREON | EC D066530.11 |
| RIGHT OF WAY & RIGHT TO CONVEY ELECTRICITY AND TELECOMMUNICATIONS & RIGHT TO CONVEY WATER & RIGHT TO DRAIN WATER | C | | EI 12468770.3 |

## SCHEDULE OF EXISTING APPURTENANT EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) | CREATED BY |
|---|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | B DP 192248 | LOT 5 DP 348644 | PART LOT 1 AND PART LOT 3 HEREON | EC D349890.4 |
| | B DP 161190 AND C DP 161190 | | PART LOT 1, LOT 2 AND PART LOT 3 HEREON | EC D066530.11 |

## SCHEDULE OF PROPOSED LAND COVENANT AREAS FOR THE PROTECTION OF NATIVE VEGETATION

| SHOWN | SERVIENT TENEMENT (BURDENED LAND) | AREA (ha) (SUBJECT TO SURVEY) |
|---|---|---|
| CA | LOT 1 HEREON | 0.2 |
| CB | LOT 1 HEREON | 1.0 |
| CC | LOT 2 HEREON | 8.1 |
| CD | LOT 3 HEREON | 4.1 |
| CE | LOT 3 HEREON | 1.3 |

REFER TO SC02 FOR EASEMENT DETAILS

2 DP 205281

5 DP 348644

1 DP 415226

6 DP 348644

CROWN LAND SURVEY OFFICE PLAN 39773 (MARGINAL STRIP)

LOT 3
16.91ha

LOT 2
10.99ha

LOT 1
6.02ha

5 DP 348644

C DP 557844

2 DP 177038

RT 978318
RT 978317

REDCLIFFS ROAD

1 DP 193094

8 DP 193094

2 DP 193094

9 DP 193094

2 DP 359920

EXTENT OF DETAIL: EXTENT OF LOT 3

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED



## NOTES:

1. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
2. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
3. ALL EASEMENTS, COVENANTS AND OTHER LEGAL INSTRUMENTS ASSOCIATED WITH THIS SITE MAY NOT BE SHOWN ON THIS PLAN. AN INVESTIGATION OF THE MOST CURRENT LEGAL RECORDS SHOULD BE UNDERTAKEN PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
4. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.
5. THIS PLAN IS ISSUED FOR A SPECIFIC PROJECT AND MAY NOT BE ALTERED OR USED FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF HARRISON GRIERSON.
6. LEGAL DESCRIPTION
   LOT 1 DP 194534 AND LOTS 1 AND 2 DP 557844
   COMPRISED IN RT's 978317 AND 978318
   TOTAL AREA 34.16ha
7. THE CONTOURS SHOWN HAVE BEEN DERIVED FROM EXTERNAL OPEN SOURCED RECORDS AND HAVE NOT BEEN GROUND VERIFIED
8. AREAS CA, CB, CC, CD, AND CE ARE SUBJECT TO LAND CONVENANT FOR PROTECTION, MANAGING AND ENHANCING INDIGENOUS VEGETATION AND HABITAT
9. LAND COVENANT BOUNDARIES ARE APPROXIMATE ONLY AND HAVE BEEN DERIVED FROM THE FAR NORTH DISTRICT PLAN, FIGURE 1: RANGITANE SHRUBLANDS (PNAP P05/87) INFORMATION. BOUNDARIES TO FOLLOW SITE OCCUPATION AND TO BE DETERMINED AT THE LAND TRANSFER STAGE

SHEET 1 OF 2

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| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR RESOURCE CONSENT | JCM | 27.11.25 |

PROJECT:

J.BUDDEN AND T.KEMP
438B REDCLIFFS ROAD
KERIKERI

TITLE:

PROPOSED SCHEME PLAN
OF LOTS 1 - 3 BEING A SUBDIVISION OF
LOT 1 DP 194534 AND LOTS 1 & 2 DP 557844

| | | | |
|---|---|---|---|
| ORIGINATOR: JCM | DATE: 11.2025 | SIGNED: | PLOT BY: CEA |
| DRAWN: CEA | DATE: 11.2025 | SIGNED: | PLOT DATE: 27.11.25 |
| CHECKED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY BY: XXX |
| APPROVED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY DATE: XXX |

ISSUE STATUS: FOR RESOURCE CONSENT

| PROJECT No: | SCALES: | |
|---|---|---|
| A2415321.00 | 1:1500-A1<br>1:3000-A3 | A1 |

DRAWING No: A2415321-HG-XX-DR-XX-G-SC01 REV A

# *Appendix B – Hand Auger Logs*

PO Box 89, 0245
6 Fairway Drive
Kerikeri, 0230
New Zealand

HAIGH WORKMAN LTD
Civil & Structural Engineers

Phone 09 407 8327
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# Borehole Log - BH01

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**, minor clay; brown and orange. Stiff, dry, low plasticity. [Fill & Topsoil]

**SILT**, trace clay; brown to dark brown. Stiff, dry to moist, no plasticity. [BT]

Clayey **SILT**; orangish brown, mottled brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes brownish orange, streaked brownish grey. Medium plasticity.

From 0.6m: Becomes light orange to brownish orange, streaked dark orange.

**SILT**, some clay; light orange, mottled dark orange and light grey. Very stiff, moist, low plasticity.

From 1.5m: Becomes moist to wet.

From 1.6m: Becomes orange and light greyish white, streaked black.

From 2.3m: Becomes light orange, streaked orange and white.

From 2.5m: Becomes orange and dark orange, mottled white, streaked black.

From 2.7m: Becomes whitish grey, streaked orange and black.

From 2.8m: Remnant rock fabric visible.

**End of Hole at 3.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: F; BT; WAIPAPA GROUP

Graphic Log

Water Level: Groundwater Not Encountered

Sensitivity

Vane Shear and Remoulded Vane Shear Strengths (kPa): 204, 204, 204, 204, UTP, UTP

Scala Penetrometer (blows/100mm): 0, 5, 10, 15, 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. F = Fill & Topsoil (Intermixed). BT = Buried Topsoil.
Hand Held Shear Vane S/N: DR2220

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# Borehole Log - BH02

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to dark brown. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; light orange to light brownish orange, streaked light brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes light orange, streaked light brownish grey. Medium plasticity.

From 1.1m: Becomes light orange, streaked light pinkish red.

From 1.3m: Becomes streaked light pinkish red and white.

From 1.4m: Becomes pinkish red, streaked light orange and light grey.

**SILT**, some clay; light orange and light pinkish red, streaked white and dark orange. Very stiff, moist to wet, low plasticity.

From 2.1m: Becomes orange, streaked pinkish red and white.

From 2.7m: Becomes dark orange and white, streaked pinkish red.

**End of Hole at 3.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: T.S. / WAIPAPA GROUP

Water Level: Groundwater Not Encountered

| Depth (m) | Sensitivity | Vane Shear (kPa) | Remoulded Vane Shear (kPa) |
|---|---|---|---|
| 0.5 | | 204 | |
| 1.0 | | 204 | |
| 1.5 | 4 | 178 | 50 |
| 2.0 | 4 | 175 | 41 |
| 2.5 | | 204 | |
| 3.0 | | 204 | |

Scala Penetrometer (blows/100mm): 0 5 10 15 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
Hand Held Shear Vane S/N: DR2220

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# Borehole Log - BH03

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to greyish brown, mottled orange. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; brownish orange, mottled greyish brown. Very stiff, moist, low to medium plasticity.

From 0.4m: Becomes light orange to light brownish orange.

From 0.6m: Becomes light orange, streaked light brownish grey and orange.

From 0.8m: Becomes light orange, streaked pinkish orange.

From 1.0m: Becomes light orange, streaked light grey.

**SILT**, some clay; light grey to white, and dark orange. Very stiff, moist, low plasticity.

From 1.8m: Becomes moist to wet.

**End of Hole at 2.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: T.S. / WAIPAPA GROUP

Graphic Log

Water Level: Groundwater Not Encountered

Sensitivity

Vane Shear and Remoulded Vane Shear Strengths (kPa): 204, 204, 204, 204

Scala Penetrometer (blows/100mm): 0, 5, 10, 15, 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
Hand Held Shear Vane S/N: DR2220

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# Borehole Log - BH04

**Hole Location:** Refer to Site Plan

**JOB No.** 25 217

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to dark brown, mottled orange. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; light brownish orange, streaked light greyish brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes light orange, streaked light brownish grey.

From 0.6m: Becomes: orange, streaked light grey and pinkish orange.

From 0.9m: Becomes light yellow orange, streaked light pinkish red.

**End of Hole at 1.2m (Target Depth)**


| Depth (m) | Geology | Graphic Log | Water Level | Sensitivity | Vane Shear and Remoulded Vane Shear Strengths (kPa) | Scala Penetrometer (blows/100mm) |
|---|---|---|---|---|---|---|
| 0.0 | T.S. | | Groundwater Not Encountered | | | 0 5 10 15 20 |
| 0.5 | WAIPAPA GROUP | | | | 204 | |
| 1.0 | | | | | UTP | |
| 1.5 | | | | | UTP | |
| 2.0 | | | | | | |
| 2.5 | | | | | | |
| 3.0 | | | | | | |
| 3.5 | | | | | | |
| 4.0 | | | | | | |
| 4.5 | | | | | | |
| 5.0 | | | | | | |

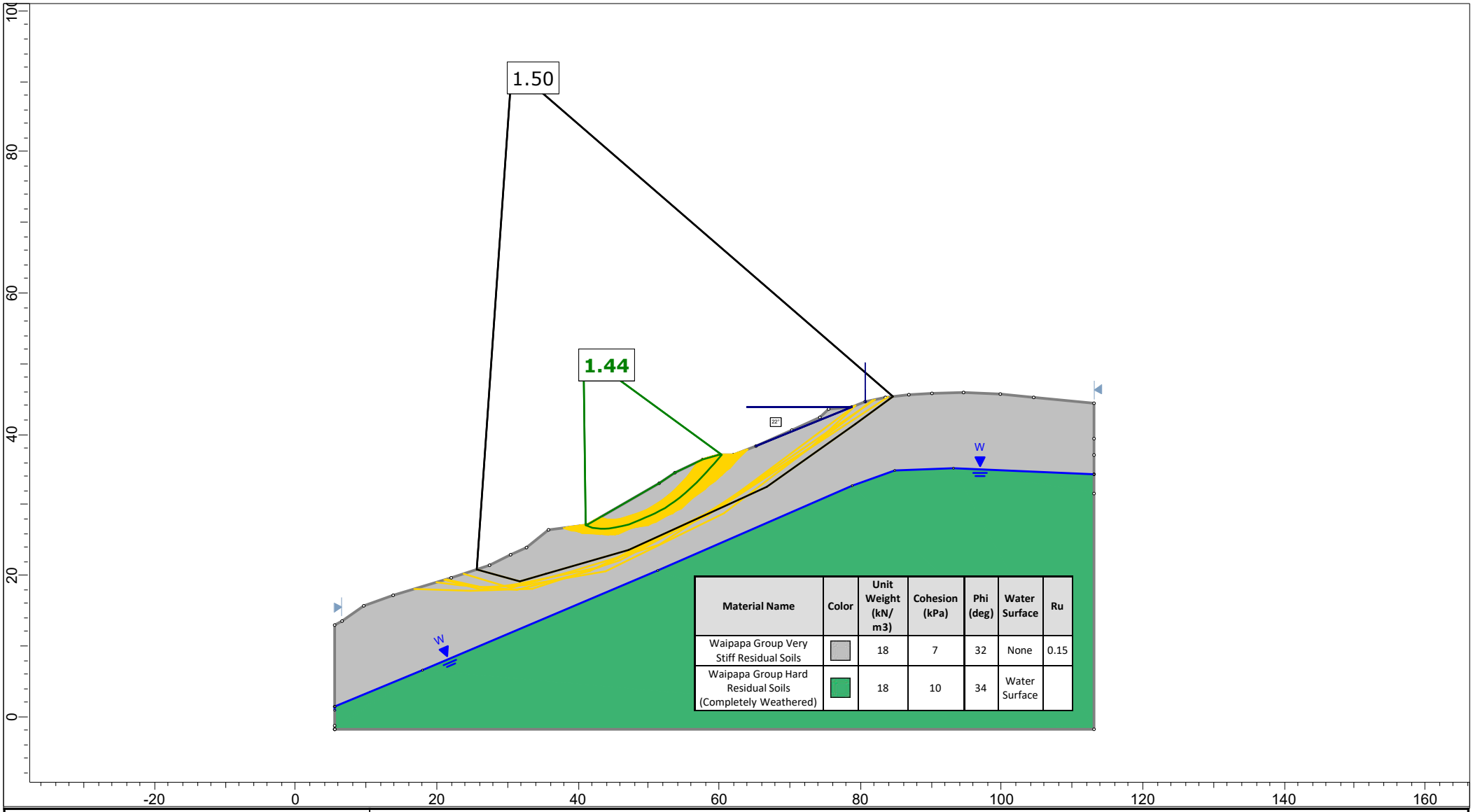
**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
Hand Held Shear Vane S/N: DR2220

# *Appendix C – Slope Stability Models*

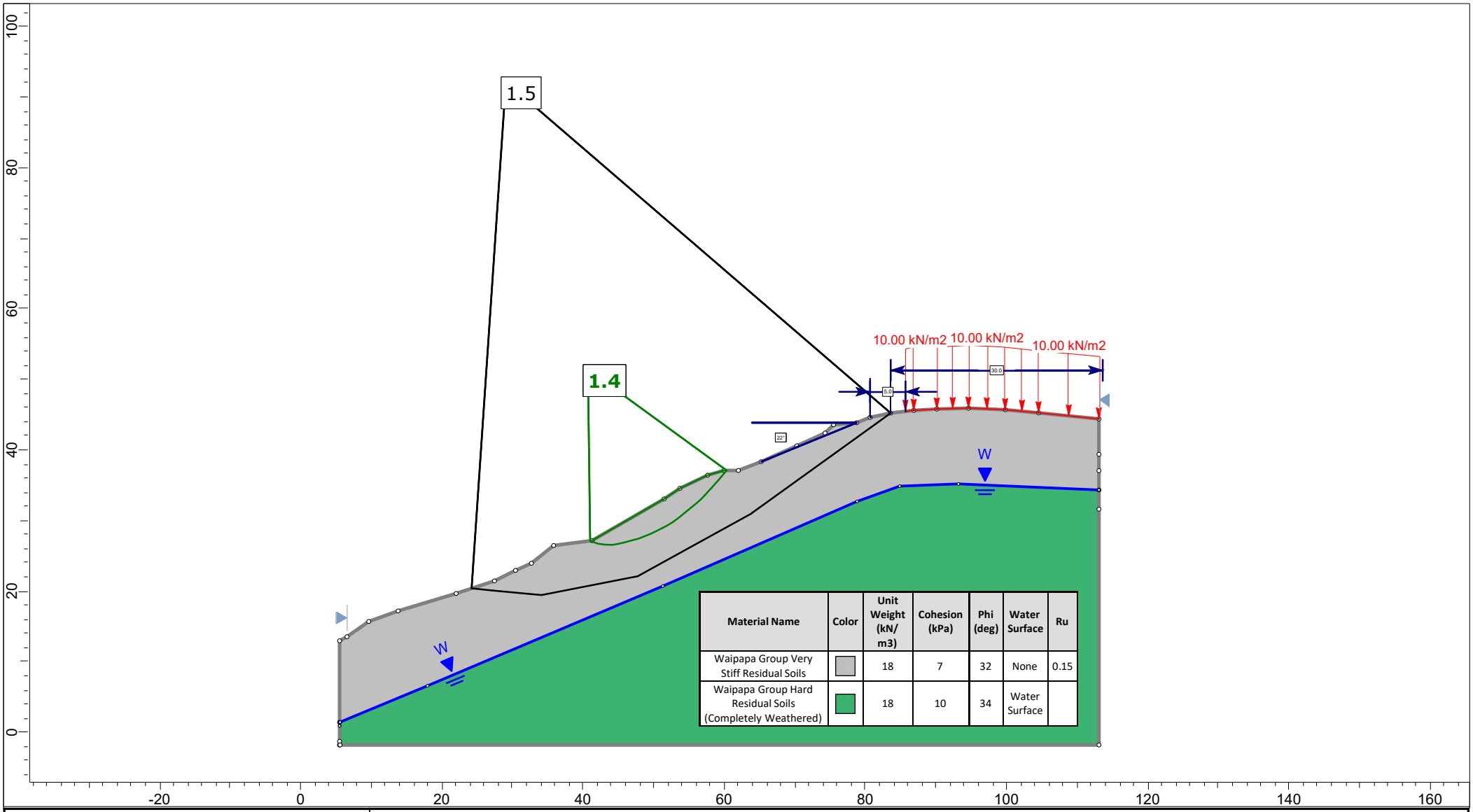



| Material Name | Color | Unit Weight (kN/m3) | Cohesion (kPa) | Phi (deg) | Water Surface | Ru |
|---|---|---|---|---|---|---|
| Waipapa Group Very Stiff Residual Soils | | 18 | 7 | 32 | None | 0.15 |
| Waipapa Group Hard Residual Soils (Completely Weathered) | | 18 | 10 | 34 | Water Surface | |

rocscience

SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | 438B Redcliffs Road - Proposed Lot 2 | | |
| *Group* | Group 1 | *Scenario* | Master Scenario |
| *Drawn By* | J. Power | *Company* | Haigh Workman Ltd. |
| *Date* | 26/11/2025, 3:07:39 pm | *File Name* | 01 - Noncirc - Existing.slmd |




| Material Name | Color | Unit Weight (kN/m3) | Cohesion (kPa) | Phi (deg) | Water Surface | Ru |
|---|---|---|---|---|---|---|
| Waipapa Group Very Stiff Residual Soils | | 18 | 7 | 32 | None | 0.15 |
| Waipapa Group Hard Residual Soils (Completely Weathered) | | 18 | 10 | 34 | Water Surface | |

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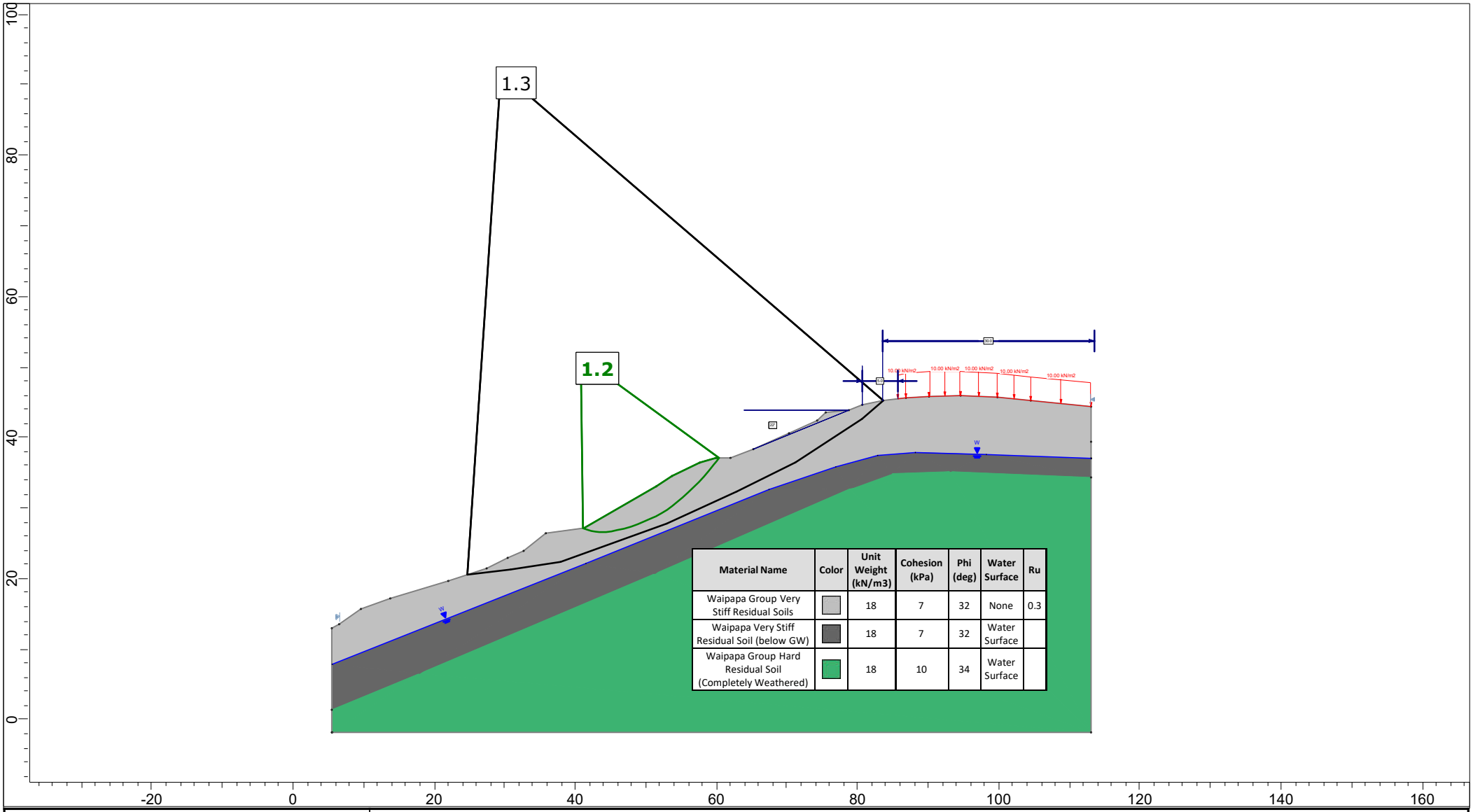
SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | 438B Redcliffs Road - Proposed Lot 2 | | |
| *Group* | Group 1 | *Scenario* | Master Scenario |
| *Drawn By* | J. Power | *Company* | Haigh Workman Ltd. |
| *Date* | 26/11/2025, 3:07:39 pm | *File Name* | 02 - Noncirc - Proposed with Setback.slmd |




| Material Name | Color | Unit Weight (kN/m3) | Cohesion (kPa) | Phi (deg) | Water Surface | Ru |
|---|---|---|---|---|---|---|
| Waipapa Group Very Stiff Residual Soils | | 18 | 7 | 32 | None | 0.3 |
| Waipapa Very Stiff Residual Soil (below GW) | | 18 | 7 | 32 | Water Surface | |
| Waipapa Group Hard Residual Soil (Completely Weathered) | | 18 | 10 | 34 | Water Surface | |

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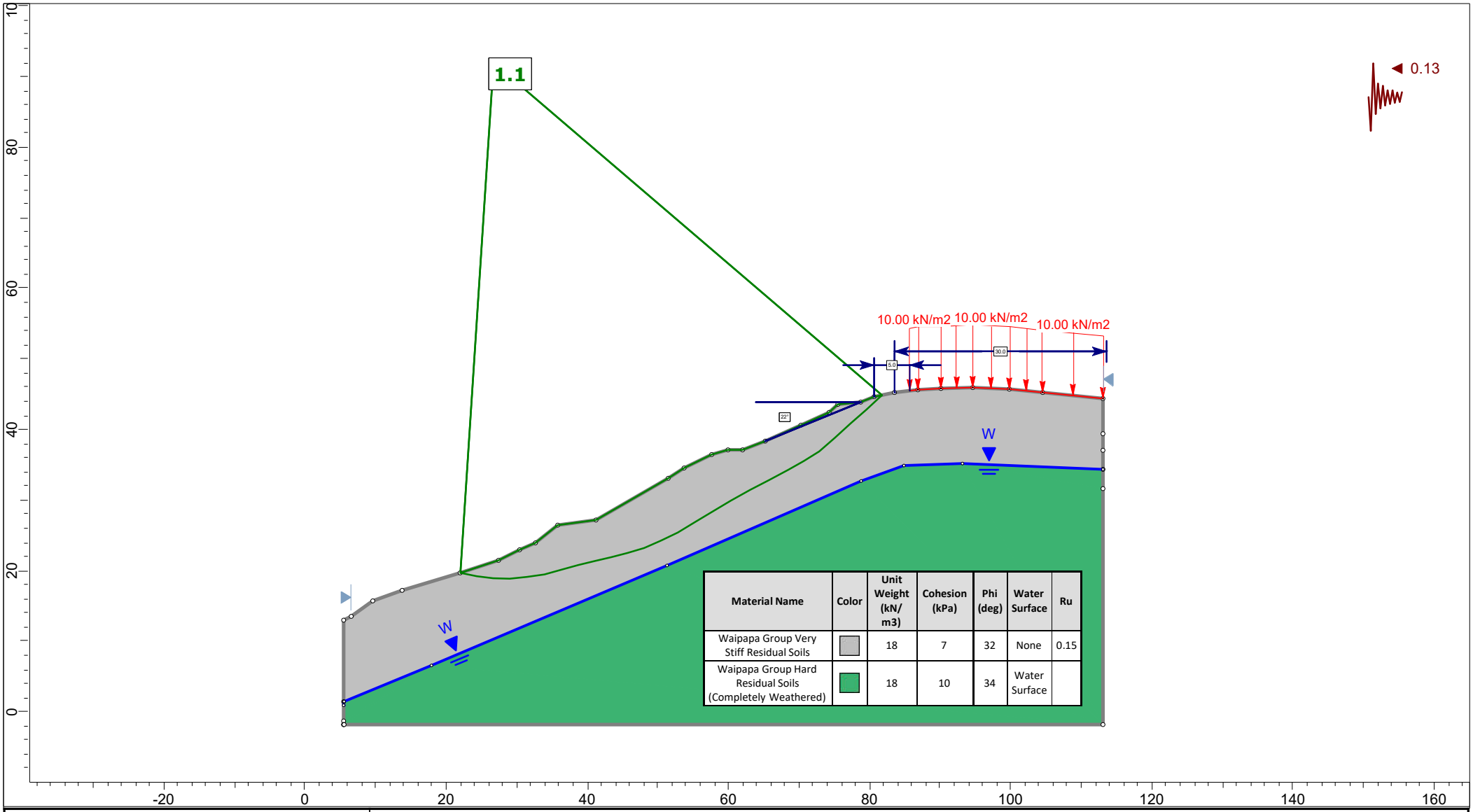
SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | 438B Redcliffs Road - Proposed Lot 2 | | |
| *Group* | Group 1 | *Scenario* | Master Scenario |
| *Drawn By* | J. Power | *Company* | Haigh Workman Ltd. |
| *Date* | 26/11/2025, 3:07:39 pm | *File Name* | 03 - Noncirc - Elevated Groundwater with Setback.slmd |

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SLIDEINTERPRET 9.019

| | | | |
|---|---|---|---|
| *Project* | 438B Redcliffs Road - Proposed Lot 2 | | |
| *Group* | Group 1 | *Scenario* | Master Scenario |
| *Drawn By* | J. Power | *Company* | Haigh Workman Ltd. |
| *Date* | 26/11/2025, 3:07:39 pm | *File Name* | 04 - Noncirc - Seismic 0.13g.slmd |

# Engineering Assessment for Proposed Subdivision

# Lot 1 DP 194534 and Lots 1 & 2 DP 557844, 438B Redcliffs Road, Kerikeri

# for

# J Budden and T Kemp

***Supporting report for RC Applications to Far North District Council***

***Haigh Workman reference 25 217***

**19 December 2025**

# Revision History

| Revision Nº | Issued By | Description | Date |
|---|---|---|---|
| A | Tom Adcock | for Resource Consent | 19 December 2025 |
| | | | |
| | | | |
| | | | |
| | | | |

Prepared by

**Tom Adcock**
Senior Civil Engineer
BEng (Civil Engineering),
MEngNZ

Reviewed & Approved by

**John Papesch**
Senior Civil Engineer
BE (Civil Engineering),
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# Executive Summary

Haigh Workman Ltd (Haigh Workman) was commissioned by Janine Budden and Tony Kemp (the client) to undertake an engineering assessment of land at 438B Redcliffs Road, Kerikeri (the site), for a proposed three lot subdivision.

This report assesses access, stormwater management and wastewater disposal with specific regard to the local authority plans and subdivision rules. The proposed subdivision is shown on Harrison Grierson, Ref. A2415321-HG-XX-DR-XX-G-SC01 Rev. A.

The property is zoned General Coastal under the Operative District Plan and we understand that the proposed subdivision is a discretionary activity.

**Access**
Site access following subdivision will remain unchanged from the present condition. All three lots will gain access via the lot 3 driveway with ROW easements in favour of lots 1 and 2. The driveway has been formed to a good standard with a 3.9m sealed width. Run off from the lot 3 driveway is collected by the kerb and channel and directed onto the surrounding land via cesspits and culverts. Some minor damage has occurred in two locations caused by settlement of fill material. The damage is not serious and most probably occurred not long after construction, the settlement appears to have stabilised. Repairs are recommended as part of ongoing maintenance. Otherwise, no upgrade to the lot 3 ROW or access (crossing) off the neighbouring ROW are required.

Lot 1 has a well-formed sealed entrance off the lot 3 ROW. A second entrance to lot 2 will be formed at the proposed buildable area. To maximise the available sight distance, we recommend that the entrance coincides with the summit of the main ridge line. The entrance should be formed in general accordance with Council Standards for a Residential crossing (Sheet 18) but with splays matching those shown for a Type 1A Light Vehicles crossing (Sheet 21).

**Parking**
All lots have adequate land available for two car parking spaces including manoeuvring.

**Stormwater Management**
The lots sizes are large, 6ha or greater; impermeable surface areas are well below the permitted activity limit of 10%. The topography is rolling, excess stormwater that is not absorbed by the ground sheds as sheet flow where it is collected by natural gully features and small creeks and directed to the Te Puna Inlet.

For the existing development on lots 1 and 3 concentrated stormwater runoff from developed surfaces including roof tank overflows is discharged to ground within the lots. There were no observable effects caused by the discharge of stormwater.

