

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 Schedule 4). 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

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)
- Other (please specify) _____
- Discharge
- Change of Consent Notice (s.221(3))
- Extension of time (s.125)

* *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:

Jamie Spruit

Email:

Phone number:

Postal address:

(or alternative method of service under section 352 of the act)

6. Address for Correspondence

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

Name/s:

David Johnson

Email:

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:

Same as applicant

**Property Address/
Location:**

Ness Road, Waipapa

Postcode

0294

8. Application Site Details

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

Name/s:

**Site Address/
Location:**

Postcode

Legal Description:

Val Number:

Certificate of title:

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.

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.

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
- Regional Council Consent (ref # if known)
- National Environmental Standard consent
- Other (please specify)

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

13. Draft Conditions:

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

If yes, do you agree to extend the processing timeframe pursuant to Section 37 of the Resource Management Act by 5 working days? Yes No

14. 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) Jamie Spruit

Email:

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.

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)

Jamie Spruit

Signature:

(signature of bill payer)

MANDATORY

Date 30-10-24

15. 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.

15. Important information continued...

Declaration

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

Name: (please write in full)

Signature:

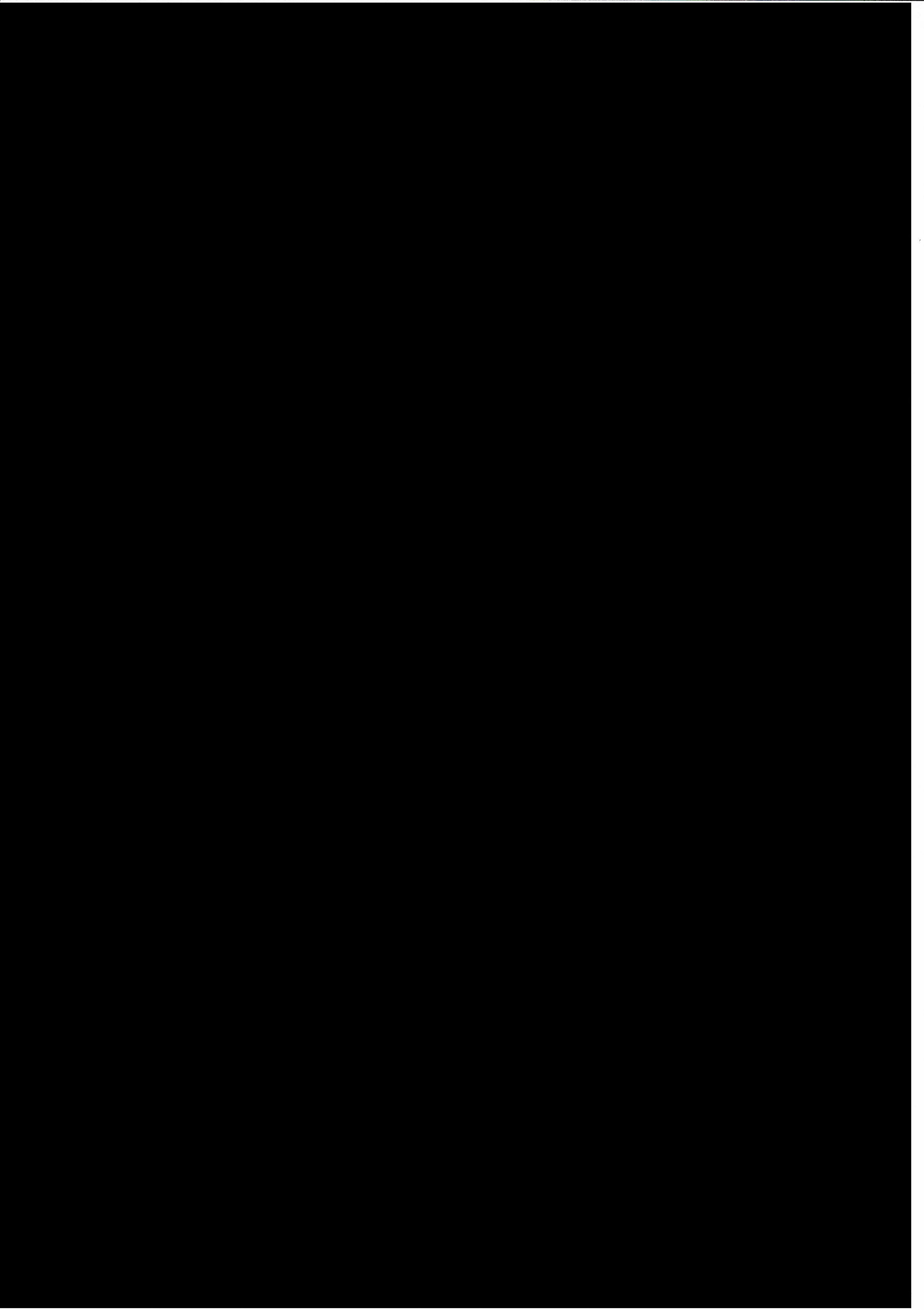
Date

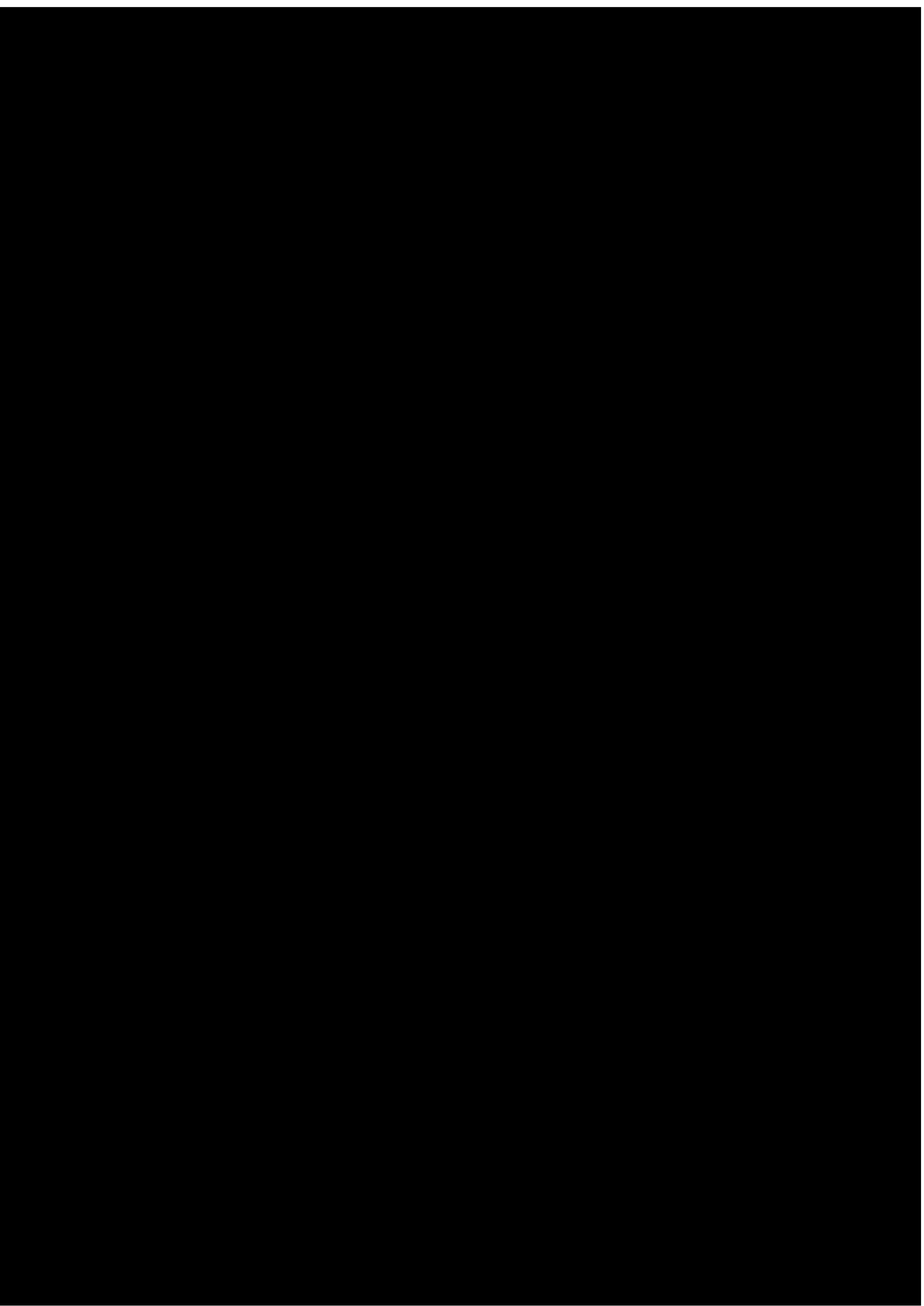
A signature is not required if the application is made by electronic means

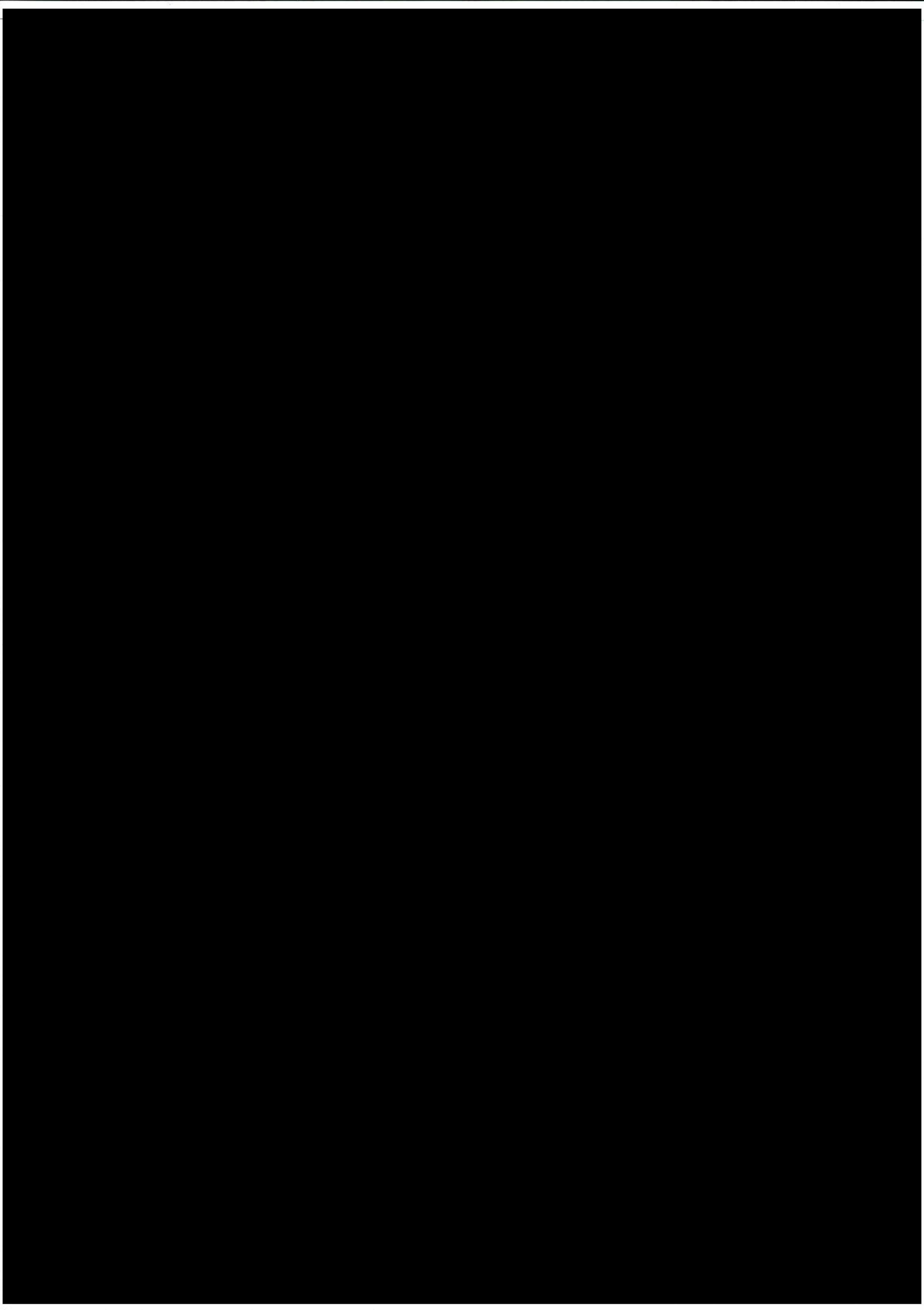
Checklist (please tick if information is provided)

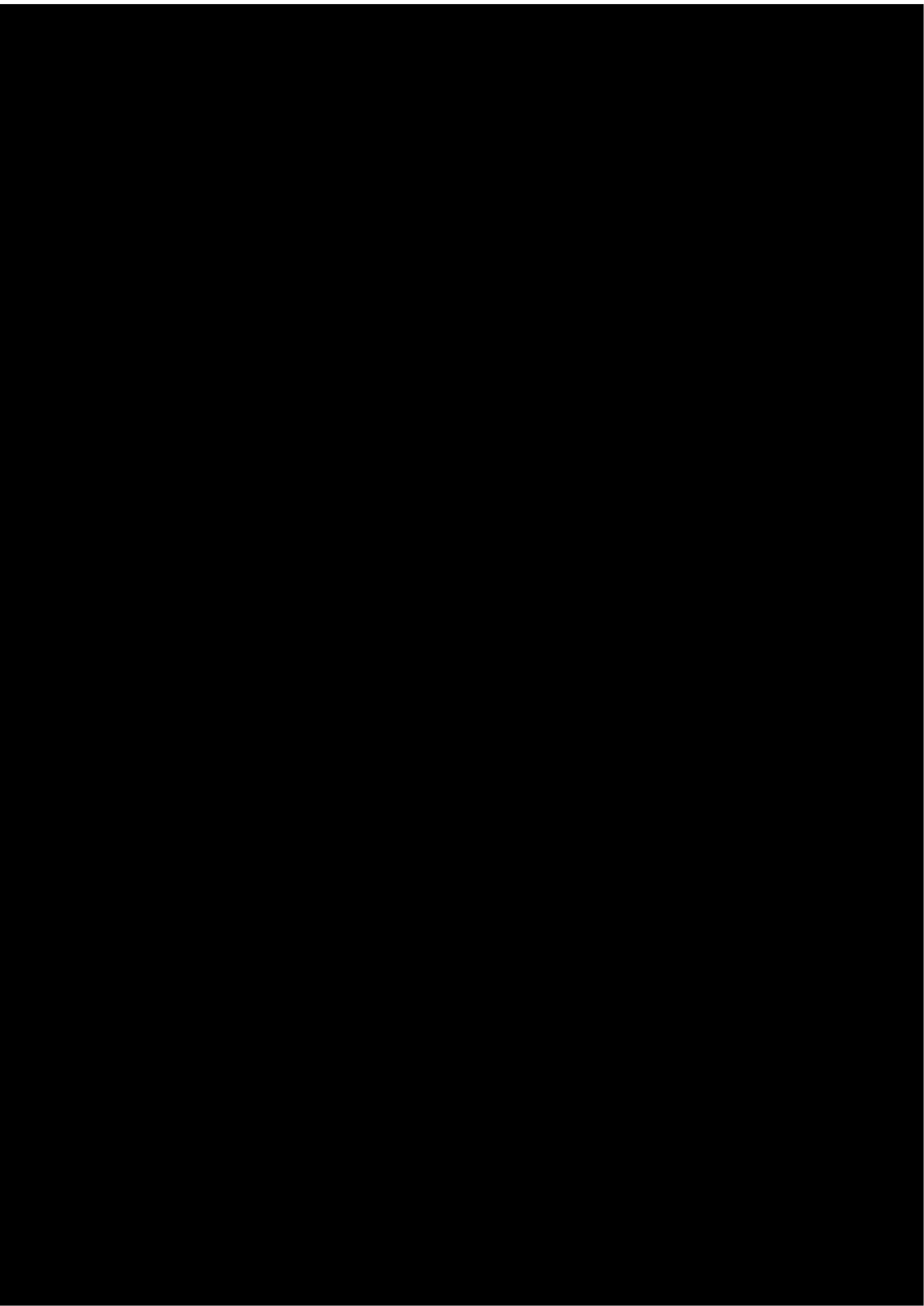
- Payment (cheques payable to Far North District Council)
- A current Certificate of Title (Search Copy not more than 6 months old)
- Details of your consultation with Iwi and hapū
- Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- Applicant / Agent / 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.









Subdivision Consent Application

JAMIE SPRUIT

Ness Road, Waipapa

A faint, light-colored topographic map with contour lines and a grid is visible in the bottom right corner of the page.

**reyburn
& bryant**

PLANNERS • SURVEYORS

Subdivision Consent Application

JAMIE SPRUIT

Ness Road, Waipapa

Report prepared for:	Jamie Spruit
Author	David Johnson, <i>Planner</i>
Reviewed by:	Joseph Henehan, <i>Associate</i>
Consent Authority:	Far North District Council
Report reference:	17815
Report Status:	Final
Date:	October 2024

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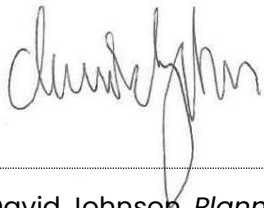
FORM 9

APPLICATION FOR RESOURCE CONSENT UNDER SECTION 88 OF THE RESOURCE MANAGEMENT ACT 1991

To: Far North District Council
Memorial Avenue
Private Bag 752
Kaikohe 0440

1. **Jamie Spruit** applies for subdivision consent to subdivide the site into five lots.
2. The location of the proposed activity is Ness Road, Waipapa.
3. The legal description and title reference of the subject site is Pt Lot 5 DP 102613, NA56C/763.
4. The applicant is the owner of the site via his company, J and K Farms Limited.
5. There are no other activities that are part of the proposal to which this application relates.
6. No additional resource consents or statutory approvals are needed for the proposal to which this application relates that are not being applied for as part of this application.
7. We attach an assessment of effects on the environment that:
 - (a) includes the information required by clause 6 of Schedule 4 of the Resource Management Act 1991; and
 - (b) addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991; and
 - (c) includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.
8. We attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.

-
9. We attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including information required by clause 2(2) of Schedule 4 of that Act.
 10. No other information is required to be included in the district or regional plan(s) or regulations.



David Johnson, *Planner*

25 October 2024

Date

Address for service:	Reyburn and Bryant 1999 Ltd PO Box 191, Whangarei
Telephone:	(09) 438 3563
Email:	david@reyburnandbryant.co.nz
Contact person:	David Johnson

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5. Planning maps
6. Rule assessment
7. NRC 'Selected Land-use Sites' database map

ABBREVIATIONS

AEE	Assessment of Environmental Effects
BEC	Bay Ecological Consultancy Ltd
ES	Engineering Standards
FNDC	Far North District Council
FNDP	Far North District Plan
HAIL	Hazardous Activities and Industries List
HW	Haigh Workman
HZ	Horticulture Zone
LUC	Land Use Capability
NES-CS	National Environmental Standard – Contaminated Soils
NES-F	National Environmental Standard – Freshwater

NPS-HPL	National Policy Statement for Highly Productive Land
NRC	Northland Regional Council
OFNDP	Operative Far North District plan
PFNDP	Proposed Far North District Plan
RMA	Resource Management Act, 1991
TEC	Threatened Environment Classification

1. INTRODUCTION

1.1 Report basis

This report has been prepared for Jamie Spruit (the applicant) in support of an application to subdivide the site into five lots at Ness Road, Waipapa.