Stormwater runoff for future development on lot 2 will be managed in the same manner. Where necessary, stormwater dispersal may be achieved using an above ground Tee bar or Vegetated/Rigid Lip spreader bar device onto a gently sloping grassed or well vegetated surfaces. Refer ‘Stormwater Management Devices in the Auckland Region GD01 December 2017’ for details.

**Wastewater**
Lots 1 and 3 have existing secondary treatment system discharging to drippers. The client advised that the systems have been regularly maintained and serviced by Coreflow Plumbing & Civil (formerly BOI Plumbing). Both treatment plants were located during our walkover and found to be in satisfactory working order with no olfaction smells or

visible signs of surface leakage or breakout. The system setbacks including reserve areas are unaffected by the proposed subdivision boundaries.

The soils on lot 2 are a poorly drained clayey silt loam and silt which we classify as Soil Category 5 light clays – poorly drained, in accordance with AS/NZS 1547. This soil type can be expected to support a design irrigation loading rate (DIR) for secondary treated effluent of 3mm/day with a topsoil depth of 150 – 250mm, which is available. The required disposal area for an indicative 4-bedroom dwelling is 290m$^2$, plus an additional 290m$^2$ for a 100% reserve.

# 1 Introduction

## 1.1 Project Brief and Scope

Haigh Workman Ltd (Haigh Workman) was commissioned by Janine Budden and Tony Kemp (the client) to undertake an engineering assessment of land at 438B Redcliffs Road, Kerikeri (the site), for a proposed three lot subdivision.

The scope of the report includes the following assessment items:

- Vehicle access and parking
- Stormwater management, and
- Wastewater disposal

A proposed subdivision plan prepared by Harrison Grierson, Ref. A2415321-HG-XX-DR-XX-G-SC01 Rev. A was made available at the time of writing this report.

The site is zoned 'General Coastal' under the Far North District Council Operative District Plan.

## 1.2 Limitations

This report has been prepared for our Client Janine Budden and Tony Kemp with respect to the brief outlined to us. This report is to be used by our Client and Consultants and may be relied upon by the Far North District Council (FNDC) when considering the application for the proposed subdivision and development. The information and opinions contained within this report shall not be used in any other context for any other purpose without prior review and agreement by Haigh Workman Ltd.

It has been assumed in the production of this report that the site is to be subdivided with proposed lots 1 and 3 containing existing dwellings and lot 2 to be subsequently developed for residential end use. At the time of writing there was no information available for the proposed future development of lot 2 following subdivision. If any of these assumptions are incorrect, then amendments to the recommendations made in this report may be required.

The comments and opinions presented in this report are based on the findings of the desk study and ground conditions encountered during an intrusive site visit performed by Haigh Workman. There may be other conditions prevailing on the site which have not been revealed by this investigation, and which have not been taken into account by this report. Responsibility cannot be accepted for any conditions not revealed by this investigation. Any diagram or opinion on the possible configuration of strata or other spatially variable features between or beyond investigation positions is conjectural and given for guidance only.

# 2 Site Description and Proposed Development

## 2.1 Site Identification

**Site Address:** 438B Redcliffs Road, Kerikeri

**Legal Description:** Lot 1 DP 194534 and Lots 1 & 2 DP 557844

**Area:** 34.16 hectares

**Zone:** General Coastal (Operative District Plan**)**

## 2.2 Site Description

The property is located 7.8km to the northeast of the Kerikeri Township on the western side of the Te Puna Inlet, east of Redcliffs Road and comprises a large rural block of moderate to steep rolling hill country. A west to east aligned ridge line forms the southern limits of the property with two steep sided ridge spurs extending to the north. Dissected valleys either side of the ridge spurs drain to the north and east, draining into the Te Puna Inlet. The gentle to moderate slopes of the ridge spurs are vegetated with a mixture of pasture and mown lawns with some specimen trees located along the southern boundary and internal driveways. Regenerating bush covers much of the steeper slopes of the dissected valleys between the ridge spurs.

Proposed lots 1 and 3 contain existing dwellings, with a sealed driveway extending to the northern most house on proposed lot 3; proposed lot 2 is vacant.

The neighbouring land to the north and south comprises rural lifestyle properties with pasture and bush. Access is off Redcliffs Road to the west via existing appurtenant easements.

Proposed Lot 2 is to be located between the established dwellings of proposed Lot 1 and Lot 3, and is dominated by a generally broad, gentle to moderate sloping, north trending ridge spur with steeper bush covered slopes to the east and west. Lot 2 will be accessed off the existing sealed driveway that extends to Lot 3. Refer **Figure 1**.

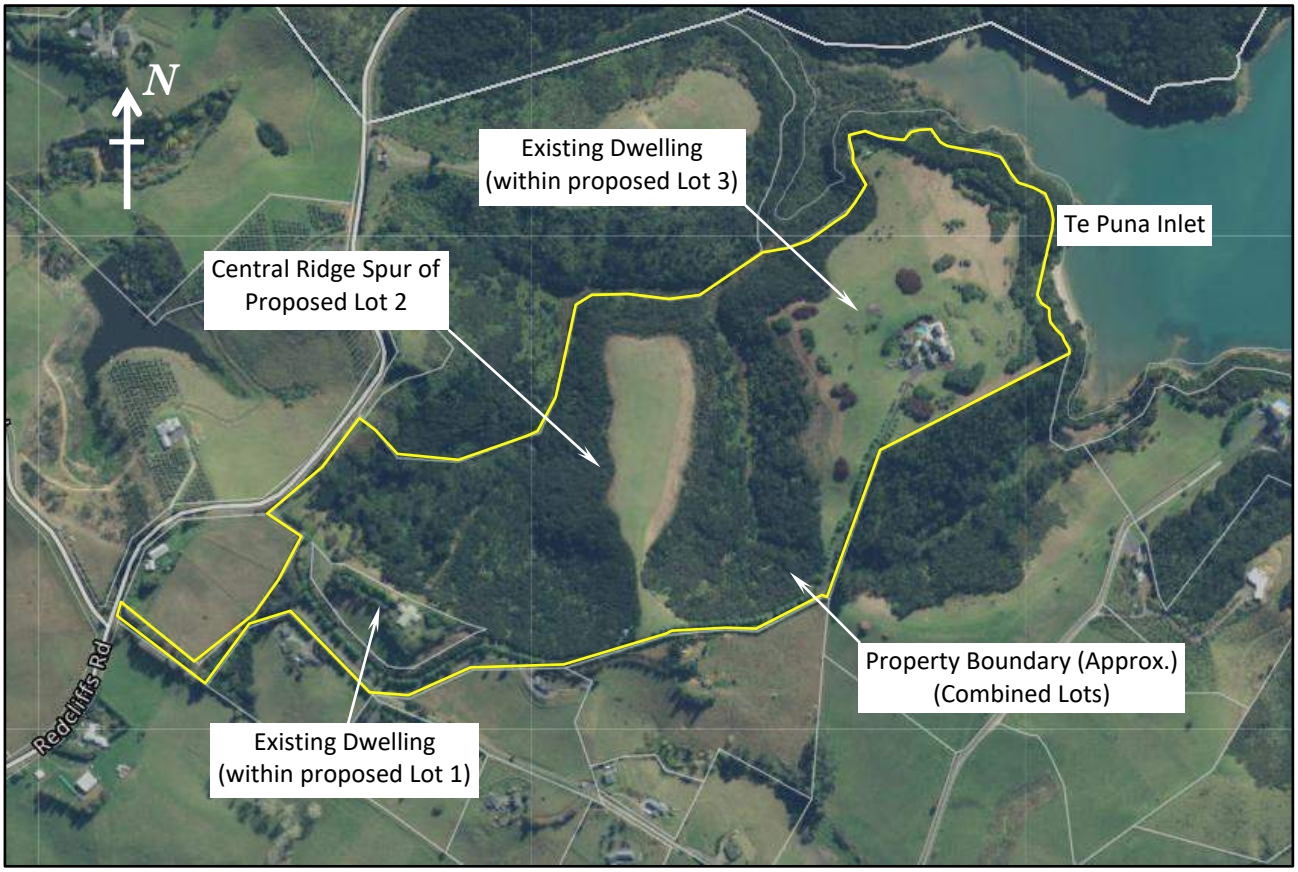


**Figure 1 - Site Location**

## 2.3 Property File

A review of the property files for the site contained little information in relation to stormwater, access and wastewater.

### 2.3.1 Proposed Lot 1 (438A Redcliffs Road)

The file contained BCs for a dwelling, an extension, plumbing and a fireplace but no accompanying plans either stamped approved or those included as part of the submissions.

### 2.3.2 Proposed lot 3 (438B Redcliffs Road)

The file contained RCs and BCs for the main dwelling and a shed, plus land use consent for ponds formed in the gully on the proposed boundary between lots 2 and 3. Extracts from the accompanying plans are appended.

BC 1998 1557 plans for the house include details for the wastewater system but no accompanying TP58 report. Refer extract in Figure 2.

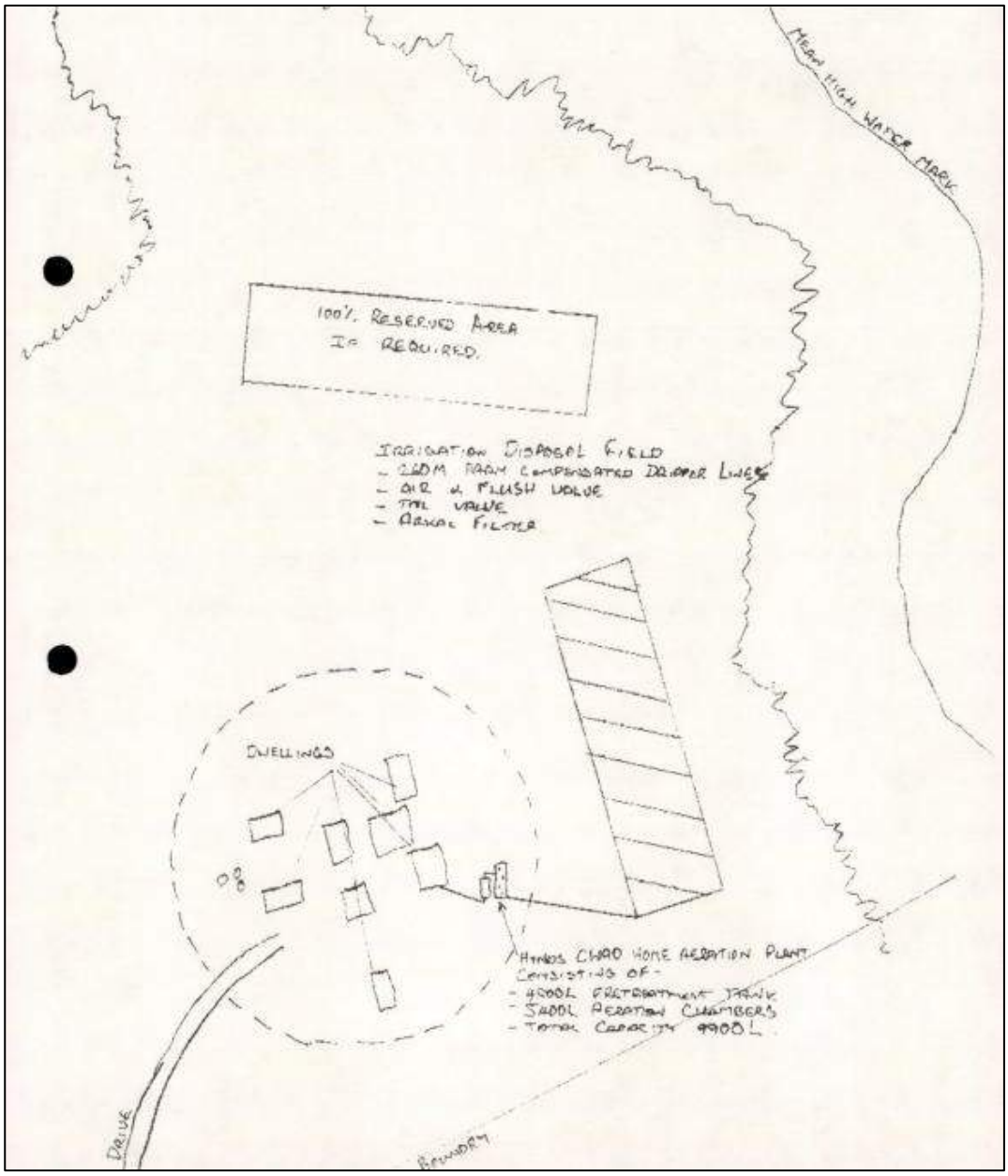


**Figure 2 - Lot 3 (438B Redcliffs Road) BC 1998 1557 showing wastewater system**

## 2.4 Proposed Subdivision

The proposed subdivision is for the creation of three coastal residential lifestyle lots. Refer proposed scheme plan by Harrison & Grierson, Ref. A2415321-HG-XX-DR-XX-G-SC01 Rev. Appended. Proposed lot sizes are given below.

**Table 2-1 Proposed Lots**

| Lots | Proposed Area (ha) | Land-use |
|---|---|---|
| Lot 1 | 6.02 | Rural residential |
| Lot 2 | 10.99 | Rural residential |
| Lot 3 | 16.91 | Rural residential |

We understand that the proposed subdivision will be Discretionary Activity under the Operative District Plan.

# 3 Environmental Setting

## 3.1 Bedrock Geology (Rock)

Reference is made to Haigh Workman Geotechnical Site Assessment Report, Ref. 25 217 dated December 2025 which found the soils directly underlying the development area for proposed Lot 2 to comprise very stiff natural soils of the Waipapa Group (TJw), with a 100 – 200mm layer of topsoil.

## 3.2 Weathered Geology (Soils)

Reference is made to published soils map NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1980: "Whangaroa-Kaikohe" (Soils). See Figure 3 extract below.

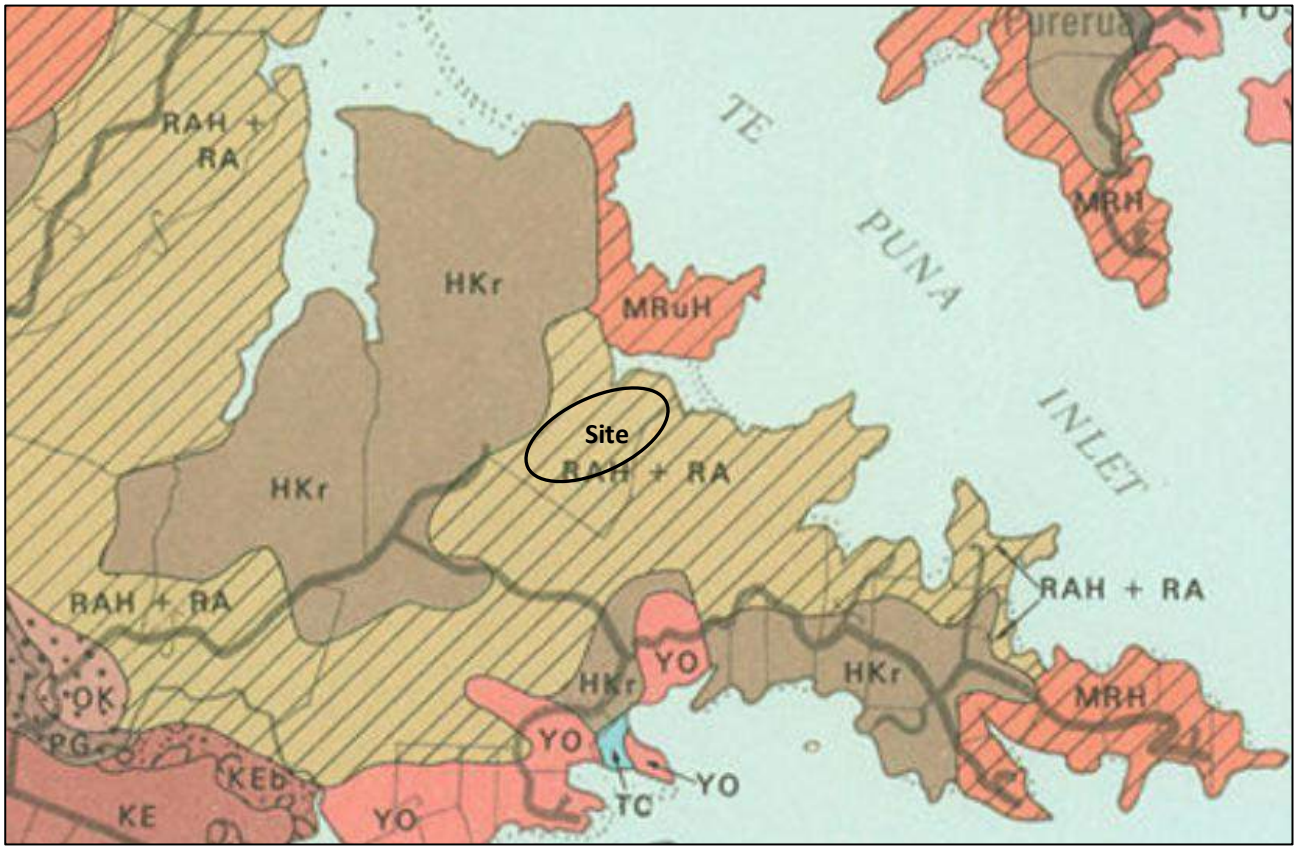


**Figure 3 - Extract NZMS Sheet 290 P04/05 Soil Map**

The soils are mapped as 'Rangiora clay, clay loam, and silty clay loam' (RAH + RA), categorised as *'imperfectly to very poorly drained'.*

# 4 Site Investigations

## 4.1 Site Walkover

A walkover of lot 2 was conducted as part of the geotechnical investigations on 18th November when assessing a proposed buildable area. No observable slope instability features were identified across the broad ridge spur contained within lot 2. However, instability features, including shallow soil creep and shallow terracette failures should be expected within the steeper bush covered areas where slopes exceed 20 degrees.

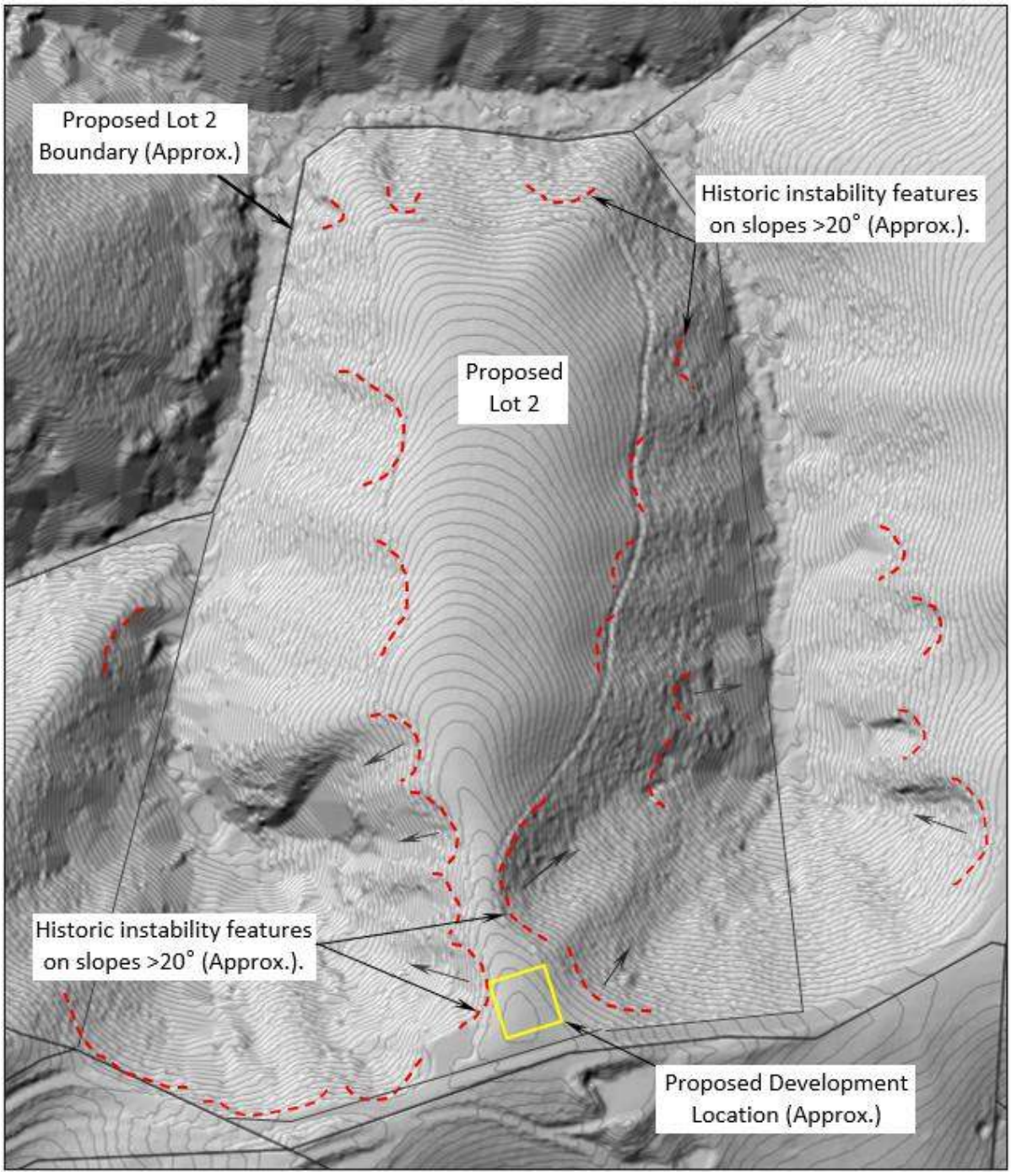


**Figure 4 – Geomorphology of Proposed Lot 2 (GIS LiDAR Image with hill shading and 1.0m Contour)**

A further walkover was conducted on 4th December to check access arrangements including sightlines at the existing entrance off the neighbouring ROW, plus stormwater and wastewater arrangements for the existing development on lots 1 and 3. Refer photographs appended.

Based on the natural topography, excess stormwater drains overland to the north via natural gully features containing small creeks and streams, and into Te Puna Inlet.

## 4.2 Subsurface Investigations

Haigh Workman undertook subsurface investigations on 18 November 2025 primarily to assess ground conditions at the lot 2 proposed buildable area but also for wastewater disposal. The investigations comprised drilling three hand-augured boreholes (BH01, BH02 & BH03) within the proposed development area, plus a fourth borehole (BH04) for a potential future wastewater disposal field. The boreholes were extended to a maximum depth of 3.0 metres below ground level (mbgl). Groundwater was not encountered. Refer Investigation Location Plan and borehole logs appended.

A small quantity of fill material was encountered within hand auger borehole BH01 to 0.1 mbgl, which for the purposes of effluent disposal can be ignored.

The natural soils typically comprised very stiff clayey silt and silt to the maximum drilled depth. The soils were generally light brownish orange to light orange, becoming orange and light grey to white with increasing depth. The soils were further described as being moist with low to medium plasticity.

Based on our investigations we consider the soils to comprise poorly drained clayey silt loam and silt.

# 5 Access

## 5.1 Subdivision Site Access

Site access following subdivision will remain unchanged from the present condition. All three lots will gain access via the lot 3 driveway with ROW easements in favour of lots 1 and 2 as tabulated below. The driveway has been formed to a good standard and is sealed over the full length from the security gate with a short 90m gravel length at the start. The sealed 3.9m wide pavement comprises a nib plus kerb & channel with drainage via cesspit outlets.

Some minor damage has occurred in two locations caused by settlement of fill material. The damage is not serious and most probably occurred not long after construction, the movement appears to have stabilised. Repairs are recommended as part of ongoing maintenance.

District Plan Appendix 3B.1 provides standards for private access. In the General Coastal zone, the minimum carriageway width for 2 Household Equivalents (H.E.s) is 3.0m. For 3 -4 H.E.s the carriageway width is the same but with passing bays.

Rule 15.1.6C.1.3 (b) passing bays on private accessways in all zones:

(a) Where required, passing bays on private accessways are to be at least 15m long and provide a minimum usable access width of 5.5m.

(b) Passing bays are required:

(i) in rural and coastal zones at spacings not exceeding 100m

(ii) on all blind corners in all zones at locations where the horizontal and vertical alignment of the private accessway restricts the visibility.

The operational speed for the accessway was assessed at not greater than 25 kph and the forward sight distance more than 45m. This compares favourably with the minimum stopping sight distance for an Access (low volume) road (Council Engineering Standards 2023 Sheet 4) of 45m at a speed of 40kph.

The lot 1 access is 120m from the start of the driveway and provides ample room as a passing bay. A line of sight is available extending from the start of the driveway as far as lot 1 entrance (passing bay); an additional intermediate passing bay is not considered necessary. Refer Figure 5 below.

**Figure 5 – Photograph at start of ROW showing available sight line as far as lot 1 entrance (Source Street View 2019)**

**Table 5-1: Schedule of Easements**

| Purpose | Easement | Servient Tenement | Dominant Tenement | No. of H.E.s | Legal Width | Carriageway Width | Max. Gradient (sealed) |
|---|---|---|---|---|---|---|---|
| Right of Way | C | 3 | 1 & 2 | 3 | 5m | 3m | 1:4 (25%) |
| Right of Way | F, AB & E | 3 | 2 | 2 | 7.5m | 3m with passing bays | 1:4 (25%) |

The minimum width of ROW ‘C’ is estimated at 6.9m which is slightly less than the legal width of 7.5m. Refer Figure 6. The narrower width occurs over a length of approximately 10m and is not considered a hinderance to traffic.

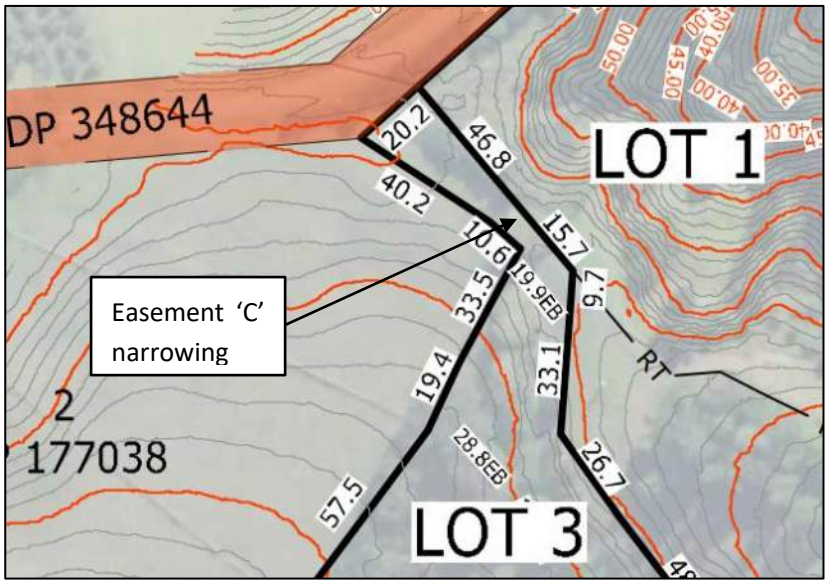


**Figure 6 – showing Easement 'C' narrowing**

The start of the lot 3 driveway joins the neighbouring ROW at a distance of 200m past the end of Redcliffs Road. This section of neighbouring ROW has a carriageway width of 5m and is driven as a continuation of Redcliffs Road. The carriageway width supports two-way traffic and the operating speed was assessed as between 40 and 45kph. The sight distance from the crossing was measured as 65m to the west and 240m to the east. This exceeds the Council Standards (Sheet 4) for an 'Access' category road requiring 45m sight distance for 40kph and 60m for 50kph. Minor vegetation clearance in the berm would increase the westerly sight distance to 72.5m.

The lot 3 driveway entrance is at an oblique angle to the neighbouring ROW and exceeds the Council maximum of 70°. The oblique angle only effects vehicles exiting the driveway, and because all exiting traffic turns left (west), the driver's sightline is not restricted. See photographs appended.

In summary, the existing access arrangements are adequate without the need for any upgrades or improvements.

## 5.2 Roading Assessment Criteria

Rule 15.1.6C.4 In assessing an application for a discretionary activity, Council will consider the matters listed below:

**Table 5-2: Operative District Plan Rule 15.1.6C.4 Assessment Criteria**

| Criteria | Comment |
|---|---|
| **15.1.6C.4.1 PROPERTY ACCESS** | |
| (a) Adequacy of sight distances available at the access location. | The ROW access off the Council road is existing and formed as a continuation of Redcliffs Road. No further work is required. |
| (b) Any current traffic safety or congestion problems in the area. | None known |
| (c) Any foreseeable future changes in traffic patterns in the area | None known |

| | |
|---|---|
| (d) Possible measures or restrictions on vehicle movements in and out of the access. | None proposed |
| (e) The adequacy of the engineering standards proposed and the ease of access to and from, and within, the site. | The existing access arrangements will be maintained. The proposal creates one additional H.E which will result in less than minor effects on traffic.<br><br>No changes or additions to the internal roading arrangements are required. |
| (f) The provision of access for all persons and vehicles likely to need access to the site, including pedestrian, cycle, disabled and vehicular. | The site is in a remote rural location. Pedestrian, cyclist and mobility impaired persons other than in vehicles are expected to be minimal, although these can still be accommodated none-the-less. |
| (g) The provision made to mitigate the effects of stormwater runoff, and any impact of roading and access on waterways, ecosystems, drainage patterns or the amenities of adjoining properties. | The access is already formed and meets Council Engineering Standards for Rural Roading. Stormwater runoff is to roadside berms and collection by table drains and culverts. Discharge is to natural flowpaths in a controlled manner. |
| (h) For sites with a road frontage with Kerikeri Road between its intersection with SH10 and Cannon Drive:<br><br>(i) the visual impact of hard surfaces and vehicles on the natural character;<br><br>(ii) the cumulative effects of additional vehicle access onto Kerikeri Road and the potential vehicle conflicts that could occur;<br><br>(iii) possible use of right of way access and private roads to minimise the number of additional access points onto Kerikeri Road;<br><br>(iv) the vehicle speed limit on Kerikeri Road at the additional access point and the potential vehicle conflicts that could occur. | Not applicable<br><br>In keeping with the Rural environment<br><br>Not applicable<br><br>Not applicable<br><br>Not applicable |
| (i) The provisions of the roading hierarchy, and any development plans of the roading network. | None known |
| (j) The need to provide alternative access for car parking and vehicle loading in business zones by way of vested service lanes at the rear of properties, having regard to alternative means of access and performance standards for activities within such zones. | Not applicable |
| (k) Any need to require provision to be made in a subdivision for the vesting of reserves for the purpose of facilitating connections to future roading extensions to | Not applicable |

| | |
|---|---|
| serve surrounding land; future connection of pedestrian accessways from street to street; future provision of service lanes; or planned road links that may need to pass through the subdivision; and the practicality of creating such easements at the time of subdivision application in order to facilitate later development. | |
| (l) Enter into agreements that will enable the Council to require the future owners to form and vest roads when other land becomes available (consent notices shall be registered on such Certificates of Title pursuant to Rule 13.6.7). | Not applicable |
| (m) With respect to access to a State Highway that is a Limited Access Road, the effects on the safety and/or efficiency on any SH and its connection to the local road network and the provision of written approval from the New Zealand Transport Agency. | Not applicable |
| **15.1.6C.4.2 FRONTAGE TO EXISTING ROADS** | |
| (a) Measures to avoid, remedy or mitigate the effects of not complying with the Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009). | Not applicable |
| **15.1.6C.4.3 NEW ROADS** | |
| **(**a) Whether the new road complies with the "Engineering Standards and Guidelines" (June 2004 – Revised 2009). | Not applicable |
| **15.1.6C.4.4 SERVICE LANES, CYCLEWAYS AND PEDESTRIAN ACCESSWAYS** | |
| (a) Whether the lanes and accessways comply with the Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009). | Compliant |
| **15.1.6C.4.5 ROAD DESIGNATIONS** | |
| (a) Whether adequate provision has been made to protect the Requiring Authority's interest in acquiring land that has been designated for roads. | Not applicable |

## 5.3 Lot Entrances

The existing sealed entrance to lot 1 off the lot 3 driveway will remain as existing. A second entrance to lot 2 will be formed at the proposed buildable area. To maximise the available sight distance, we recommend that the entrance coincides with the summit of the main ridge line. The entrance should be formed in general accordance with Council Standards for a Residential crossing (Sheet 18) but with splays matching those shown for a Type 1A Light Vehicles crossing (Sheet 21) . The ROW is kerbed so a culvert is not required.

## 5.4 Parking and Manoeuvring

Parking and manoeuvring in accordance with District Plan can be accommodated within all proposed lots.

# 6 Stormwater Management

## 6.1 Existing Site Drainage

The topography is rolling, excess stormwater that is not absorbed by the ground sheds as sheet flow where it is collected by natural gully features and small creeks and directed to the Te Puna Inlet.

For the existing development on lots 1 and 3 concentrated stormwater runoff from developed surfaces including roof tank overflows is discharged to ground within the lots. There were no observable effects caused by the discharge of stormwater.

Runoff from the existing lot 1 and 3 driveways is collected by the kerb and channel and directed onto the surrounding land via cesspits and culverts. Again, there was no observable effects caused by the discharge of road runoff.

## 6.2 Regulatory Framework

### 6.2.1 Far North District Plan Provisions

The site is zoned as General Coastal. The relevant permitted activity rule for stormwater is as follows:

> **10.6.5.1.6 STORMWATER MANAGEMENT**
> The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 10%.

Subdivision Rule relating to stormwater disposal is 13.7.3.4. The pertinent sections relating to this site are:

> **13.7.3.4 STORMWATER DISPOSAL**
> (a) All allotments shall be provided, within their net area, with a means for the disposal of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces, in such a way so as to avoid or mitigate any adverse effects of stormwater runoff on receiving environments, including downstream properties. This shall be done for a rainfall event with a 10% Annual Exceedance Probability (AEP).
>
> (d) All subdivision applications creating sites 2ha or less shall include a detailed report from a Chartered Professional Engineer or other suitably qualified person addressing stormwater disposal.
>
> (d) Where flow rate control is required to protect downstream properties and/or the receiving environment then the stormwater disposal system shall be designed in accordance with the onsite control practices as contained in "Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual" Auckland Regional Council (2003).

### 6.2.2 Regional Plan Provisions

Proposed Rule C.6.4.2 provides for the diversion and discharge of stormwater from outside a public stormwater network provided (amongst other conditions); the diversion and discharge does not cause or increase flooding of land on another property in a storm event of up to and including a 10% Annual Exceedance Probability (AEP) or flooding of buildings on another property in a storm event of up to and including a 1% AEP.

## 6.2.3 Council Engineering Standards 2023

The FNDC Engineering Standards have recently been updated, and Council is encouraging their use. The pertinent sections relating to stormwater management are:

**Chapter 4: Stormwater and Drainage**

**4.1.3 Performance Standards**

e. The primary stormwater system shall be capable of conveying 10% AEP design storm events without surcharge (see Section 4.3.9 Hydrological Design Criteria).

h. Development shall not increase peak discharge rates to receiving environment. An increase may be acceptable for large events where it is demonstrated that there are no adverse effects (including potential, future, or cumulative effects), on the environment or downstream properties as a result of the increase.

i. The stormwater system shall provide the required amount of treatment through the use of low impact design and sustainable solutions (See Sections 4.3.20 Soakage Devices and 4.3.21 Stormwater Treatment and Detention Devices.

**4.1.6. Managing Effects of Land Use on Receiving Environments**

Hydrological balance can be partly maintained by limiting the maximum rate of discharge and peak flood levels for post-development to that at pre-development levels and enabling infiltration to minimise impacts on base flow and ground water recharge.

Peak flow management can be achieved using detention storage, utilising extended duration, for the duration of a limited peak flow event. Therefore, in the absence of more detailed assessment of stream stability, the discharges from detention devices into a stormwater network shall be constrained to 80% of pre-development peak flow rate. These constraints may be relaxed, subject to detailed assessments and hydrological/hydraulic modelling of the catchment being provided.

**4.2.1. Discharge into a Stream or Watercourse**

All new and existing discharges to an existing FNDC owned and / or maintained watercourse(s) located within approximately 500m require specific approval from the Stormwater Manager before proceeding with design details and, if approved, FNDC shall apply appropriate conditions to the discharge.

**Section 4.2.5. Discharge to Land**

Subject to the requirements of the NRC Regional Plans, discharge of stormwater from the development onto land is permitted provided that:

a. Flooding levels shall not be increased due to the development,

b. New outlets to any low-lying areas shall be provided or existing outlets retained,

c. Dispersal of concentrated flow from the development shall be designed to occur at the shortest practicable distance and before a concentrated overland discharge to a neighbouring property occurs and,

d. An acceptable rate of dispersed discharge from stormwater runoff at the boundary is <2L/sec/m (e.g. flow can be managed via dispersal swale or trench).

**4.3.8. System Design**

**Table 4-1: Minimum Design Summary**

Current rainfall (i.e. not climate change adjusted) shall be used for the following:

• Determining pre-development stormwater runoff flows and volumes for use in combination with calculated post development flows to determine stormwater treatment (quantity and quality) requirements.

Climate change adjusted rainfall shall be used for the following:
• Determining post-development stormwater runoff flows and volumes for stormwater infrastructure design.

Flood Control (1% AEP event). Detention required, limiting the post-development 1% AEP event flow rates to 80% of the pre-development 1% AEP event flow rates.

Flow attenuation (Attenuation of the 50% and 20% AEP events). Limit the post-development 50% and 20% AEP event flow rates to 80% of the pre-development flows through controlled attenuation and release. Typically, always required in the upper catchment and sometimes not required where development site is located in proximity to the catchment outlet, discharging to a watercourse with sufficient network capacity, and where flow attenuation may worsen flooding hazards due to relative timing of peak flows. This is subject to assessment demonstrating no negative impacts would occur. If the proposed stormwater discharge is into a tidal zone, then no attenuation is required.

## 6.3 Impermeable Surfaces

Existing impermeable surfaces estimated using aerial imagery are presented below, lot 2 includes the existing shed and parking plus estimated future residential development. As can be seen the impermeable surfaces comply with the permitted activity limit of 10%.

**Table 6-1: Estimated impermeable surfaces**

| Lot No. | Lot area ($m^2$) | Driveway ($m^2$) | Parking ($m^2$) | Roofs & paths ($m^2$) | Total impermeable ($m^2$) | Percentage |
|---|---|---|---|---|---|---|
| 1 | 60,200 | 396 | 140 | 471 | 1,007 | 1.7% |
| 2 | 109,900 | 30 | 104 + 140 | 71 + 470 | 1,015 | 0.9% |
| 3 | 169,100 | 3,345 | 469 | 1957 | 5,771 | 3.4% |

## 6.4 Proposed Stormwater Management

All three lots are all well in excess of 2ha, a detailed stormwater management is not considered necessary if the following measures are adhered to.

For lots 1 and 3, no further development is anticipated, the existing stormwater controls are considered adequate without the need for any intervention or upgrade.

With respect to lot 2, District Plan subdivision Rule 13.7.3.4 references Technical Publication 10 which has now been superseded by Stormwater Management Devices in the Auckland Region GD01 December 2017 and refers to the

Countryside Living suite of documents for rural development. GD01 identifies the key approach to managing the impact of stormwater and associated pollutants is to reduce the need through prevention and considers non-structural approaches to minimise the impacts of the development on stormwater. This standard is appropriate for the low-density rural development considered for this site.

Examples of non-structural approaches that can be adopted for this site are:

- Preserve and using existing site features such as watercourses, depressions, wetlands, vegetation and permeable areas that contribute to the current hydrological cycle balance.
- Reduce impervious surfaces by using pervious channels or infiltration practices, placing houses closer to the main roading network to minimise driveway lengths, shared ROWs, grass swales to encourage infiltration, pervious paving or gravel driveways and parking areas.
- Minimise site disturbance and bulk earthwork areas, particular areas that are to remain undeveloped and permeable. Earthwork compaction produces high strength, but higher density and reduced permeability which reduces infiltration and increases runoff.

Stormwater management for lot 2 will be designed to control stormwater flows, reduce scour and ensure compliance with District and Regional Plan rules.

- To receive the maximum treatment benefits from overland flow stormwater runoff from developed surfaces will be discharged to ground in a dispersive manner where it will be absorbed by the soils. During heavier rainfall events excess runoff will drain as sheet flow before entering natural flowpaths and downstream gullies and creeks.
- Where necessary, stormwater dispersal may be achieved using an above ground Tee bar or Vegetated/Rigid Lip spreader bar device onto a gently sloping grassed or well vegetated surfaces. Refer standard details appended.
- Rainwater collection tanks for domestic water supply, with overflows piped to dispersed outlets.
- For driveways we recommend grass lined swales with crossroad culverts at 100m intervals and/or natural low points as required. The lot 2 driveway will be the summit of a ridge spur so driveway runoff will be onto the sloping ground either side.

## 6.5 Stormwater Assessment Criteria

Rule 10.6.5.4 applies for a discretionary activity. Council may impose conditions of consent on a discretionary activity, or it may refuse consent to the application. When considering a discretionary activity application, the Council will have regard to the assessment criteria set out under Chapter 11.

**Table 6-2: Operative District Plan Section 11.3 Matters of Discretion**

| Stormwater Disposal Assessment Criteria | Comment |
|---|---|
| (a) the extent to which building site coverage and Impermeable Surfaces contribute to total catchment impermeability and the provisions of any catchment or drainage plan for that catchment. | Impermeable surfaces associated with future residential development will have a very small contribution to overall catchment impermeability, particularly since lot are well in excess of 2ha. |
| (b) the extent to which Low Impact Design principles have been used to reduce site impermeability. | Concentrated runoff from impermeable surfaces and roof tank overflows will be disposed of to ground in a dispersive manner encouraging soakage and avoiding |

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| | erosion and nuisance. Council Engineering Standards 2023 Section 4.3.21.2, rainwater tanks when used for domestic water supply can provide a significant contribution to stormwater attenuation. Table 4.12 estimates that a single 25,000L tank attached to a 300m2 roof achieves a 25% reduction in attenuation storage volume. For smaller roof areas the percentage increases. |
| (c) any cumulative effects on total catchment impermeability. | The proposed subdivision and future residential development of lot 2 is small in relation to the total catchment which is wholly rural land. Furthermore, lots are well in excess of 2ha which also reduces any cumulative effects. |
| (d) the extent to which building site coverage and Impermeable Surfaces will alter the natural contour or drainage patterns of the site or disturb the ground and alter its ability to absorb water. | Drainage patterns will not be altered by the proposed subdivision. |
| (e) the physical qualities of the soil type. | The soils are poorly drained |
| (f) any adverse effects on the life supporting capacity of soils. | None. Lifestyle lots are not expected to result in water-borne contaminants, litter or sediments. By discharging to ground within the lots in a dispersive manner these affects can be avoided. |
| (g) the availability of land for the disposal of effluent and stormwater on the site without adverse effects on the water quantity and water quality of water bodies (including groundwater and aquifers) or on adjacent sites. | There is sufficient suitable land available for the disposal of effluent and reserve areas including environmental setbacks and property boundaries. |
| (h) the extent to which paved, Impermeable Surfaces are necessary for the proposed activity. | Lots 1 and 3 are already developed and access is via an existing sealed ROW. A short driveway and parking area will be required for future development on lot 2. |
| (i) the extent to which landscaping and vegetation may reduce adverse effects of run-off. | The site is currently in grass and bush. Additional landscape plantings can be expected for future development on lot 2 which will further reduce adverse effects of runoff. |
| (j) any recognised standards promulgated by industry groups. | The stormwater management for the proposed development is considered in line with recognised standards for lots in excess of 2ha. |
| (k) the means and effectiveness of mitigating stormwater runoff to that expected by permitted activity threshold. | Stormwater attenuation to permitted levels is not necessary due to proposed lots well in excess of 2ha and no buildings on downstream properties or roading mapped as being affected. Existing and future |

| | |
|---|---|
| | development is estimated to result in impermeable surfaces no greater than 3.4% which is well below the 10% permitted activity. Stormwater discharge will be managed in a dispersive manner. |
| (l) the extent to which the proposal has considered and provided for climate change. | Increased runoff resulting from climate change shall be taken into account when sizing stormwater devices. |
| (m) The extent to which stormwater detention ponds and other engineering solutions are used to mitigate any adverse effects. | Detention ponds are not considered necessary for the proposed development given lots well in excess of 2ha, impermeable surfaces estimated at not greater than 3.4% and absence of downstream river flooding affecting buildings on other properties. |

Rule 13.10, when considering a discretionary (subdivision) activity application, Council will have regard to the assessment criteria set out in Rule 13.10.4 stormwater disposal.

**Table 6-3: Operative District Plan Section 13.10.4 Assessment Criteria**

| Subdivision Stormwater Disposal Assessment Criteria | Comment |
|---|---|
| (a) Whether the application complies with any regional rules relating to any water or discharge permits required under the Act, and with any resource consent issued to the District Council in relation to any urban drainage area stormwater management plan or similar plan. | The application complies with the Proposed Regional Plan. The site does not drain into any urban drainage areas. |
| (b) Whether the application complies with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009 (to be used in conjunction with NZS 4404:2004). | The application does not comply with Section 4.1.6 of the Far North Engineering Standards 2023. This is due to detention not being proposed as it is not considered necessary due to the large lot areas. |
| (c) Whether the application complies with the Far North District Council Strategic Plan - Drainage. | Complies. |
| (d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas. | Concentrated runoff from impermeable surfaces and roof tank overflows will be disposed to ground in a dispersive manner encouraging soakage and avoiding erosion and nuisance. The proposed lots are well in excess of 2ha. Impermeable surfaces are not expected to exceed 3.4%, hence the vast majority of site will remain permeable. Council Engineering Standards 2023 Section 4.3.21.2, rainwater tanks when used for domestic water supply can provide a significant contribution to stormwater attenuation. Table 4.12 estimates that a single 25,000L tank attached to a 300m$^2$ roof achieves a 25% reduction in attenuation |

| | |
|---|---|
| | volume. For smaller roof areas the percentage increases. |
| (e) The adequacy of the proposed means of disposing of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces. | Stormwater runoff from storage tanks, roofs and impervious surfaces will be disposed of to land in a dispersive manner to encourage absorption. Excess stormwater will collect in the natural flowpath present on all lots before draining out naturally into the downstream catchment. |
| (f) The adequacy of any proposed means for screening out litter, the capture of chemical spillages, the containment of contamination from roads and paved areas, and of siltation. | Not applicable. Lifestyle lots are not expected to result in water-borne contaminants, litter or sediments. By discharging to ground within the lots in a dispersive manner these affects can be avoided. |
| (g) The practicality of retaining open natural waterway systems for stormwater disposal in preference to piped or canal systems and adverse effects on existing waterways. | Will discharge to natural flow paths. There will be no reliance on piped or canal systems. |
| (h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments. | Runoff will not be directed into the Council stormwater system. |
| (i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off. | Not applicable. |
| (j) The necessity to provide on-site retention basins to contain surface run-off where the capacity of the outfall is incapable of accepting flows, and where the outfall has limited capacity, any need to restrict the rate of discharge from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place. | Onsite retention is not considered necessary for the proposed development given lots well in excess of 2ha, impermeable surfaces estimated at not greater than 3.4% and absence of downstream river flooding affecting buildings on other properties. |
| (k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects. | None. No downstream properties are affected by river flooding. |
| (l) In accordance with sustainable management practices, the importance of disposing of stormwater by way of gravity pipelines. However, where topography dictates that this is not possible, the adequacy of proposed pumping stations put forward as a satisfactory alternative. | Stormwater will be disposed of by way of gravity. |

| | |
|---|---|
| (m) The extent to which it is proposed to fill contrary to the natural fall of the country to obtain gravity outfall; the practicality of obtaining easements through adjoining owners' land to other outfall systems; and whether filling or pumping may constitute a satisfactory alternative. | None proposed. |
| (n) For stormwater pipes and open waterway systems, the provision of appropriate easements in favour of either the registered user or in the case of the Council, easements in gross, to be shown on the survey plan for the subdivision, including private connections passing over other land protected by easements in favour of the user. | No stormwater easements are proposed. |
| (o) Where an easement is defined as a line, being the centre line of a pipe already laid, the effect of any alteration of its size and the need to create a new easement. | Not applicable. |
| (p) For any stormwater outfall pipeline through a reserve, the prior consent of the Council, and the need for an appropriate easement. | Not applicable. |
| (q) The need for and extent of any financial contributions to achieve the above matters. | Not applicable. |
| (r) The need for a local purpose reserve to be set aside and vested in the Council as a site for any public utility required to be provided. | Not applicable. |

# 7 On-site Effluent Disposal

## 7.1 Regulatory Framework

### 7.1.1 Regional Plan

The discharge of wastewater effluent to land is regulated by the permitted activity Rule C.6.1.3 of the Regional Plan for Northland. Table 9 of the plan specifies exclusion areas and set-back distances as follows:

***Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems***

| Feature | Primary treated domestic type wastewater | Secondary and tertiary treated domestic type wastewater | Greywater |
|---|---|---|---|
| ***Exclusion areas*** | | | |
| Floodplain | 5% annual exceedance probability | 5% annual exceedance probability | 5% annual exceedance probability |
| ***Horizontal setback distances*** | | | |
| Identified stormwater flow path (including a formed road with kerb and channel, and water-table drain) that is down-slope of the disposal area | 5 metres | 5 metres | 5 metres |
| River, lake, stream, pond, dam or natural wetland | 20 metres | 15 metres | 15 metres |
| Coastal marine area | 20 metres | 15 metres | 15 metres |
| Existing water supply bore | 20 metres | 20 metres | 20 metres |
| Property boundary | 1.5 metres | 1.5 metres | 1.5 metres |
| ***Vertical setback distances*** | | | |
| Winter groundwater table | 1.2 metres | 0.6 metres | 0.6 metres |

Additional requirements under the Rule also state:

1) The on-site system is designed and constructed in accordance with the Australian/New Zealand Standard. On-site Domestic Wastewater Management (AS/NZS 1547:2012), and

2) The volume of wastewater discharged does not exceed two cubic metres per day, and

4) the slope of the disposal area is not greater than 25 degrees, and

5) For wastewater that has received secondary treatment or tertiary treatment, it is discharged via:

a) a trench or bed system in soil categories 3 to 5 that is designed in accordance with Appendix L of AS/NZS 1547:2012; or

b) an irrigation line system that is dose loaded and covered by a minimum of 50mm of topsoil, mulch, or bark, and

6) for the discharge of wastewater onto the surface of slopes greater than 10 degrees:

d) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the

disposal area, and

e) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or

f) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark

The proposed disposal areas are not steeper than 10 degrees. However, we recommend that surface laid irrigation lines be firmly pinned to the ground and where there is an up-slope catchment that generates stormwater runoff, a stormwater interception drain be installed and maintained to divert surface runoff away from the disposal area.

District Council requires at time of subdivision a suitable reserve area equal to 100% of the effluent disposal area.

The following analysis ensures that future on-site wastewater disposal on vacant lot 2 can comply with both the Operative District Plan and Regional Plan for Northland wastewater discharge rules.

## 7.2 Lot 2 Wastewater Assessment

### 7.2.1 Design Occupancy Rating

The onsite wastewater disposal for the proposed development of the lots has been assessed.

It has been assumed for the purpose of this site suitability report that lot 2 will be developed with a four-bedroom residential unit.

### 7.2.2 Design Volumes

For subdivision purposes we assume residential units will be designed with standard water reduction fixtures. AS/NZS1547 estimates wastewater generation for roof water collection supply properties with standard water reduction fixtures of 145 litres/person/day.

Total daily wastewater generation of the proposed development is calculated as follows, using TP58 guidance for the design occupancy:

$$Total\ daily\ wastewater\ generation\ = Daily\ occupancy\ number\ \times design\ flow\ allowances$$

$$= 6\ persons\ \times (145\ litres/person/day)$$

$$\underline{= \mathbf{870\ litres/day}}$$

Design flows of 870 litres per day for a four-bedroom household has been adopted for the purpose of this assessment.

### 7.2.3 Effluent Disposal

Effluent disposal systems will need to be situated to avoid surface runoff and natural seepage from higher ground or protected by using interception drains. In addition, site restrictions listed in Section 6 of this report will need to be adhered to, to ensure a suitable setback from identified overland flow paths, boundaries and buildings.

The lot 2 spur ridge extending northwards contains a large area where the slope angle is 10° or less before steepening on the side slopes. Standard separation distances can be achieved where the slope is below 10°. Ground water separation of 0.6m for secondary treated effluent is achievable given the elevated location and investigation which

recorded no ground water at 3mbgl and stormwater setbacks from flowpaths will be 100m or greater. For drippers installed on the top of the ridge or start of the side slope, a stormwater interception drain is not required.

### 7.2.4 Land Disposal System Sizing and Design

The soils on lot 2 are a poorly drained clayey silt loam and silt which we classify as Soil Category 5 light clays – poorly drained, in accordance with AS/NZS 1547. This soil type can be expected to support a design irrigation loading rate (DIR) for secondary treated effluent of 3mm/day with a topsoil depth of 150 – 250mm, which is available.

The design of wastewater disposal fields must comply with all relevant setback distances and slope requirements in effect at the time of building consent. Access by livestock and vehicles to disposal areas should be restricted through fencing to prevent damage.

On this basis, a wastewater system producing 870 litres/day would require 870/3 = 290m² of disposal area. As indicated by the appended wastewater plan, lot 2 can accommodate a primary effluent field and reserve area of 100%, in accordance with current regulatory requirements.

### 7.2.5 Treatment Plant Design Sizing

The naming of a proprietary secondary treatment plant will be decided by the new owner at the building consent stage, when the position and scale of the building are known.

The system is to meet the quality output of AS/NZS 1546.3: 2003, producing effluent of less than 20g/m$^3$ of 5-day biochemical oxygen demand ($BOD_5$) and no greater than 30g/m$^3$ total suspended solids (TSS) at the estimated wastewater generation rate for the proposed development. Siting requirements for secondary treatment plants are:

- Invert level at inlet not less than 0.5 m below floor level
- Greater than 3.0 m from any house
- Greater than 1.5 m from any boundary
- Easily accessible for routine maintenance

### 7.2.6 Effects on Environment

It is not likely that any detectable environmental effects will arise from utilising trickle irrigation greater than 3.0 m from the disposal field. Use of the secondary treated effluent for trickle irrigation would enhance landscape vegetation growth particularly during the drier summer months. Considering the size of the assessed lots and the vegetation coverage, there is a negligible risk of off-site effects and cumulative effects. All disposal fields will be located at a greater distance from overland flow paths than the minimum required.

To minimise any potential issues, regular inspections and servicing of the treatment plant and disposal field should be completed. Along with the appropriate inspections and approvals prior to plant commissioning.

The disposal field locations indicated by the appended drawings have taken into account the appropriate separation distances.

## 7.3 Lot 1 Existing Wastewater System

Lot 1 contains an existing secondary treatment system discharging to drippers. Refer photographs appended. The client advised that the system is regularly maintained and serviced by Coreflow Plumbing & Civil (formerly BOI Plumbing). The treatment plant was located during our walkover and found to be in satisfactory working order with no olfaction smells or visible signs of surface leakage or breakout. The system setbacks including reserve area are unaffected by the proposed subdivision boundaries.

## 7.4 Lot 3 Existing Wastewater System

Lot 3 contains an existing secondary treatment system discharging to drippers. Refer photographs appended. The client advised that the system is regularly maintained and serviced by Coreflow Plumbing & Civil (formerly BOI Plumbing). The treatment plant was located during our walkover and found to be in satisfactory working order with no olfaction smells or visible signs of surface leakage or breakout. The system setbacks including reserve area are unaffected by the proposed subdivision boundaries.