The application has been prepared in accordance with Section 88 and the Fourth Schedule of the Resource Management Act, 1991 (RMA). Section 88 of the RMA requires that resource consent applications be accompanied by an Assessment of Environmental Effects (AEE) in accordance with the Fourth Schedule.

The report also includes an analysis of the relevant provisions of the district, regional and national planning documents that are pertinent to the assessment and decision required under s104 of the RMA.

1.2 Proposal summary

The applicant owns a 22.6195ha title (NA56C/763) located on Ness Road 4.5km north-west of Waipapa. It was created on 01 August 1984. It is zoned 'Rural Production' (RPZ) under the Operative Far North District Plan (OFNDP) and 'Horticulture' (HZ) under the Proposed Far North District Plan (PFNDP). There are no Resource Areas that relate to the site in the OFNDP or the PFNDP.

The applicant proposes to subdivide the site into five lots in accordance with Rule 13.8.1(c) of the OFNDP, which provides for the creation of five 2ha lots from a title created before 28 April 2000. A copy of the scheme plan is attached in **Appendix 1**.

Resource consent is required as a **restricted discretionary activity** from the Far North District Council (FNDC) as five lots are proposed and all of them are larger than 2ha.

1.3 Property details

Applicant	Jamie Spruit
Land owner	J and K Farms Limited
Site location	Ness Road, Waipapa
Legal description	Pt Lot 5 DP 102613
Record of title	NA56C/763
Site area	22.6195ha
District Plan	Far North District Plan
Operative District Plan Zone	Rural Production Zone
Operative District Plan Notations	N/A
Proposed District Plan Zone	Horticulture Zone
Proposed District Plan Notations	N/A

Table 1. Property details.

1.4 Relevant title memorials

NA56C/763 contains one allotment, Pt Lot 5 DP 102613. It is subject to Section 8 of the Mining Act 1971 and Section 168A of the Coal Mines Act 1925. Neither of these are relevant to this application. It is also subject to the following memorials:

- **B299445.1** – This Gazette Notice provides the Kerikeri Irrigation Company Ltd with a water supply right over part of the site. It is not affected by this application.
- **7707916.1** – This Gazette Notice declares adjoining land a road vested in the FNDC. It is not affected by this application.

- **12908804.2** – This is a private land covenant that restricts owners of the site from objecting to a range of activities undertaken on other titles to the west. It is unaffected by this application.

The titles and associated memorials are attached in **Appendix 2**.

1.5 Other approvals required

No other approvals are required to give effect to the proposal.

1.6 Processing requests

Prior to the issue of any decision for this consent, please arrange to forward the draft conditions for our review and comment.

1.7 Statutory context

Section 104C of the RMA is associated with determining applications for restricted discretionary activities.

Section 104(1) of the RMA sets out the matters that a consent authority must, subject to Part 2, have regard to when considering all applications for resource consent.

This report focuses on the relevant matters in s104(1), and specifically addresses the following:

- The actual and potential environmental effects (s104(1)(a)).
- The relevant provisions of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES-CS) (s104(1)(b)(i)).
- The relevant provisions of the National Environmental Standard for Freshwater Regulations 2020 (NES-F) (s104(1)(b)(i)).
- The relevant provisions of the National Policy Statement for Highly Productive Land (NPS-HPL) (s104(1)(b)(iii)).
- The relevant provisions of the FNDP (s104(1)(b)(vi)).

2. THE SITE AND SURROUNDING ENVIRONMENT

2.1 The site

Location

The site is located on the western side of Ness Road, 1.3km west of its intersection with Waipapa West Road. It is shown in red in **Figure 1** below.



Figure 1. Site location (Source: Google Earth).

Built development and access

The site contains a pole shed in the southern part of the site, but is otherwise vacant. It is accessed from two vehicle crossings, one at the northern end of the site frontage and the other at the southern end (see **Figure 2** below).



Figure 2 The vehicle crossing (Source: Google Earth).

Topography

The site has an undulating topography, sloping gently up from Ness Road to the centre of the site and then falling gradually to the western boundary. The landform dips in several locations across the site.

Ground cover and vegetation

The site is covered in pasture and wetlands interspersed by several basalt outcrops. Bay Ecological Consultancy Ltd (BEC) have prepared a wetland determination report to determine the extent and significance of the wetlands. This report is attached in **Appendix 3**.

The wetlands are ephemeral, appearing like swales and sloping slightly at the edges. They flow south-east, discharging to a roadside drain and then via a culvert to a creek on the eastern side of Ness Road. A topographical survey mapped out the extent of the wetlands. The extent is shown on the scheme plan and is repeated in **Figure 3** below.



Figure 3. Extent of wetlands.

The wetlands have a moderate significance under Appendix 5 of the Regional Policy Statement for Northland due to their protection of groundwater, A Threatened Environment Classification (TEC) Level II designation, its size, and pattern, diversity and natural rarity of ephemeral wetlands. No rare or threatened flora are present.

Soil composition

The soils on the property are shown as Class 3 in the Land Use Capability (LUC) system. Class 3 soils are considered highly productive land under the NPS-HPL.¹

2.2 Surrounding environment

The site is located in a rural residential area that extends north from Waipapa to Sandys Road 2km north of the site and Lake Manuwai 650m west of the site. Residential development is frequent, interspersed by horticultural activities, other rural production activities, and stands of vegetation.

¹ Manaaki Whenua Landcare Research

The rural residential character is evident along Ness Road, with residential units on either side. The lot sizes are varied, but typically range from 4,000m² through to 10ha. The site is one of the largest properties adjacent to Ness Road, as is evident in **Figure 4** below.

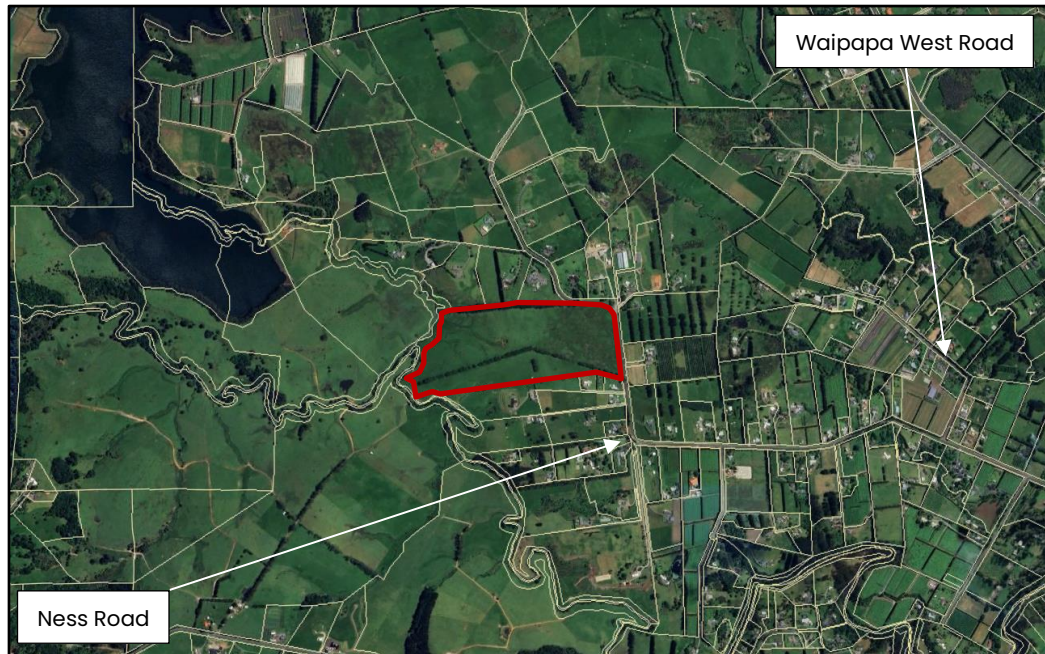


Figure 4. Built development in the surrounding environment (Source: Google Earth).

Overall, the surrounding environment is mixed with residential units, horticultural activities, other rural production activities and vegetation.

3. THE PROPOSAL

3.1 General

The proposal is to subdivide the site into five lots.

The proposed lot configuration is depicted on the scheme plan attached in **Appendix 1**, and is summarised in the following table:

Lots	Area²
1	2.0850ha
2	2.1350ha
3	2.0770ha (1.9310ha net)
4	2.0170ha
5	14.3055ha (14.3015ha net)

Table 2 Proposed allotment detail.

3.2 Wetlands

In addition to determining the extent of the wetlands, the BEC wetland determination report (attached in **Appendix 3**) makes recommendations for the subdivision design. It recommends that the wetlands are buffered from residential units and that the regulations of the NES-F are adhered to, ensuring that there will be no loss of extent or of the values associated with the wetlands. These recommendations have been encapsulated in the design of the subdivision.

3.3 Site suitability

Haigh Workman Ltd (HW) have prepared a civil and geotechnical assessment in support of the proposed subdivision. This report is attached in **Appendix 4**. It identifies suitable building platforms on all of the lots. None of them are subject

² These areas are approximate and subject to survey.

to any natural hazards. All of them are at least 30m from the edge of the wetlands.

HW make several recommendations for development on the proposed lots. These include restrictions on foundations, setbacks from the wetlands, and recommendations for wastewater and stormwater disposal. Further geotechnical assessments will be required at building consent stage.

It is anticipated that the recommendations of the HW report will be encapsulated in a consent notice required as a condition of consent.

3.4 Access

Access to the proposed lots will be provided via two vehicle crossings and two rights of way.

Proposed Lots 1 – 3 will share a new vehicle crossing and shared accessway extending west from Ness Road. It will be constructed at the southern end of proposed Lot 3 in accordance with the FNDC Engineering Standards (ES). Proposed rights of way C and D will provide access to proposed Lots 1 (C only) and 2 (C and D) over proposed Lot 3. It will be constructed in accordance with the FNDC ES.

Proposed Lots 4 and 5 will get access over the existing metal crossing (see **Figure 2** of this report) which will be upgraded in accordance with the FNDC ES. Proposed right of way B will provide proposed Lot 4 with access over proposed Lot 5. It will be constructed in accordance with the FNDC ES.

In their report attached in **Appendix 4**, HW have confirmed that compliant sight distances are available at both proposed crossing locations.

3.5 Wastewater

There is no public reticulated wastewater infrastructure available in this location.

HW considered the management of wastewater in their report. They recommend effluent disposal for residential units on the proposed lots be via

pressure compensating dripper irrigation lines in accordance with AS/NZS1547 (2012), noting that discharge to soakage trenches may also be feasible. HW have calculated the size of the effluent fields based on a three bedroom residential unit.

It is anticipated that the recommendations of the HW report will be encapsulated in a consent notice required as a condition of consent.

3.6 Stormwater

As there is no public reticulated stormwater management in this location, the proposed lots will manage stormwater on-site.

HW considered the management of stormwater in their report. Stormwater attenuation will not be required at subdivision stage or building consent stage. Stormwater from any roofs will be collected and used for the potable water supply. Any overflows will be discharged to land via spreader devices.

It is anticipated that the recommendations of the HW report will be encapsulated in a consent notice required as a condition of consent.

3.7 Water supply

There is no public reticulated water supply available in this location. Future residential units on the proposed lots will be provided with on-site water supplies via water tanks. These arrangements will be established by future owners at the time of applying for building consents.

Firefighting water supplies will also be provided on-site in accordance with the Fire Fighting Water Supplies Code of Practice 4509:2008, or as otherwise agreed to by FENZ.

3.8 Electricity and telecommunications

The proposed lots will be provided with electricity connections in accordance with the requirements of Top Energy. Any required easements will be created at the survey stage.

No hardwired telecommunications connections are proposed. Rather, wireless services are available.

4. RULE ASSESSMENT

4.1 Relevant planning notations

The site is zoned RPZ under the OFNDP and HZ under the PFNDP. There are no Resource Areas that relate to the site in the OFNDP or the PFNDP.

The relevant planning maps are attached in **Appendix 5**.

4.2 OFNDP rule assessment

Resource consent is required in accordance with the following rule of the OFNDP:

- Rule 13.8.1 – The proposal complies with the criteria under Rule 13.8.1(c) as NA56C/763 was created prior to 28 April 2000, five lots are proposed, and all of them have site areas in excess of 2ha. It is therefore a **restricted discretionary activity** under Rule 13.8.1(c). Council have restricted their discretion under this rule to the following matters:
 - *Effects on the natural character of the coastal environment for proposed lots which are in the coastal environment;*
 - *Effects of the subdivision under (b) and (c) above within 500m of land administered by the Department of Conservation upon the ability of the Department to manage and administer its land;*
 - *Effects on areas of significant indigenous flora and significant habitats of indigenous fauna;*
 - *The mitigation of fire hazards for health and safety of residents.*

The proposal complies with the other relevant rules set out in Rules 13.7.2.2 – 13.7.2.9.

A full assessment of the OFNDP rules is attached in **Appendix 6**.

4.3 PFNDP rule assessment

The PFNDP was publicly notified on 27 July 2022. The submission period closed on 21 October 2022, and the further submission period closed on 4 September 2023. In accordance with s86B(3) of the RMA, the rules that would ordinarily

apply to this proposal do not currently have legal effect. The proposal therefore does not require resource consent under the PFNDP.

For completeness, an assessment has been made with respect to the rules of the PFNDP, and this is attached in **Appendix 6**. If these rules were to have legal effect, the proposal would be a **non-complying activity** as proposed Lots 1 – 4 are smaller than 4ha.

5. ASSESSMENT OF ENVIRONMENTAL EFFECTS

5.1 Existing environment

Section 104(1)(a) of the RMA requires a consideration of any actual and potential effects on the environment of allowing an activity. The existing environment has been described in Section 2 of this report. It includes the rural residential development on both sides of Ness Road (see **Figure 4** of this report).

5.2 Permitted baseline

Section 104(2) of the RMA allows a consent authority to disregard an adverse effect of an activity on the environment if a plan permits an activity with that effect.

While there is no permitted baseline for subdivision, the land use provisions of the RPZ permit the construction of one residential unit per 12ha of land, provided that a single residential unit can be constructed on a site of any size. The applicant can construct one residential unit on NA56C/763 as it has a size of 22.6195ha.

The effects associated with this permitted development should be considered as part of the permitted baseline and disregarded from the effects assessment.

5.3 Matters of discretion assessment (Rule13.8.1(c))

The matters over which FNDC have restricted their discretion in Rule 13.8.1(c) are identified and assessed below.

Effects on the natural character of the coastal environment for proposed lots which are in the coastal environment.

Assessment – The site is not in the coastal environment.

Effects of the subdivision under (b) and (c) above within 500m of land administered by the Department of Conservation upon the ability of the Department to manage and administer its land.

Assessment – There are no areas of land administered by the Department of Conservation within 500m of the site.

Effects on areas of significant indigenous flora and significant habitats of indigenous fauna.

Assessment – The BEC report (attached in **Appendix 3**) assesses the effects of the subdivision on the wetlands. It notes that setbacks for built development from the wetlands and compliance with the NES-F will ensure their functional and habitat values are maintained. It concludes that if these recommendations are complied with there is unlikely to be a loss of extent or values associated with the wetlands.

HW have positioned all of the buildings sites so that they are setback at least 30m from the edge of the wetlands, sufficient to ensure that there will be no loss of extent of the wetlands or loss of the values associated with the wetland.

Overall, any adverse effects on significant indigenous flora and habitats of indigenous fauna will be less than minor.

The mitigation of fire hazards for health and safety of residents.

Assessment – As detailed in Section 3.6 of this report, firefighting water supplies will be provided on-site in accordance with the Fire Fighting Water Supplies Code of Practice 4509:2008, or as otherwise agreed to by FENZ.

5.4 Adverse effects conclusion

Overall, the effects associated with the proposal will be less than minor relative to the existing environment.

6. PLANNING ASSESSMENT

6.1 Overview

An assessment against the objectives and policies of the District Plan is a necessary consideration under Section 104(1) of the RMA. The relevant objectives and policies of the OFNDP and the PFNDP are identified and assessed below.

6.2 OFNDP objectives and policies assessment

Context

The objectives and policies of the OFNDP are only relevant to the extent that they can assist in clarifying any ambiguity in the matters of discretion. In this case there is no ambiguity in the matters of discretion, so no specific consideration of the objectives and policies is required. Nonetheless, the following assessment has been undertaken for completeness.

The objectives and policies of the OFNDP are zone specific. There are also other provisions that relate to district wide matters. Given the nature of this application, the assessment considers the objectives and policies in the Rural Environment Chapter (Chapter 8) as they relate to the RPZ (Chapter 8.6), the Subdivision Chapter (Chapter 13), and the Transportation Chapter (Chapter 15).

Assessment

The relevant objectives and policies of the OFNDP are grouped and assessed below.

Objective 8.6.3.2 To enable the efficient use and development of the Rural Production Zone in a way that enables people and communities to provide for their social, economic, and cultural well being and for their health and safety.

Objective 8.6.3.2 enables development in the RPZ that provides for peoples social, economic and cultural well being. The subdivision will allow the applicant to sell excess land to other parties, providing for his social and

economic well being. For these reasons, the proposal aligns with Objective 8.6.3.2.

Objective 8.3.2 To ensure that the life supporting capacity of soils is not compromised by inappropriate subdivision, use or development.

Objective 8.3.9 To enable rural production activities to be undertaken in the rural environment.

Objective 8.6.3.9 To enable rural production activities to be undertaken in the zone.

Policy 8.6.4.1 That the Rural Production Zone enables farming and rural production activities, as well as a wide range of activities, subject to the need to ensure that any adverse effects on the environment, including any reverse sensitivity effects, resulting from these activities are avoided, remedied or mitigated and are not to the detriment of rural productivity.

These provisions provide for rural production activities in the RPZ. Other activities must be designed to ensure they are not detrimental to rural productivity.

Despite being smaller than 20ha, the proposed lots are large enough to be used for small scale agricultural or horticultural activities. This ensures that rural production activities will continue on the land after the subdivision, and that values associated with them will be maintained.

For the above reasons, the proposal aligns with these provisions.

Objective 8.3.7 To promote the maintenance and enhancement of amenity values of the rural environment to a level that is consistent with the productive intent of the zone.

Objective 8.3.10 To enable the activities compatible with the amenity values of rural areas and rural production activities to establish in the rural environment.

Policy 8.4.4 That development which will maintain or enhance the amenity value of the rural environment and outstanding natural features and outstanding landscapes be enabled to locate in the rural environment.

Objective 8.6.3.3 To promote the maintenance and enhancement of the amenity values of the Rural Production Zone to a level that is consistent with the productive intent of the zone.

Policy 8.6.4.4 That the type, scale and intensity of development allowed shall have regard to the maintenance and enhancement of the amenity values of the Rural Production Zone to a level that is consistent with the productive intent of the zone.

Policy 13.4.1 That the sizes, dimensions and distribution of allotments created through the subdivision process be determined with regard to the potential effects including cumulative effects, of the use of those allotments on:

- (a) natural character, particularly of the coastal environment;
- (b) ecological values;
- (c) landscape values;
- (d) amenity values;
- (e) cultural values;
- (f) heritage values; and
- (g) existing land uses.