# Appendix A – Drawings

| Drawing No. | Title | Scale |
|---|---|---|
| A2415321-HG-XX-DR-XX-G-SC01 Rev. A | Harrison Grierson – Proposed Scheme Plan Lot 1 DP 194534 and Lots 1 & 2 DP 557844 | 1:3000 |
| 25 217 – WSWP01 | Haigh Workman – Wastewater Plan – Lot 1 Existing | 1:1500 |
| 25 217 – WSWP02 | Haigh Workman – Wastewater Plan – Lot 2 Proposed | 1:1500 |
| 25 217 – WSWP03 | Haigh Workman – Wastewater Plan – Lot 3 Existing | 1:1500 |
| 25 217/SW01 | Haigh Workman – Level Spreader Details | N.T.S |
| 25 217/G02 | Haigh Workman – Geotechnical Site Features & Investigation Location Plan | 1: 1000 |

## MEMORANDUM OF EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) |
|---|---|---|---|
| RIGHT OF WAY | E | LOT 3 HEREON | LOT 2 HEREON |
| RIGHT OF WAY & RIGHT TO CONVEY WATER, ELECTRICITY AND TELCOMMUNICATIONS | AB, C, E, & F | | |

## SCHEDULE OF EXISTING EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | CREATED BY |
|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | AA & AB | LOT 3 HEREON | EC D066530.11 |
| RIGHT OF WAY & RIGHT TO CONVEY ELECTRICITY AND TELECOMMUNICATIONS & RIGHT TO CONVEY WATER & RIGHT TO DRAIN WATER | C | | EI 12468770.3 |

## SCHEDULE OF EXISTING APPURTENANT EASEMENTS

| PURPOSE | SHOWN | SERVIENT TENEMENT (BURDENED LAND) | DOMINANT TENEMENT (BENEFITED LAND) | CREATED BY |
|---|---|---|---|---|
| RIGHT OF WAY AND RIGHT TO CONVEY WATER, ELECTRICITY & TELECOMMUNICATIONS | B DP 192248 | LOT 5 DP 348644 | PART LOT 1 AND PART LOT 3 HEREON | EC D349890.4 |
| | B DP 161190 AND C DP 161190 | | PART LOT 1, LOT 2 AND PART LOT 3 HEREON | EC D066530.11 |

## SCHEDULE OF PROPOSED LAND COVENANT AREAS FOR THE PROTECTION OF NATIVE VEGETATION

| SHOWN | SERVIENT TENEMENT (BURDENED LAND) | AREA (ha) (SUBJECT TO SURVEY) |
|---|---|---|
| CA | LOT 1 HEREON | 0.2 |
| CB | LOT 1 HEREON | 1.0 |
| CC | LOT 2 HEREON | 8.1 |
| CD | LOT 3 HEREON | 4.1 |
| CE | LOT 3 HEREON | 1.3 |

REFER TO SC02 FOR EASEMENT DETAILS

LOT 1
6.02ha

LOT 2
10.99ha

LOT 3
16.91ha

CROWN LAND SURVEY OFFICE PLAN 39773 (MARGINAL STRIP)

2 DP 205281
5 DP 348644
1 DP 415226
6 DP 348644
5 DP 348644
DP 557844
2 DP 177038
1 DP 193094
8 DP 193094
2 DP 193094
9 DP 193094
2 DP 359920

RT 978318
RT 978317

REDCLIFFS ROAD

EXTENT OF DETAIL: EXTENT OF LOT 3

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED



## NOTES:

1. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
2. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
3. ALL EASEMENTS, COVENANTS AND OTHER LEGAL INSTRUMENTS ASSOCIATED WITH THIS SITE MAY NOT BE SHOWN ON THIS PLAN. AN INVESTIGATION OF THE MOST CURRENT LEGAL RECORDS SHOULD BE UNDERTAKEN PRIOR TO DESIGN AND CONSTRUCTION COMMENCING.
4. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.
5. THIS PLAN IS ISSUED FOR A SPECIFIC PROJECT AND MAY NOT BE ALTERED OR USED FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF HARRISON GRIERSON.
6. LEGAL DESCRIPTION
   LOT 1 DP 194534 AND LOTS 1 AND 2 DP 557844
   COMPRISED IN RT's 978317 AND 978318
   TOTAL AREA 34.16ha
7. THE CONTOURS SHOWN HAVE BEEN DERIVED FROM EXTERNAL OPEN SOURCED RECORDS AND HAVE NOT BEEN GROUND VERIFIED
8. AREAS CA, CB, CC, CD, AND CE ARE SUBJECT TO LAND CONVENANT FOR PROTECTION, MANAGING AND ENHANCING INDIGENOUS VEGETATION AND HABITAT
9. LAND COVENANT BOUNDARIES ARE APPROXIMATE ONLY AND HAVE BEEN DERIVED FROM THE FAR NORTH DISTRICT PLAN, FIGURE 1: RANGITANE SHRUBLANDS (PNAP P05/87) INFORMATION. BOUNDARIES TO FOLLOW SITE OCCUPATION AND TO BE DETERMINED AT THE LAND TRANSFER STAGE

SHEET 1 OF 2

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| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR RESOURCE CONSENT | JCM | 27.11.25 |

PROJECT:

J.BUDDEN AND T.KEMP
438B REDCLIFFS ROAD
KERIKERI

TITLE:

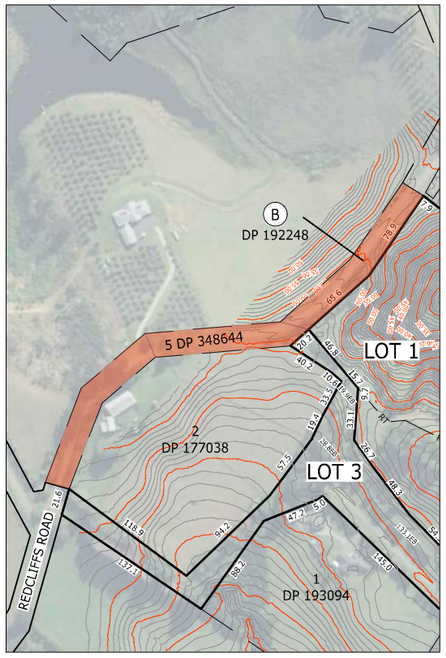
PROPOSED SCHEME PLAN
OF LOTS 1 - 3 BEING A SUBDIVISION OF
LOT 1 DP 194534 AND LOTS 1 & 2 DP 557844

| | | | |
|---|---|---|---|
| ORIGINATOR: JCM | DATE: 11.2025 | SIGNED: | PLOT BY: CEA |
| DRAWN: CEA | DATE: 11.2025 | SIGNED: | PLOT DATE: 27.11.25 |
| CHECKED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY BY: XXX |
| APPROVED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY DATE: XXX |

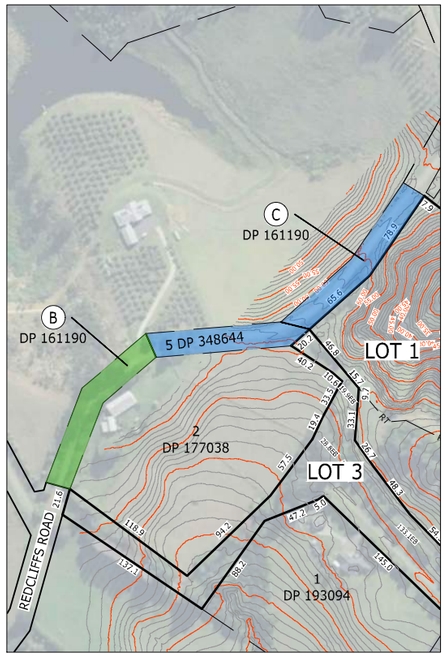
ISSUE STATUS: FOR RESOURCE CONSENT

| PROJECT No: | SCALES: | |
|---|---|---|
| A2415321.00 | 1:1500-A1<br>1:3000-A3 | A1 |

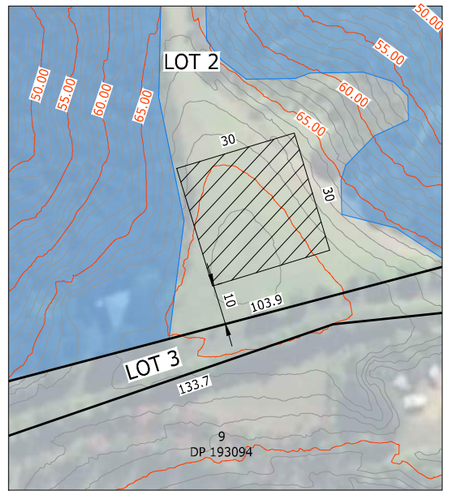
DRAWING No: A2415321-HG-XX-DR-XX-G-SC01 REV A




EASEMENT DETAIL: AREA B DP 192248




EASEMENT DETAIL: AREA B AND C DP 161190




LOT 2 PLATFORM DETAIL

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED



## NOTES:

1. COORDINATES ARE IN TERMS NZ GEODETIC DATUM 2000
2. BOUNDARIES SHOWN ON THIS PLAN ARE FROM LAND INFORMATION NZ DCDB AND HAVE NOT BEEN SURVEYED. A BOUNDARY DEFINITION SURVEY SHOULD BE CARRIED OUT TO ESTABLISH EXACT BOUNDARY POSITIONS ON SITE.
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9. LAND COVENANT BOUNDARIES ARE APPROXIMATE ONLY AND HAVE BEEN DERIVED FROM THE FAR NORTH DISTRICT PLAN, FIGURE 1: RANGITANE SHRUBLANDS (PNAP P05/87) INFORMATION. BOUNDARIES TO FOLLOW SITE OCCUPATION AND TO BE DETERMINED AT THE LAND TRANSFER STAGE

SHEET 2 OF 2

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| REF | REVISIONS | BY | DATE |
|---|---|---|---|
| A | FOR RESOURCE CONSENT | JCM | 27.11.25 |

PROJECT:

438B REDCLIFFS ROAD
KERIKERI

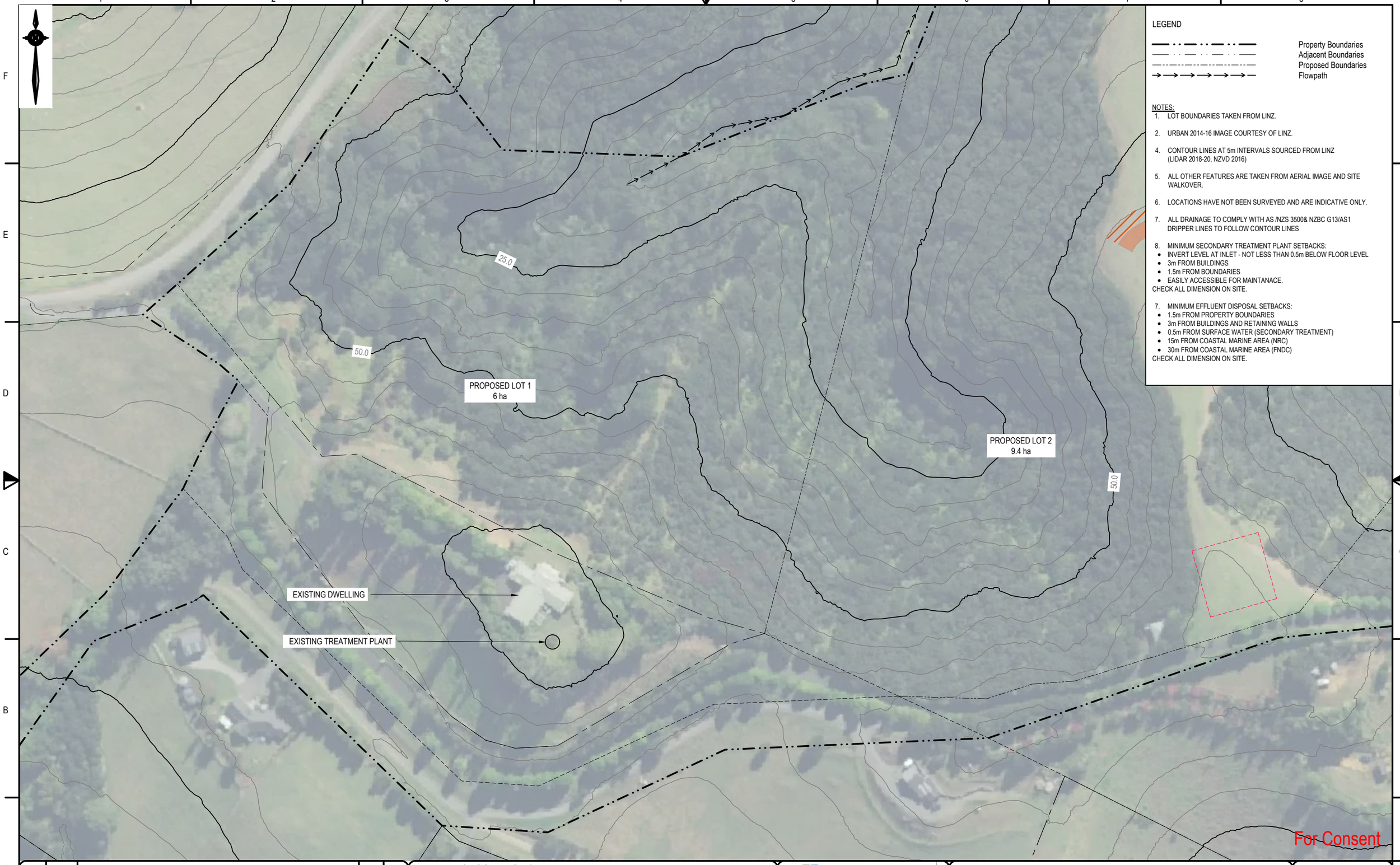
TITLE:

PROPOSED SCHEME PLAN DETAILS
OF LOTS 1 - 3 BEING A SUBDIVISION OF
LOT 1 DP 194534 AND LOTS 1 & 2 DP 557844

| | | | |
|---|---|---|---|
| ORIGINATOR: JCM | DATE: 11.2025 | SIGNED: | PLOT BY: CEA |
| DRAWN: CEA | DATE: 11.2025 | SIGNED: | PLOT DATE: 27.11.25 |
| CHECKED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY BY: XXX |
| APPROVED: DTJM | DATE: 27.11.25 | SIGNED: | SURVEY DATE: XXX |

ISSUE STATUS: FOR RESOURCE CONSENT

| | | |
|---|---|---|
| PROJECT No: A2415321.00 | SCALES: NOT TO SCALE | A1 |
| DRAWING No: A2415321-HG-XX-DR-XX-G-SC02 | | REV A |




| Rev | Date | Description | By | Checked |
|---|---|---|---|---|
| A | 09/12/2025 | For Consent | LP | TMA |
| B | 15/01/2026 | NO CHANGE | LP | TMA |

DWG PROPOSED LOT 1
EXISTING WASTEWATER PLAN

A3 Scale 1: 1500 (0 30 75) Date 09/12/2025

Drawn LP | Checked TMA | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 - 438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\03_DRAWINGS\25 217_C3D_WW PLAN.DWG

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Project PROPOSED SUBDIVISION AT
438B REDCLIFFS ROAD, KERIKERI

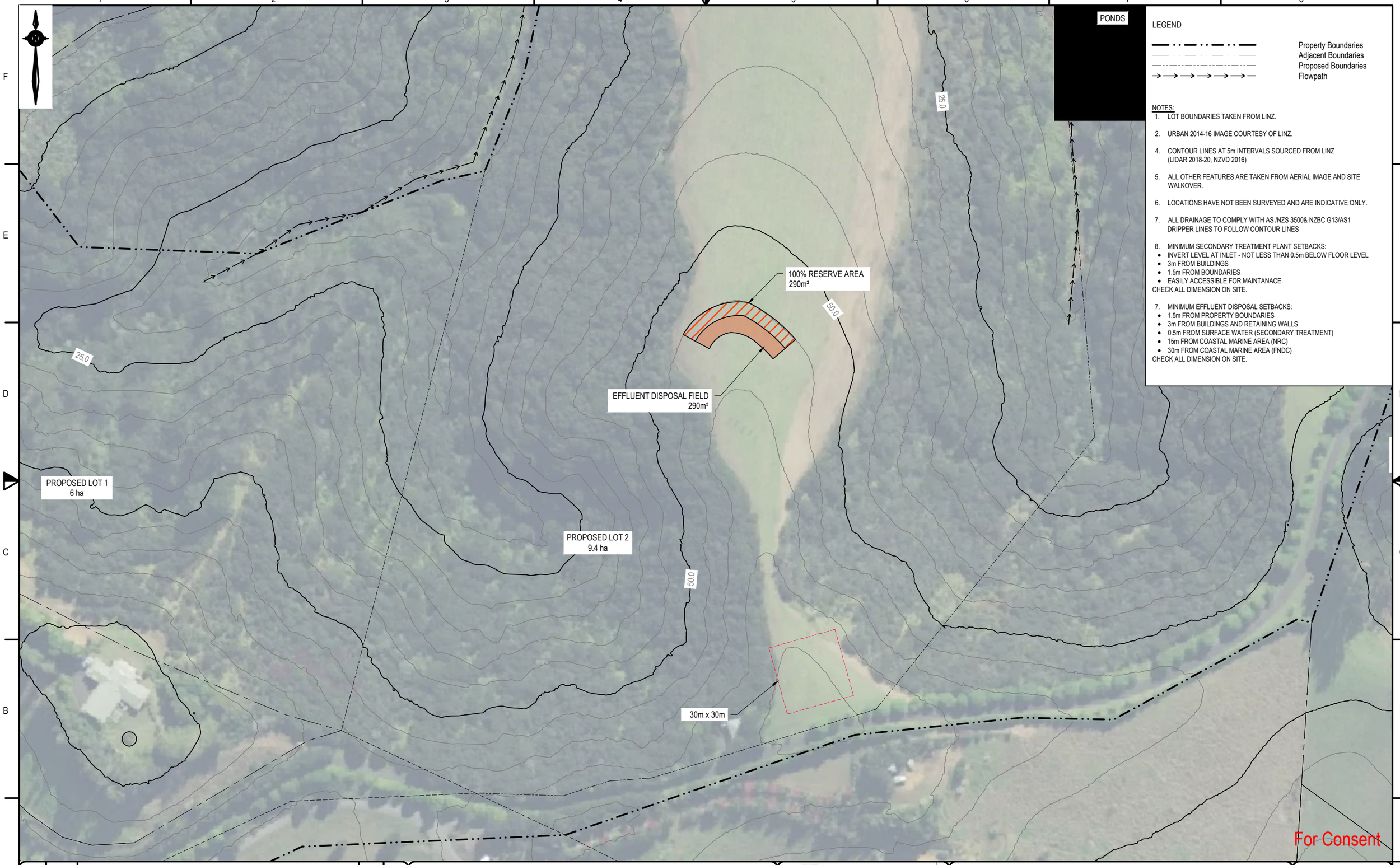
Client JANINE BUDDEN AND TONY KEMP

Project No. 25 217 | RC no.

Stage 00

Dwg No. WWP01

Sheet No. 1 of 1




| Rev | Date | Description | By | Checked |
|---|---|---|---|---|
| A | 09/12/2025 | For Consent | LP | TMA |
| B | 15/01/2026 | NEW LOCATION OF EFFLUENT FIELD | LP | TMA |

DWG PROPOSED LOT 2
PROPOSED WASTEWATER PLAN

A3 Scale 1: 1500 0 30 75 Date 15/01/2026

Drawn LP Checked TMA Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 - 438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\03_DRAWINGS\25 217_C3D_WW PLAN.DWG

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Project PROPOSED SUBDIVISION AT
438B REDCLIFFS ROAD, KERIKERI

Client JANINE BUDDEN AND TONY KEMP

Project No. 25 217 RC no.

Stage 00

Dwg No. WWP02

Sheet No. 1 of 1

EXISTING TREATMENT PLANT

EXISTING DWELLING

PONDS

50.0

25.0

WATER BORE
FNDC GIS MAP
(NOT CONFIRMED ON SITE)

WATER BORE
FNDC GIS MAP
(NOT CONFIRMED ON SITE)

MANGROVE AND SALTMARCH
AREA (NRC GIS MAP)

TE PUNA INLET

LEGEND

- Property Boundaries
- Adjacent Boundaries
- Proposed Boundaries
- Flowpath

NOTES:

1. LOT BOUNDARIES TAKEN FROM LINZ.
2. URBAN 2014-16 IMAGE COURTESY OF LINZ.
4. CONTOUR LINES AT 5m INTERVALS SOURCED FROM LINZ (LIDAR 2018-20, NZVD 2016)
5. ALL OTHER FEATURES ARE TAKEN FROM AERIAL IMAGE AND SITE WALKOVER.
6. LOCATIONS HAVE NOT BEEN SURVEYED AND ARE INDICATIVE ONLY.
7. ALL DRAINAGE TO COMPLY WITH AS /NZS 3500& NZBC G13/AS1 DRIPPER LINES TO FOLLOW CONTOUR LINES
8. MINIMUM SECONDARY TREATMENT PLANT SETBACKS:
   - INVERT LEVEL AT INLET - NOT LESS THAN 0.5m BELOW FLOOR LEVEL
   - 3m FROM BUILDINGS
   - 1.5m FROM BOUNDARIES
   - EASILY ACCESSIBLE FOR MAINTANACE.

CHECK ALL DIMENSION ON SITE.

7. MINIMUM EFFLUENT DISPOSAL SETBACKS:
   - 1.5m FROM PROPERTY BOUNDARIES
   - 3m FROM BUILDINGS AND RETAINING WALLS
   - 0.5m FROM SURFACE WATER (SECONDARY TREATMENT)
   - 15m FROM COASTAL MARINE AREA (NRC)
   - 30m FROM COASTAL MARINE AREA (FNDC)

CHECK ALL DIMENSION ON SITE.

For Consent

| Rev | Date | Description | By | Checked |
|---|---|---|---|---|
| A | 09/12/2025 | For Consent | LP | TMA |
| B | 15/01/2026 | NO CHANGE | LP | TMA |

DWG PROPOSED LOT 3
EXISTING WASTEWATER PLAN

A3 Scale 1: 1500 0 30 75 Date 09/12/2025

Drawn LP | Checked TMA | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 - 438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\03_DRAWINGS\25 217_C3D_WW PLAN.DWG

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Project PROPOSED SUBDIVISION AT
438B REDCLIFFS ROAD, KERIKERI

Client JANINE BUDDEN AND TONY KEMP

Project No. 25 217

RC no.

Stage 00

Dwg No. WWP03

Sheet No. 1 of 1

NOTES:

1. LOT BOUNDARIES AND AERIAL PHOTO INFORMATION TAKEN FROM LAND INFORMATION NEW ZEALAND (LINZ).
2. LOCATIONS HAVE NOT BEEN SURVEYED AND ARE INDICATIVE ONLY.


| Issue | Date | Revision |
|---|---|---|
| A | 08/12/2025 | FIRST ISSUE |

DWG SITE FEATURES AND INVESTIGATION LOCATION PLAN

Scale 1:1000 @A3 | Date 08/12/2025

Drawn JP | Checked WT | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 -438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\04_GEOTECH\GEO DWGS JP\DWGS JP 20251121 A.DWG

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Project GEOTECHNICAL SITE ASSESSMENT
438B REDCLIFFS ROAD, KERIKERI (LOT 1, DP194534)

Client JANINE BUDDEN AND TONY KEMP

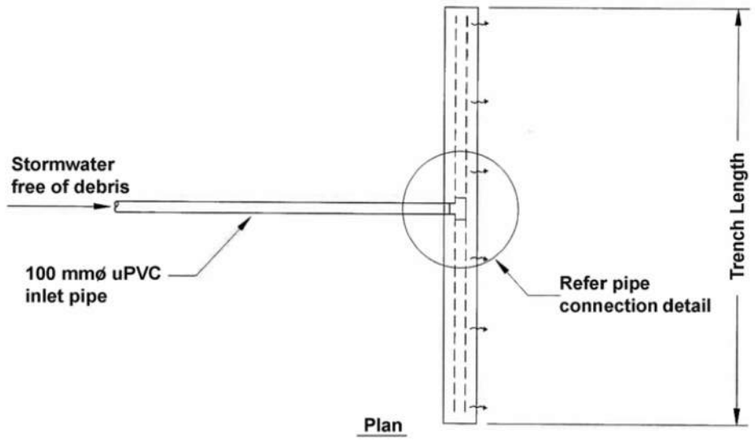
Project No. 25 217 | RC no. N/A

DWG No. **G02**

Sheet No. **2** of **3**

Plotted By John Power at 15/12/2025 12:50:26 pm

# Figure C21
# Conceptual Layout of Flow Dispersal Trench

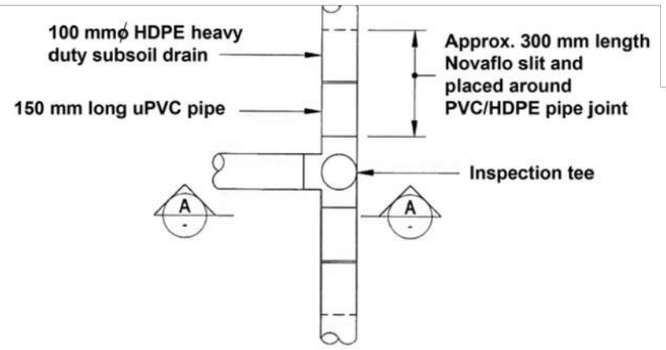



Keep dispersal trench 30 m clear of property boundary

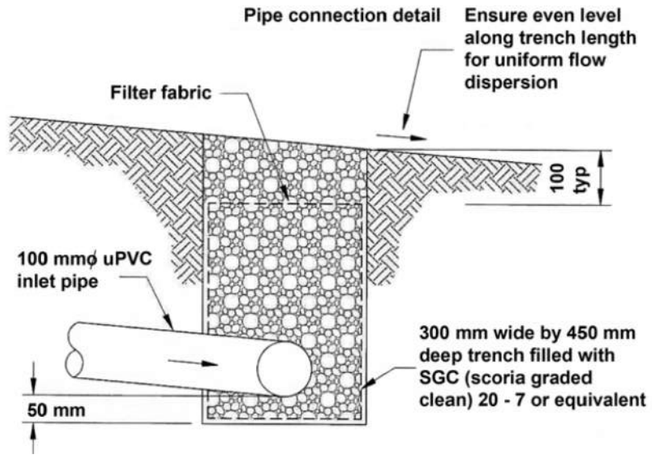
**Design Parameters**

| Effective catchment area drained ($m^2$) | Trench Length (m) |
|---|---|
| 100 | 8 |
| 200 | 12 |
| 300 | 14 |
| 400 | 16 |
| 500 | 18 |
| 600 | 20 |

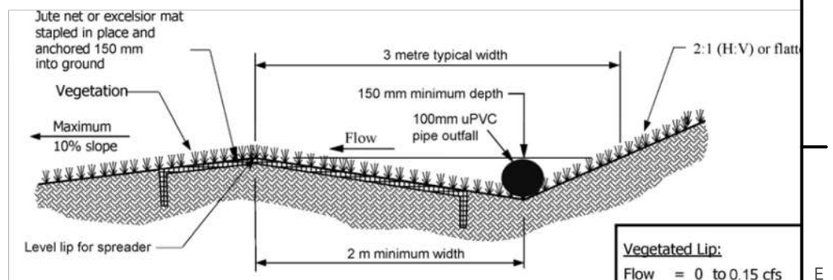
(Note: effective catchment area drained = impervious area + 0.72 x pervious area




Pipe connection detail



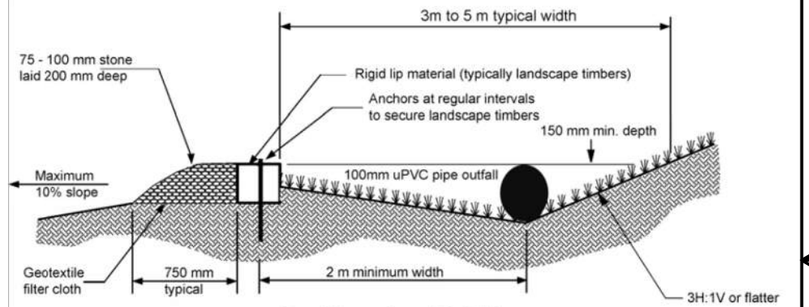

# Figure C23
# Rigid Boundary Flow Dispersal



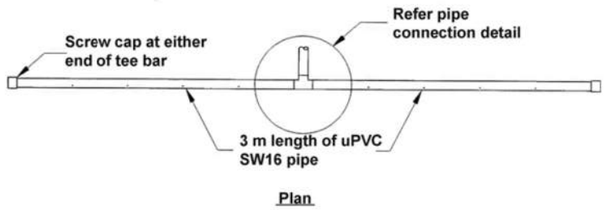

**Level Spreader — Vegetated Lip**

**Vegetated Lip:**
Flow = 0 to 0.15 cfs
Length = 3 metres
Width = 3 metres

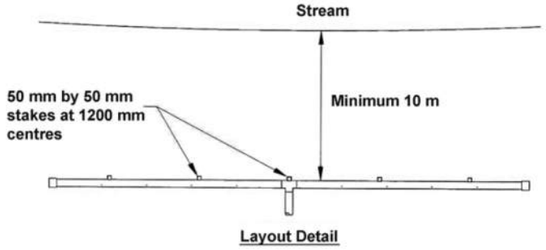
**Rigid Lip:**
Flow = 0.15 to 0.4 m/s
Length = 3 to 10 metres
Width = 3m to 5 m



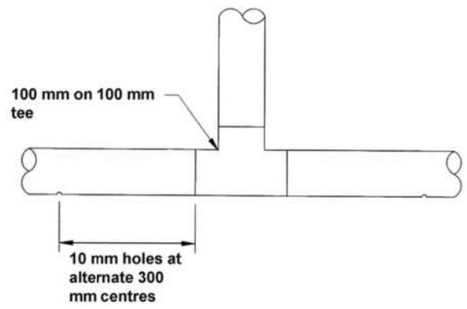

**Level Spreader — Rigid Lip**



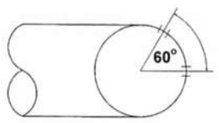

**Plan**



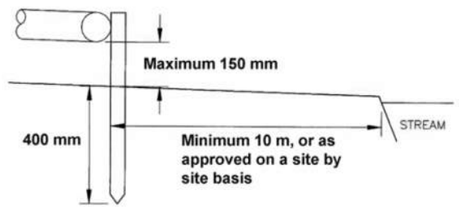

**Layout Detail**




**Pipe connection detail**




**Pipe outlet hole Arrangement detail**




**Stake Detail**

**Notes**
1. Pin pipe and tee bar using 50x50 mm 114 treated stakes at 1200 mm centres. Level pipe and fix to stakes using down pipe clips.
2. Stakes to be driven 400 mm into ground. Tee bar to be no more than 150 mm above ground level at any point and to be constructed dead level across length of tee bar.

For Consent

| Rev | Date | Description | By | Checked |
|---|---|---|---|---|
| A | 15/01/2026 | For Consent | LP | TMA |

DWG LEVEL SPREADER OUTFALL DETAIL

A3 SCALE 1:300 (0, 5m, 15m) Date 15/01/2026

Drawn LP | Checked TMA | Approved JP

File T:\CLIENTS\JANINE BUDDEN AND TONY KEMP\25 217 - 438B REDCLIFFS ROAD, KERIKERI\ENGINEERING\03_DRAWINGS\25 217_DETAILS.DWG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Project: PROPOSED SUBDIVISION AT 438B REDCLIFFS ROAD, KERIKERI

Client: JANINE BUDDEN AND TONY KEMP

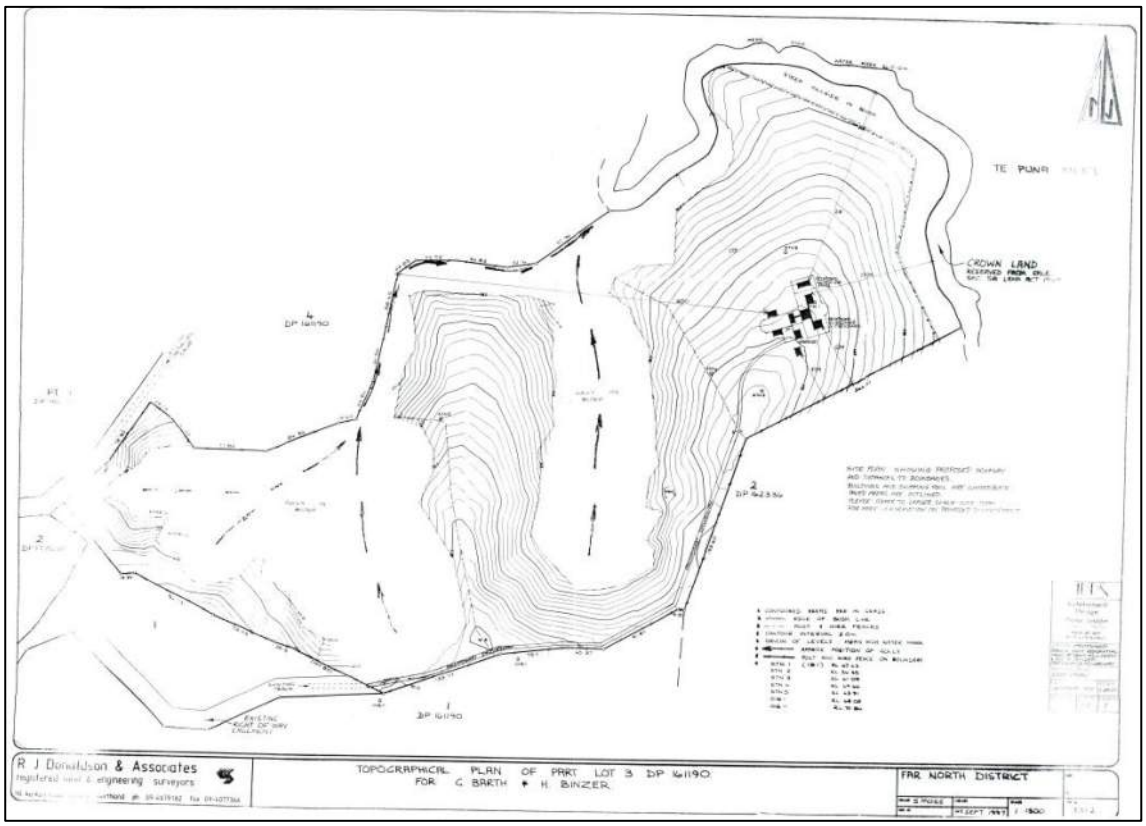
Project No. 25 217 | RC no.

Stage: ####

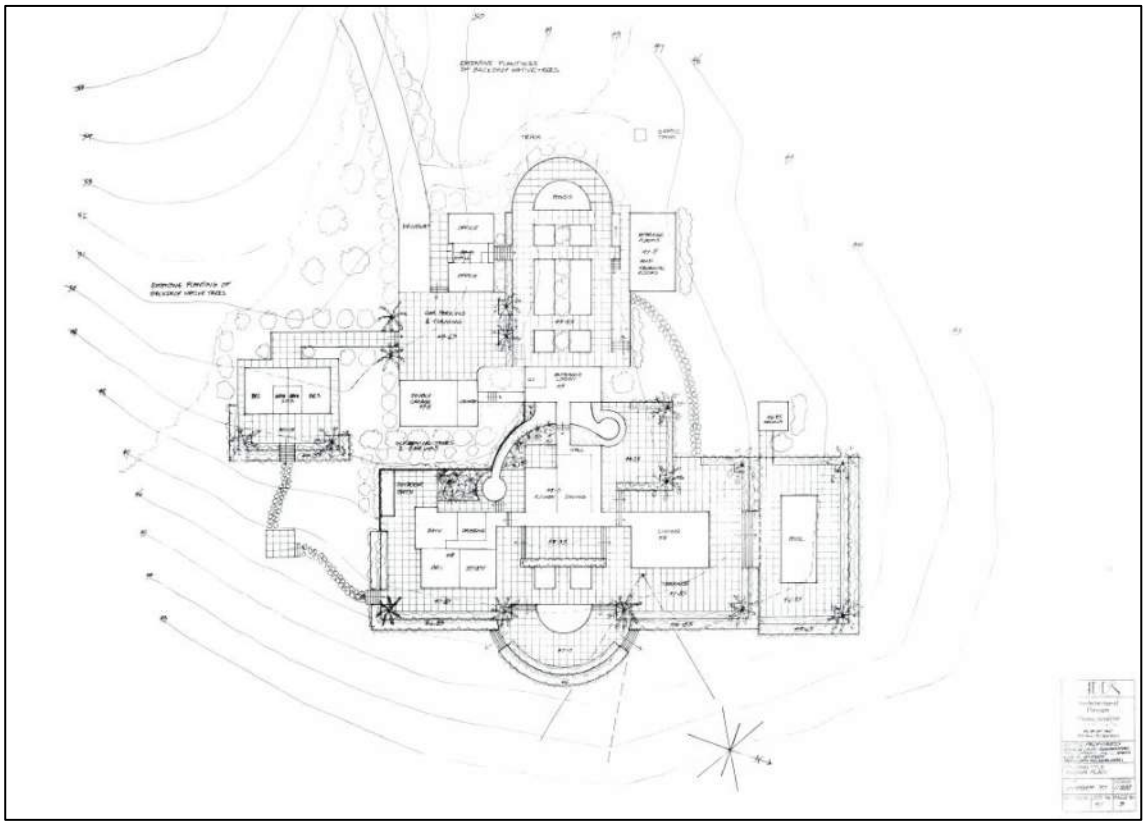
Dwg No. SWD01

Sheet No. 1 of 1

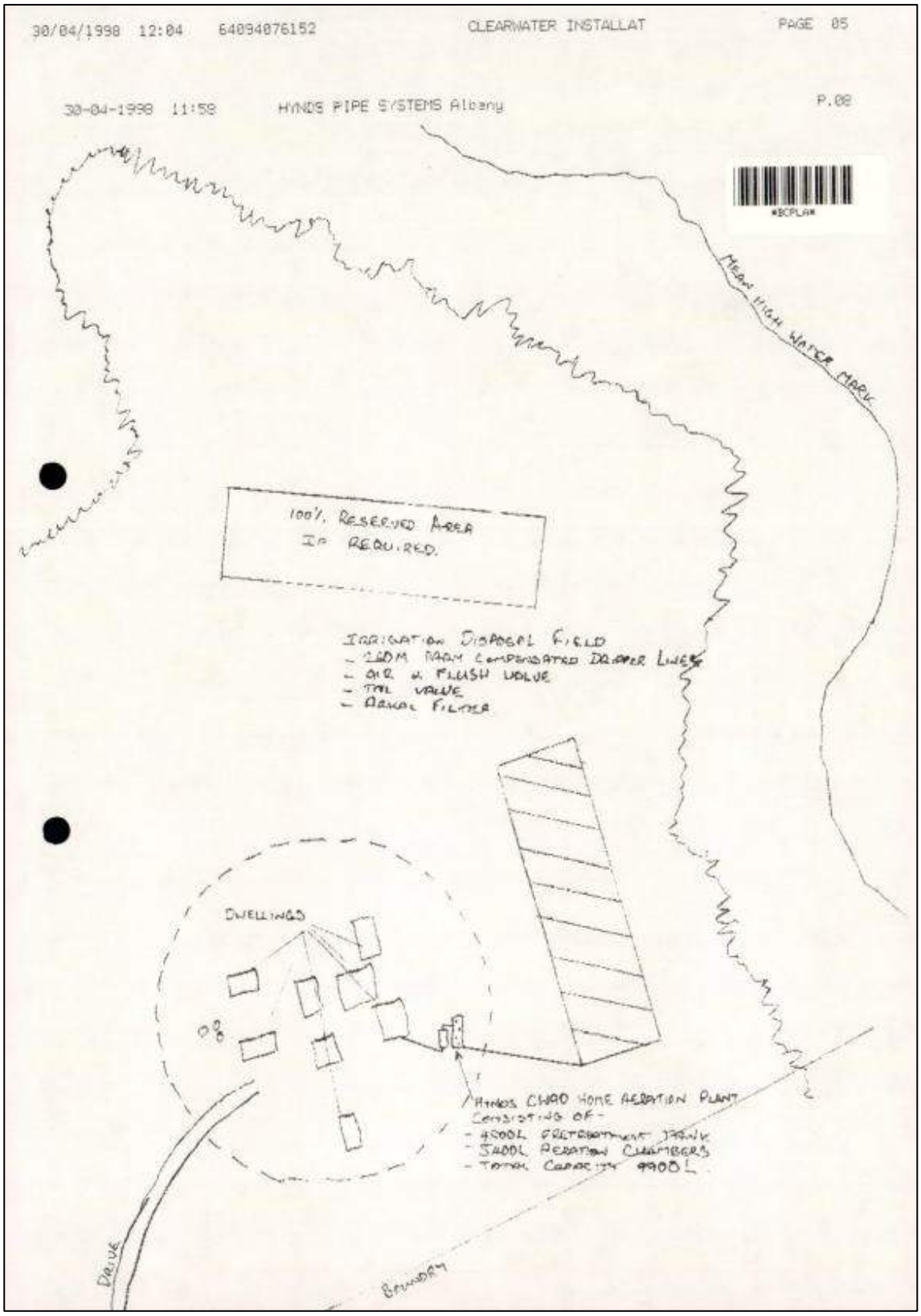
# Appendix B – Consented Plans



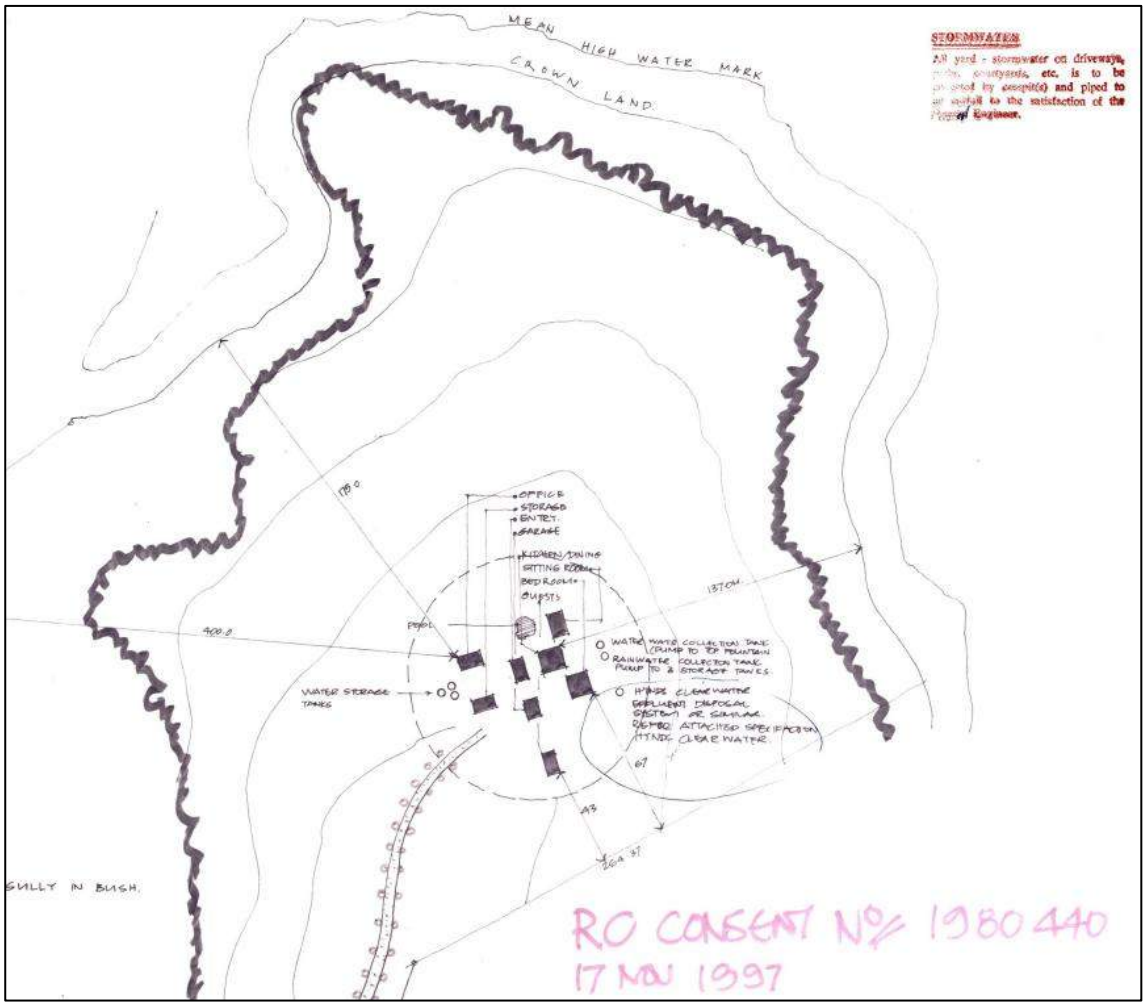

Lot 3 (438B Redcliffs Road) House LUC 1980440 and BC 1998 1557



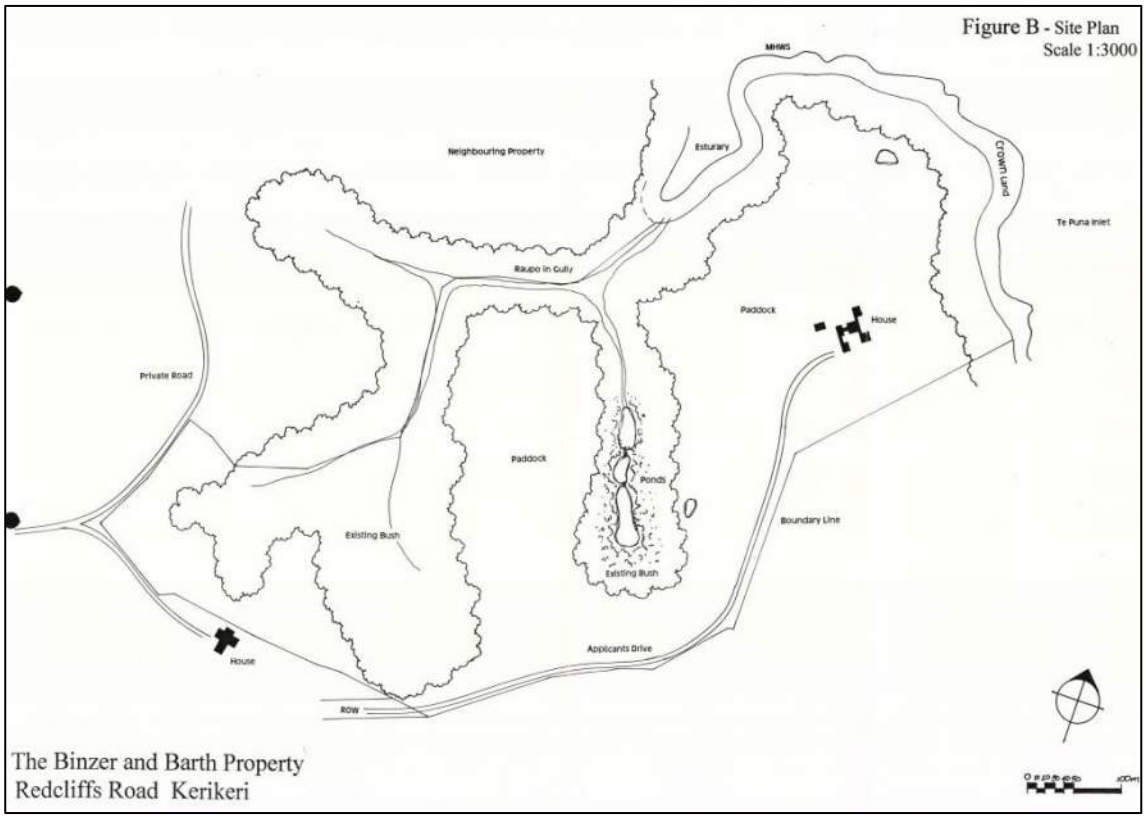
Lot 3 (438B Redcliffs Road) House LUC 1980440 and BC 1998 1557



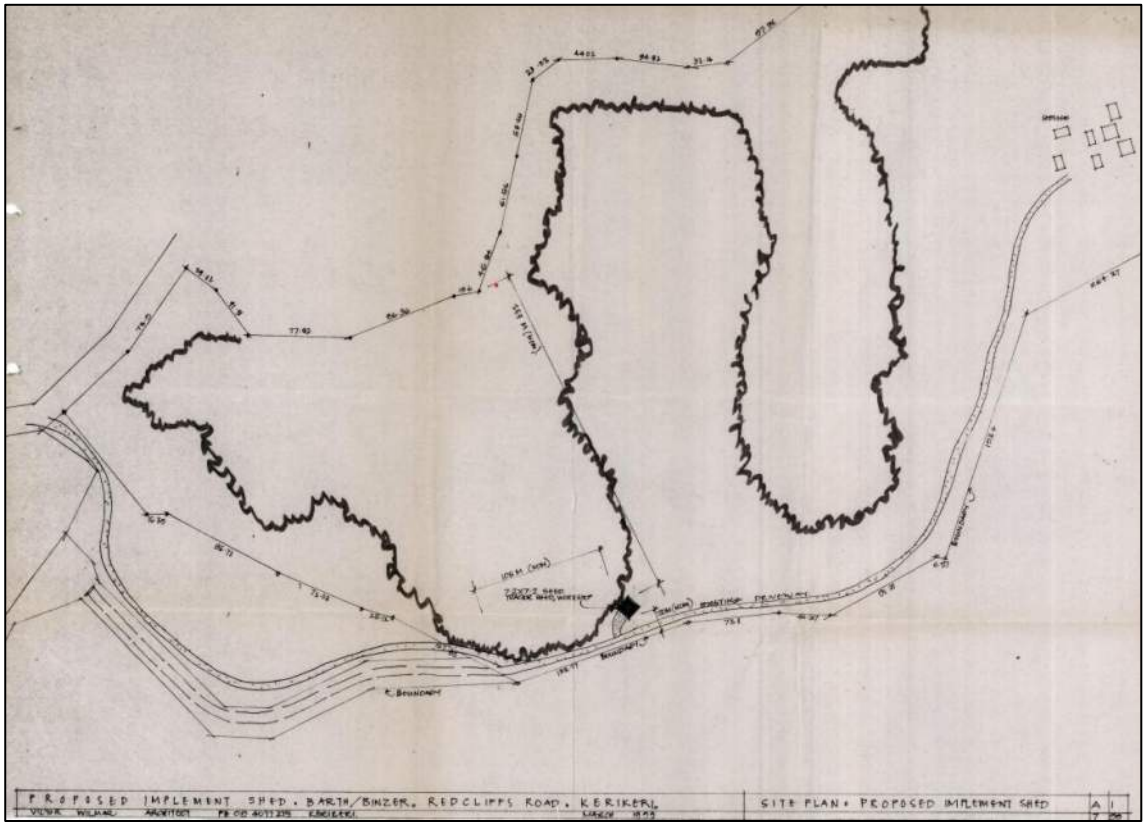

Lot 3 (438B Redcliffs Road) House BC 1998 1557 showing wastewater system




Lot 3 (438B Redcliffs Road) House LUC 1980 440




Lot 3 (438B Redcliffs Road) ponds LUC 1990580




Lot 2 (formally 438B Redcliffs Road) Shed LUC RC 1990794 & BC 1999 1322

# Appendix C – Borehole Logs

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# Borehole Log - BH01

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**, minor clay; brown and orange. Stiff, dry, low plasticity. [Fill & Topsoil]

**SILT**, trace clay; brown to dark brown. Stiff, dry to moist, no plasticity. [BT]

Clayey **SILT**; orangish brown, mottled brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes brownish orange, streaked brownish grey. Medium plasticity.

From 0.6m: Becomes light orange to brownish orange, streaked dark orange.

**SILT**, some clay; light orange, mottled dark orange and light grey. Very stiff, moist, low plasticity.

From 1.5m: Becomes moist to wet.

From 1.6m: Becomes orange and light greyish white, streaked black.

From 2.3m: Becomes light orange, streaked orange and white.

From 2.5m: Becomes orange and dark orange, mottled white, streaked black.

From 2.7m: Becomes whitish grey, streaked orange and black.

From 2.8m: Remnant rock fabric visible.

**End of Hole at 3.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: F; BT; WAIPAPA GROUP

Graphic Log

Water Level: Groundwater Not Encountered

Sensitivity

Vane Shear and Remoulded Vane Shear Strengths (kPa): 204, 204, 204, 204, UTP, UTP

Scala Penetrometer (blows/100mm): 0, 5, 10, 15, 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. F = Fill & Topsoil (Intermixed). BT = Buried Topsoil.
Hand Held Shear Vane S/N: DR2220

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# Borehole Log - BH02

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to dark brown. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; light orange to light brownish orange, streaked light brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes light orange, streaked light brownish grey. Medium plasticity.

From 1.1m: Becomes light orange, streaked light pinkish red.

From 1.3m: Becomes streaked light pinkish red and white.

From 1.4m: Becomes pinkish red, streaked light orange and light grey.

**SILT**, some clay; light orange and light pinkish red, streaked white and dark orange. Very stiff, moist to wet, low plasticity.

From 2.1m: Becomes orange, streaked pinkish red and white.

From 2.7m: Becomes dark orange and white, streaked pinkish red.

**End of Hole at 3.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: T.S. / WAIPAPA GROUP

Water Level: Groundwater Not Encountered

Sensitivity: 4, 4

Vane Shear and Remoulded Vane Shear Strengths (kPa):

| Depth (m) | Vane Shear | Remoulded Vane Shear |
|---|---|---|
| 0.5 | 204 | |
| 1.0 | 204 | |
| 1.5 | 178 | 50 |
| 2.0 | 175 | 41 |
| 2.5 | 204 | |
| 3.0 | 204 | |

Scala Penetrometer (blows/100mm): 0, 5, 10, 15, 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
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# Borehole Log - BH03

**Hole Location: Refer to Site Plan**

**JOB No. 25 217**

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to greyish brown, mottled orange. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; brownish orange, mottled greyish brown. Very stiff, moist, low to medium plasticity.

From 0.4m: Becomes light orange to light brownish orange.

From 0.6m: Becomes light orange, streaked light brownish grey and orange.

From 0.8m: Becomes light orange, streaked pinkish orange.

From 1.0m: Becomes light orange, streaked light grey.

**SILT**, some clay; light grey to white, and dark orange. Very stiff, moist, low plasticity.

From 1.8m: Becomes moist to wet.

**End of Hole at 2.0m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: T.S. / WAIPAPA GROUP

Graphic Log

Water Level: Groundwater Not Encountered

Sensitivity

Vane Shear and Remoulded Vane Shear Strengths (kPa): 204, 204, 204, 204

Scala Penetrometer (blows/100mm): 0, 5, 10, 15, 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
Hand Held Shear Vane S/N: DR2220

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# Borehole Log - BH04

**Hole Location:** Refer to Site Plan

**JOB No.** 25 217

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT:** | J. Budden & T. Kemp | **SITE:** | 438B Redcliffs Road, Kerikeri (Lot 1 Deposited Plan 194534) | | |
| **Date Started:** | 18/11/2025 | **DRILLING METHOD:** | Hand Auger | **LOGGED BY:** | JP |
| **Date Completed:** | 18/11/2025 | **HOLE DIAMETER (mm)** | 50mm | **CHECKED BY:** | WT |

## Soil Description

**Based on NZGS Logging Guidelines 2005**

**SILT**; brown to dark brown, mottled orange. Stiff, dry to moist, no plasticity. Rootlets. [Topsoil]

Clayey **SILT**; light brownish orange, streaked light greyish brown. Very stiff, moist, low to medium plasticity. [Waipapa Group]

From 0.4m: Becomes light orange, streaked light brownish grey.

From 0.6m: Becomes: orange, streaked light grey and pinkish orange.

From 0.9m: Becomes light yellow orange, streaked light pinkish red.

**End of Hole at 1.2m (Target Depth)**


Depth (m): 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Geology: T.S. / WAIPAPA GROUP

Graphic Log

Water Level: Groundwater Not Encountered

Sensitivity

Vane Shear and Remoulded Vane Shear Strengths (kPa): 204; UTP; UTP

Scala Penetrometer (blows/100mm): 0 5 10 15 20

**LEGEND**

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

**Note:** UTP = Unable to penetrate. T.S. = Topsoil.
Hand Held Shear Vane S/N: DR2220

# Appendix D – Photographs

Lot 3 ROW entrance off neighbouring ROW

Sight line from Lot 3 ROW entrance onto neighbouring ROW looking east

Sight line (65m available) from Lot 3 ROW entrance onto neighbouring ROW looking east

Sight line (65m available) looking east towards Lot 3 ROW entrance

Lot 3 ROW typical 3.9m width, seal coated, nib and kerb and channel with cesspit and culvert drainage

Lot 3 ROW typical 3.9m width, seal coated, nib and kerb and channel with cesspit and culvert drainage

Lot 3 ROW typical 3.9m width, seal coated, nib and kerb and channel

Lot 3 ROW localised seal damage (perished) and minor settlement (rotation of kerb and channel)

Lot 3 ROW localised seal damage and more pronounced settlement (rotation of kerb and channel)

Lot 2 existing shed

Lot 2 sightline available from driveway entrance looking east towards lot 3

Lot 2 sightline available from driveway entrance looking west towards lot 13

Lot 1 existing wastewater treatment system

Lot 3 existing wastewater treatment system

Lot 3 existing wastewater treatment system

Lot 2 suitable effluent disposal area

ecoLogical Solutions
Environmental Consultants





January 2026

# 438B Redcliffs Road - Ecological Impact Assessment

Submitted to:
Harrison Grierson

water fauna flora land

## Quality Assurance

This report has been prepared and reviewed by the following:

**Prepared by:** Dr Simon Connolly
Ecologist

**Reviewed by:** Dr Gary Bramley
Ecologist

**Status:** Final **Issued:** 27 January 2026

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# Appendices

Appendix A – Vascular plant list

Appendix B – eBird records within 10km of the Site

# 1.0 Introduction

**Background**438B Redcliffs Road (Lot 1 DP 194534 and Lots 1 & 2 DP 557844) ('the Site'), owned by Tony Kemp and Janine Budden ('the applicant'), is located approximately 8 km north-east of Kerikeri Township, near Te Puna Inlet, Northland, as shown in Figure 1. The Site is 34.16 ha in size and is proposed to be subdivided into three lots, as shown in Figure 2. Proposed lots 1 and 3 would accommodate existing dwellings. A new (future) house platform has been identified for proposed Lot 2 as shown by the 30 m x 30 m square adjacent to the existing private accessway in Figure 2. This house platform comprises an area of mown lawn/paddock.

Large parts of the Site were included in the "Rangitane Coastal Vegetation" potential Significant Natural Area (SNA) (FN417) by Wildland Consultants Limited (2019) as set out in Section 2.2. SNAs are areas of notable indigenous biodiversity, identified by local councils. They are often areas of distinct vegetation types which provide habitat for a number of native animal species, including 'Threatened' and 'At Risk' species. In the Far North District there have been at least two attempts to map SNAs which have subsequently been abandoned, including the effort by Wildland Consultants Limited (2019). The National Policy Statement for Indigenous Biodiversity (NPS-IB, amended December 2025) requires councils to map SNAs using criteria set out in the NPS-IB and include them in their District Plan, however, the requirement has been suspended until October 2027 due to amendments in the Resource Management (Freshwater and Other Matters) Amendment Act 2024. The status of the already mapped SNAs in the Far North District remains uncertain.

Part 4, Appendix 3 of the proposed Far North District plan provides for a "management plan subdivision" where that subdivision "facilitates the sustainable management of natural and physical resources in an integrated way". The District Plan states that "Management plans allow subdivision and development where the location, form and scale of the proposal complements sustainable environmental management consistent with the protection of natural character, landscape, amenity, heritage, and cultural values".

Ecological Solutions Limited were engaged to identify the ecological values present at the Site, and set out how these could be improved as part of a management plan subdivision, as well as to consider the potential ecological effects attributable to future development on proposed Lot 2 to inform the application for resource consent. This report also provides recommendations for the management of adverse effects in accordance with the effects management hierarchy and these have been incorporated into the Ecological Management Plan for the Site (Ecological Solutions Limited 2025). The Ecological Management Plan sets out the management actions required to enhance the ecological values of the Site, consistent with the requirements of section 13.9 of the operative Far North District Plan.