These provisions promote activities that maintain and enhance the amenity values to a level that is consistent with the productive intent of the RPZ.

The proposed subdivision creates five 2ha lots consistent with Rule 13.8.1(c) of the OFNDP. The proposed lots will be viewed as a series of rural-residential lots positioned amongst productive farmland, consistent with the character of Ness Road. The number and size of the proposed lots is also consistent with the existing levels of development on Ness Road (see **Figure 4** of this report).

For the above reasons, the proposal aligns with these provisions.

Policy 8.4.3 That any new infrastructure for development in rural areas be designed and operated in a way that safeguards the life supporting capacity of air, water, soil and ecosystems while protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, outstanding natural features and landscapes.

Policy 8.4.3 requires new infrastructure associated with development to be designed and operated appropriately.

The proposed lots are capable of being entirely serviced on-site in accordance with the recommendations of the HW report. These arrangements will be established at building consent stage.

For the above reasons, the proposal aligns with Policy 8.4.3.

Objective 13.3.1 To provide for the subdivision of land in such a way as will be consistent with the purpose of the various zones in the Plan, and will promote the sustainable management of the natural and physical resources of the District, including airports and roads and the social, economic and cultural well being of people and communities.

Policy 13.4.14 That the objectives and policies of the applicable environment and zone and relevant parts of Part 3 of the Plan will be taken into account when considering the intensity, design and layout of any subdivision.

These provisions require subdivisions to be consistent with the purpose of the underlying zone. The proposal is assessed against the relevant objectives and policies of the RPZ above and is determined to be consistent with them.

Objective 15.1.3.1 To minimise the adverse effects of traffic on the natural and physical environment.

Policy 15.1.4.1 That the traffic effects of activities be evaluated in making decisions on resource consent applications.

Objective 15.1.3.1 and Policy 15.1.4.1 require the adverse effects of traffic to be evaluated and minimised. The adverse traffic effects are assessed in Section 5.5 of this report, and were determined to be less than minor, consistent with these provisions.

Objective 15.1.3.4 To ensure that appropriate and efficient provision is made for loading and access for activities.

Objective 15.1.3.5 To promote safe and efficient movement and circulation of vehicular, cycle and pedestrian traffic, including for those with disabilities.

Policy 13.4.5 That access to, and servicing of, the new allotments be provided for in such a way as will avoid, remedy or mitigate any adverse effects on neighbouring property, public roads (including State Highways), and the natural and physical resources of the site caused by silt runoff, traffic, excavation and filling and removal of vegetation.

These provisions relate to access, requiring that they are appropriate, safe and efficient. The proposed lots will be provided with access via two vehicle crossings and two rights of way. These will be established in accordance with the FNDC ES, ensuring they are constructed to a safe and efficient standard. For these reasons, the proposal aligns with these provisions.

Conclusion

Overall, the proposal is consistent with the objectives and policies of the OFNDP.

6.3 PFNDP objectives and policies assessment

Context

The PFNDP was publicly notified on 27 July 2022. The submission period closed on 21 October 2022, and the further submission period closed on 4 September 2023. Given the stage of the process and pursuant to s86B(1)(c) of the RMA, the rules of the Plan Changes do not have legal effect (except for those specifically identified). Nevertheless, an assessment to determine the activity status that this proposal would have under the PFNDP provisions has been made in Section 4.3 of this report. While the majority of the rules do not have legal effect, the objectives and policies are a relevant consideration under s104(1)(b)(vi) of the RMA.

Weighting

With regards to weighting, the plan changes are in the early stages, with submissions and further submissions having closed (on 21 October 2022 and 4 September 2023 respectively). Little weight should therefore be applied to the PFNDP when considering the application. Nonetheless, an assessment of the objectives and policies is provided below for completeness.

Assessment

HZ-O3 Land use and subdivision in the Horticulture zone:

- a. avoids land sterilisation that reduces the potential for highly productive land to be used for a horticulture activity;
- b. avoids land fragmentation that comprises the use of land for horticultural activities;
- c. avoids any reverse sensitivity effects that may constrain the effective and efficient operation of primary production activities;
- d. does not exacerbate any natural hazards;
- e. maintains the rural character and amenity of the zone;
- f. is able to be serviced by on-site infrastructure.

HZ-P5 Manage the subdivision of land in the Horticulture zone to:

- a. avoid fragmentation that results in loss of highly productive land for use by horticulture and other farming activities;

- b. ensure the long-term viability of the highly productive land resource to undertake a range of horticulture uses;
- c. enable a suitable building platform for a future residential unit; and
- d. ensure there is provision of appropriate onsite infrastructure.

HZ-P7 Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:

- a. whether the proposal will increase production potential in the zone;
- b. whether the activity relies on the productive nature of the soil;
- c. consistency with the scale and character of the rural environment;
- d. location, scale and design of buildings or structures;
- e. for subdivision or non-primary production activities:
 - i. scale and compatibility with rural activities;
 - ii. Potential reverse sensitivity effects on primary production activities and existing infrastructure;
 - iii. the potential for loss of highly productive land, land sterilisation or fragmentation
- f. at zone interfaces:
 - i. any setbacks, fencing, screening or landscaping required to address potential conflicts;
 - ii. the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;
- g. the capacity of the site to cater for on-site infrastructure associated with the proposed activity, including whether the site has access to a water source such as an irrigation network supply, dam or aquifer;
- h. the adequacy of roading infrastructure to service the proposed activity;
- i. Any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity;
- j. Any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

The objectives and policies of the HZ provide for subdivision that is consistent with the scale and character of the rural environment. Fragmentation is to be avoided if it compromises the use of land for horticultural activities.

The site is one of the largest on Ness Road. The proposed lots are consistent with the existing pattern of development on Ness Road, including the density of development and lot sizes (see **Figure 4** of this report).

Despite having sizes of less than 4ha, the proposed lots are large enough to be used by small scale agricultural or horticultural activities. This ensures that the productive potential of the land will be maintained.

For the above reasons, the proposal aligns with these provisions.

SUB-O1 Subdivision results in the efficient use of land, which:

- a. achieves the objectives of each relevant zone, overlays and district wide provisions;
- b. contributes to the local character and sense of place;
- c. avoids reverse sensitivity issues that would prevent or adversely affect activities already established on land from continuing to operate;
- d. avoids land use patterns which would prevent land from achieving the objectives and policies of the zone in which it is located;
- e. does not increase risk from natural hazards or risks are mitigated and existing risks reduced; and
- f. manages adverse effects on the environment.

SUB-O3 Infrastructure is planned to service the proposed subdivision and development where:

- a. there is existing infrastructure connection, infrastructure should be provided in an integrated, efficient, coordinated and future-proofed manner at the time of subdivision; and
- b. where no existing connection is available infrastructure should be planned and consideration be given to connections with the wider infrastructure network.

SUB-O4 Subdivision is accessible, connected, and integrated with the surrounding environment and provides for:

- a. public open spaces;
- b. esplanade where land adjoins the coastal marine area; and
- c. esplanade where land adjoins other qualifying waterbodies.

SUB-P3 Provide for subdivision where it results in allotments that:

- a. are consistent with the purpose, characteristics and qualities of the zone;
- b. comply with the minimum allotment sizes for each zone;
- c. have an adequate size and appropriate shape to contain a building platform; and
- d. have legal and physical access.

SUB-P4 Manage subdivision of land as detailed in the district wide, natural environment values, historical and cultural values and hazard and risks sections of the plan.

SUB-P6 Require infrastructure to be provided in an integrated and comprehensive manner by:

- a. demonstrating that the subdivision will be appropriately serviced and integrated with existing and planned infrastructure if available; and

- b. ensuring that the infrastructure is provided is in accordance the purpose, characteristics and qualities of the zone.

The objectives and policies of the SUB Chapter seek to ensure subdivisions are in accordance with the provisions of the underlying zone provided they are appropriately serviced and integrated with the surrounding environment.

The proposed subdivision is not contrary to the objectives and policies of the HZ as outlined above.

The proposed lots will be appropriately accessed and serviced as detailed in Sections 3.4, 3.5, 3.6 and 3.7 of this report.

For the above reasons, the proposal aligns with these provisions.

TRAN-O5 The safe and efficient movement of vehicular, cycle and pedestrian traffic that also meets the needs of persons with a disability or limited mobility.

TRAN-P8 Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:

- a. the type and level of traffic anticipated;
- b. the location of high traffic generating activities and their relationship to existing roads and their status under the National Transport Network classification system, and adjacent properties;
- c. low impact design principles, including green spaces;
- d. safety requirements and improvements;
- e. the management of stormwater;
- f. any natural hazards;
- g. any cumulative effects arising from lawfully established activities in the surrounding environment;
- h. current and future connectivity including pathways and parking, and open space networks;
- i. any traffic assessment prepared by a suitably qualified and experienced transport professional;
- j. impacts on any State Highway or Limited Access Road; and
- k. any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

The objectives and policies of the TRAN Chapter seek to ensure that all access and parking arrangements are designed and established to ensure a safe and efficient transport network.

The proposed lots will be provided with access via two vehicle crossings and two rights of way. These will be established in accordance with the FNDC ES, ensuring they are constructed to a safe and efficient standard. Parking will be established at building consent stage.

For the above reasons, the proposal aligns with these provisions.

Conclusion

The assessment provided above confirms the proposal is not contrary to the policy direction of the PFNDP.

6.4 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011

All applications that involve subdivision, an activity that changes the use of a piece of land, or earthworks are subject to the provisions of the NES-CS. The regulation sets out the requirements for considering the potential for soil contamination, based on the HAIL (Hazardous Activities and Industries List) and the risk that this may pose to human health as a result of the proposed subdivision.

A review of aerial photographs and the Northland Regional Council 'selected land-use sites' database was undertaken, which confirmed that no HAIL activities are present or have ever taken place on the subject 'piece of land' – refer to the map attached in **Appendix 7**. Accordingly, the NES-CS does not apply to this application.

6.5 National Environmental Standard for Freshwater Regulations 2020

The NES-F sets out requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. Anyone carrying out these activities must comply with the regulations stipulated within this document.

There are wetlands within the site, see **Figure 4** of this report and the scheme plan (attached in **Appendix 1**). However, none of the regulations are infringed because:

- Regulation 54(b) – The earthworks will be setback at least 10m from the wetlands as the building sites shown in the HW report and the accesses to them are at least 10m from the edge of the wetlands.
- Regulation 54(c) and (d) – The proposal includes the taking, use, damming, diversion and discharge of water within or within 100m of the wetlands. However, consent is not required under Regulations 54(c) or (d) as those activities will not change the water level range or hydrological function of the wetland.

6.6 National Policy Statement for Highly Productive Land

The NPS-HPL came into effect on 17 October 2022. The overarching objective of the document is to protect highly productive land for use in land-based production, both now and for future generations.

In accordance with clause 3.5(7), all consenting authorities are now required to apply the NPS-HPL where references to highly productive land are references to land that is zoned Rural Production (or Rural) and that has a soil classification of LUC 1 – 3.

The site is zoned RPZ under the OFNDP, and the site has Class 3 soils. It is therefore classified as 'highly productive land' under the NPS-HPL.

The ability of FNDC to have regard to the relevant provisions of the NPS-HPL under s104(1)(b)(iii) is limited to the matters over which they have restricted their discretion under Rule 13.8.1 of the OFNDP. None of them relate to productive rural values or any other matters covered by the NPS-HPL.

Given the above, the NPS-HPL is not a relevant consideration for the proposed subdivision. This is consistent with the Ministry for the Environment's 'Guide to implementation' for the NPS-HPL.

6.7 Part 2 Assessment

An assessment of Part 2 matters is not required unless there are issues of invalidity, incomplete coverage, or uncertainty in the planning provisions.³ In this case, there is no invalidity, incomplete coverage, or uncertainty amongst the various documents. In that regard, no assessment of the application is required under Part 2. However, for completeness, the proposal accords with the purpose of the RMA for the following reasons:

1. The proposal redevelopment facilitates the efficient use of resources by subdividing the site into separate titles in general accordance with the relevant intentions of the OFNDP and the PFNDP.
2. The proposal is consistent with the existing amenity values and character associated with the site and the surrounding environment.
3. The proposal will not increase the risk of natural hazards.
4. There are no adverse effects on human health associated with the proposal.

The proposal does not offend any matters of national importance in Section 6, or any of the other matters set out in Section 7 and 8 of the RMA.

³ *R J Davidson Family Trust the Marlborough District Council* [2018] NZCA 316

7. NOTIFICATION

Pursuant to sections 95A and 95B of the RMA, Section 5 of this report concludes that any adverse effects associated with the proposal will be less than minor. Furthermore, there are no special circumstances associated with the application, the applicant has not requested notification, and there is no rule or national environmental standard that requires notification of this application. Consequentially, public notification is not necessary.

The assessment of environmental effects in Section 5 of this report confirms that no parties are considered to be adversely affected by the proposal. Consequentially, limited notification is not necessary.

Having considered the above, the proposal can proceed on a **non-notified** basis.

8. CONCLUSION

The proposal is to subdivide the site into five lots at Ness Road, Waipapa in accordance with Rule 13.8.1(c) of the OFNDP.

The proposed subdivision complies with Rule 13.8.1(c) of the OFNDP. NA56C/763 was created prior to 28 April 2000, five lots are proposed, and all of them are larger than 2ha.

Ness Road has a rural residential character, with both sides of the road containing rural residential lots. The proposed lots are consistent with this character, with lot sizes that match the existing cadastral pattern. Once developed the proposed lots will be viewed as a series of rural residential lots with small scale rural production activities and horticultural activities on them, consistent with the surrounding environment.

The environment effects associated with the proposal have been assessed in Section 5 of this report and have been determined to be less than minor. Consequently, appropriate regard has been given to s104(1)(a) of the RMA.

The proposal is consistent with the relevant objectives and policies of the RPZ and the district wide Subdivision and Transport Chapters of the OFNDP. It is also consistent with the objectives and policies of the HZ, SUB and TRA Chapters in the PFNDP. Section 6.4 of this report confirms that the NES-CS regulations are not relevant. Section 6.5 of this report confirms that there are no consenting requirements under the NES-F. Section 6.6 of this report confirms that the NPS-HPL is not a relevant consideration for this application. Accordingly, appropriate regard has been given to s104(1)(b)(i) and s104(1)(b)(vi) of the RMA.

Having regard to the relevant matters in s104(1) and s104C of the RMA, the proposal can be approved subject to appropriate conditions of consent.

APPENDIX 1

SCHEME PLAN



CAUTION:

- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
- AREAS & DIMENSIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO FINAL SURVEY.
- THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN.
- SERVICES MUST NOT BE POSITIONED USING THIS PLAN.
- DO NOT SCALE OFF DRAWINGS.
- THIS PLAN IS COPYRIGHT TO REYBURN & BRYANT (1999) LIMITED.
- DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
- 04m 2014-2016 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD
- INFORMATION AVAILABLE ON LINZ DATA SERVICE.
- BOUNDARIES SOURCED FROM QUICKMAP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

EXISTING EASEMENTS IN GROSS			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	GRANTEE / CREATED
WATER SUPPLY RIGHT	A	LOT 5 HEREON	KERIKERI IRRIGATION COMPANY LTD B299445.1

PROPOSED EASEMENT SCHEDULE			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	BENEFITTED (DOM.TENE.)
RIGHT OF WAY	B	LOT 5 HEREON	LOT 4 HEREON
	C	LOT 3 HEREON	LOTS 1 & 2 HEREON
	D	LOT 3 HEREON	LOT 2 HEREON

EXISTING LAND COVENANT 12908804.2 IS TO REMAIN.

WETLAND AREA

TOTAL AREA: 22.6195Ha
 COMPRISED IN: RT NA56C/763

THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES.

REV	DATE	DESCRIPTION
E	18.07.24	AMENDED LOT BOUNDARIES - JH/MW
D	03.07.24	AMENDED WETLAND AREA - JH/MW
A	01.02.24	FIRST ISSUE - JH/MW

REF. DATA:

reyburn & bryant

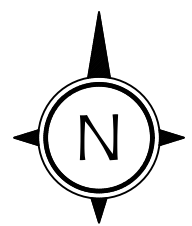
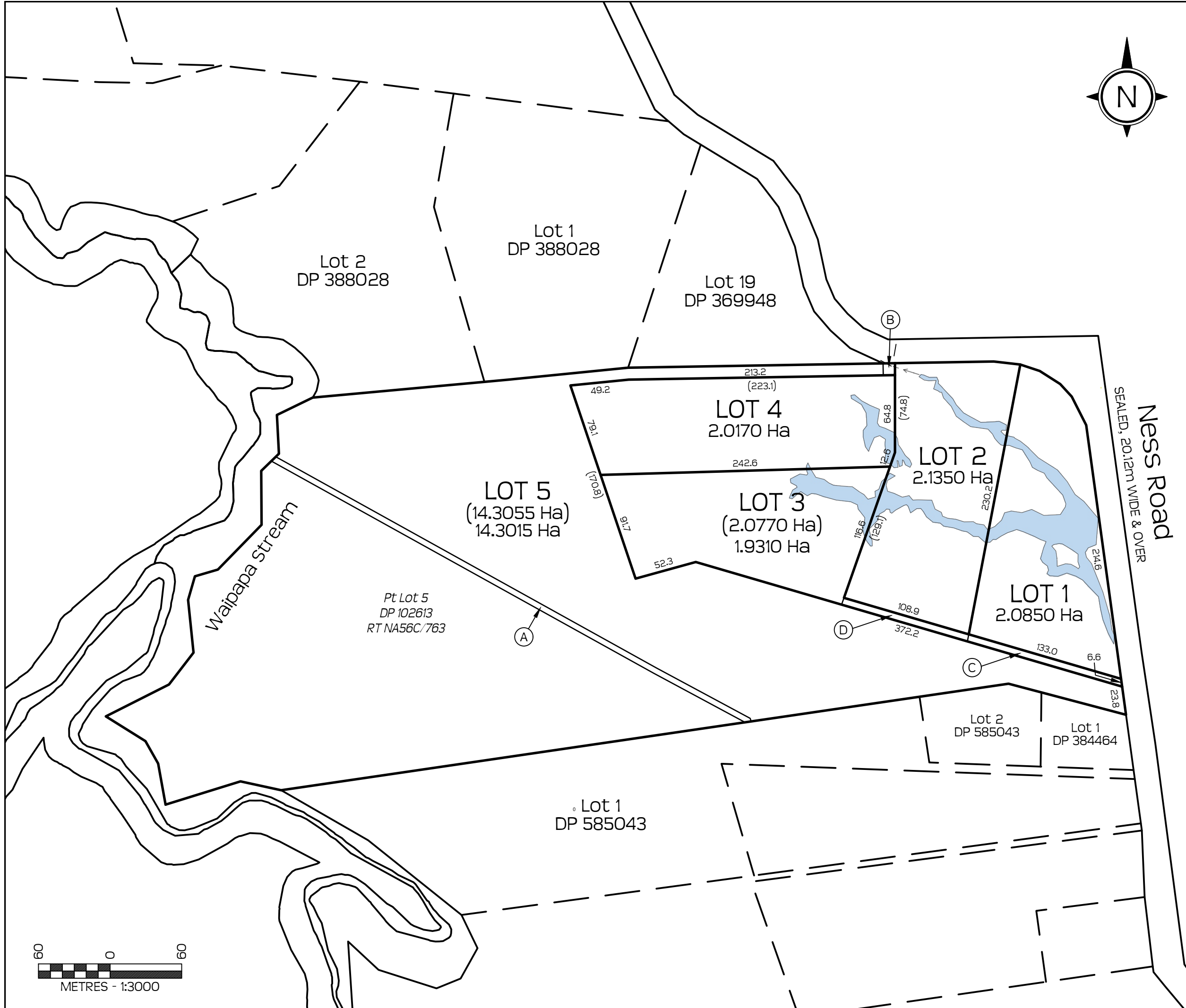
Ph: 09 438 3563 PO Box 191, Whangarei 0140
 7 Selwyn Ave, Whangarei www.reyburnandbryant.co.nz

CLIENT
**JAMIE SPRUIT
 NESS ROAD
 WAIPAPA**

TITLE
**PROPOSED SUBDIVISION OF
 PT LOT 5 DP 102613**

DATE **JULY 2024** SCALE **1:3000 @A3**

DRAWING REF. S17815	SHEET 01 OF 01	REV E
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CAUTION:

- THIS DRAWING SHOULD NOT BE AMENDED MANUALLY.
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- THE VENDOR & PURCHASER MUST CONTACT THE SURVEYOR IF SALE & PURCHASE AGREEMENTS ARE ENTERED INTO USING THIS PLAN.
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- BOUNDARIES SOURCED FROM QUICKMAP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

EXISTING EASEMENTS IN GROSS			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	GRANTEE / CREATED
WATER SUPPLY RIGHT	A	LOT 5 HEREON	KERIKERI IRRIGATION COMPANY LTD B299445.1

PROPOSED EASEMENT SCHEDULE			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	BENEFITTED (DOM.TENE.)
RIGHT OF WAY	B	LOT 5 HEREON	LOT 4 HEREON
	C	LOT 3 HEREON	LOTS 1 & 2 HEREON
	D	LOT 3 HEREON	LOT 2 HEREON

EXISTING LAND COVENANT 12908804.2 IS TO REMAIN.

WETLAND AREA

TOTAL AREA: 22.6195Ha
 COMPRISED IN: RT NA56C/763
 THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES.

REV	DATE	DESCRIPTION
E	18.07.24	AMENDED LOT BOUNDARIES - JH/MW
D	03.07.24	AMENDED WETLAND AREA - JH/MW
A	01.02.24	FIRST ISSUE - JH/MW

REF. DATA:

Ph: 09 438 3563 PO Box 191, Whangarei 0140
 7 Selwyn Ave, Whangarei www.reyburnandbryant.co.nz

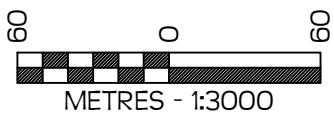
CLIENT

JAMIE SPRUIT
 NESS ROAD
 WAIPAPA

TITLE

PROPOSED SUBDIVISION OF
 PT LOT 5 DP 102613

DATE	JULY 2024	SCALE	1:3000 @A3
DRAWING REF.	S17815	SHEET	01 OF 01
REV	E		



APPENDIX 2

RECORD OF TITLE AND ASSOCIATED MEMORIALS



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




R. W. Muir
Registrar-General
of Land

Identifier **NA56C/763** **Part-Cancelled**
Land Registration District **North Auckland**
Date Issued 01 August 1984

Prior References
NA55C/77

Estate Fee Simple
Area 22.7120 hectares more or less
Legal Description Lot 5 Deposited Plan 102613
Registered Owners
J & K Farms Limited

Interests

Subject to Section 8 Mining Act 1971
Subject to Section 168A Coal Mines Act 1925
Subject to a water supply right (in gross) over part in favour of Kerikeri Irrigation Company Limited created by Gazette Notice B299445.1 - 15.6.1984 at 1.32 pm
7707916.1 Gazette Notice 2008 page 360 declaring Part Lot 5 DP 102613 now described as Section 1 SO 375441 (625m²) to be acquired for road and vested in the Far North District Council - 11.2.2008 at 9:00 am
Land Covenant in Covenant Instrument 12908804.2 - 21.12.2023 at 11:01 am
12908804.4 Mortgage to ASB Bank Limited - 21.12.2023 at 11:01 am

Approved
David Dawson Bayburn and John McKeown
Chairman

Registered Owner

Pursuant to a resolution of the Bay of Islands Council passed on the 27th day of March 1984, the following section 90A of the Local Government Act 1974, the survey plan and certificate, the requirements and provisions of the respective Act and provisions of the respective Act and provisions of the respective Act shall apply to the area to which this survey plan relates. The Council was hereby authorized in the presence of

THE COMMON SEAL OF THE BAY OF ISLANDS COUNCIL
Chairman
J. McKeown

Purpose Shown	Created bus
Metres/Feet	B 299.445-1

NEW CT. ALLOCATED:
Lot 5, ct. . 56C/763

Total Area 22.712 Oha
Comprised in CT. 55C/77 (Part)

1. David Dawson Bayburn of Mangonui, Registered Surveyor and holder of an annual practicing certificate hereby certify that this plan has been made from surveys executed by me or under my direction, that both plan and survey are correct and have been made in accordance with the regulations under the Survey Act 1984.
David Dawson Bayburn, this 19th day of March 1984.
Signature *David Dawson Bayburn*

Field Book p. Traverse Book p.
Reference Plans

Examined R. P. Small, District Registrar
Approved as to Survey
24.7.1984
for Chief Surveyor
R. P. Small

Deposited this 1 day of August 1984
District Registrar
DP 102613

Scale 1:4000
Date March 1984

LOCAL AUTHORITY Bay of Islands Council
Surveyed by Bayburn & Bryant

LOT 1 BEING A SUBDIVISION OF PART LOT 2, DP 100713
SHEET No. P05/51

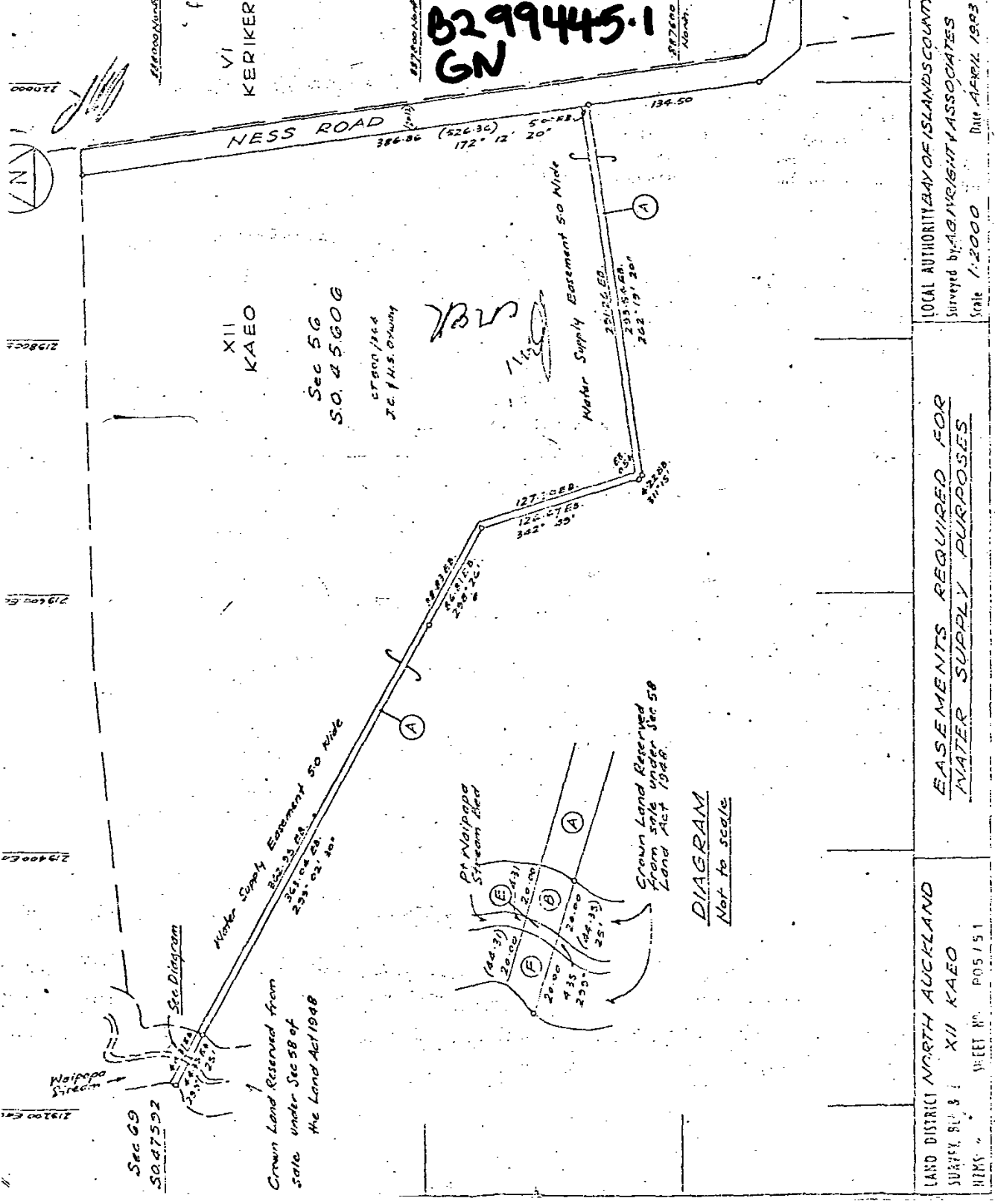
LAND DISTRICT North Auckland
SURVEY BLK. & DIST. XII Kaero
NZMS

Diagram 1 Not to scale
Diagram 2 Not to scale

DATE OF PHOTOGRAPHY
1984

INCHES
CENTIMETERS

Approved as to Existence of Boundaries	12723 District Commissioner of MOKEE. FILE NO 50121210
SCHEDULE OF WATER SUPPLY EASEMENTS	
Shown Description	CT Ref. Area
(A) Pt Sec 5G	508/963 4323m ²
(B) Pt Crown Land	14m ²
(E) Pt Stream bed (Crown Land)	2 line
(F) Pt Crown Land	15m ²
This plan is concurrent with S.O. 57554	
Total Area	4584m ²
Comprised in 508/963 pt.	
I Alexander Garry Knight of Auckland Registered Surveyor and holder of an annual practicing certificate hereby certifies that this plan has been made in accordance with the provisions of the Survey Act 1948 and that he has been made in accordance with the regulations of that Act.	
Signed at Auckland this 28 th day of April 1983 by <i>Alex Knight</i>	
Field Book	P. T. 11818
Reference Plans	S.O. 45606, 50392, 47692
Examined & Found	Correct
Approved as to Survey	<i>[Signature]</i>
20/12/83	Auditor: Noel Suterfor
Deposited this	day of
District Land Registrar	
File No 57554	50 57553



B299445.1 GN

LOCAL AUTHORITY: **CITY OF AUCKLAND**
 Surveyed by: **ALEXANDER KNIGHT ASSOCIATES**
 Scale: **1:2000** Date: **APRIL 1983**

EASEMENTS REQUIRED FOR WATER SUPPLY PURPOSES

LAND DISTRICT: **NORTH AUCKLAND**
 SURVEY: **S.O. 57554**
 SHEET NO: **P05/51**

DIAGRAM
Not to scale

Crown Land Reserved from sale under Sec 58 of the Land Act 1948

Crown Land Reserved from sale under Sec 58 of the Land Act 1948

Sec 69
S.O. 47592

See Diagram

Water Supply Easement 50 wide
252.92 pt.
253.02, 257.

Sec 5G
S.O. 45606
Crown Land
Pt. H.S. O'Hara

Pt Naipapa Stream Bed

Waipapa Stream



219000 E

219500 E

219000 E

219000 E

219000 E

219000 E

219000 E

Declaring a Water Supply Pipeline Easement, in Gross, Acquired for Irrigation Purposes in Block XII, Kaeo Survey District, Bay of Islands County

PURSUANT to section 20 of the Public Works Act 1981, the Minister of Works and Development declare: that a sufficient agreement between John Charles Otway, Helen Shirley Otway and Kenneth Ainsley Rea (as registered proprietors) and the Crown dated the 10th day of May 1984, and held in the office of the District Commissioner of Works at Auckland, having been entered into, a water supply pipeline easement, in gross over the land described in the Schedule hereto, subject to the rights and imposing the conditions contained in the said agreement is hereby acquired for irrigation purposes and shall vest in the Crown on the 31st day of May 1984.

SCHEDULE

NORTH AUCKLAND LAND DISTRICT

Servient Tenement

ALL that piece of land containing 4⁶³ square metres, situated in Block XII, Kaeo Survey District, and being part Lot 2, D.P. 100513; as shown marked 'A' on S.O. Plan 57553, lodged in the office of the Chief Surveyor at Auckland.

Dated at Wellington this 23rd day of May 1984.

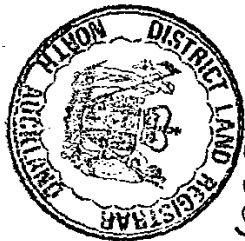
T. G. SHADWELL,
for Minister of Works and Development.

(P.W. 64/1/1/1; Ak. D.O. 50/12/52/0/7)

Noted
CT 55C/77 RB

1.32 15 JUN 84 B299445.1

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY AUCKLAND
ASSI. LAND REGISTRAR



JSC/H
[Signature]

View Instrument Details



Instrument No 12908804.2
Status Registered
Date & Time Lodged 21 December 2023 11:01
Lodged By Noakes, Katherine Gaye
Instrument Type Land Covenant under s116(1)(a) or (b) Land Transfer Act 2017



Affected Records of Title	Land District
432350	North Auckland
NA56C/763	North Auckland
NA69D/235	North Auckland
NA69D/236	North Auckland

Annexure Schedule Contains 2 Pages.

Covenantor Certifications

- I certify that I have the authority to act for the Covenantor 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 Sarah Emily Jury as Covenantor Representative on 30/01/2024 01:08 PM

Covenantee Certifications

- I certify that I have the authority to act for the Covenantee 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 Sarah Emily Jury as Covenantee Representative on 30/01/2024 01:08 PM

*** End of Report ***

Approved for ADLS by Registrar-General of Land under No. 2018/6263
COVENANT INSTRUMENT TO NOTE LAND COVENANT
 Sections 116(1)(a) & (b) Land Transfer Act 2017



Covenantor *Surname(s) must be underlined or in CAPITALS.*

GH THORP LIMITED and Keith Frederick **ARDERN**

Covenantee *Surname(s) must be underlined or in CAPITALS.*

GH THORP LIMITED and Keith Frederick **ARDERN**

Grant of Covenant

The Covenantor, being the registered owner of the burdened land(s) set out in Schedule A, **grants to the Covenantee** (and, if so stated, in gross) the covenant(s) 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 of covenant	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Restrictive Land Covenants and Reverse Sensitivity	Not applicable	Lot 5 DP 102613 (NA56C/763)	Lot 1 DP 120486 (NA69D/235) Lot 2 DP 120486 (NA69D/236) Lot 1 DP 408831 and Lot 1-3 DP 204549 and Section 50 Block XII Kaeo Survey District and Lot 2 DP 203672 (432350)

Covenant rights and powers (including terms, covenants and conditions)

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

The provisions applying to the specified covenants are those set out in:

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

[Annexure Schedule **A** _____].

" A "

Annexure Schedule

Page of Pages

2015/5049
APPROVED
 Registrar-General of Land

*Insert instrument type***Covenant***Continue in additional Annexure Schedule, if required*

The Covenantor for itself and its successors in title, Hereby covenants and agrees with the Covenantee that the Covenantor will at all times observe and perform all the covenants, and that the covenants shall enure for the benefit of the Covenantee:

The Covenantor covenants with the Covenantee that:

1. The Covenantor is aware of and accepts that rural activities which allow pastoral activities including, but not limited to, dairy production, sheep and beef, deer and other livestock ("Specified Activities") will occur on the Covenantee's property;
2. The Benefited Land is lawfully used for the Specified Activities, which activities may result in effects such as noise generation and drift from the application of spray or fertilizer which are potential effects of such activities and which may have effects beyond the boundaries of the Covenantee's land. Noise generation and drift from spray and fertilizer are unavoidable effects of such farming operation.
3. The Specified Activities, and the effects that they legitimately create are component parts of the environment. They contribute to, and partly define the nature of amenity values in a rural area.
4. The Covenantee will take all reasonable steps to ensure that the effects of the Specified Activities are minimised for the Covenantor such as selecting an appropriate time to conduct such activities, taking into consideration weather conditions and such like. The Covenantee will endeavour to give reasonable notice to the Covenantor of its intention to conduct Specified Activities which are likely to affect the Covenantor, excluding the daily farming routines.
5. The Covenantor will not object to normal farming practices (including the control of noxious weeds) on the Covenantee's property provided that the Covenantee takes reasonable care to minimise the effects of the farming practices / Specified Activities according to best farming practice. All practices to comply with current regulations and bylaws.
6. The Covenantor will not oppose renewal of, or new, resource consents, for the continued level of current operation of the Specified Activities referred to in clauses 1.1-1.5 above on the Covenantee's property(s). For the avoidance of doubt, these activities include associated current, and future, Resource Consent Management Act 1991 resource consents (and/or permits) provided they do not increase the nature or scale of the Specified Activities and do not relate to change of land use.
7. The Covenantor will not object to the Covenantee subdividing the Covenantee's property provided that the impact of the Specified Activities on the Covenantee's land does not change significantly from the time of registration of these covenants including, but not limited to, horticultural activities.
8. If any dispute arises under these covenants, the Covenantor and Covenantee will in good faith:
 1. Attempt without delay to resolve the dispute by negotiation between them; and
 2. Failing such resolution refer the dispute to mediation with the assistance of a suitably qualified and experienced mediator agreed between them or failing such agreement, appointed by the President of the Auckland District Law Society; and
 3. The Covenantor and Covenantee will each bear their own expenses of any mediation under this clause.
9. If any of the provisions of this instrument is judged invalid, unlawful or unenforceable for any reason whatsoever by a Court of competent jurisdiction, such invalidity, unenforceability or illegality will not affect the operation, construction or interpretation of any other provision of this Instrument to the intent that the invalid, unenforceable or illegal provisions will be treated for all purposes as severed from this instrument.

If this annexure schedule is used as an expansion of an instrument, all signing parties and either their witnesses or solicitors must sign or initial in this box.



Land Acquired for Road—Ness Road, Kerikeri

Pursuant to section 20 of the Public Works Act 1981, and to a delegation from the Minister for Land Information, Ronald Alistair Jolly, Land Information New Zealand, declares that, an agreement to that effect having been entered into, the land described in the Schedule to this notice is hereby acquired for road and vested in the Far North District Council on the date of publication of this notice in the *New Zealand Gazette*.

**North Auckland Land District—Far North District
Schedule**

Area m ²	Description
925	Part Lot 5 DP 102613; shown as Section 1 on SO 375441 (part Computer Freehold Register NA56C/763).

Dated at Wellington this 22nd day of January 2008.