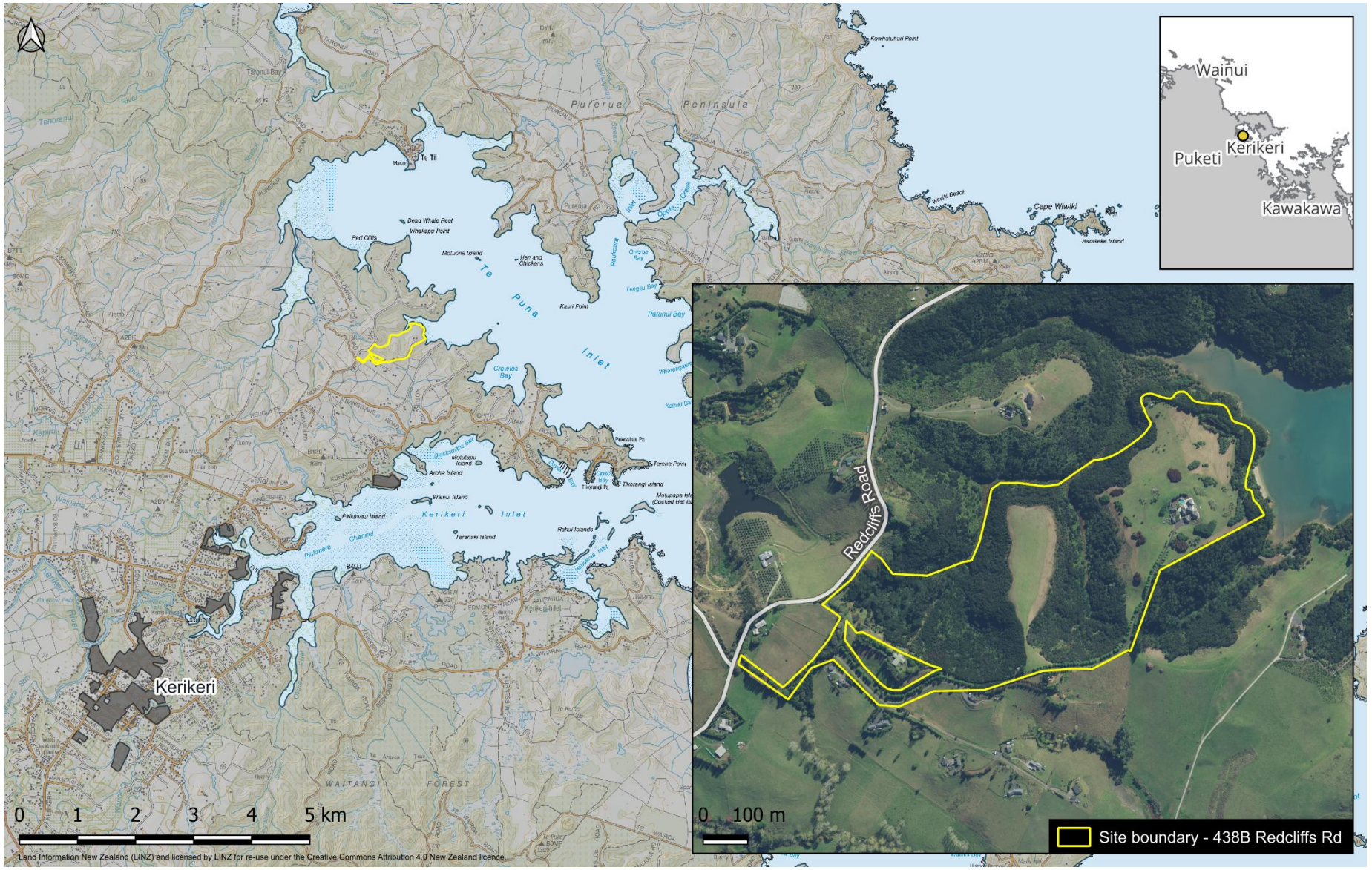


**Figure 1: Site location (438B Redcliffs Road, Kerikeri).**

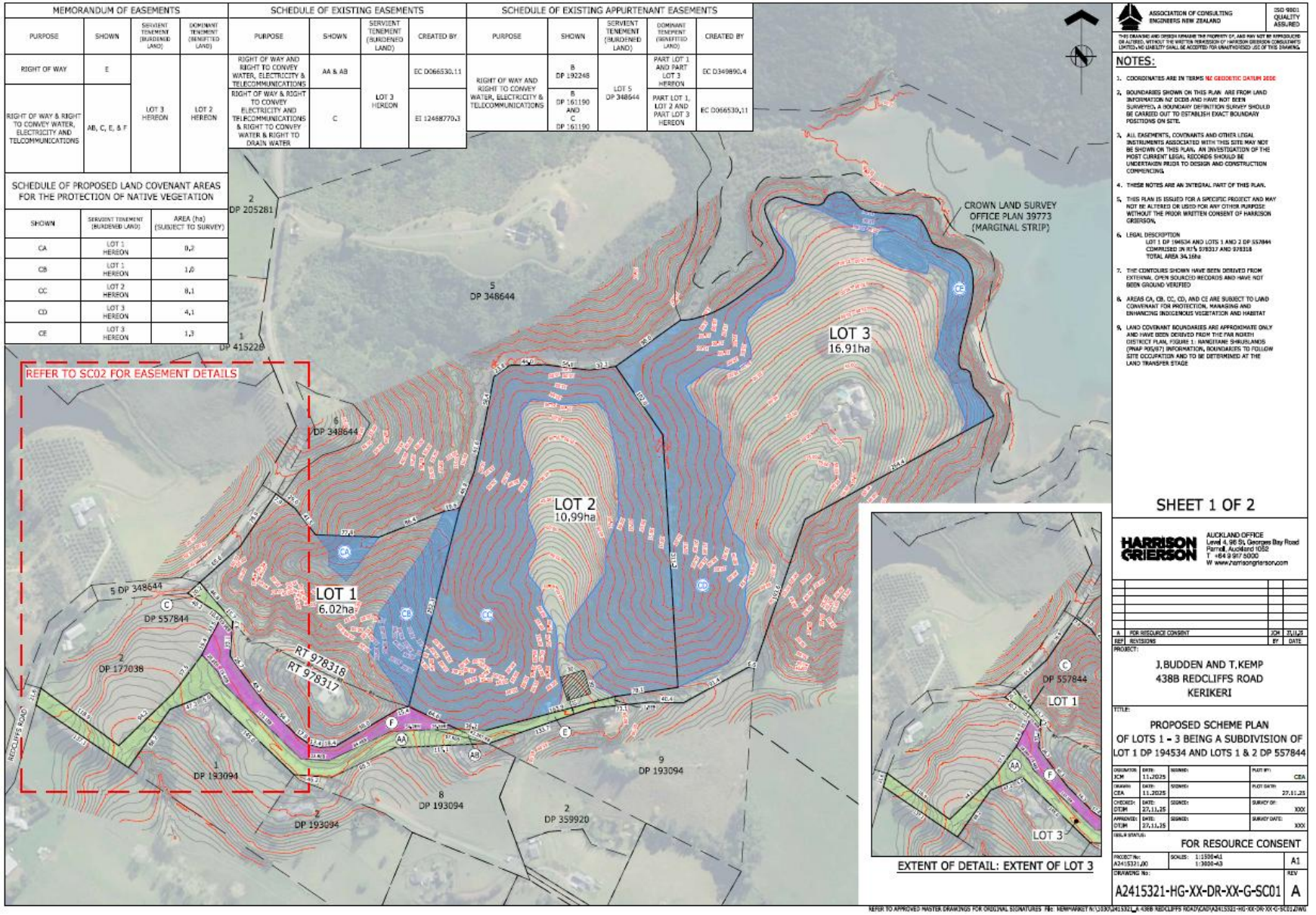


**Figure 2: Scheme plan for the development and subdivision at the Site (438B Redcliffs Road, Kerikeri).**

### 1.2 Structure of Report

The EcIA includes the following sections:

- Introduction and description of project (Section 1.0).
- Description of the ecological setting for the Site (Section 2.0).
- Description of the methods applied during ecological surveys, assessment of ecological values and effects for the Site (Section 3.0).
- Description of existing terrestrial ecology (Section 0).
- Assessment of ecological values (Section 5.0).
- Assessment of actual and potential effects of developing the Site (Section 6.0).
- Conclusion (Section 7.0).
- References (Section 8.0).

## 2.0 Ecological Setting

### 2.1 Kerikeri Ecological District

The Site was 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 Opua 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).

Land Cover Database (v6.0) shows the Kerikeri Ecological District to be highly modified, with exotic grassland being the most common vegetation type (Figure 3). Indigenous forest makes up 15.1% of the district. Conning and Miller (1999) mapped and briefly described most of these areas of indigenous natural vegetation. 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. Conning and Miller assigned the sites they identified into 'Level 1' sites, which contained significant vegetation and/or significant habitats of indigenous fauna and "Level 2" sites, which were natural areas supporting populations of indigenous flora and fauna, but which did not meet the criteria for Level 1.

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. However, Conning and Miller (1999) concluded that the remaining coastal vegetation contained a diverse assemblage of habitats. They also identified a number of constructed ponds and associated wetlands, as well as natural raupō (*Typha orientalis*) wetland areas throughout the Kerikeri Ecological District (particularly on the Purerua Peninsula) which they considered to have high value as wildlife habitat, and recommended their protection and restoration. Within the Kerikeri Ecological District wetland areas provide important habitat for Spotless crake (*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 concern. Constructed ponds are also potential habitat for brown teal (pāteke, *Anas chlorotis*), another regionally significant species of conservation interest.

The Kerikeri Ecological District is also significant for the number of North Island brown kiwi (*Apteryx mantelli*) found within it, with much of the region being protected (or having protection prioritised) for the benefit of kiwi (Conning and Miller 1999). The Site is also located within large scale ongoing pest control sites, as part of the Predator Free 2050 initiative (Predator Free Pēwhairangi Whānui 2024).

## 2.2 Rangitane Coastal Vegetation

Much of the Site (13.2 ha, 43%) was identified as a Level One site by Conning and Miller (1999) and included by them within the Rangitane Shrublands Recommended Area for Protection ('RAP') (P05/087). More recently, the Rangitane Shrublands area was incorporated into the larger Rangitane Coastal Vegetation SNA (FN417) which covers 546ha of coastal vegetation in the upper Kerikeri and Te Puna Inlets (Wildlands Consultants Limited 2019) as shown in Figure 4.

Approximately 40 ha of the 546 ha RAP (7.3%) is included within various reserves and stewardship land administered by the Department of Conservation (Conning and Miller 1999). FN417 is one of the largest coastal shrubland remnants within the Bay of Islands, and home to distinctive pōhutukawa-kānuka and tōwai-mamaku vegetation types. Conning and Miller (1999) listed several notable species present within the Rangitane Shrublands, including native buttercup (*Ranunculus urvilleanus*, 'At Risk – Declining'), North Island brown kiwi (*Apteryx mantelli*, 'Not Threatened'), and Northland green gecko (*Naultinus grayii* 'At Risk – Declining'). Conning and Miller (1999) recommended the protection and enhancement of coastal forest in the Kerikeri Ecological District, and the Proposed Far North District plan specifically mentions subdivision as a means to protect "Natural Character of the Coastal Environment".

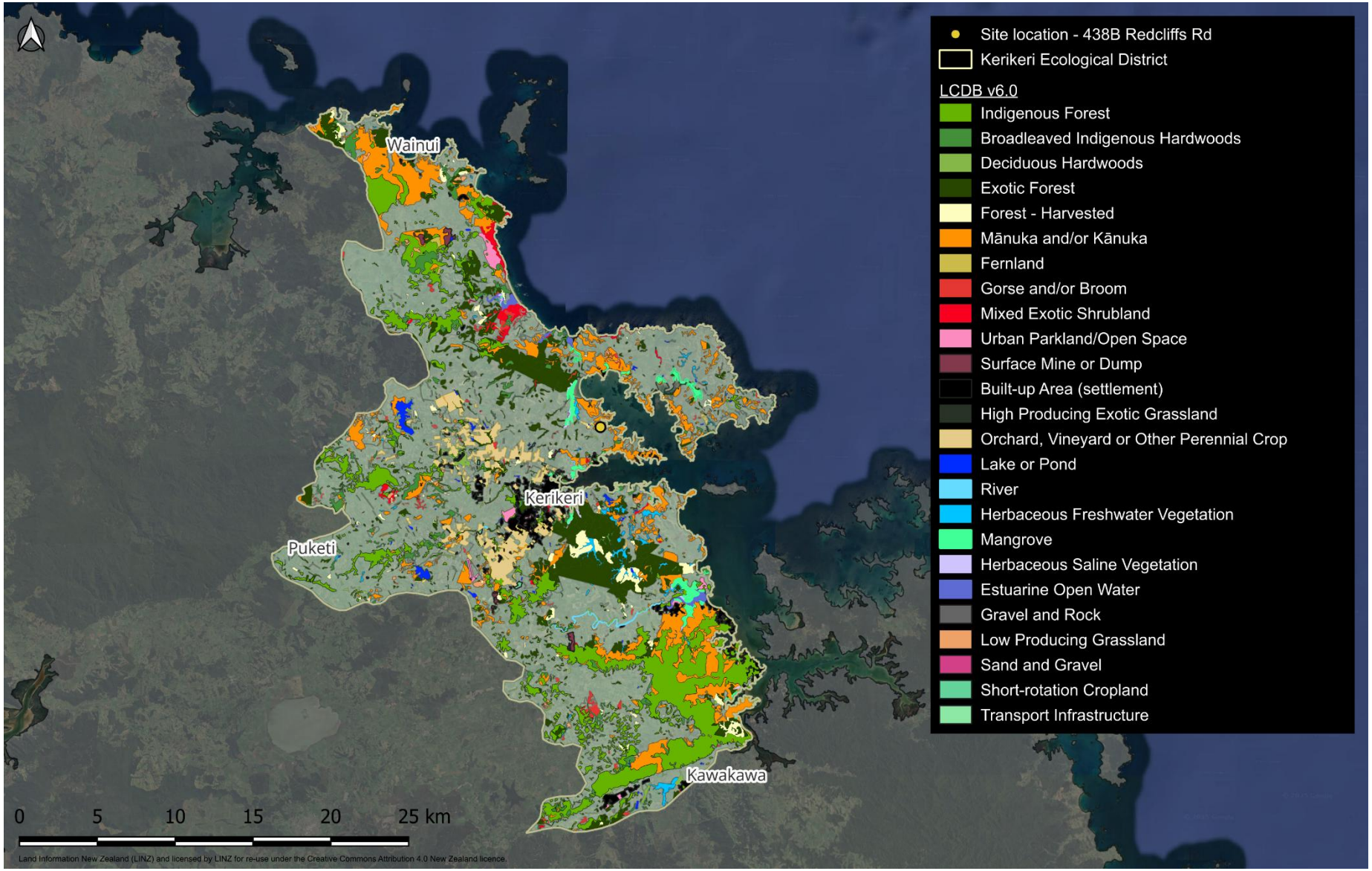


**Figure 3: Vegetation types within the Kerikeri Ecological District (from the New Zealand Landcover database (LCDB) v6.0).**

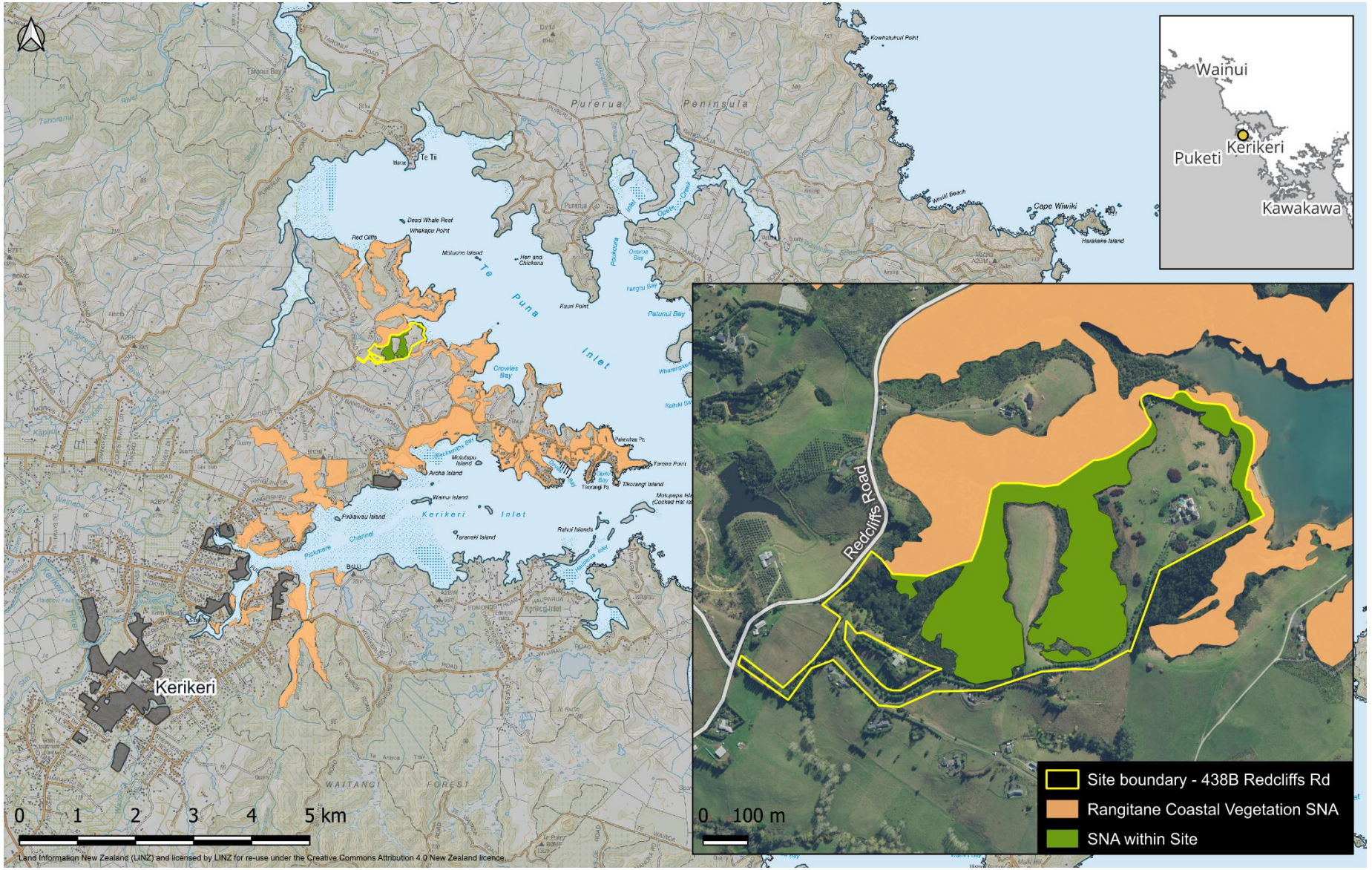


**Figure 4: Rangitane Coastal Vegetation Significant Natural Area, including that within the Site (438B Redcliffs Road, Kerikeri, inset).**

# 3.0 Methodology

## 3.1 Vegetation

Current vegetation at the Site was surveyed during a walk-through survey on 11 November 2024. Vegetation was photographed and described in terms of composition, value, structure, and integrity. Any 'Threatened' or 'At Risk' plant species encountered were recorded.

Location data with respect to the SNA qualifying vegetation was accessed from the Far North District Council proposed SNA database (2020). Canopy gaps within vegetation were identified and described during the November walk through survey, and mapped using aerial imagery.

## 3.2 Avifauna

A search of the eBird database (data retrieved April 2025) was undertaken for records within 10 km of the Site. Species with a conservation status of 'Threatened' or 'At Risk' (Robertson et al. 2021) were identified and their potential to use habitats within or near the Site was assessed. These location data were also cross referenced with the extent of the SNA to identify which species have been recorded within the SNA itself.

All birds seen or heard during the November 2024 site survey were also recorded.

## 3.3 Bats

A search of the national bat database was undertaken for records within 25 km of the Site. Data were issued by the Department of Conservation on 4 February 2025.

## 3.4 Herpetofauna

A search of the Department of Conservation BioWeb database within 12 km[1] of the Site was undertaken to identify lizard species which might be present. Data were issued by the Department of Conservation in March 2025. Habitat on Site was inspected and photographed as part of the November 2024 site visit, but no formal mapping or searching of lizard habitat was undertaken.

## 3.5 Assessment of Ecological Values

Ecological values were assigned following the approach outlined in the Environment Institute of Australia and New Zealand's (EIANZ) Ecological Impact Assessment guidelines (EcIAG) (Roper-Lindsay et al. 2018). The EcIAG sets out a standardised approach for defining ecological values. The approach involves assessing four matters including representativeness, rarity/distinctiveness, diversity/pattern, and ecological context with consideration of the attributes outlined in Table 7 of the EcIAG. The overall ecological values within the Site and vicinity were assigned based on the four matters outlined above and using the scoring system outlined in Table 6 of the EcIAG.

[1] Distance to existing lizard records not precise. 12km equals smallest reporting distance in accordance with ESL's GIS data sharing agreement with the Department of Conservation.

## 3.6 Assessment of Effects

The level of effects was assessed using the method recommended by the EcIAG (Roper-Lindsay et al. 2018). This method involves assigning ecological values as above and determining the magnitude of effects based on criteria outlined in Table 1 below and assigning the overall level of effect using the matrix in Table 2 below. The magnitude of the effects was considered at the site level (unless otherwise indicated).

**Table 1: Criteria for describing magnitude of effect.**

| Magnitude | Description |
|---|---|
| Very high | Total loss or very major alteration to key elements/ features of the baseline conditions such that the post development character/ composition/ attributes will be fundamentally changed and may be lost from the site altogether; AND/OR Loss of a very high proportion of the known population or range of the element/feature. |
| High | Major loss or major alteration to key elements/ features of the baseline (pre-development) conditions such that post development character/ composition/ attributes will be fundamentally changed; AND/OR Loss of a high proportion of the known population or range of the element/feature. |
| Moderate | Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of baseline will be partially changed; AND/OR Loss of a moderate proportion of the known population or range of the element/feature. |
| Low | Minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible but underlying character/composition/attributes of baseline condition will be similar to pre-development circumstances/patterns; AND/OR having a minor effect on the known population or range of the element/feature. |
| Negligible | Very slight change from baseline condition. Change barely distinguishable, approximating to the "no change" situation; AND/OR having negligible effect on the known population or range of the element/feature. |

**Table 2: Criteria for describing level of effects.**

| Effect level | Ecological value | | | | |
|---|---|---|---|---|---|
| | ***Very high*** | ***High*** | ***Moderate*** | ***Low*** | ***Negligible*** |
| ***Very high*** | Very high | Very high | High | Moderate | Low |
| ***High*** | Very high | Very high | Moderate | Low | Very low |
| ***Moderate*** | High | High | Moderate | Low | Very low |
| ***Low*** | Moderate | Low | Low | Very low | Very low |
| ***Negligible*** | Low | Very low | Very low | Very low | Very low |
| ***Positive*** | Net gain | Net gain | Net gain | Net gain | Net gain |

# 4.0 Terrestrial Flora and Fauna

## 4.1 Vegetation

The Site contains a mixture of managed lawns and plantings, and gullies with native vegetation, as shown in Figure 5, one of which contains a small, intermittent stream. The managed lawns and plantings are located outside FN417 with most of the native vegetation within as shown in Figure 6. A list of vascular plants observed on Site is provided in Appendix A.

There were a number of plantings, including patches of the Australian species Morrison's tea tree (*Leptospermum morrisonii*) and the native pōhutukawa (*Metrosideros excelsa*) amongst the lawns, and a row of pūriri (*Vitex lucens*) along the driveway.

Vegetation within the gullies was dominated by mānuka (*Leptospermum scoparium*) forest with codominant kānuka (*Kunzea robusta*) and local tree ferns, such as ponga (*Cyathea dealbata*), which is typical of the Rangitane Coastal Vegetation, and the coastal shrublands of the Kerikeri Ecological District generally (Conning and Miller 1999). There were also occasional areas with higher plant diversity in the canopy, including species such as puka (*Meryta sinclairii*), mahoe (*Melicytus ramiflorus*), and karaka (*Corynocarpus laevigatus*). There were common, large canopy gaps dominated by invasive weeds similar to that shown in Figure 7, including gorse (*Ulex europaeus*) and climbing asparagus (*Asparagus scandens*). The canopy gaps identified within FN417 collectively comprised approximately 0.46ha (Figure 6). Tree height within the indigenous shrubland ranged from 5 to 10 m tall with diameters at breast height (DBH) ranging from 15 cm to over 30 cm.

**Figure 5: Managed lawn and indigenous gully vegetation on Site (438B Redcliffs Road, Kerikeri).**

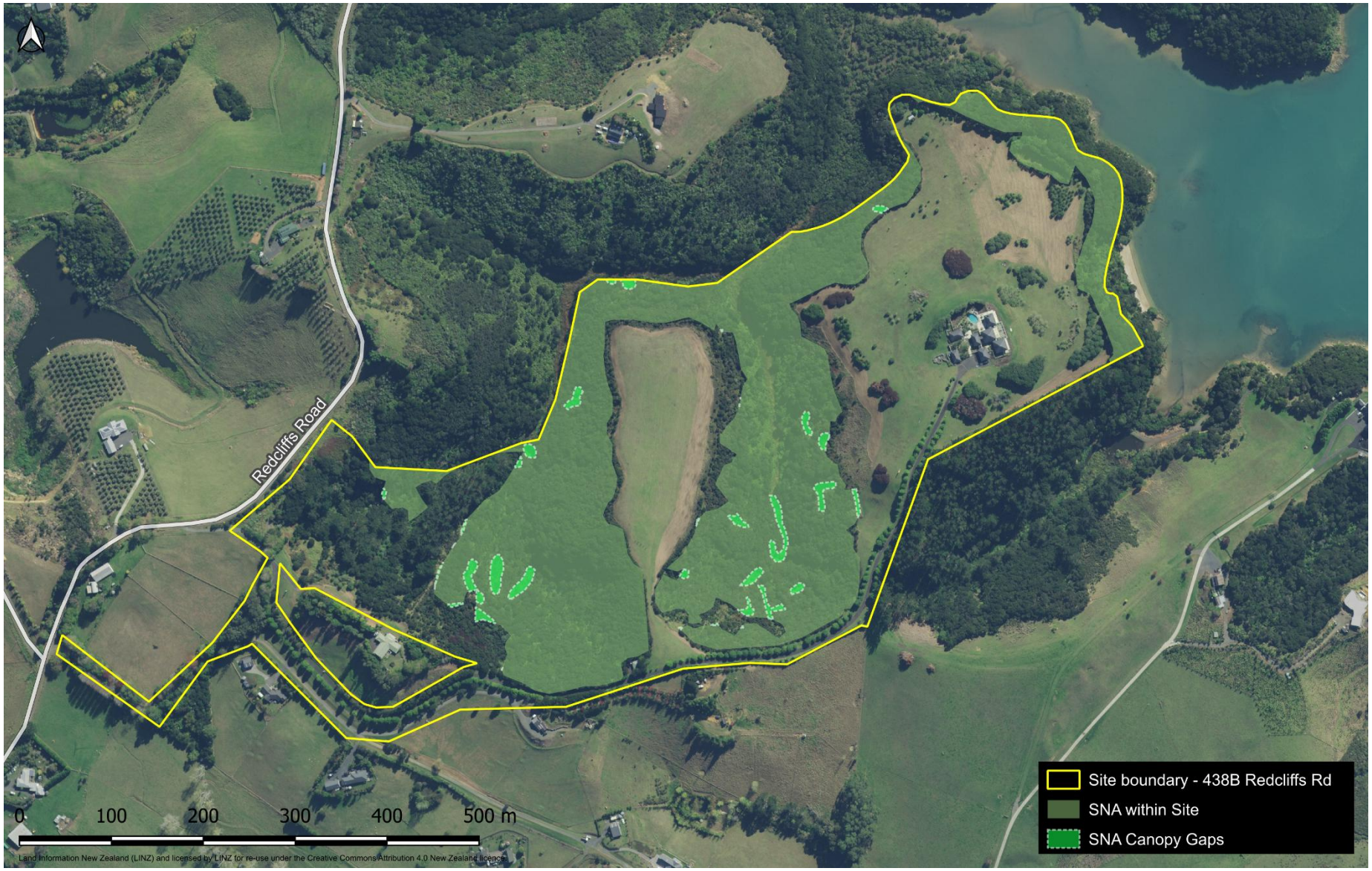


**Figure 6: Canopy gaps mapped within the Rangitane Coastal Vegetation on Site (438b Redcliffs Road, Kerikeri).**

**Figure 7: An example of a canopy gap within the SNA featuring exotic grasses and invasive weeds dominating the understorey on Site (438B Redcliffs Road, Kerikeri).**

## 4.2 Avifauna

### 4.2.1 eBird database

A search of the eBird database revealed 101 species recorded within 10km of the Site. Of those, 39 are considered 'Threatened' or 'At Risk' (Robertson et al. 2021) (Table 3). Of these 'Threatened' or 'At Risk' species, 17 have been recorded within the Rangitane Coastal Vegetation Area. Many of these are water or forest birds, and are therefore unlikely to be making use of open pasture where the house would be constructed. Table 3 summarises species 'Threatened' or 'At Risk' (and North Island brown kiwi) likely to use the Site, or that have been recorded within FN417. A full list of birds listed on the eBird database within 10km of the Site is found in Appendix B.

**Table 3: Birds recorded within or likely to use FN147 that are Threatened or At Risk.**

| Common Name | Scientific Name | Recorded in Rangitane Coastal Vegetation Area | Recorded during Site visit | Threat Status (Robertson et al. 2021) |
|---|---|---|---|---|
| Australasian Bittern | *Botaurus poiciloptilus* | Yes | No | Threatened - Nationally Critical |
| Caspian Tern | *Hydroprogne caspia* | Yes | No | Threatened - Nationally Vulnerable |

| | | | | |
|---|---|---|---|---|
| Pacific Reef-Heron | *Egretta sacra* | Yes | No | Threatened - Nationally Endangered |
| Red-breasted Dotterel | *Anarhynchus obscurus* | Yes | No | Threatened - Nationally Increasing |
| New Zealand Pipit | *Anthus novaeseelandiae* | Yes | No | At Risk - Declining |
| Silver Gull | *Chroicocephalus novaehollandiae* | Yes | No | At Risk - Declining |
| South Island Oystercatcher | *Haematopus finschi* | Yes | No | At Risk - Declining |
| New Zealand Fernbird | *Poodytes punctatus* | Yes | No | At Risk - Declining |
| White-fronted Tern | *Sterna striata* | Yes | No | At Risk - Declining |
| Spotless Crake | *Zapornia tabuensis* | Yes | No | At Risk - Declining |
| Variable Oystercatcher | *Haematopus unicolor* | Yes | No | At Risk - Recovering |
| Pied Cormorant | *Phalacrocorax varius* | Yes | No | At Risk - Recovering |
| Little Pied Cormorant | *Microcarbo melanoleucos* | Yes | No | At Risk - Relict |
| Great Cormorant | *Phalacrocorax carbo* | Yes | No | At Risk - Relict |
| Little Black Cormorant | *Phalacrocorax sulcirostris* | Yes | No | At Risk - Naturally Uncommon |
| Royal Spoonbill | *Platalea regia* | Yes | No | At Risk - Naturally Uncommon |
| North Island Brown Kiwi | *Apteryx mantelli* | Yes | No | Not Threatened |

### 4.2.2 Walk-through Survey

Fourteen species of bird were seen or heard during the November 2024 Site visit: grey warbler (*Gerygone igata*), blackbird (*Turdus merula*), fantail (*Rhipidura fuliginosa*), California quail (*Callipepla californica*), silvereye (*Zosterops lateralis*), magpie (*Gymnorhina tibicen*), tūi (*Prosthemadera novaeseelandiae*), yellowhammer (*Emberiza citronella*), kingfisher (*Todiramphus sanctus*), eastern rosella (*Platycercus eximius*), thrush (*Turdus philomelos*), pūkeko (*Porphyrio melanotus*), swallow (*Hirundo neoxena*), and brown quail (*Synoicus ypsilophorus australis*). These are all common species that are considered to be either 'Not Threatened' or 'Introduced and Naturalised' (Robertson et al. 2021).

## 4.3 Bats

A search of the Department of Conservation bat database revealed bat activity within 25km of the Site. The records are mainly concentrated within Puketi forest to the west, where both long-tailed bats (*Chalinolobus tuberculatus*) and short tailed bats (*Mystacina tuberculata aupourica*) are present. There is also a single record of a long-tailed bat c. 10 km to the northwest of the Site, recorded in 2021, which is the closest listed survey to the Site. Long tailed bats are listed as 'Threatened – Nationally Critical', whereas this northern sub-species of short tailed bat are listed as 'Threatened – Nationally Vulnerable' (O'Donnell et al. 2023).

Records of bats within 25 km within the past ten years are sufficient to consider that the Site has potential bat habitat (unless other surveys or tree inspections rule out this possibility). Therefore, the vegetation within the Rangitane Coastal Vegetation at the Site may provide habitat for long-tailed bats.

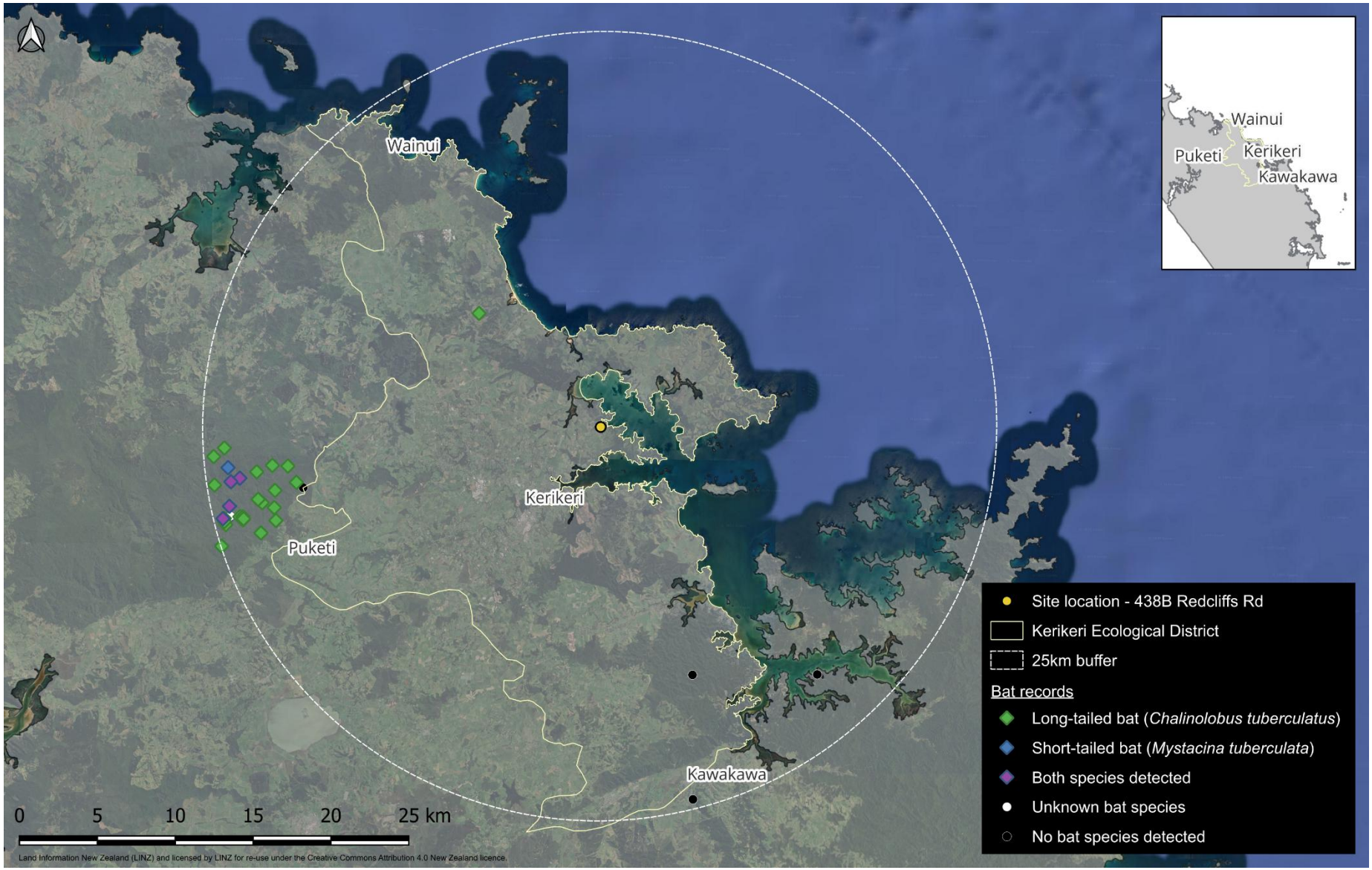


**Figure 8: Bat records within 25 km of the Site (438B Redcliffs Road, Kerikeri).**

## 4.4 Herpetofauna

Thirteen species of herpetofauna have been recorded within 12 km of the Site. Several of these are non-native marine turtle species, and therefore not relevant to the Site. Northland green gecko has been recorded within the Rangitane Coastal Vegetation Area (although these are more likely to be Auckland green gecko (*Naultinus elegans*)). The mānuka shrubland vegetation at the Site comprises suitable gecko habitat. Both Northland green gecko and Auckland green gecko are listed as 'At Risk – Declining' (Hitchmough et al. 2021). There are five species of skink recorded within 12km, all categorised as 'At Risk' as shown in Table 4.

**Table 4: Herpetofauna records within 12 km of the Site.**

| Common Name | Scientific Name | Recorded in Rangitane Coastal Vegetation Area | Threat Status (Hitchmough et al. 2021) |
|---|---|---|---|
| copper skink | *Oligosoma aeneum* | No | At Risk - Declining |
| Northland green gecko/Auckland green gecko | *Naultinus grayii/ Naultinus elegans* | Yes | At Risk - Declining |
| ornate skink | *Oligosoma ornatum* | No | At Risk - Declining |
| shore skink | *Oligosoma smithi* | No | At Risk - Declining |
| egg-laying skink | *Oligosoma suteri* | No | At Risk - Relict |
| moko skink | *Oligosoma moco* | No | At Risk - Relict |
| green and golden bell frog | *Ranoidea aurea* | No | Introduced and Naturalised |
| green turtle | *Chelonia mydas* | No | Migrant |
| leatherback turtle | *Dermochelys coriacea* | No | Migrant |
| pacific gecko | *Dactylocnemis pacificus* | No | Not Threatened |
| Raukawa gecko | *Woodworthia maculata* | No | Not Threatened |
| loggerhead turtle | *Caretta caretta* | No | Vagrant |
| olive ridley turtle | *Lepidochelys olivacea* | No | Vagrant |

Suitable habitat for copper skinks is present at the Site. However, much of the Site is too actively managed to provide suitable lizard habitat (i.e., manicured lawns). The vegetated gullies would provide the best habitat for copper skink, with a variety of cover and debris whilst shore skink might be present closest to the coast.

## 4.5 Pest control

Mammalian pest control is currently ongoing across the property, as part of wider Predator Free 2050 activities in the wider region (Predator Free Pēwhairangi Whānui 2024). These are using DOC 200 Traps, BT001 Warrior Possum Traps, Steve Allen multi kill traps and Philproof bait stations (Figure 9). These were freshly baited and recently served at the time of the November 2024 site visit indicating effective ongoing pest control.

**Figure 9: Philproof bait station and wildlife trail camera observed on a kānuka tree within FN417 at the Site (438B Redcliffs Road, Kerikeri).**

# 5.0 Ecological Values

## 5.1 Botanical Values

### 5.1.1 Managed Lawns and Managed Plantings

The lawns on Site are typical of lifestyle blocks and other properties in the ED, and are not representative of any natural state. They are of 'negligible' ecological value, both botanically and as habitat for fauna.

### 5.1.2 Planted specimen trees and ornamental plants

The planted native trees, particularly pūriri which produces fruit year-round, will provide food and habitat to various native species. Given the low species diversity, that the planted trees are not representative of the vegetation's natural state, and that the species used are common and widespread plants, the planted trees are of 'low' ecological value,

### 5.1.3 Native Vegetation and FN417

The part of the Rangitane Coastal Vegetation RAP within the Site is a relatively rare example of regenerating coastal shrubland, and has moderate botanical diversity among its native species. It has high representativeness value for the Kerikeri Ecological District. However, canopy gaps that have been invaded by weeds compromise its ecological value,

leaving overall room for improvement via weed control and infill planting. This leads to an overall value of 'moderate – high' for the botanical and habitat values of the SNA and other natural native vegetation on Site.

## 5.2 Fauna Values

### 5.2.1 Birds

Whilst birds seen and heard on Site during the site visit were common native and exotic birds typical of rural areas, database records show the wider FN417 area to be used by a diverse assemblage of rarer birds. The assumption that rarer birds occasionally use the FN417 portion on Site leads to an overall value of 'moderate' for bird fauna.

### 5.2.2 Bird habitat

As evidenced by the diverse species listed in the database records within FN417, and supported by the habitat seen during the site visit, FN417 provides habitat for a diverse assemblage of particularly forest birds, but also likely some wetland and coastal birds. Whilst many of the birds likely to use tis habitat (such as those recorded during the site visit) are common species, species such as North Island brown kiwi and various cormorant species are known to use coastal forest. The value of this habitat is further improved by the ongoing predator control. This leads to a value of 'moderate' for bird habitat on Site, particularly within FN417. The ecological value could be improved if FN417 is enhanced via weed control and infill planting.

### 5.2.3 Bat habitat

Whilst bats have not been confirmed present, the vegetation within FN417 provides suitable habitat for long-tailed bats. There are multiple habitat edges providing routes for commuting and foraging bats, as well as trees of various ages with diameters at breast height exceeding 15 cm which would provide potential roost features, as well as a small stream and adjoining raupō wetland for foraging. The value of this habitat for bats (if present) is further improved by the ongoing predator control. The value of bat habitat on Site is considered 'moderate' if bats are present, and could be improved if FN417 was enhanced via weed control and infill planting, particularly of trees likely to become large and provide potential bat roosts in future.

### 5.2.4 Lizard habitat

Whilst no formal lizard search was undertaken on Site, FN417 is known to provide habitat to green gecko. The forest floor of FN417 is almost certainly providing habitat for ground skinks, such as copper skink. As with the bird and bat habitat, the value as lizard habitat is improved by ongoing predator control. The value of lizard habitat within the part of FN417 at the Site is considered 'moderate', but could also be improved via weed control and infill planting to restore more natural litter and debris habitat.

## 5.3 Summary

The ecological values of the highly managed lawns on Site are 'negligible', whilst the planted specimen trees are of 'low' value. However, the part of FN417 within the Site is mostly of 'moderate' ecological value. This is due to its high representativeness value as an example of coastal shrubland, as well as good quality habitat for a range of fauna. These values are also supported by the ongoing pest control regime. Nonetheless, there is room for improvement in ecological values via the control of weed species and infill planting of canopy gaps. A summary of ecological values is provided in Table 5.

**Table 5: Summary of ecological values following the EclAG (Roper-Lindsay et al. 2018).**

| Feature | Representativeness | Rarity and Distinctiveness | Diversity and pattern | Ecological Context | Overall Value | Comments |
|---|---|---|---|---|---|---|
| Managed lawn | Very low | Low | Very low | Very low | **Negligible** | Mown lawns dominated by exotic kikuyu grass. Not representative of a natural environment. |
| Planted specimen trees and ornamental plants | Low | Very low | Low | Moderate | **Low** | Many large native pūriri trees which provide almost all year-round nectar and fruits, particularly for kukupa/ NZ pigeon, which in turn is good for local seed dispersal. Also provides nesting habitat and contiguous enough to provide a corridor/linkage across the Site. |
| Native Vegetation and SNA | High | High | Moderate | Moderate | **Moderate** | FN417, including the portion on Site, is a good example of regenerating coastal forest natural to the area. Whilst ecological values are moderate, there is still room for improvement, particularly in the diversity. |
| Birds | Moderate | Low | Moderate | High | **Moderate** | Whilst birds seen and heard on Site were typical common birds, database records show FN417 to be used by a diverse assemblage of rarer birds. |
| Bird Habitat | Moderate | Moderate | Moderate | Moderate | **Moderate** | FN417 contains diverse potential habitat for number of bird species, including wetland, coastal and forest birds. Ongoing predator control improves the ecological value of the existing habitat. |
| Bat Habitat | Moderate | High | Moderate | Moderate | **Moderate** (if present) | Presence of suitable habitat such as multiple trees with >15cm DBH. Vegetation edges would allow for foraging and commuting. Presence of the wetland and stream improve value as foraging habitat, but the Site is limited by it's small overall size. |
| Lizard Habitat | Moderate | High | Moderate | Moderate | **Moderate** | Suitable habitat within FN417 for gecko and skink species. Habitat quality could be improved by infilling of canopy gaps. |

# 6.0 Assessment of Effects

## 6.1 Introduction

Effects of the subdivision and development are associated with the increase in human activity and effects associated with the construction of a new dwelling on proposed Lot 2 in the future (not part of this application). As well as direct effects of vegetation clearance of lawn for the new dwelling in a 30m x 30m area, there are a number of potential secondary effects associated with a future dwelling. These include the introduction of mammalian pests (such as rats and mice) and pets (such as cats). These mammals could act as predators within FN417, compete for food with native fauna, and browse on regenerating plants, reducing the quality of the habitats. The future dwelling on proposed Lot 2 could also act as a new vector for pests such as plague skink or Argentine ants in materials brought to Site, as well as for introduction of garden escape weeds via the dwelling's garden. However, the potential for effects due to mammalian pests is reduced through the ongoing predator control within and surrounding the property, as part of the Pest Free Purerua network. Each of these effects is outlined below, and summarised in Table 6

However, the proposed enhancement of FN417 through weed control and infill planting will mitigate residual effects of mammals and weeds. Full details of the proposed planting and weed control can be found in the Ecological Management Plan (Ecological Solutions Limited 2025). These measures are more than sufficient to mitigate the negligible ecological effects and are expected to lead to an overall positive impact on the botanical values of FN417 and a net gain in biodiversity.

## 6.2 Vegetation clearance (lawn)

The lawns on Site are highly managed and provide 'negligible' ecological values, both botanically and as fauna habitat as shown in Figure 5. Consequently, the removal of a 30m x 30m area would have a 'Very Low' level of impact. Given the low quality of habitat, the risk of injury to ground nesting birds or ground skinks is also considered negligible.

## 6.3 Introduction of mammalian pests

### 6.3.1 Impact on fauna

The direct effect of the accidental introduction of mammalian predators on native fauna (birds, bats lizards) is considered 'Low' before mitigation. This is due to the ongoing pest control already underway within and surrounding FN417 and assumes it will continue. This will be further mitigated by the improved habitat quality within FN417 via infill planting and weed control.

### 6.3.2 Impact on bird habitat

The effect the introduction of mammalian pests on bird habitat via competition and predation is considered 'Moderate' in the absence of mitigation. However, this effect is mitigated to 'Low' by the proposed infill planting within the part of FN417 within the Site.

### 6.3.3 Impact on bat habitat

The effect on bat habitat is considered 'Low' from the introduction of mammalian pests, pre mitigation. Use of trees which will be large when mature, thereby providing potential bat

roosts, will assist in improving local bat habitat.

### 6.3.4 Impacts on lizard habitat

The effect on lizard habitat is considered 'Low' from the introduction of mammalian pests, pre-mitigation. However, this effect is mitigated to 'Very Low' by the proposed infill planting within FN417, as this will provide additional foraging habitat and refugia for lizards.

## 6.4 Introduction of weed species

The accidental introduction of weed species to FN417, via the garden escapees from a future new dwelling on proposed Lot 2, has the potential for a 'Moderate' level of effect on the botanical values of FN417. Proper garden management, and avoiding potentially weedy species (such as *Agapanthus orientalis*) will reduce the risk associated with this. However, the effect is also mitigated by the proposed weed control and infill planting, reducing the areas available for weed establishment and leading to an overall 'Positive' effect on the botanical values of the part of FN417 within the Site.

## 6.5 Management of FN417

The proposal includes enhancement of FN417 via weed control and infill planting, as outlined by Ecological Solutions Limited (2025) in the Ecological Management Plan. This will lead to an overall improvement in botanical values and a 'Positive' overall ecological effect. The part of FN417 within the Site is also proposed to be legally protected via covenant, securing those improvements in perpetuity.

# 7.0 Conclusion

The proposed subdivision of 438B Redcliffs Road and new (future) 30m x 30m house platform has the potential for numerous impacts on the ecology of the site, including the proposed SNA FN417. These potential impacts include effects on fauna and fauna habitats from introduced mammalian predators, and potential impacts on botanical values through accidental introduction of weed species. However, management of the site through the infill planting and weed control outlined in the Ecological Management Plan (Ecological Solutions Limited 2025) will lead to positive effects on the botanical values of FN417 and mitigate effects on fauna habitats to either 'Low' or 'Very Low' levels. The legal protection of FN417 via covenant will also have a 'Positive' effect, protecting these changes in perpetuity.

**Table 6: Magnitude and level of effects for the proposed subdivision and enhancement of FN417, and associated dwelling construction, before and after mitigation.**

| Activity | Effect | Ecological value | Magnitude of effect | Level of effect (no mitigation) | Proposed mitigation measures | Level of effect (with mitigation) |
|---|---|---|---|---|---|---|
| Vegetation clearance (lawn) | Effect on botanical values and fauna habitat | Negligible | Low | Very Low | None. | Very Low |
| Introduction of new pets and mammalian pests with new dwelling | Impact on birds | Moderate | Low | Low | Improvement of habitat through weed clearance and infill planting. | Very Low |
| | Impact on bird habitat | Moderate | Low | Moderate | Improvement of habitat through weed clearance and infill planting. | Low |
| | Impact on bat habitat | Moderate (if present) | Low | Low | Improvement of habitat through weed clearance and infill planting. | Low |
| | Impact on lizard habitat | Moderate | Low | Low | Improvement of habitat through weed clearance and infill planting. | Very Low |
| Introduction of weed species | Effect on botanical values of SNA | Moderate | Moderate | Moderate | Weed Control and infill planting. | Positive |
| Management of SNA | Weed Control and infill planting and covenanting | Moderate | Positive | Positive | None. | Positive |

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# APPENDIX A

## Vascular plant list

| Species name | Common name |
|---|---|
| *Adiantum hispidulum* | pirikonaka; rosy maidenhair |
| *Anthoxanthum odoratum* | sweet vernal |
| *Aristea ecklonii* | aristea |
| *Aristotelia serrata* | makomako; wineberry |
| *Asplenium bulbiferum* | hen and chickens fern; maku; manamana; mauku |
| *Asplenium oblongifolium* | huruhuruwhenua; shining spleenwort |
| *Avicennia marina* | mānawa, mangrove |
| *Blechnum novae-zelandiae* | horokio |
| *Brassica rapa* | |
| *Cenchrus clandestinus* | kikuyu grass |
| *Coprosma grandifolia* | kākawariki |
| *Coprosma rhamnoides* | |
| *Coprosma robusta* | glossy karamū |
| *Coprosma rotundifolia* | round-leaved coprosma |
| *Cordyline australis* | cabbage tree |
| *Cordyline indivisa* | tī kouka; broad-leaved cabbage tree |
| *Corynocarpus laevigatus* | karaka |
| *Cyathea dealbata* | ponga |
| *Cynosurus cristatus* | crested dog's-tail |
| *Dacrycarpus dacrydioides* | kahikatea |
| *Dactylis glomerata* | cocksfoot |
| *Dianella nigra* | blueberry (NZ); turutu |
| *Diplazium australe* | austral lady fern |
| *Doodia media* | pukupuku |
| *Entelea arborescens* | whau, hauama |
| *Gahnia xanthocarpa* | tupari-maunga |
| *Geniostoma ligustrifolium* | fangehange |
| *Griselinia lucida* | akapuka |
| *Haloragis erecta* | toatoa |
| *Hebe stricta* | koromiko |
| *Hedycarya arborea* | porokaiwhiri |
| *Hypolepis ambigua* | rarauhi nehenehe |
| *Isolepis cernua* | slender clubrush |
| *Isolepis prolifera* | |
| *Juncus effusus* | common rush |
| *Juncus filicaulis* | leafless rush |
| *Knightia excelsa* | New Zealand honeysuckle; rewarewa |
| *Kunzea robusta* | kānuka |
| *Leontodon taraxacoides* | hairy hawkbit |
| *Leptecophylla juniperina* | mingimingi |
| *Leptospermum scoparium* | mānuka; Tea tree; |
| *Leucopogon fasciculatus* | mingimingi |
| *Lotus pedunculatus* | birdsfoot trefoil |
| *Lycopodium scariosum* | creeping clubmoss |
| *Melicytus ramiflorus* | māhoe |
| *Meryta sinclairii* | puka |

| | |
|---|---|
| *Microlaena stipoides* | meadow rice grass |
| *Miscanthus nepalensis* | Himalaya fairy grass |
| *Myosotidium hortensia* | Chatham Island forget-me-not; Kopakopa |
| *Myosotis laxa* | water forget-me-not |
| *Myriophyllum propinquum* | common water milfoil |
| *Myrsine australis* | red māpou |
| *Oenanthe pimpinelloides* | parsley dropwort |
| *Olearia rani* | akewharangi |
| *Oplismenus hirtellus* | basket grass |
| *Parentucellia viscosa* | tarweed |
| *Paspalum dilatatum* | paspalum |
| *Persicaria decipiens* | |
| *Phormium tenax* | kōrari; swamp flax; |
| *Phyllocladus trichomanoides* | tānekaha; Celery pine |
| *Phymatosorus pustulatus* | Hound's tongue |
| *Pittosporum crassifolium* | karo |
| *Plantago lanceolata* | narrow-leaved plantain |
| *Podocarpus totara* | tōtara; |
| *Prunella vulgaris* | self-heal |
| *Pseudopanax lessonii* | houpara |
| *Pteridium esculentum* | aruhe; Bracken fern |
| *Pyrrosia elaeagnifolia* | leather-leaf fern |
| *Rhopalostylis sapida* | nīkau palm; |
| *Sonchus oleraceus* | common sow thistle; pororua |
| *Sophora chathamica* | coastal kowhai |
| *Uncinia uncinata* | hook grass; |
| *Verbena bonariensis* | purple-top |
| *Vitex lucens* | pūriri |

# APPENDIX B

## eBird records within 10km of the Site

| Common Name | Scientific Name | Recorded in Rangitane Coastal Vegetation Area | Recorded during Site visit | Threat Status (Robertson et al. 2021) |
|---|---|---|---|---|
| Bar-tailed Godwit | *Limosa lapponica* | No | No | At Risk - Declining |
| Black-billed Gull | *Chroicocephalus bulleri* | No | No | At Risk - Declining |
| Buff-banded Rail | *Gallirallus philippensis* | Yes | No | At Risk - Declining |
| Buller's Shearwater | *Ardenna bulleri* | No | No | At Risk - Declining |
| Double-banded Plover | *Anarhynchus bicinctus* | No | No | At Risk - Declining |
| Little Penguin | *Eudyptula minor* | No | No | At Risk - Declining |
| New Zealand Fernbird | *Poodytes punctatus* | Yes | No | At Risk - Declining |
| New Zealand Pipit | *Anthus novaeseelandiae* | Yes | No | At Risk - Declining |
| North Island Robin | *Petroica longipes* | No | No | At Risk - Declining |
| Red Knot | *Calidris canutus* | No | No | At Risk - Declining |
| Silver Gull | *Chroicocephalus novaehollandiae* | Yes | No | At Risk - Declining |
| Sooty Shearwater | *Ardenna grisea* | No | No | At Risk - Declining |
| South Island Oystercatcher | *Haematopus finschi* | Yes | No | At Risk - Declining |
| Spotless Crake | *Zapornia tabuensis* | Yes | No | At Risk - Declining |
| White-fronted Tern | *Sterna striata* | Yes | No | At Risk - Declining |
| Black-fronted Dotterel | *Thinornis melanops* | No | No | At Risk - Naturally Uncommon |
| Little Black Cormorant | *Phalacrocorax sulcirostris* | Yes | No | At Risk - Naturally Uncommon |
| Royal Spoonbill | *Platalea regia* | Yes | No | At Risk - Naturally Uncommon |
| New Zealand Kaka | *Nestor meridionalis* | No | No | At Risk - Recovering |
| Pied Cormorant | *Phalacrocorax varius* | Yes | No | At Risk - Recovering |
| Variable Oystercatcher | *Haematopus unicolor* | Yes | No | At Risk - Recovering |
| Common Diving-Petrel | *Pelecanoides urinatrix* | No | No | At Risk - Relict |
| Flesh-footed Shearwater | *Ardenna carneipes* | No | No | At Risk - Relict |
| Fluttering Shearwater | *Puffinus gavia* | No | No | At Risk - Relict |
| Great Cormorant | *Phalacrocorax carbo* | Yes | No | At Risk - Relict |
| Little Pied Cormorant | *Microcarbo melanoleucos* | Yes | No | At Risk - Relict |
| North Island Saddleback | *Philesturnus rufusater* | No | No | At Risk - Relict |
| Red-crowned Parakeet | *Cyanoramphus novaezelandiae* | No | No | At Risk - Relict |
| Weka | *Gallirallus australis* | No | No | At Risk - Relict |
| White-faced Storm-Petrel | *Pelagodroma marina* | No | No | At Risk - Relict |
| Australasian Grebe | *Tachybaptus novaehollandiae* | No | No | Coloniser |
| Eastern Barn Owl | *Tyto javanica* | No | No | Coloniser |
| African Collared-Dove | *Streptopelia roseogrisea* | Yes | No | Introduced and Naturalised |
| Australian Magpie | *Gymnorhina tibicen* | Yes | Yes | Introduced and Naturalised |
| Brown Quail | *Synoicus ypsilophorus* | No | Yes | Introduced and Naturalised |
| California Quail | *Callipepla californica* | Yes | Yes | Introduced and Naturalised |
| Canada Goose | *Branta canadensis* | No | No | Introduced and Naturalised |
| Common Chaffinch | *Fringilla coelebs* | Yes | No | Introduced and Naturalised |
| Common Myna | *Acridotheres tristis* | Yes | No | Introduced and Naturalised |
| Dunnock | *Prunella modularis* | No | No | Introduced and Naturalised |
| Eastern Rosella | *Platycercus eximius* | Yes | Yes | Introduced and Naturalised |

| | | | | |
|---|---|---|---|---|
| Eurasian Blackbird | *Turdus merula* | Yes | Yes | Introduced and Naturalised |
| Eurasian Skylark | *Alauda arvensis* | Yes | No | Introduced and Naturalised |
| European Goldfinch | *Carduelis carduelis* | Yes | No | Introduced and Naturalised |
| European Greenfinch | *Chloris chloris* | No | No | Introduced and Naturalised |
| European Starling | *Sturnus vulgaris* | Yes | No | Introduced and Naturalised |
| Graylag Goose | *Anser anser* | No | No | Introduced and Naturalised |
| Helmeted Guineafowl | *Numida meleagris* | No | No | Introduced and Naturalised |
| House Sparrow | *Passer domesticus* | Yes | No | Introduced and Naturalised |
| Indian Peafowl | *Pavo cristatus* | No | No | Introduced and Naturalised |
| Mallard | *Anas platyrhynchos* | Yes | No | Introduced and Naturalised |
| Mute Swan | *Cygnus olor* | No | No | Introduced and Naturalised |
| Redpoll | *Acanthis flammea* | No | No | Introduced and Naturalised |
| Ring-necked Pheasant | *Phasianus colchicus* | Yes | No | Introduced and Naturalised |
| Rock Pigeon | *Columba livia* | Yes | No | Introduced and Naturalised |
| Song Thrush | *Turdus philomelos* | Yes | Yes | Introduced and Naturalised |
| Spotted Dove | *Spilopelia chinensis* | Yes | No | Introduced and Naturalised |
| Wild Turkey | *Meleagris gallopavo* | Yes | No | Introduced and Naturalised |
| Yellowhammer | *Emberiza citrinella* | Yes | Yes | Introduced and Naturalised |
| Eastern Cattle-Egret | *Ardea coromanda* | No | No | Migrant |
| Pacific Golden-Plover | *Pluvialis fulva* | No | No | Migrant |
| Parasitic Jaeger | *Stercorarius parasiticus* | Yes | No | Migrant |
| Red-necked Stint | *Calidris ruficollis* | No | No | Migrant |
| Ruddy Turnstone | *Arenaria interpres* | No | No | Migrant |
| White-winged Tern | *Chlidonias leucopterus* | No | No | Migrant |
| Australasian Gannet | *Morus serrator* | Yes | No | Not Threatened |
| Australasian Shoveler | *Spatula rhynchotis* | No | No | Not Threatened |
| Australasian Swamphen | *Porphyrio melanotus* | Yes | Yes | Not Threatened |
| Black Swan | *Cygnus atratus* | No | No | Not Threatened |
| Gray Gerygone | *Gerygone igata* | Yes | Yes | Not Threatened |
| Gray Teal | *Anas gracilis* | No | No | Not Threatened |
| Gray-faced Petrel | *Pterodroma gouldi* | No | No | Not Threatened |
| Kelp Gull | *Larus dominicanus* | Yes | No | Not Threatened |
| Mallard x Pacific Black Duck (hybrid) | *Anas platyrhynchos x superciliosa* | Yes | No | Not Threatened |
| Masked Lapwing | *Vanellus miles* | Yes | No | Not Threatened |
| Morepork | *Ninox novaeseelandiae* | Yes | No | Not Threatened |
| New Zealand Fantail | *Rhipidura fuliginosa* | Yes | Yes | Not Threatened |
| New Zealand Pigeon | *Hemiphaga novaeseelandiae* | Yes | No | Not Threatened |
| North Island Brown Kiwi | *Apteryx mantelli* | Yes | No | Not Threatened |
| Paradise Shelduck | *Tadorna variegata* | Yes | No | Not Threatened |
| Pied Stilt | *Himantopus leucocephalus* | Yes | No | Not Threatened |
| Sacred Kingfisher | *Todiramphus sanctus* | Yes | Yes | Not Threatened |
| Shining Bronze-Cuckoo | *Chalcites lucidus* | Yes | No | Not Threatened |
| Silvereye | *Zosterops lateralis* | Yes | Yes | Not Threatened |
| Swamp Harrier | *Circus approximans* | Yes | No | Not Threatened |
| Tomtit | *Petroica macrocephala* | Yes | No | Not Threatened |

| | | | | |
|---|---|---|---|---|
| Tui | *Prosthemadera novaeseelandiae* | Yes | Yes | Not Threatened |
| Welcome Swallow | *Hirundo neoxena* | Yes | Yes | Not Threatened |
| White-faced Heron | *Egretta novaehollandiae* | Yes | No | Not Threatened |
| Whitehead | *Mohoua albicilla* | No | No | Not Threatened |
| Australasian Bittern | *Botaurus poiciloptilus* | Yes | No | Threatened - Nationally Critical |
| Great Egret | *Ardea alba* | No | No | Threatened - Nationally Critical |
| Pacific Reef-Heron | *Egretta sacra* | Yes | No | Threatened - Nationally Endangered |
| Brown Teal | *Anas chlorotis* | No | No | Threatened - Nationally Increasing |
| New Zealand Grebe | *Poliocephalus rufopectus* | No | No | Threatened - Nationally Increasing |
| Red-breasted Dotterel | *Anarhynchus obscurus* | Yes | No | Threatened - Nationally Increasing |
| Caspian Tern | *Hydroprogne caspia* | Yes | No | Threatened - Nationally Vulnerable |
| Long-tailed Koel | *Urodynamis taitensis* | No | No | Threatened - Nationally Vulnerable |
| Pacific Black Duck | *Anas superciliosa* | No | No | Threatened - Nationally Vulnerable |
| Gray-tailed Tattler | *Tringa brevipes* | No | No | Vagrant |
| Whimbrel | *Numenius phaeopus* | No | No | Vagrant |

ecoLogical Solutions
Environmental Consultants





January 2026

# 438B Redcliffs Rd
# Ecological Management Plan

Submitted to:
Harrison Grierson

water fauna flora land

## Quality Assurance

This report has been prepared and reviewed by the following:

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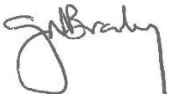
| **Reviewed by:** | Dr Gary Bramley<br>Senior Ecologist |  |

| | | | |
|---|---|---|---|
| **Status:** | Final | **Issued:** | 27 January 2026 |

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# Appendices

Appendix A – Example Monitoring Sheet

# 1.0 Executive Summary

This is an Ecological Management Plan (EMP) to support a management plan subdivision at 438B Redcliffs Road, Kerikeri. The Site is located within the Kerikeri Ecological District and includes a section of coastal forest which is designated as part of a proposed Significant Natural Area. Coastal forest is rare within the ecological district and supports a number of indigenous species including North Island brown kiwi. This EMP provides guidance for planting 690 plants comprising ten species within the 0.46ha of canopy gaps within the regenerating coastal forest at the Site. This is accompanied by a list of weed species and appropriate methods for controlling these species, as well as notes with respect to existing and ongoing mammalian pest control at the Site.