R. A. JOLLY, for the Minister for Land Information.
(LINZ CPC/2005/10885)

ln662

ACCOUNT NO. 1000
ADDRESS
CROWN PROPERTY SERVICE

P O BOX 377
WHANGAREI

5.2.08

FAR NORTH D C
NESS RD

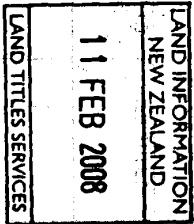
2008, p360
GN
FAR NORTH D C

GN 7707916.1 Gazette N

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Copies
(inc. Original)

DocID: 313086943



Item	Description	Quantity	Price	Total
1	2008, p360 GN FAR NORTH D C			
2				
3				
4				
5				
6				
Subtotal / Grand Total				\$0.00

\$0.00

Debit my Account for \$0.00

APPENDIX 3

BAY ECOLOGICAL CONSULTANCY LTD WETLAND DELINEATION REPORT

WETLAND DETERMINATION



PROPOSED SUBDIVISION
SPRUIT
NESS ROAD WAIPAPA
PT LOT 5 DP102613 (SO 375441)



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This report may be cited as-

BAY ECOLOGICAL CONSULTANCY LTD (22/5/24) WETLAND DETERMINATION REPORT SPRUIT

SUBDIVISION PT LOT 5 DP102613 (SO 375441)

REVISION A UPDATED SCHEME 27/8/2024

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WETLAND DETERMINATION

PT LOT 5 DP102613 (SO 375441) NESS RD

J. SPRUIT AUGUST 27th 2024



EXECUTIVE SUMMARY

Bay Ecological Consultancy Ltd has been engaged by J. Spruit, as owner of the subject property – PT LOT 5 DP102613 (SO 375441) Ness Rd Waipapa, to determine the presence or otherwise of *natural inland wetland* (NPS FM 2020) subject to regulations of the NES-F (2020).

The subject Lot has had an extended low intensity pastoral history.

A desktop review of available ecological context of the site, primarily from aerial photography and online mapping to provide insight into the possible *extent* of any potential wetland and associated *values*¹, as defined in the NPS- FM (2020). *Extent* and *values* are the primary considerations in the avoidance of adverse effects, largely dependant on maintenance of hydrology.

Field work was then undertaken on the 20/3/24 with regard to the MfE Wetland Delineation Protocol (2022) and supporting documents. Further visits were made in April and May after rain events to determine any change in hydrology. Site photos are provided for illustration. Wetlands identified were then topographically surveyed in conjunction with Reyburn & Bryant field staff on the 2/7/2024.

Key findings from this reporting are:

- *Natural inland wetlands* subject to the National Environmental Standards for Freshwater NES – F (2020) have been recognized, according to definitions of the NPS FM (2020) and PNRP (2021), by dominant hydrophytic (OBL, FACW) floral assemblages.
- Site wetlands are diagnostically of an *ephemeral type*. This character refers to their hydrology but does not imply they are temporary in periodicity, supported by aerial photography since the 1950s with little change in occupancy.
- They are shallow with largely level basal contour, exhibiting as swales across the Lot, sloping slightly at the edges, interspersed with exposed bedrock. They were saturated at/ or just below surface level during the site visit (recently extended dry conditions).
- The Rapid Test, as the first strata of wetland delineation, was sufficient to determine wetland presence with dominance typified by obligate (OBL) and facultative wetland (FACW) species forming very obvious *natural inland wetland* communities in saturated ground. Abrupt loss of wetland dominance occurs with slight elevation in edges contour.
- A 1st order headwater river is mapped through the central branch of the wetlands, directional to the southeastern corner adjacent Ness Rd. The wetlands congregate to this point and appear drained by the deep road reserve stormwater ditch, exiting via culvert to more discernible incised creek north of Ness Rd. This is tributary to the Waipapa Stream (NZ Segment #1006130). There is no audible or visible flow within this or other arms of the wetland system under a range of conditions. However, ground is saturated underfoot with water just above the surface in some areas, becoming more prominent with standing pools in days after rain.

¹ VALUES (NPS FM 2020 Amendment No.1 (2022) (i) ecosystem health; (ii) indigenous biodiversity; (iii) hydrological function; (iv) Maori freshwater values; (v) amenity values

- The prevailing character of the site beyond identified wetland is rough pastoral- kikuyu dominance, rye, clover, & further common FACU / UPL grass and weed species e.g. *Daucus*; *Senecio*; *Plantago*. The intent and individual sizes of the proposed Lots does not allow for ongoing pastoral use. None of the *natural inland wetland* mapped in this reporting would be subject to the current pastoral exclusion clause of the *natural inland wetland* definition².
- Ecological site values are related to the wetland areas. No indigenous or significant vegetation clearance is required. There are no kauri in the development area to invoke consideration of the *Biosecurity (National PA Pest Management Plan) Order 2022*. Predicted ecosystem type is **WF11 KAURI BROADLEAVED PODOCARP**. None is remnant. No flora species with threat status or locally uncommon were found within or beyond the wetlands, where larger terrestrial species are exotic hedging and gorse.
- The primary associations onsite are of FACW & OBL short herbaceous and grass spp. *Paspalum distichum** (FACW) & *Isachne globosa* (OBL) dominant depending on the level of saturation, with varied frequency of *Agrostis stolonifera** (FACW); *Isolepis prolifera* (OBL); *Persicaria** (OBL & FACW spp); *Carex leporina** (FACW); *Cyperus brevifolius** (FACW); *Eleocharis acuta* (OBL) and *Epilobium chionanthum* (FACW). *Juncus* spp (FACW) present are common generalists - *Juncus effusus**; *J. edgariae* and shorter stature *J. articulatus**, as frequent in pastoral settings. There is a small area of *Machaerina* in the western head seepage. Toward the southeastern corner *Myriophyllum propinquum* (OBL) is present indicating consistent saturation towards the wetlands collective terminus.
- Species are *LOW* significance common to disturbed areas and pasture, largely exotic and resistant to grazing due to growth form and/ or palatability. These common perennials persist throughout the drier months as surface water levels drops annually.
- The occurrence of innocuous exotics *Holcus lanatus**; *Ranunculus repens** & *Lotus pedunculatus** (FAC) on micro hummocks within the wetlands is not sufficient in frequency to alter the evident wetland diagnosis.
- The wetlands have no internal habitat or rare/ threatened species within. A shift in species composition that retains a *natural inland wetland* composition is considered not to be a loss of *value* or *extent* and a less than minor level of effects. This may occur with variance in stormwater inputs, although dominant species are adapted to tolerate an increase, plastic in their stem; culm or stolon length with the ability to raft or persist through inundation cycles as current in response to rainfall.
- All Lots are within 100m of *natural inland wetland*.
- There are no ditches that may be considered *constructed wetland***Error! Bookmark not defined.** *nd /or artificial watercourses***Error! Bookmark not defined.**
- The entire site is *TEC Level II- Chronically Threatened*, referenced in regional significance assessment *RPS (2018) Appendix 5: 2(a)1*.
- After stock exclusion the wetlands are likely to increase in cover and biodiversity. Although rank grass currently to >2m of wetland edges contributes sediment and nutrient retention, it is recommended that indigenous buffer planting be incorporated for joint functional purpose of aquatic function (attenuation; shade; sediment control; bank stabilization) and amenity. It should also be noted that any planting within 10m of wetland must be locally appropriate and indigenous as per *REG 55 NES- F (2020)* to create a natural ecosystem pattern and to avoid potential adverse effect of loss of values.

² (e) a wetland that:

(i) is within an area of pasture used for grazing; and

(ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)

(iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply

- Short sedges are appropriate adjacent the wetlands which have developed generalist species associations tolerant of full sun and have no internal habitat. The majority of sediment is trapped within the first 2m of a source and this width is considered appropriate as a minimum due to the lack of contour.

Further taller terrestrial diversity for visual amenity of the subdivision scheme should be appropriate riparian species to predicted ecosystem type of WF11 Kauri podocarp broadleaved which includes the majority of local species at all statures to width of 10m recommended as a minimum advisable riparian buffer³

- Final stormwater engineering was not available at the time of reporting. Inputs to the wetland represent a discharge within 10 or 100m, potentially non complying under *NES- F Reg 54 change in range of water levels or hydrological function*. Species composition throughout has a level of tolerance adapted to periodic increase. Inputs should be diffuse and in a manner that prevents sediment, scouring or erosion as best practice to avoid adverse effects e.g. loss or smothering of wetland.
- Fish survey was outside the scope of works. The wetlands are not considered habitat and unable to be accessed via the culvert beneath Ness Rd. There does not appear to be wetland immediately downstream beyond Ness Rd, where the waterway is incised and exhibits as creek. However, due to lack of permissions this was determined from Ness Rd and aerials. Controls on inputs as above are considered sufficient to avoid adverse effects on downstream species and habitat.
- Specific bird survey was outside the scope of works. General observation during fieldwork determined little riparian habitat suitable for other than insectivorous generalists sighted e.g. fantail; sparrow; kingfisher. Due to exposed character of wetlands they are unlikely unsuitable for specialist wetland birds e.g. crake; fernbird; rail

Buffering of the wetlands from any residential design and adherence to the NES-F (2020) will provide for maintenance of their functional and habitat values, including as patches throughout the wider landscape for mobile fauna, aligned with aspirations of the site's TEC Level II designation. In respect of these recommendations, it is unlikely there will be a loss of *extent or values* as per the NPS- FM (2020) definitions, significant species or habitat from the proposal.

³ NIWA (2000) Review of Information on riparian buffer widths necessary to support sustainable vegetation and meet aquatic functions TP350 Auckland Regional Council

INTRODUCTION

The Spruit property, Ness Rd (Part Lot 5 DP 102613; NA56C/763; 22.6195ha) is the subject of a subdivision proposal to create residential Lots. Zoned *Rural Production* under the ODP, it lies approximately 6km directly northwest of Kerikeri.

The focus area of the proposal is a smaller portion on the upper plateau of the Lot, bordered by Ness Rd to the north and east. Lifestyle and further production bounds the focus area to the south and west. Cover is exotic pasture on largely flat contour, 147-144 masl sloping to the southeast corner. Bedrock protrudes at the surface throughout, tall cover is limited to thinning exotic shelterbelts and there is no built form. Wetland determination was limited to this area. A mapped river traverses mid Lot west to east, exiting through stormwater ditch on road reserve and beneath Ness Rd via culvert. Beyond Ness Rd it is more recognisable as a creek.

FIG 1: SITE LOCATION

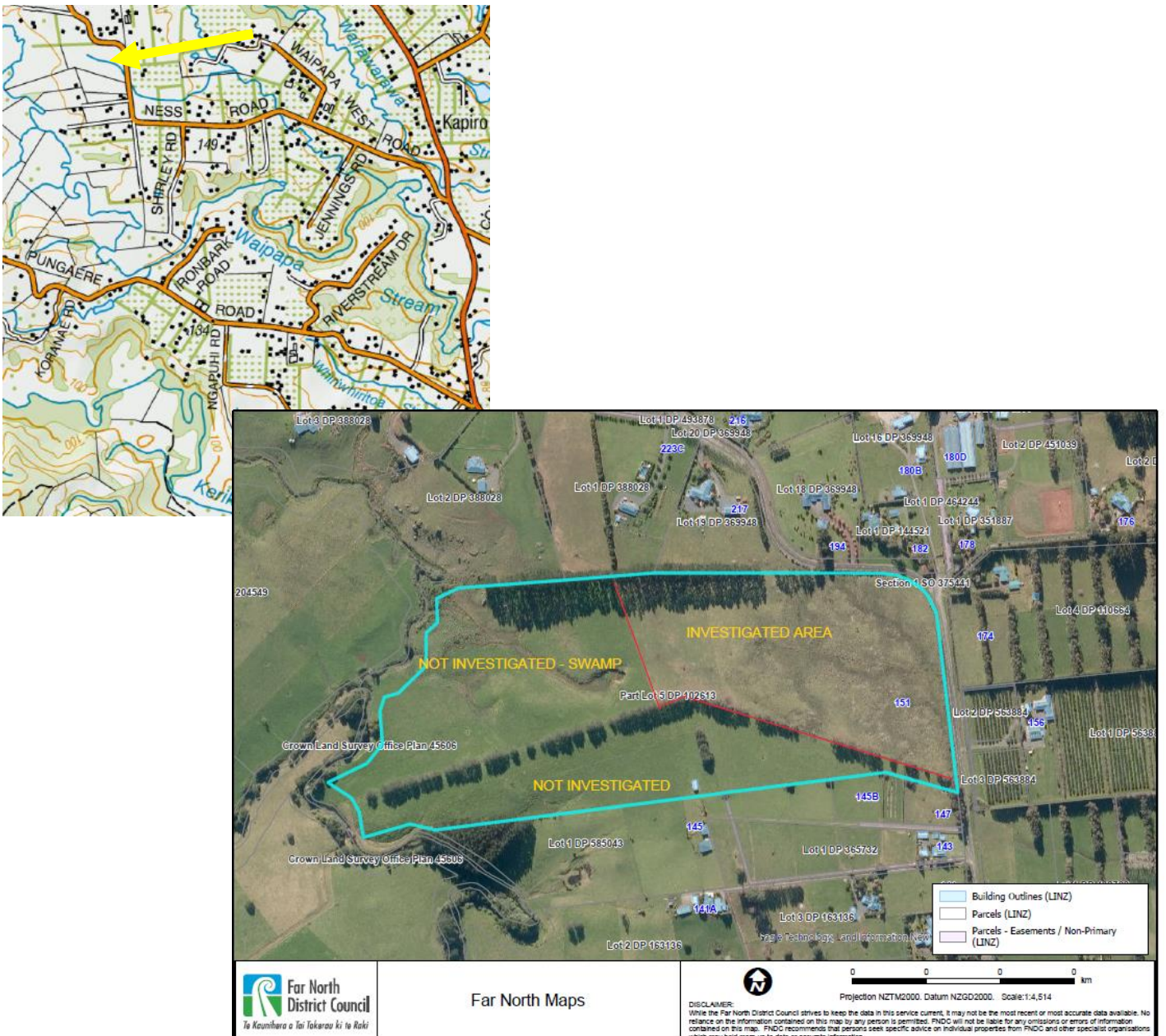
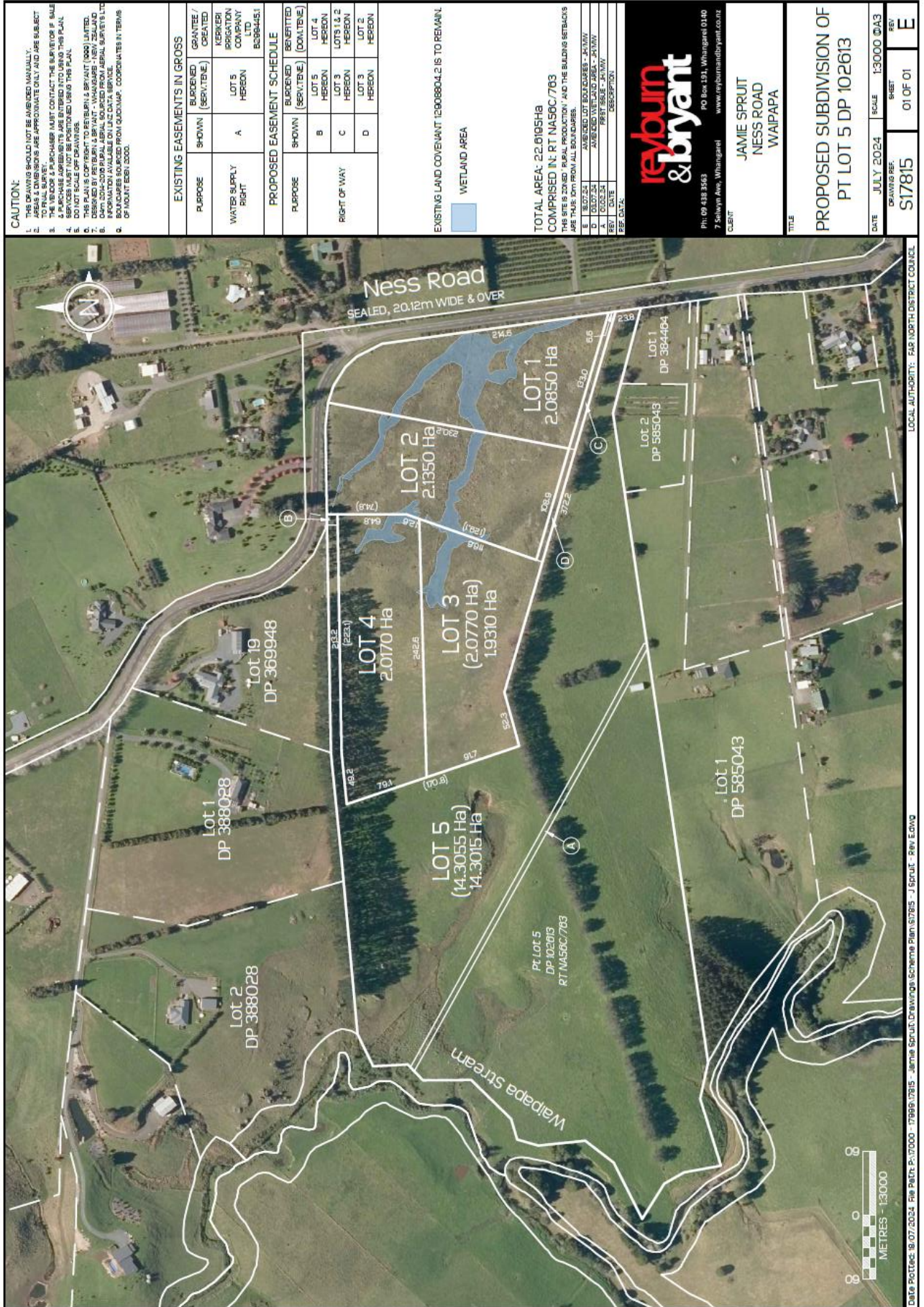


FIG 2: DELINEATED WETLANDS WITH TOPOGRAPHICAL SURVEY



REGULATORY CONTEXT

Site investigation has been undertaken specifically with regard to the presence or otherwise of *natural inland wetland*, as defined in the National Policy Statement for Freshwater Management (NPS -FM2020) and subject to the protective regulations within the National Environmental Standards for Freshwater (NES-F 2020). There is no previously mapped *known wetland*⁴ or ranked wetland⁵ on the parent parcel. We are not aware of any previous reporting on site wetland.

The definition of **wetland** is given in the Resource Management Act (1991):

Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals adapted to wet conditions.

Plants adapted to live in wetland conditions as above are defined in three categories –

- **OBL**: Obligate. Almost always is a hydrophyte, rarely in uplands (estimated probability >99% occurrence in wetlands)
- **FACW**: Facultative Wetland. Usually is a hydrophyte but occasionally found in uplands (estimated probability 67–99% occurrence in wetlands)
- **FAC**: Facultative. Commonly occurs as either a hydrophyte or non-hydrophyte (estimated probability 34–66% occurrence in wetlands)

(Clarkson, B. et al 2021)

Identification and dominance of these species in vegetation forms the basis for diagnosis as wetland and has been incorporated into the NPS –FM (2020). To this end, both exotic and native species have been categorised by NZ experts in supporting documentation.

The NPS – FM (2020) & accompanying regulations of the NPS- F (2020) have recently been amended⁶, incorporating a new definition of *natural inland wetland* as subject to the *NES F (2020)* as below, providing exclusions of some classes of wetland as per the broader RMA definition:

Natural inland wetland means a wetland (**as defined in the Act**) that is not:

- (a) *in the coastal marine area; or*
- (b) *a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or*
- (c) *a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or*
- (d) *a geothermal wetland; or*
- (e) *a wetland that:*
 - (i) *is within an area of pasture used for grazing; and*
 - (ii) *has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8); unless*
 - (iii) *the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply*

⁴ NRC BIODIVERSITY WETLANDS <https://localmaps.nrc.govt.nz/localmapsviewer/?map=55bdd943767a493587323fc025b1335c>

⁵ Wildlands (2011) RANKING OF TOP WETLANDS IN THE NORTHLAND REGION STAGE 4 - RANKINGS FOR 304 WETLANDS Contract Report No. 2489

⁶ 8th December 2022 NPS; 5th December NES effective 5 Jan 2023

Under these updates, Regulation (e) (i) & (ii) only apply while a site is in active pastoral use, and not once its purpose changes⁷. The planning application is for anticipated residential purpose and Lots singularly insufficient for continued pastoral use, also evident onsite in pasture quality and bedrock protrusion.

*Exotic pasture species*⁸ as per definition do not include common wetland/ wet pasture grasses *Glyceria*; *Paspalum distichum*^{*9} (FACW), *Isachne globosa* (OBL); *Alopecurus geniculatus* (FACW) and *Agrostis stolonifera*^{*} (FACW) or unpalatable exotics such as *Ranunculus repens* (FAC).

Site investigation was limited to the focus area in the scheme. On the wider extent of Pt Lot 5 DP 102613 there appears to be a larger swamp complex tributary in a separate catchment sloping west.

⁷ "This exclusion is not targeted at pasture being targeted for urban development or for other land uses. It does not apply to wetlands in other areas of grassland that are not grazed, such as in parklands, golfcourses, landscaped areas and areas of farmland not used for grazing purposes". MfE (December 2022) Pasture Exclusion Assessment Methodology Pg 9

⁸ National List of Exotic Pasture Species List (2022) MfE

⁹ * denotes exotic

SITE CONTEXT

The following site context is a combination of desktop review and site visit, including detail of the immediate surrounding landscape.

TABLE 1: MAPPED SITE SUMMARY

DESCRIPTION	PT LOT 5 DP 102613 (NA56C/763)
OWNER	SPRUIT
FNDP OPERATIVE ZONE	RURAL PRODUCTION
ECOLOGICAL DISTRICT	KERIKERI
COVER	<ul style="list-style-type: none"> EXOTIC GRASS/ PASTURE WETLAND - ephemeral NO BUILDINGS SHELTEBELTS EXOTIC LARGE STATURE
KIWI DENSITY	<ul style="list-style-type: none"> KIWI PRESENT (DoC 2018)
RIVERS ¹⁰	<ul style="list-style-type: none"> 1st order headwater of Waipapa Stream
SOIL TYPE ¹¹	<ul style="list-style-type: none"> Ōkaihau gravelly friable clay (OK)
POTENTIAL ECOSYSTEM ¹²	<ul style="list-style-type: none"> WF11: KAURI PODOCARP BROADLEAVED MAPPED ONSITE <u>BUT NONE PRESENT</u>
TEC CLASSIFICATION ¹³	<ul style="list-style-type: none"> CLASS II – CHRONICALLY THREATENED
MAPPED SNA;NORTHLAND BIODIVERSITY RANKING - TERRESTRIAL TOP 30 SITES; RANKED RIVERS; KNOWN WETLANDS; RANKED WETLANDS	<ul style="list-style-type: none"> NONE MAPPED ONSITE
RARE ECOSYSTEMS ¹⁴	<ul style="list-style-type: none"> WETLANDS

Key sources of the desktop review included:

- Retrolens aerial photography www.retrolens.co.nz
- <https://data.lin.govt.nz/>
- Conning & Miller (1999) *Natural Areas of Kerikeri Ecological District Reconnaissance Survey Report for the PNA Programme*. DoC, Whangarei
- Forester & Townsend (2004) *Threatened plants of the Northland Conservancy*
- Johnson & Gerbeaux (2004) *Wetland types in NZ*. DoC, Wellington
- LRIS portal <https://lris.scinfo.org.nz/>
- NRC Local Mapping & supporting documents – Leathwick (2018); Singers (2018)
- TEC Classification <https://ourenvironment.scinfo.org.nz/>
- Wildlands Consultants (2011) *Ranking of top Wetlands in the Northland Region Stage 4 - Rankings for 304 Wetlands* Wildlands Contract Report No. 2489 for the Northland Regional Council
- Wildlands Consultants (2012) *Report on Wetland Guidelines for the Northland Region Contract Report 2952*

¹⁰ LINZ 2022 NZ River Centrelines <https://data.lin.govt.nz/layer/50327-nz-river-centrelines-topo-150k/>

¹¹ <https://nrcgis.maps.arcgis.com/apps/webappviewer/index.html?id=fd6bac88893049e1beae97c3467408a9>

¹² https://services2.arcgis.com/J8errK5dyxu7Xjf7/arcgis/rest/services/Northland_Biodiversity_Ranking/FeatureServer/0

¹³ https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Habitats/lenz_tec

¹⁴ Williams et al (2007) New Zealand's historically rare terrestrial ecosystems set in a physical and physiognomic framework *New Zealand Journal of Ecology* 31(2): 119-128

HISTORIC AERIAL REVIEW

Review of available aerial photography preceded fieldwork to determine historic location and subsequent persistence of any site hydrology/ wetland.

KEY FINDINGS

- The character is first visible from earliest available aerials in 1950s.
- At that time the main channels are apparent the remainder are more difficult to discern in scrub.
- With construction of Ness Rd the channel is piped under the road.

FIG 3: RETROLENS 1982¹⁵



¹⁵ All *Retrolens* aerials sourced from <http://retrolens.nz> and licensed by LINZ CC-BY 3.0

FIG 4: RETROLENS 1950

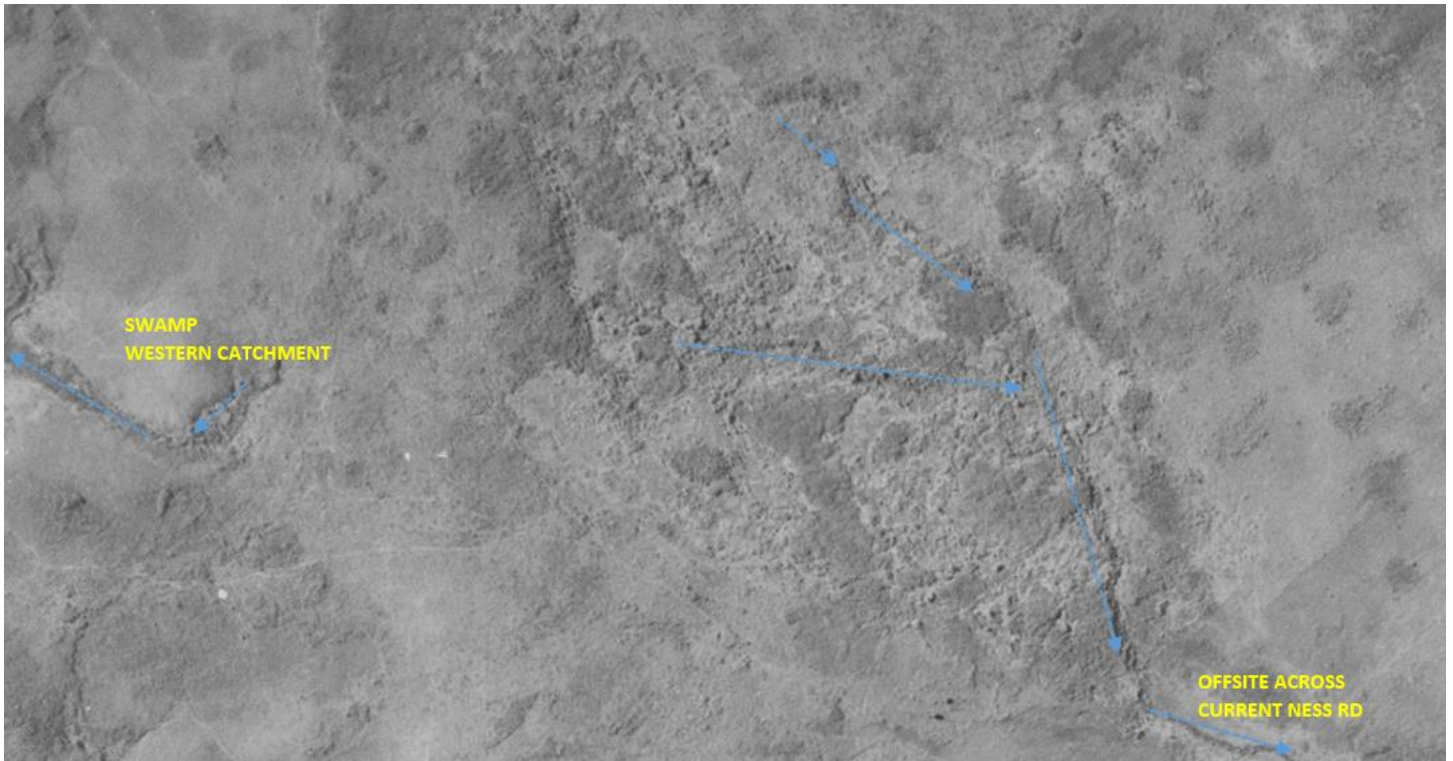


FIG 5: RETROLENS 1968

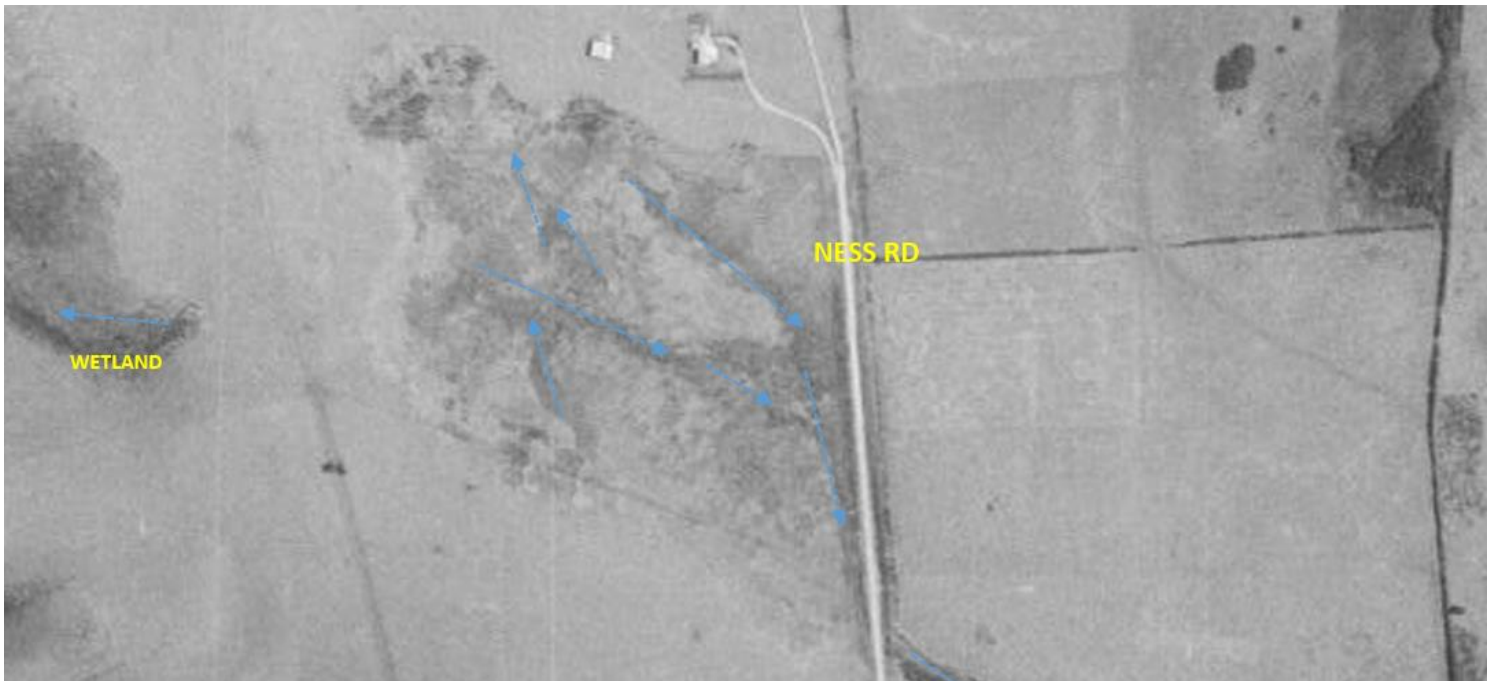


FIG 6: FNDC/LINZ 2000



FIG 7: FNDC/LINZ 2014



SOILS & PREDICTED ECOSYSTEM TYPE

Underlying soil patterns provide an indication of the likelihood of wetland presence e.g. poor permeability or podzolisation. Broad scale geology changes across the site are also typically where hydrological sources may erupt across a site.

FIG 8: SITE SOIL MAPPING & PREDICTED TERRESTRIAL ECOSYSTEM TYPE



Site soils are mapped¹⁶ within the subject area as:

ÖKAIHAU GRAVELLY FRIABLE CLAY (OK)

- Old basalt of the Kiripaka suite
- Excessively to well drained
- Old soils on basalt became laterites or 'ironstone soils' as water filtering through kauri produced acids that leached nutrients and clays from the upper
- High aluminium and iron in exposed subsoil may be toxic to establishment of some plants
- Highly friable topsoil can result in sediment and nutrient runoff into waterways

These moderately fertile soils were a focus for agricultural development and widely cleared with cover now largely restricted to steeper areas. Beyond wetland, they would have originally supported terrestrial cover of **WF11 KAURI PODOCARP BROADLEAVED** -

As per historic aerials this forest type has long been absent onsite. There is no significant terrestrial vegetation on site in regard to criteria of the *RPS (2018) Appendix 5* or *National Policy Statement for Indigenous Biodiversity (2023) Appendix 1*.

¹⁶ <https://iris.scinfo.org.nz/layer/48066-nzlr-soil/>

VALUES MAPPING

There are no NRC Biodiversity Ranking¹⁷ areas or PNAs¹⁸ onsite or within a zone of influence. There is no previously mapped *known wetland*¹⁹ onsite, or ranked wetland²⁰. We are not aware of any previous reporting on site wetland.

A 1st order headwater *river*²¹ is mapped through the central branch of the wetlands, flow directional to the southeastern corner adjacent Ness Rd. The wetlands mostly congregate to this point and appear drained by the deep road reserve stormwater ditch, exiting via culvert to more discernible incised creek north of Ness Rd. This is tributary to the Waipapa Stream (NZ Segment #1006130). There is no audible or visible flow within this or other arms of the wetland system under a range of conditions.

Any ditching onsite would create a *modified*²² form of the pre-existing water body²³ with a natural source of flow and could not be considered *artificial watercourse*.²⁴

FIG 9: MAPPED LINZ CREEK



¹⁷ https://services2.arcgis.com/J8errK5dyxu7Xjf7/arcgis/rest/services/Northland_Biodiversity_Ranking/FeatureServer

¹⁸ [https://services5.arcgis.com/H4FlrMy6xTBd6Ywx/arcgis/rest/services/Protected_Natural_Areas_\(DOC_2016\)/FeatureServer](https://services5.arcgis.com/H4FlrMy6xTBd6Ywx/arcgis/rest/services/Protected_Natural_Areas_(DOC_2016)/FeatureServer)

¹⁹ NRC BIODIVERSITY WETLANDS <https://localmaps.nrc.govt.nz/localmapsviewer/?map=55bdd943767a493587323fc025b1335c>

²⁰ Wildlands (2011) RANKING OF TOP WETLANDS IN THE NORTHLAND REGION STAGE 4 - RANKINGS FOR 304 WETLANDS Contract Report No. 2489

²¹ RMA definition - **River**- a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)

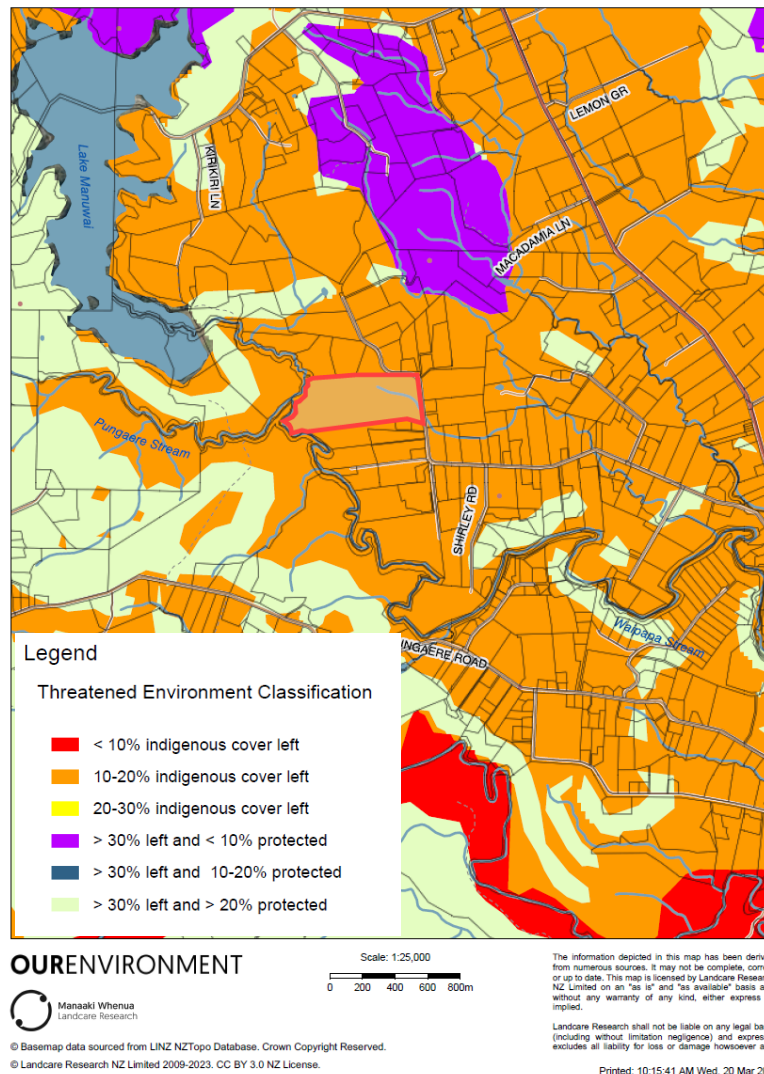
²² **Modified watercourse**: Not defined in any planning documents but derived from case law. A river that has been modified in some manner for example by diversions, piping, and/or other structures.

²³ RMA definition **Water body**- fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

²⁴ **Artificial watercourse**- A man-made channel constructed in or over land for carrying water and includes an irrigation canal, roadside drains and water tables, water supply race, canal for the supply of water for electricity power generation and farm drainage canals. It does not include a channel constructed in or along the path of any historical or existing river, stream or natural wetland.