# 2.0 Introduction

## 2.1 Background

Tony Kemp and Janine Budden are seeking to subdivide the property at 438B Redcliffs Road to establish 3 lots at the Site. Proposed Lots 1 and 3 would accommodate existing dwellings whilst a 30m-by-30m house platform has been identified for a future dwelling on proposed Lot 2.

Large parts of the Site are included in the proposed Rangitane Coastal Vegetation Significant Natural Area (SNA) (FN417) (Wildlands Consultants Limited 2019). The proposed Far North District plan currently allows for subdivision in the Rural Production Zone (in which the site lies) where subdivision "will protect a qualifying Significant Natural Area ('SNA') in perpetuity and result in the SNA being added to the District Plan SNA schedule". Ecological Solutions Ltd were engaged by Harrison Grierson to prepare a management plan to enhance the ecological values at 438B Redcliffs Road, Kerikeri (the Site). This Ecological Management Plan (EMP) should be read in conjunction with the Ecological Impact Assessment (EcIA) for the proposal, prepared by Ecological Solutions Limited (2025).

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 Opua 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).

Much of the Site is regenerating coastal forest, which is relatively rare in the Kerikeri Ecological District, and it borders a raupō (*Typha orientalis*) wetland. Within the Kerikeri Ecological District wetland areas provide important habitat for Spotless crake (*Porzana tabuensis*), Australasian bittern (*Botaurus poiciloptilus*) and North Island fernbirds (*Bowdleria punctata vealeae*) as well as refugia for North Island brown kiwi (*Apteryx mantelli*) during droughts (G Bramley pers. obs.). The Kerikeri Ecological District is also significant for the number of North Island brown kiwi found within it, with much of the region being protected (or having protection prioritised) for the benefit of kiwi (Conning and Miller 1999). The Site is also located within large scale ongoing pest control sites, as part of the Predator Free 2050 initiative (Predator Free Pēwhairangi Whānui 2024).

## 2.2 Aims and Objectives

The aim of this EMP is to improve and protect the existing ecological values within that part of FN417 within the Site via supplementary planting of appropriately ecosourced later seral or terminal native forest plants, undertaking of weed control (for at least five years to allow new plants to establish and come to dominate) and maintenance of the existing pest control as part of the wider Pest Free Purerua network. The part of the Rangitane Coastal Vegetation FN417 within the Site at 438B Redcliffs Road will also be legally protected via covenant, or similar.

These actions are consistent with the proposed management measures outlined in section 13.9.2.1(c) of the operative Far North District Plan which are intended to "to protect, manage and enhance indigenous vegetation and habitats, outstanding landscapes and natural features".

The ecological objectives of this EMP are to:

- Establish native plants in areas which are currently occupied by weeds;
- Reduce pest plants throughout the Site so as to improve the botanical value of the parts of FN417 within the Site, via improving ecological intactness, species diversity, and pattern; and
- Remove pests so as to improve and maintain the habitat value of indigenous vegetation within the Site for fauna.

Together the effective implementation of these actions is expected to encourage natural ecosystem processes including the regeneration and dispersal of indigenous flora and fauna.

These objectives will be achieved by:

- Revegetation/infill planting across 0.46ha with ten species of eco-sourced native plants appropriate for the Site's conditions at the locations shown in Figure 1 so as to assist in developing an intact canopy of appropriate species; and
- Control of pest plant and animals which threaten the ecological integrity of the parts of the proposed SNA within the Site and adjoining habitats.

# 3.0 Revegetation and Infill Planting

## 3.1 Purpose

Infill planting will replace exotic weeds with native species, improve the species richness of the shrubland vegetation and, as it matures, provide a source of later seral species for dispersal by birds in the wider area. This will assist in restoring local and landscape ecosystem processes and maintaining the trajectory of the existing vegetation community, and ultimately contributing to long-term ecological integrity. Approximately 0.46ha of infill planting will be completed at the indicative locations outlined in Figure 1. This will require 690 plants of ten different species as set out below. The specific location of these areas may be amended as required (e.g. if additional canopy gaps or weed infestations are discovered); therefore, the planting contractor should use their discretion to ensure the highest value areas are planted and maintained.

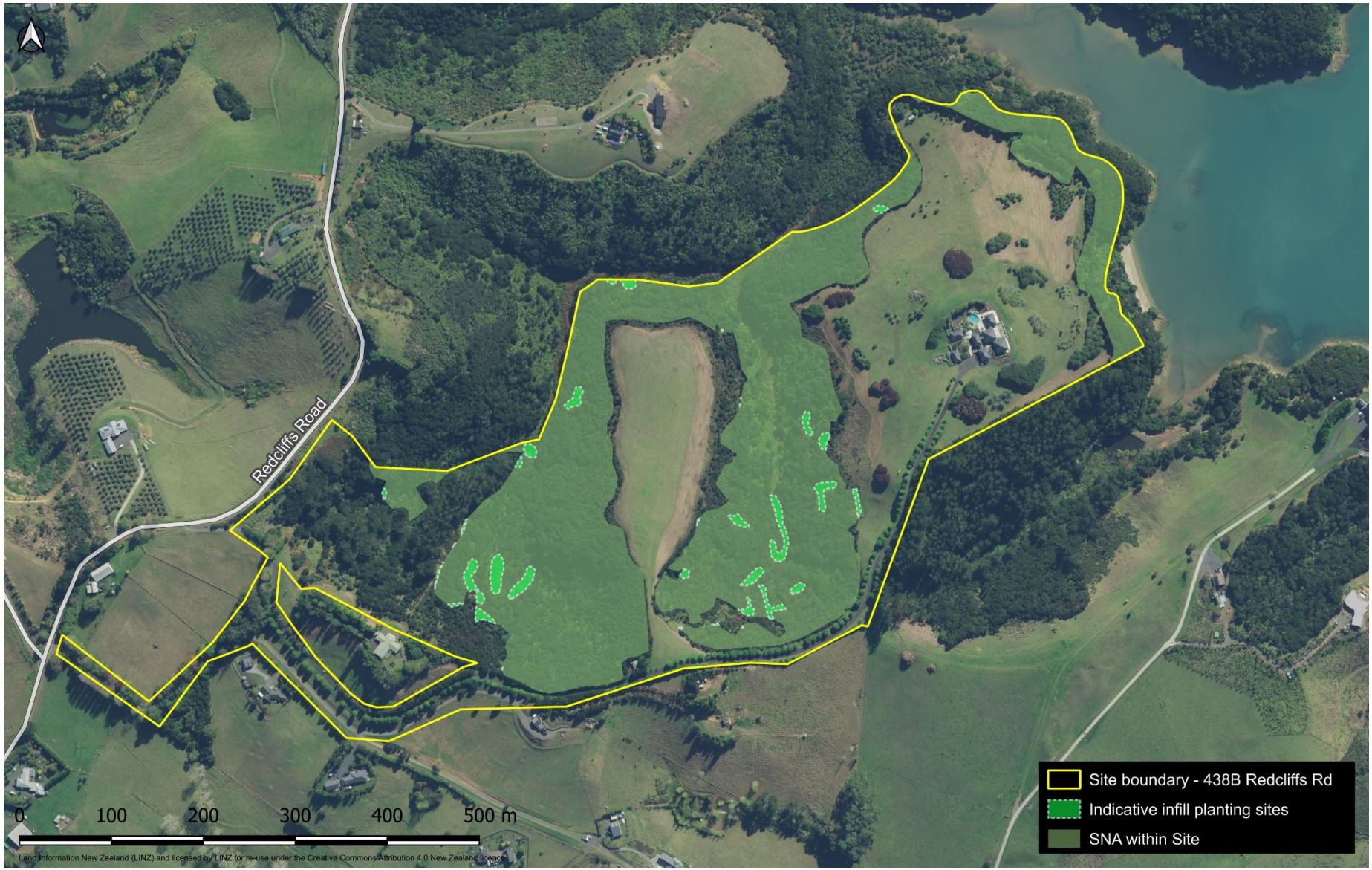


**Figure 1: Indicative infill planting sites (438B Redcliffs Road, Kerikeri).**

## 3.2 Site Preparation

Prior to planting, the planting area should be free of pest plants (no mature, flowering and/or fruiting plants) to promote successful establishment of native plants. Methods to control weed species are provided in Section 4.3.

## 3.3 Eco-sourcing

Eco-sourcing is a practice fundamental to the long-term success of an indigenous revegetation programme. Each ecological region has been defined by the underlying geology, landforms and soils which affect the plant species found within an area. The benefits of eco-sourcing include: the maintenance of local biodiversity/genetic variability and the plants are adapted to growing in local conditions.

**All plants used at the site will be true to type (i.e., no cultivars or hybrids) and eco-sourced from the Kerikeri Ecological District, which is shown in**


Figure 2.

## 3.4 Biosecurity

On receiving delivery, plants shall be in good general health and condition and free from pests and diseases.

Species from the family Myrtaceae included in the planting list require a NZPPI Biosecurity Declaration for Myrtle Rust document provided by the nursery and kept on record by the contractor to ensure all Myrtaceae species (e.g., mānuka/kānuka) are free of myrtle rust prior to planting.


**Figure 2: Location of the Kerikeri Ecological District**

## 3.5 Timing

Planting will occur within the first autumn and winter planting season (late April–September following the granting of consent.

## 3.6 Fencing

No fencing is required since no livestock are present at the Site. If livestock are to be introduced to the Site, a seven-wire post and batten fence will be constructed to exclude them from the part of FN417 within the Site.

## 3.7 Species to be used

The plants to be used are listed in Table 1. Species have been selected taking into account the existing vegetation, the expected vegetation type for the area, species requirements, and the specifics of the Site (Conning and Miller 1999, Ecological Solutions Limited 2025, Leathwick et al. 2024, Wildlands Consulting Limited 2019). Habitat preferences of each species are provided in Table 1 to help guide planting. Species listed as 'generalist' have habitats broad enough that they are suitable for planting anywhere within the Site.

## Table 1: Plant list.

| Common name | Scientific name | | Percent of species mix (%) | Approximate infill numbers | Grade | Location |
|---|---|---|---|---|---|---|
| | **Pioneer species** | | | | | |
| Wineberry | *Aristotelia serrata* | | 15 | 76 | PB3 | Generalist |
| Kānuka | *Kunzea robusta* | | 20 | 101 | PB3 | Generalist, though with some preference for low and coastal habitats |
| Māhoe | *Melicytus ramiflorus* | | 20 | 101 | PB3 | Generalist, though with some preference for low and coastal habitats |
| | | *Sub-total* | *55* | ***278*** | | |
| | | **Total Plants req.** | 3 m spacing | **506** | | |
| | **Enrichment species** | | | | | |
| Kohekohe | *Dysoxylum spectabilis* | | 8 | 11 | PB12 | Prefers coastal and low habitats |
| Pōhutukawa | *Metrosideros excelsa* | | 5 | 9 | PB12 | Prefers coastal habitat |
| Taraire | *Beilschmiedia tarairi* | | 5 | 15 | PB12 | Co-dominant with pūriri |
| Rewarewa | *Knightia excelsa* | | 6 | 11 | PB12 | Generalist |
| Tōtara | *Podocarpus tōtara* | | 5 | 9 | PB12 | Generalist |
| Small-leaved kōwhai | *Sophora microphylla* | | 8 | 15 | PB12 | Prefers riparian margins of streams |
| Pūriri | *Vitex lucens* | | 8 | 15 | PB12 | Co-dominant with taraire |
| | | *Sub-total* | *45* | ***85*** | | |
| | | **Total Plants req.** | 5 m spacing | **184** | | |
| | | **Total Planting Area (m²)** | **4,600** | | | |
| | | **Total Infill Plants req.** | | **690** | | |

## 3.8 Planting Guidelines

Plants will be planted as follows and shown below in Figure 3:

- Plant holes are to be made three times the diameter of the plants root mass and at least one and a half times the depth of the root mass. Care will be taken to ensure no additional top soil is added around the base of the plants stem.
- Any rocks, rubble or undesirable debris is to be removed from the plant hole and once the plant is in, the hole will be backfilled with topsoil sourced from the site.
- Plants will be planted with a 'slow release' fertiliser tablet in the hole ensuring the tablet does not touch the root mass directly.
- All plants will be soaked thoroughly before planting.

| | |
|---|---|
|  |  |
| • Soak soil in the planter bag by inundating in a bucket of water for ten minutes to ensure water penetration to the plant roots.<br>• Remove planter bag retaining as much soil around root mass as possible and place in a bucket.<br>• Ensure the hole is c. 3 x the diameter of the root mass and the depth is c. 1.5 x the root mass.<br>• Place a fertiliser tablet in the hole. | • Ensure the fertiliser tablet does not directly touch the plants root mass (cover with dirt).<br>• Ensure dirt is not sitting around the base of the plants stem. |

**Figure 3: Planting guidelines.**

## 3.9 Plant Survival

Monitoring of plant survival will occur three months after planting takes place, with losses being replaced the following planting season. Any new plantings will be monitored in the same manner, with monitoring repeated annually for existing plantings. Maintenance will also include removal of any damaged of diseased plant material (to prevent further spread).

Monitoring for the presence of plant pest species will occur twice annually in spring and summer with weed control taking place either on the spot or as soon as practical afterwards. This will allow weeds to be controlled when most visible, but before seeding takes place. Monitoring via these methods will be performed for at least five years post planting.

Given a 5–10% mortality rate can be expected in revegetation plantings due to natural causes such as insect damage and drought, monitoring will cease after 5 years and when plant survival is consistently above 85% and weed incursions are minimal. An example monitoring form is provided in Appendix A. Monitoring shall include, but not be limited to the following:

- Record plant health, noting any indicators of insect or disease damage.
- Include a running record on the replacement of dead plants.

- Provide recommendations to the consent holder if required.

### 3.10 Completion Reporting

A completion report will be submitted to Far North District Council within one month of planting being completed. This report shall:

- Confirm that all plantings have been completed in accordance with the approved planting plan.
- Contain evidence of eco-sourcing (e.g., a nursey slip/receipt).

### 3.11 Monitoring Reporting

The monitoring form, or similar, and photographs taken and compiled annually shall be made available to the Far North District Council by request.

## 4.0 Weed Control

### 4.1 Weeds Present

The weeds identified in Table 2 pose a risk to the success of plantings and the health of the local indigenous ecosystems. These species are to be eliminated where achievable, i.e. controlled to the point where no mature flowering or fruiting individuals are present. Where elimination is not achievable, progressive control will be applied to reduce the extent and influence of weeds on the local ecology. Weed species present within the Site and their recommended control methods are set out in Table 2. Weed control methods are set out in more detail in Section 3.3. Note that methods outlined in Table 2 are prescribed for a Growsafe certified handler/experienced agrichemical user and should only be undertaken by a suitably qualified individual.

**Table 2: Weed control methods.**

| Botanical name | Common name | Recommended control techniques (sourced from Weedbusters website) |
|---|---|---|
| *Asparagus scandens* | Climbing asparagus | Foliar spray with 200ml glyphosate green per 10L of water (2% rate) and 10ml penetrant. |
| *Araujia hortorum* | Moth plant | Hand pull or dig out entire plant. Ensure all plant material is removed from site to prevent regrowth from cut stems and branches. Put pods in bags to dispose of to landfill.<br>Apply herbicide using a hand held sprayer/knapsack to plants <1m tall. Glyphosate (100ml) + recommended adjuvant per 10L water or Triclopyr (60ml/10L). |
| *Banksia integrifolia* | Coastal banksia | Pull small seedlings.<br>Cut and stump paint: picloram gel.<br>Larger trees - Bore and fill (all year round): bore 1 hole per 100mm of trunk, add 2ml metsulfuron-methyl 600g/kg (20g/L) or 10ml of a product containing 100g picloram+300g triclopyr/L (undiluted) per hole |
| *Cortaderia selloana* | Pampas grass | Foliar spray glyphosate 2% rate and 20ml penetrant. For infestations amongst desirable broadleaf species foliar spray with 150ml haloxyfop-P-methyl per 10L of water (1.5%). |
| *Erythrina ×sykesii* | Flame tree | Pull small seedlings.<br>Cut and stump paint: picloram gel.<br>Larger trees - Bore and fill (all year round): bore 1 hole per 100mm of trunk, add 2ml metsulfuron-methyl 600g/kg (20g/L) or 10ml of a product containing 100g picloram+300g triclopyr/L (undiluted) per hole |
| *Hakea salicifolia* | Willow-leaved hakea | Pull small seedlings.<br>Cut and stump paint: picloram gel. |

| | | |
|---|---|---|
| *Hedera helix* | ivy | Foliar spray - Apply metsulfuron herbicide at a rate of 0.5g/L using a hand held sprayer/knapsack plus an organosilicone penetrant (3ml/L).<br>OR Apply triclopyr herbicide (600g/L active ingredient) at 6ml/L plus organosilicone penetrant (3ml/L). |
| *Hedychium gardnerianum* | Wild ginger | Physical removal - Dig or pull out small plants (all year round). Don't compost, leave on site to rot down or hang rhizomes in trees.<br>Cut stump and spray freshly cut base with 1g metsulfuron-methyl per 1 L of water |
| *Lantana camara* var. *aculeata* | lantana | Cut and paste (all year round) - Cut the stem/trunk as close to the ground as possible and cover the entire stump with herbicide as soon as possible after cutting. Apply either glyphosate gel (120g/L strength) or metsulfuron gel (10g/l strength). |
| *Ligustrum lucidum* | Tree privet | Pull or dig seedlings (all year round). Leave on site to rot down.<br>Cut the stem/trunk as close to the ground as possible and cover the entire stump with herbicide as soon as possible after cutting. Apply either glyphosate gel (120g/L strength) or metsulfuron gel (10g/l strength) to the entire cut stem. |
| *Ligustrum sinense* | Small-leaved privet | Pull or dig seedlings (all year round). Leave on site to rot down.<br>Cut the stem/trunk as close to the ground as possible and cover the entire stump with herbicide as soon as possible after cutting. Apply either glyphosate gel (120g/L strength) or metsulfuron gel (10g/l strength) to the entire cut stem. |
| *Osteospermum moniliferum* | boneseed | Hand pull all but the largest plants (all year round) when not in seed.<br>Stump swab (all year round): glyphosate 10% rate (100ml/L). |
| *Paraserianthes lophantha* | Brush wattle | Hand pull small plants.<br>Cut and paste (all year round) - Cut the stem/trunk as close to the ground as possible and cover the entire stump with herbicide as soon as possible after cutting (glyphosate gel 120g/L strength). |
| *Passiflora mixta* | banana passionfruit | Pull roots up (all year round). Dispose of plant material at a landfill or refuse transfer station.<br>Cut and paste - Cut the stem/trunk as close to the ground as possible and cover the entire stump with herbicide as soon as possible after cutting. |
| *Pinus radiata* | Radiata pine | Pull or dig out small plants (all year round).<br>Fell at ground level (all year round). Check for branches below ground. Stems occasionally resprout, make sure there are no green needles below the cut.<br>**Larger trees** - Bore and fill (all year round): bore 1 hole per 100mm of trunk, add 2ml metsulfuron-methyl 600g/kg (20g/L) or 10ml of a product containing 100g picloram+300g triclopyr/L (undiluted) per hole. |
| *Polygala myrtifolia* | Sweet pea shrub | Hand pull small plants (all year round).<br>Stump swab (all year round): metsulfuron-methyl 600g/kg (1g/L) or a product containing 100g picloram+300g triclopyr/L (100ml/L). |
| *Populus alba* | White poplar | Cut and squirt large plants (all year round): make 1 cut every 100mm around the trunk and fill or saturate each cut with 2g metsulfuron-methyl 600g/kg or 10ml glyphosate (undiluted).<br>Cut and paste (all year round): cut trunk near to the ground, and swab freshly cut stump with glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (5g/L).<br>Foliar spray small plants (full leaf stage only): glyphosate (100ml/10L). |
| *Prunus campanulata* | Taiwan cherry | Pull (all year round): pull out seedlings and small plants.<br>Cut and paste freshly cut base of stems with glyphosate gel (120g/L strength) or metsulfuron gel (10g/l strength) to the entire cut stem. |
| *Solanum mauritianum* | Woolly nightshade | Hand-pull.<br>Cut and paste with Glyphosate or Triclopyr (20% rate). |
| *Syzygium smithii* | Monkey apple | Pull or dig seedlings (all year round).<br>Cut down and paint stump (all year round): metsulfuron-methyl 600g/kg (5g/L). |
| *Ulex europaeus* | Gorse | Cut stump and spray freshly cut base with 2g metsulfuron per 1 L of water. |
| *Watsonia meriana* | watsonia | Dig out small sites. Dispose of at a refuse transfer station, burn or bury.<br>Spray when in green leaf (spring-summer): metsulfuron-methyl 600g/kg (3g) + glyphosate (150ml) + penetrant per 10L water. |

## 4.2 Site Approach

Weed control is to be undertaken twice annually in spring and summer (as consistent with the monitoring outlined in section 3.9) for a period of at least five years or until weed infestations are controlled. This frequency is intended to be enough to control existing pest plants effectively, whilst preventing any remaining pest plants, growth from the seed bank or re-invasions of pest plants reaching maturity and setting further seed. This will maximise

the opportunity for the success of the new plantings. An indicative timeline showing weed control (combined with other activities) is set out in Section 6.0.

## 4.3 Weed Control Methods

### *Hand Pull*

Seedlings and some species can be easily pulled from the ground and left to rot on site (provided their entire root system can be dug out). This method reduces herbicide use and minimises potentially detrimental effects to non-target species. It is only an appropriate method for species where broken root fragments will not regrow (e.g., not *Tradescantia*) and is generally not suitable for species with tubers or bulbs. Consideration should also be given to the time of year when plants such as pampas are seeding as it is not appropriate to leave seed heads/ pods onsite to decompose.

### *Cut and Paste*

This method can reduce overall herbicide use compared with foliar spraying as herbicide contained in a gel such as 'Cut 'N' Paste Picloram Gel' is applied directly to a cut stump. This method is well suited to majority of weeds present on site due to the relatively small scale of the site and the weed species present. The trunk or main stem of weeds should be cut close to the ground with the gel immediately applied.

### *Herbicide*

The use of herbicides will be minimised with preference given to hand pulling and cut and paste stump methods. All herbicide use including (but not limited to) transport, storage, disposal, training, notification of use, use near waterways and application shall comply with the industry standard NZS 8409:2004 and other relevant standards.

In addition to these standards, the following general precautions are to be taken:

- Manual control methods are to be used as first preference wherever practical over chemical methods.
- Herbicides will only be applied during periods of active growth.
- Weather conditions at the time of application will be suitable for herbicide application (i.e., little to no wind in order to minimise spray drift, sufficient dry weather to ensure efficacy). If weather conditions are not suitable, spraying will be completed at an alternative time.
- The preparation of herbicide mixes near waterways will be avoided as to prevent any accidental spillage from reaching the watercourse.

## 4.4 Monitoring and Reporting

The following information should be recorded when weed control is undertaken during each twice-yearly round of weed control and monitoring:

- Name of the personnel or contractor(s) completing the work;
- GPS location and track of areas targeted;
- Date of weed control;
- Control methods used; and
- Herbicides used and volume.

For new infestations or species detected as part of monitoring:

- Name of the species.
- GPS location of the infestation.
- Notes on the size of the infestation.
- Notes on control techniques applied at the time of discovery.
- Recommendations for any follow-up control and appropriate techniques.

Maintaining up to date records of agrichemical usage is also a legal requirement, as specified in Code of Practice (NZS 8409:2004) for the management of agrichemicals as set out in the Hazardous Substances and New Organisms (HSNO) Act (1996).

Note that there is a mobile phone app called Weedmanager which has been developed as a tool for tracking weed patch locations, control applications, and outcomes over time. This app is available at the Google Play store or the Apple App store. Alternatively, an example monitoring sheet is provided in Appendix A. This information, or similar, and photographs collected annually as set out in Section 3.9 shall be made available to the Far North District Council by request.

At the conclusion of each round of weed control the information collected will be used to generate a map showing the location of named weed species. In addition to this map, the number and size of infestations for each weed species will be collated, along with a summary of the methods used for each species and if required the name and volume of herbicide applied. This information and that set out in Section 3.11 will be compiled by a suitably qualified and experienced ecologist and reported to the Far North District Council by 30 June each year, along with any recommendations with respect to future management of the Site.

## 5.0 Pest Animal Control

Regular pest control is performed on site as part of the Pest Free Purerua network, which itself is linked to the Kapiro to Opito Bay suppression zone, managed by the Kerikeri Peninsula Conservation Trust. As such, there is already a high-quality network of traps on Site, including DOC200 trap, SA2 Steve Allen Traps, AT220 multispecies automatic traps, AT520 automatic traps. Trapping records for the Site for 2025 include kills of: 77 rats, 27 possums, 21 rabbits, 16 mice, 12 hedgehogs, and six mustelids.

Given the effectiveness of the current regime, and oversight as part of wider conservation efforts, we recommend the continuation of the current pest control regime as part of ongoing site management.

# 6.0 Indicative Timeline

Table 3 sets out the timing for each year of weed control, planting, and maintenance activities, reflecting that set out in Sections 3.0 to 5.0. This timeline is flexible; however, activities should be completed within the appropriate season.

**Table 3: Indicative timing of restoration works and ongoing monitoring.**

| Activity | Summer | | Autumn | | | Winter | | | Spring | | | Summer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Planting | | | | | | P | P | P | | | | |
| Planting maintenance / weed control | | M | | | | | | | | | M | |
| Completion reporting | | | | | | | | | CR | | | |

**Key:**

P = Planting (see Section 2.7)

M = Planting maintenance / weed control/ monitoring.

CR = Completion report submitted to Far North District Council

# 7.0 References

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# APPENDIX A

## Example Monitoring Sheet

# Planting Monitoring Form

| | |
|---|---|
| Date (dd/md/yyyy): | |
| Monitored by: | |

### *Survival rate*

| | |
|---|---|
| Percentage survival: | |
| Signs of disease or insect damage: | |
| Additional comments: | |

### *Fertilisation*

| | |
|---|---|
| Date applied: | |
| What used: | |
| Areas applied: | |
| Quantity used: | |
| Additional comments: | |

### *Weed control*

| | |
|---|---|
| Date undertaken: | |
| Sprays used: | |
| Weeds targeted: | |
| Areas targeted: | |
| Additional comments: | |

### *Replacement planting*

| | |
|---|---|
| Date undertaken: | |
| Species being replaced: | |
| Species planted: | |
| Number of plants replaced: | |
| Additional comments: | |

### *Assessment of problems*

*(e.g., certain weeds difficult to control and detrimental to planting? Animal pests causing significant problems?)*

| | |
|---|---|
| Nature of problem: | |
| Recommended solutions: | |
| Analysis of plant losses:<br>(Are losses greater than expected, are there any obvious reasons, are losses in certain areas, are certain species showing high losses, what are possible solutions?) | |