The entire site is included in TEC mapping²⁵ as *Level II Chronically Threatened (10-20% indigenous cover remains)*, which has been incorporated into national and regional policy²⁶ to address biodiversity protection on private land. The TEC mapping layer²⁷ is most appropriately applied to help identify priorities for formal protection against clearance and/or incompatible land-uses, and to restore lost species, linkages and buffers. Any remaining habitat and indigenous vegetation on such sites is considered significant and a priority for formal protection, linkage and buffering, including wetland.

FIG 10: TEC CLASSIFICATION



²⁵ Combination of components of *Land Environments New Zealand Level VI; Land Cover Database 4 (2012); Protected Areas Network (2012)*. Classifications - *Acutely Threatened (<10% Indigenous Cover remains); Chronically Threatened (10-20% Indigenous Cover remains); At Risk (20-30%) Indigenous Cover Remains; Critically Underprotected (>30% cover, <10% protected); Underprotected (>30% Indigenous cover remains, 10-20% protected); Better Protected (>30 indigenous cover, >20% protected)*

²⁶ National Policy Statement for Indigenous Biodiversity 2023; Northland Regional Policy Statement 2018 Appendix 5:2(a)

²⁷ Threatened Environment Classification (2012) Landcare Research Manaaki Whenua. Based on Land Environments New Zealand (LENZ), classes of the 4th Land Cover Database (LCDB4, based on 2012 satellite imagery) and the protected areas network (version 2012, reflecting areas legally protected for the purpose of natural heritage protection).

WETLAND DETERMINATION

Visual vegetation survey was undertaken to characterize the site associations for wetland presence as per the MfE Wetland Delineation Protocol (2022) and supporting documents:

- *A vegetation tool for wetland delineation in New Zealand (Clarkson et al 2021)*
- *Hydric soils – a field identification guide (Fraser et al 2018)*
- *Wetland delineation hydrology tool for Aotearoa New Zealand. (MfE 2021)*
- *Wetlands types in New Zealand (Johnson & Gerbeaux 2004)*

The Rapid Test, as the first strata of wetland delineation, was sufficient to determine wetland presence with dominance typified by obligate (OBL) and facultative wetland (FACW) species forming very obvious *natural inland wetland* communities in saturated ground. Hydrology and vegetation precluded the need for repeated soil observations, however cut faces and tracks corresponded with the mapped type.

Wetland determination as per the Protocols is not dependent on indigenous dominance. Regardless of origin, wetland species have high functionality in retaining sediment and protecting groundwater or open waterways from nutrient input. Classification is based on the emphasis of observed vegetation type and hydrology, however in reality these are dynamic natural systems with potential to change extent and composition over time due to natural factors e.g. drought; invasion; interspecific competition.

The primary associations onsite are of FACW & OBL short herbaceous and grass spp. *Paspalum distichum** (FACW) & *Isachne globosa* (OBL) dominant depending on the level of saturation, with varied frequency of *Agrostis stolonifera** (FACW); *Isolepis prolifera* (OBL); *Persicaria** (OBL & FACW spp); *Carex leporina** (FACW); *Cyperus brevifolius** (FACW); *Eleocharis acuta* (OBL) and *Epilobium chionanthum* (FACW). *Juncus* spp (FACW) present are common generalists - *Juncus effusus**; *J. edgariae* and shorter stature *J. articulatus**, as frequent in pastoral settings. There is a small area of *Machaerina* in the western head seepage. The larger stature perennial sedge type association suggests prolonged stability of deeper hydrology. Filamentous green algae and *Callitriche* (OBL) suggest nutrient enrichment in some areas of standing water.

Toward the southeastern corner *Myriophyllum propinquum* (OBL) is present indicating consistent saturation towards the wetlands collective terminus.

Grasses were recognised through professional experience from leaf form, ligule; growth habit and habitat, with simple determination from seed heads not practicable at this time of year. The NLEPS does not include common wetland grasses *Paspalum distichum**²⁸ (FACW), *Isachne globosa* (OBL) and *Agrostis stolonifera** (FACW).

The occurrence of innocuous exotics *Holcus lanatus**; *Ranunculus repens** & *Lotus pedunculatus** (FAC) on micro hummocks within the wetlands is not sufficiently frequent to alter the evident wetland diagnosis. These species are common throughout many forms of wetland in Northland, particularly on margins or on slightly raised microtopography, not preferring prolonged submersion.

²⁸ * denotes exotic

Site wetlands are diagnostically of an ephemeral type. This character refers to their hydrology but does not imply they are temporary in periodicity, supported by aerial photography since the 1950s with little change in occupancy. They are a natural feature, following basal contour amongst emergent areas of basalt baserock and defined in the landscape by depressed margins. Their internal water flow appears nil and are likely largely rainfed on mineral substrate c.f peat.

Although the species composition has likely been modified by historic grazing influence, the site examples are in keeping with the diagnostic character -

- *fed by rain and surface water*
- *characterized by water table near surface with great fluctuation – temporary saturation*
- *slow water movement if any, periodically inundated with standing water*
- *flat to slight slopes; gully margins; edges of open water bodies.*
- *typically herbaceous, grass, sedge and rush e.g. Agrostis; Carex and Juncus*
- *substrate usually mineral with good to moderate drainage*
- *relatively acidic*

Ephemeral wetlands exhibit pronounced fluctuations in *surface water*. The perennial FACW and OBL species that occupy them still require a level of hydrological reliability. It is the less obvious persistence of ground water below the surface that ensures their long term viability. The potential complete loss of water during some dry seasonality does not exempt a wetland diagnosis. During periods of high rainfall areas of pooled surface water likely become a shallow connected flow,

Wetland throughout grades quickly with reduced soil saturation and slight micro elevation to loss of dominance typified by FACU & UPL exotic grass species including kikuyu; ryegrass; browntop; cocksfoot; *Briza*; clovers; *Paspalum dilatatum*; meadow foxtail and ratstail with common herbaceous pasture weeds such as hawksbeard (FACU) carrotweed (UPL) plantain (FACU), and dock (FACU). Gorse is common on dry hummocks. This represents non wetland in terms of species dominance.

There was an absence of riparian shrubland vegetation on site. Tall terrestrial vegetation is exotic shelterbelt species. There are no kauri in the development area to invoke consideration of the *Biosecurity (National PA Pest Management Plan) Order 2022*. No flora species with threat status or locally uncommon were found within or beyond the wetlands onsite.

Rushes are visible dotted within areas outside the identified wetlands. Discrete plants of *Juncus* throughout dominant exotic pasture **do not** uphold a *natural inland wetland* diagnosis. A key visual cue is dominance of associated ground cover that cannot withstand long term saturation necessary for wetland species dominance e.g. FACU & UPL clovers; kikuyu & exotic pasture grasses.

Larger *Juncus* root structure, shoot water retention capacity and mass production of long lived seeds allow them to compete within pasture, and persist through drier periods as opposed to other smaller FACW species or more specialized OBL hydrophilic species.

Ephemeral wetlands, typically of small herbs and grasses in production landscapes, are a *Naturally Rare*²⁹ and *Endangered ecosystem*³⁰ type in New Zealand, lacking in recognition due

²⁹ Williams et al (2007) New Zealand's historically rare terrestrial ecosystems set in a physical and physiognomic framework *New Zealand Journal of Ecology* 31(2): 119-128

to their innocuous character and often filled in pasture. The primary species of short herbaceous, grass and *Juncus* representing a typical pastoral association commonly able to persist regardless of grazing and pugging due to growth form and/or unpalatability.

The main trunks of wetland that follow a southeast trajectory to Ness Rd are sufficiently large as a unit to achieve significance size thresholds³¹ of their type.

There are no stormwater/ constructed ditches onsite or mapped.

FAUNA

Basic observations were incidental to the main consideration of wetland and vegetation significance, soils and hydrology, but complement the characterisation of the site. Retirement, pest control and an increased density of peripheral riparian cover would create better functional habitat for any species on site. It has dual benefit as a buffer for aquatic function and internal habitat, mitigatory of increased residential occupation.

AVIFAUNA

Four five minute bird counts were undertaken to give good visual coverage present across the site

- Midsite main trunk
- Vehicle entrance Ness Rd
- Highest point *Machaerina* seepage
- Southern property boundary

Conspicuous birdlife was few, comprised of exotic and native insectivorous generalists for which the pasture and wetlands contribute to territorial feeding areas habitat e.g. skylark; swallows; thrush, sparrow. Paradise ducks were present. Numerous kingfisher were sighted on fenceposts & fantail were present in the exotic hedge. A kahu sighted was using open pasture as hunting ground, likely for rabbits.

None of the species sighted are dependant on the wetlands as critical habitat. The site is also not habitat for fernbird or crakes.

The property has Kiwi Present designation (DoC 2018), and are known from professional experience from the wider area. Wetland and pasture for feeding with adjacent (<300m) terrestrial cover represents high quality territory. The lack of onsite cover will influence their presence. Any increase in shrubby cover and pest control would create functional habitat.

FISH

There are no site specific Freshwater Fish Database records or predicted species³² data. A fish survey was outside the scope of reporting. From professional experience, wetlands are unlikely to provide habitat, influenced by the shallow hydrology and occlusion by the Ness Rd culvert.

³⁰ Holdaway et al (2012) Status Assessment of New Zealand's Naturally Uncommon Ecosystems *Conservation Biology* (26)4: 619–629. Class B2 historical decline 500 years in ecological function throughout $\geq 70\%$ of extant distribution

³¹ Appendix 5 RPS (2018) a) Saltmarsh 0.5ha; b) Shallow water lake margins and rivers 0.5ha; c) Swamp >0.4; d) Bog >0.2 ha; e) Wet heathlands >0.2 ha; f) Marsh; fen; ephemeral wetland or seepage/flush >0.05ha

³² NIWA SHINY RIVERS

INVERTEBRATES

Invertebrate survey was outside the scope of this reporting. However, the proliferation of OBL & FACW wetland species is also an indicator of niches supportive of invertebrate populations adapted to complete at least a portion of their lifecycle in wet conditions, and it may be assumed they are present. In NZ this has been shown to vary with region; wetland type and water chemistry (largely acidity) with fauna dominated by communities of five invertebrate groups -*Chironomidae* midges; aquatic mites (*Acarina*); microcrustacea (copepods & ostracods) and aquatic nematodes. The mud snail *Potamopyrgus antipodarum* is cosmopolitan across NZ. Unlike aquatic insects, meiofauna such as the nematodes, copepods and ostracods do not leave the wetland environment as winged adults.

Despite their inconspicuousness and little recognition in comparison to fauna commonly valued by society e.g. birds & fish - they have a critical role in wider ecosystem function e.g. organic carbon and nutrient turnover; as part of the food web reaching large densities and in terms of intrinsic biodiversity value -many being known only to NZ.

Site native Potamopyrgus antipodarum brownly black with an obvious spire approx. 1cm



SIGNIFICANCE

Consideration of significance is given, in regard to *Northland Regional Policy Statement Appendix 5 (2018)*, with guidance contained within non statutory documents including *DOC Guidelines for Assessing Significant Ecological Values (2016)*; *Guidelines for the Application of Ecological Significance Criteria for Indigenous Vegetation and Habitats of Indigenous Fauna in the Northland Region (Wildlands 2019)*.

The wetlands were assessed as a single unit due to predominant connectivity and similarity of character otherwise.

Appendix 5 is the standard Northland criteria for assessing significance of an ecological site, and directly reflects those contained in *Appendix 1* of the recently mandated *National Policy Statement for Indigenous Biodiversity (2023)* including consideration of *Representativeness; Diversity & Pattern; Rarity and Distinctiveness & Ecological Context* .

TABLE 2: ASSESSMENT OF SIGNIFICANT INDIGENOUS VEGETATION AND SIGNIFICANT HABITATS OF INDIGENOUS FAUNA IN TERRESTRIAL, FRESHWATER AND MARINE ENVIRONMENTS NORTHLAND REGIONAL POLICY STATEMENT (2018) APPENDIX 5

(1) REPRESENTATIVENESS	WETLANDS
<p>(A) Regardless of its size, the ecological site is largely indigenous vegetation or habitat that is representative, typical and characteristic of the natural diversity at the relevant and recognised ecological classification and scale to which the ecological site belongs</p> <p>(i) if the ecological site comprises largely indigenous vegetation types: and</p> <p>(ii) Is typical of what would have existed circa 1840</p> <p>(iii) Is represented by the faunal assemblages in most of the guilds expected for the habitat type</p> <p>(B) The ecological site</p> <p>(i) Is a large example of indigenous vegetation or habitat of indigenous fauna</p> <p>(ii) Contains a combination of landform and indigenous vegetation and habitats of indigenous fauna that is considered to be a good example of its type at the relevant and recognised ecological classification and scale</p>	<p>A – Areas >50% indigenous however strong exotic component, a typical scenario of small ephemeral wetlands</p> <p>(iii) common insectivores; potentially wider territorial economics for kiwi although lacking in shelter. No internal habitat for wetland birds embedded in pasture Riparian shrubland absent and no pest control</p> <p>B (i) no</p> <p>(ii) impacted by pastoral history, however a typical local scenario of ephemeral wetlands in basalt near surface landscape form</p> <p>LOW</p>
<p>(2) RARITY/ DISTINCTIVENESS</p> <p>(A) The ecological site comprises indigenous ecosystems or indigenous vegetation types that:</p> <p>(i) Are acutely or chronically threatened land environments associated with LENZ Level 4</p> <p>(ii) Excluding wetlands, are now less than 20% original extent</p> <p>(iii) excluding man made wetlands are examples of wetland classes that either otherwise trigger Appendix 5 criteria or exceed any of the following area threshold</p> <p>(a) Saltmarsh 0.5ha</p> <p>(b) Shallow water lake margins and rivers 0.5ha</p> <p>(c) Swamp >0.4</p> <p>(d) Bog >0.2 ha</p> <p>(e) Wet heathlands >0.2 ha</p> <p>(f) Marsh; fen; ephemeral wetland or seepage/flush >0.05ha</p> <p>(B) Indigenous vegetation or habitat of indigenous fauna that supports one or more indigenous taxa that are threatened, at risk, data deficient, or uncommon either nationally or within the relevant ecological scale</p> <p>(C) The ecological site contains indigenous vegetation or an indigenous taxon that is</p> <p>(i) endemic to the Northland/ Auckland region</p> <p>(ii) At its distribution limit in the Northland region</p> <p>(D) The ecological site contains indigenous vegetation or an association of indigenous taxa that</p> <p>(i) Is distinctive of a restricted occurrence</p> <p>(ii) Is part of an ecological unit that occurs on a originally rare ecosystem</p> <p>(iii) Is an indigenous ecosystem and vegetation type that is naturally rare or has developed as a result of an unusual environmental factor(s) that occur or are likely to occur in Northland: or</p> <p>(iv) Is an example of a nationally or regionally rare habitat as</p>	<p>A(i) YES</p> <p>(iii) yes >0.05ha</p> <p>B) none observed</p> <p>C) none observed</p> <p>D)</p> <p>(iii) YES Ephemeral wetlands naturally rare</p> <p>Occupies basalt basement rock near surface swales</p> <p>MODERATE</p>

recognised in the New Zealand Marine Protected Areas Policy	
<p>(3) DIVERSITY AND PATTERN</p> <p>(A) Indigenous vegetation or habitat of indigenous fauna that contains a high diversity of:</p> <p>(i) Indigenous ecosystem or habitat types; or</p> <p>(ii) Indigenous taxa</p> <p>(B) Changes in taxon composition reflecting the existence of diverse natural features or ecological gradients; or</p> <p>(C) Intact ecological sequences</p>	<p>(A) NO</p> <p>(B) Change in dominance with varied zones of saturation e.g. taller <i>Machaerina</i> in headwater seepage; OBL <i>Eleocharis acuta</i> and <i>Isopleis prolifera</i> in surface saturated areas; <i>Isachne</i> (OBL) assumes dominance over <i>Paspalum distichum</i> (FACW) in wetter areas; <i>Myriophyllum</i> (OBL) in saturated herbage adjacent Ness Rd boundary</p> <p>Abrupt change from wetland species to terrestrial dryland Riparian shrub absent. Composition grazing adapted eg. <i>Paspalum distichum</i>, <i>Eleocharis acuta</i>, <i>Carex subdola</i> shallow edge; <i>Isachne</i> & <i>Myriophyllum</i> rafting, taller stature <i>Machaerina</i>; <i>Juncus</i> and short stature herbaceous in edge swamp</p> <p>C) Headwater wetland to creek sequence impacted by Ness Rd drainage on road reserve and culvert under Ness Rd</p> <p>LOW- MODERATE</p>
<p>(4) ECOLOGICAL CONTEXT</p> <p>(A) Indigenous vegetation or habitat of indigenous fauna is present that provides or contributes to an important ecological linkage or network, or provides an important buffering function: or</p> <p>(B) The ecological site plays an important hydrological, biological or ecological role in the natural functioning of a riverine, lacustrine, palustrine, estuarine, plutonic (including karst), geothermal or marine system</p> <p>(C) The ecological site is an important habitat for critical life history stages of indigenous fauna including breeding/ spawning, roosting, nesting, resting, feeding, moulting, refugia or migration staging point (as used seasonally, temporarily or permanently)</p>	<p>(A) Wetland nutrient processing buffers groundwater and downstream surface water during pastoral production and in future residential scenario</p> <p>(B) As before</p> <p>(C) Damp pasture function as heightened feeding territorial economics for insectivores/ kiwi over pasture dry extent</p> <p>MODERATE</p>

The wetlands *MODERATE* significance, related to functional protection of groundwater as wetland and rare ecosystem range of species and varied pattern in respect of hydrology and exceeding the size threshold and as potential habitat, in addition to functional protection of groundwater. Their exotic and degraded character is typical of the ephemeral type and does not detract from this classification.

Their individual species value is *Negligible - Low* as per EIANZ (2018)³³ criteria below. A shift in composition with more frequent inundation would not represent a loss of *value*, providing the ephemeral character is not entirely lost.

TABLE 3: FACTORS TO CONSIDER IN ASSESSING SPECIES VALUE (TABLE 5 EIANZ 2018)

VALUE	EXPLANATION
VERY HIGH	<i>Nationally Threatened species (Critical, Endangered or Vulnerable)</i> found in the Zone of Influence (ZOI) or likely to occur there, either permanently or occasionally
HIGH	<i>At Risk (Declining)</i> species found in the Zone of Influence or likely to occur there, either permanently or occasionally
MODERATE-HIGH	Species listed in any other category of <i>At Risk category (Recovering, Relict or Naturally Uncommon)</i> found in the Zone of Influence or likely to occur there, either permanently or occasionally.
MODERATE	Locally uncommon/rare species but not <i>Nationally Threatened</i> or <i>At Risk</i> .
LOW	Species <i>Not Threatened</i> nationally and common locally.
NEGIGIBLE	Exotic species, including pests

³³ (2018) EIANZ Ecological Impact Assessment Guidelines for New Zealand 2nd Edition

NPS-FM (2020)

Preservation of *extent* is central to the intent of the NPS – FM (2020) and accompanying protective regulations of the NES-F (2020). Consideration of the site wetland also informs potential *values*. Avoidance of loss of *values* in addition to *extent* is core policy³⁴ of the NPS – FM (2020).

Values as per NPS- FM definition–

ECOSYSTEM HEALTH

- Currently impacted condition – limited diversity, semi indigenous with functionality of sediment retention and processing, no pest control , no buffers on wetlands
- Contribution of basic feeding habitat and species retention for insectivorous guild in wider dry production site

INDIGENOUS BIODIVERSITY

- Limited bird guild - insectivores dominant
- Diversity and zoning with water depth
- Likely invertebrate communities adapted to wet conditions
- Pastoral influence – some areas largely exotic. Common indigenous generalist wetland species typical of pastoral setting

HYDROLOGICAL FUNCTION

- Sediment retention and nutrient processing protective of groundwater. Hydrologically connected as headwater to NZ reach

MĀORI FRESHWATER VALUES

- Potentially intrinsic and functional – outside scope of this report

Covenanted represents formal protection of extent and values. In order to provide a visually obvious cue and protection from disturbance and inadvertent encroachment we recommend a buffer of short sedges adjacent the wetlands which have developed generalist associations tolerant of full sun and have no internal habitat. The majority of sediment is trapped within the first 2m of a source and this width is therefore considered suitable, additionally due to the lack of steep bank contour.

Wider buffers are often suggested to reduce edge effects of weed ingress, facilitating self sustaining vegetation for long term resilience. However, this can be mitigated with maintenance of the buffer required through consent requirements.

Should amenity planting be required for visual impact mitigation or landscape design it should also be noted that REG 55 NES- F (2020) requires any planting within 10m of wetland to be locally appropriate and indigenous to create a natural ecosystem pattern and to avoid potential loss of values. Inland riparian species common to the Kerikeri ED and locally abundant are recommended

DRAINAGE OF NATURAL INLAND WETLANDS: 52 NON-COMPLYING ACTIVITIES

(1) Earthworks outside, but within a 100 m setback from, a natural inland wetland is a non-complying activity if it—

- (a) results, or is likely to result, in the complete or partial drainage of all or part of a natural inland wetland; and
- (b) does not have another status under any of regulations 38 to 51.

³⁴ Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

(2) The taking, use, damming, or diversion of water outside, but within a 100 m setback from, a natural inland wetland is a non-complying activity if it—

(a) results, or is likely to result, in the complete or partial drainage of all or part of a natural inland wetland; and

(b) does not have another status under any of regulations 38 to 51.

Minor natural diffuse or sheetflow inputs to the wetland within 100m will likely be *diverted* by the change of site cover, however in the absence of alteration of any point source inputs or seepages it is unlikely to **change the water level range or hydrological function of the wetlands.**

Earthworks within 10m will not result in *complete or partial drainage of all or part of the wetland* as per *Reg 52(i);(ii)* if they do not occupy or intersect with the wetland.

This is also non complying under *Reg 54 NES- F (2020) below*. Best practice earthworks and sediment control to prevent infilling is considered sufficient mitigation, followed by buffer planting with sedges as recommended before.

OTHER ACTIVITIES: 54 NON-COMPLYING ACTIVITIES

The following activities are non-complying activities if they do not have another status under this subpart:

(a) vegetation clearance within, or within a 10 m setback from, a natural inland wetland:

(b) earthworks within, or within a 10 m setback from, a natural inland wetland:

(c) the taking, use, damming, or diversion of water within, or within a 100 m setback from, a natural inland wetland if—

(i) there is a hydrological connection between the taking, use, damming, or diversion and the wetland; and

(ii) the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland:

(d) the discharge of water into water within, or within a 100 m setback from, a natural inland wetland if—

(i) there is a hydrological connection between the discharge and the wetland; and

(ii) the discharge will enter the wetland; and

(iii) the discharge will change, or is likely to change, the water level range or hydrological function of the wetland.

Final stormwater engineering was not available at the time of reporting. Stormwater inputs to the wetland represents a discharge within 100m, non complying under *Reg 54(d) NES- F (2020)*. Inputs should be diffuse and in a manner that prevents sediment, scouring or erosion as best practice to avoid adverse effects and to maintain aquatic habitat condition. As before, the extant hydrological source of the wetlands is rain and groundwater in a pastoral catchment with variable output highly responsive to meteorological conditions. The *ephemeral* character has developed under such conditions and can naturally tolerate moderate fluctuations in water levels without discernible shift in loss of value or character.

Due to the negligible species value of those present, a shift in species composition with more frequent inundation would not represent a loss of *values*, providing the ephemeral character is not entirely lost. It would likely favour the indigenous OBL component e.g. *Isachne* over exotic *Paspalum distichum* (FACW) in the wetland grass niche. Inputs should ensure that the ephemeral wetlands do not become permanently inundated, would represent a change in hydrological function in a measurable way.

CONCLUSION

Wetland delineation as per MfE protocols has been undertaken on the subject property Lot 2 DP 587441 (NA41D/267) in order to assist orientation of a subdivision proposal, identifying *natural inland wetland (NPS FM 2020)* subject to the National Environmental Standards for Freshwater NES – F (2020).

The wetlands are *ephemeral* confined to depressions within otherwise dry pasture and bedrock protrusions.

The wetland assemblages have both intrinsic and functional aspects that contribute to significance in regard to *Appendix 5 Northland Regional Policy Statement (2018)* including protection of groundwater, TEC level II designation, as well as size, pattern and diversity and *natural rarity* of the ephemeral type. The composition does not include any rare or threatened flora at the individual species level.

There are no *constructed wetlands* or *artificial watercourses* onsite as per definitions of the RMA or PNRP.

Potential adverse development effects on wetlands and terrestrial habitat can be pre-empted by their recognition and best practice in the subdivision and engineering design in accordance with the NES-F (2020). Buffering and covenanting will serve to commend persistent wetland functionality and character in the residential design, aligned with aspirations of the site's TEC Level II designation and avoiding any further loss of extent or value of *natural inland wetland*.

In respect of these recommendations, it is unlikely there will be a loss of *extent* or *values* as per the NPS- FM (2020) definitions which have persisted throughout the site's pastoral history,



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APPENDIX 1: SPECIES LIST

Species are listed as per Clarkson, B. et al (2021):

- **OBL: OBLIGATE.** Almost always is a hydrophyte, rarely in uplands (estimated probability >99% occurrence in wetlands)
FACW: FACULTATIVE WETLAND. Usually is a hydrophyte but occasionally found in uplands (estimated probability 67–99% occurrence in wetlands)
- **FAC: FACULTATIVE.** Commonly occurs as either a hydrophyte or non-hydrophyte (estimated probability 34–66% occurrence in wetlands)
- **FACU: FACULTATIVE UPLAND.** Occasionally is a hydrophyte but usually occurs in uplands (estimated probability 1–33% occurrence in wetlands)
- **UPL: OBLIGATE UPLAND.** Rarely is a hydrophyte, almost always in uplands (estimated probability <1% occurrence in wetlands)

The majority of tree species are considered upland unless otherwise described.

*Denotes exotic species

MONOCOT TREES & SHRUBS

DICOT HERBS

<i>Callitriche stagnalis</i> (OBL)	starwort
<i>Crepis capillaris</i> *(FACU)	hawksbeard
<i>Daucus carota</i> * (UPL presumed)	carrot weed
<i>Epilobium pallidiflorum</i> (OBL)	tarawera, willowherb
<i>Euchiton involucratus</i> (FAC)	<i>Gnaphalium involcratum</i>
<i>Leondonton saxatilis</i> * (FAC)	hawkbit
<i>Lotus pendunculatus</i> * (FAC)	Lotus
<i>Ludwigia palustris</i> * (OBL)	ludwigia
<i>Myriophyllum triphyllum</i> (OBL)	common milfoil
<i>Persicaria hydropiper</i> * (FACW)	Persicaria
<i>P. decipiens</i> (OBL)	tutanawai willow weed persicaria
<i>Plantago. lanceolata</i> * (FACU)	Narrow leaved plantain
<i>P. major</i> * (FACU)	broad leaved plantain
<i>Ranunculus repens</i> (FAC)	
<i>Rumex acetosella</i> *(FACU)	dock
<i>R. conglomeratus</i> * (FAC)	dock
<i>Trifolium spp</i> *(FACU/ UPL)	clover

GRASSES

<i>Agrostis capillaris</i> * (FACU)	browntop
<i>A.stolonifera</i> * (FACW)	creeping bent
<i>Alopecurus pratensis</i> * (FACU)	meadow foxtail
<i>Briza</i> * spp (UPL)	shivery grass
<i>Cenchrus clandestinus</i> *(FACU)	kikuyu
<i>Dactylis glomerata</i> * (FACU)	cocksfoot
<i>Glyceria declinata</i> * (OBL)	sweet grass
<i>Holcus lanatus</i> * (FAC)	Yorkshire fog

Isachne globosa (OBL)
*Lolium arundinacaeae**(FAC)
*Lolium spp** (FACU/ UPL)
*Paspalum dilatatum** (FACU)
*P. distichum** (FACW)
*Sporobolus africanus** (FACU)

native swamp millet
tall fescue
ryegrass
paspalum
mercer grass
ratstail

SEDGES & RUSHES

*Carex leporina** (FACW)
Carex subdola (OBL)
*Cyperus brevifolius** (FACW)
*C. eragrostis** (FACW)
Eleocharis acuta(OBL)
Isolepis prolifera (OBL)
I.reticularis (FACW)
Juncus australis (FACW)
*J.effusus** (FACW)
J.edgariae (FACW)
Machaerina rubignosa(OBL)

globe sedge
tall flatsedge umbrella sedge

wiwi
soft rush
wiwi/ Edgars rush
machaerina

TREES & SHRUBS

Casaurina
Eucalyptus
Leptospermum
Pinus
*Ulex europaeus** (FACU)

gorse

FERNS

Astroblechnum penna marina
Lindsaea linearis (FACW)

Swamp kiokio
common Lindsey

LICHENS LYCOPODS BRYOPHYTES

Plants given as rare in Northland as per Wildlands (2012)
No orchids were observed

APPENDIX 2: SITE PHOTOS

CLOCKWISE FROM LEFT: VIEW EAST TO NESS RD INNOCUOUS WETLAND GRASSES OCCUPYING THE NATURAL SWALES APPEAR MISLEADINGLY TERRESTRIAL; VIEW SOUTH PERSICARIA, SHORT JUNCUS ARTICULATUS; ISOLEPIS; CYPERUS & CAREX SPECIES WOTHIN WETLAND GRASSES EMPAHASIS THE WETLAND DIAGNOSIS; EXPOSED BEDROCK PROTRUSIONS AND 'ISLANDS' AMONGST LANDSCAPE; VIEW FROM CURRENT ENTRANCE WETLAND COMMENCES SHORTLY TO THE LEFT



FROM CLOCKWISE: AGROSTIS STOLONIFERA (FACW) & ISACHNE GLOBOSA (OBL) COMMON WETLAND GRASSES IN DISTURBED PASTORAL SETTINGS; PASPALUM DISTICHUM (FACW) CONSPICUOUS SEED HEADS; ISACHNE GLOBOSA (OBL) CYPERUS ERAGROSTIS (FACW); COMMON SITE FACW & OBL WETLAND ASSOCIATES J. ARTICULATUS; PERSICARIA; MYRIOPHYLLUM; ISOLEPIS; ELEOCHARIS ACUTA; MACHAERINA TERETIFOLIA (FACW); MOUNDING ISACHNE



APPENDIX 4

HAIGH WORKMAN CIVIL AND GEOTECHNICAL ASSESSMENT

Civil and Geotechnical Assessment

Proposed 5 Lot Subdivision of

PT LOT 5 DP 102613, Ness Road, Waipapa

For JK Farm Ltd.

Haigh Workman reference 24 145

Supporting report for RC application to Far North District Council

September 2024



Revision History

Revision N ^o	Issued By	Description	Date
A	K. Mitchell	Resource Consent	September 2024

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Executive Summary

It is proposed to subdivide the parent allotment, PT Lot 5 DP 102613, into 5 sub-allotments intended for residential end-use. The site is zoned 'Rural Production' under the Far North District Plan.

Geotechnical

Preliminary investigations suggest that each lot can provide a safe building platform. However, due to variable ground conditions, site-specific geotechnical assessments will be required at the building consent stage to confirm the specific subsoil conditions within the future proposed building locations and provide applicable foundation recommendations. Raft foundations are anticipated to be most suitable for future dwellings constructed in Lots 1, 2, and possibly 3, due to the presence of shallow basalt flow and large volcanic boulders.

Natural Hazards

The natural hazard risks for the proposed building envelopes are considered negligible provided the recommendations of this report are adhered to.

Access

The subdivision will have two access points. The northern access, with an existing rural vehicle crossing, will be upgraded, and the southern access will require a new vehicle crossing. As a part of subdivision works, we recommend that Rural Type 1A vehicle crossings are constructed at both access points, in accordance with the FNDC Engineering Standards, 2023.

Earthworks

Earthworks will be needed for both northern and southern ROWs. The estimated earthworks volume is 423m³, which does not exceed the 5000m³ per year threshold for the Rural Production zone.

Stormwater

Roof water will be collected in storage tanks for the proposed lots. Due to the flat contour across Lots 1-4, the large lot sizes (>2.0Ha) and the presence of a natural wetland area, stormwater is best managed on-site using, low-impact design methods. Haigh Workman do not anticipate a breach of impermeable area Permitted Activity thresholds on any of the sub allotments.

Water Supply

Water will be sourced from rainwater storage tanks. Future homeowners will be responsible for ensuring adequate on-site potable water supply, as well as a firefighting water supply that meets the New Zealand Fire Service (NZFS) Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008.

On-Site Effluent Disposal

Wastewater volumes have been estimated at 900 litres per day for a preliminary design scenario that represents a standard 3-bedroom home. The soil variability at the site affects loading rates, however we have used a conservative rate of 3mm/day, which populates the requirement of 300m² disposal area, and a 300m² reserve area. A 600m² wastewater area has been provided for on the appended plans to show compliance is available in regard to NRC and FNDC regulations.

Excavations for septic tanks on Lots 1, 2, and possibly 3 will be challenging and may require rock-breaking equipment due to the presence of shallow basalt flow and large volcanic boulders.

1 Introduction

1.1 Project Brief and Scope

Haigh Workman Ltd (Haigh Workman) was commissioned by JK Farms Ltd (the client) to undertake a Civil and Geotechnical Assessment of Pt Lot 5, DP 102613, Ness Road, Waipapa (the site) for the purpose of subdivision. It is understood that the site will be subdivided into 5 sub-allotments, Lot 1 to Lot 4 resulting in subdivided land areas of >2.0 Ha each, and a balance Lot (Lot 5) covering the remaining approximate 14.3 Ha. Each subdivided lot is intended to serve as a lifestyle block for residential end-use. Lot 5 is also intended for residential end-use but will also operate as a light-commercial farm, for the Client. The subdivision proposal is depicted within the proposed subdivision scheme plan drawn by Reyburn and Bryant, project reference: S17815, dated July 2024.

The principal objectives of this assessment are to assess the feasibility of the above subdivision proposal in relation to the Far North District Council (FNDC) and Northland Regional Council (NRC) regulatory requirements while providing engineering solutions to avoid or mitigate any potential adverse effects on the environment. This report ensures each sub-allotment can provide a safe building platform for future residential use and provides recommended solutions for the items listed below.

The scope of this report includes an assessment of:

- Natural hazards;
- Site access;
- Earthworks required to complete the subdivision access points;
- Stormwater management;
- Water supply, and;
- Onsite effluent treatment and disposal.

This report should also be read in conjunction with any specialist reports undertaken to support the subdivision application, including; site surveys, planning reports and the ecology report for the site.

2 Limitations

This report has been prepared for our client, JK Farms Ltd., 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 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. This report assesses site suitability for subdivision into 5 lots only. If any assumptions made in this report 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. Confirmation of ground conditions between exploratory hole locations should be undertaken, if deemed necessary.

3 Site Description and Proposed Development

3.1 Site Description

The parent allotment is legally described as PT Lot 5 DP 102613 and is located on the western side of Ness Road, approximately 1.5km north-west of the Ness Road-Waipapa West Road intersection. At the time of reporting, the Reyburn and Bryant Scheme plan stipulated the total land area of the site as 226,195m². An excerpt of the site has been provided below in Figure 1.

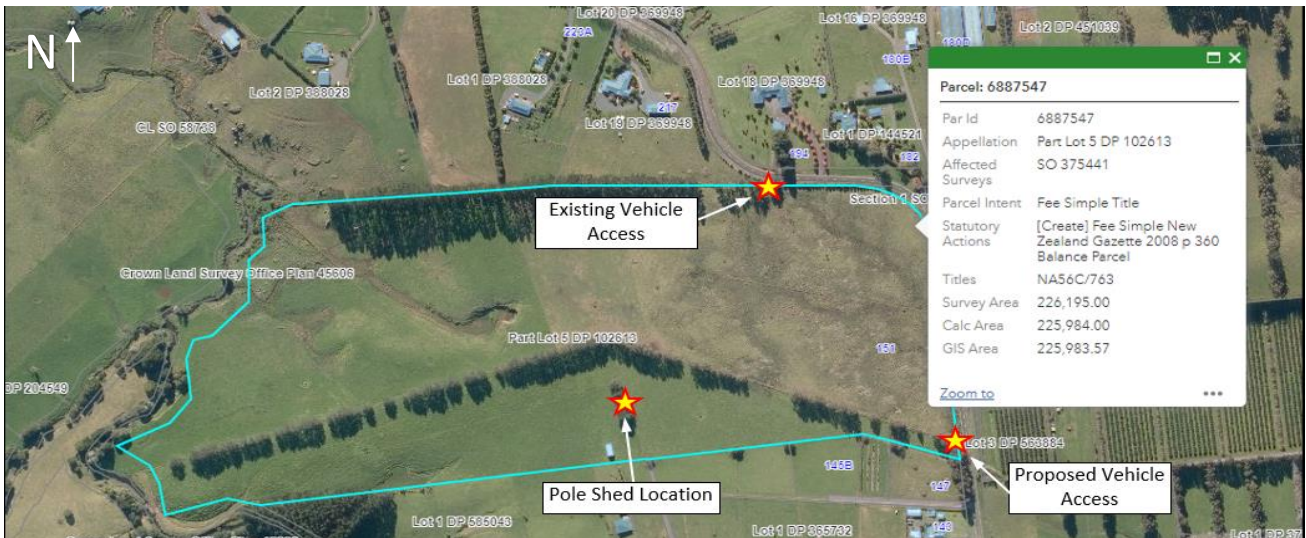


Figure 1: Aerial Excerpt of Pt Lot 5 DP 102613 (Source: FNDC Web maps)

The site currently contains no existing dwellings, however a pole shed is mid-way through construction centrally along the southern boundary of the site. Refer Figure 1, above. The site has an existing rural vehicle access point located opposite 194 Ness Road, as depicted above in Figure 1. The site generally covered in pasture, however some mature shelterbelt trees are present along both the northern and southern boundaries.

3.2 Proposed Development

It is proposed to subdivide the site into 5 lots, intended for rural residential end-use. The land area associated with the proposed lots is provided below in Table 1 and is depicted on the proposed subdivision scheme plan devised by Reyburn and Bryant, project reference: S17815, dated July 2024.

Table 1: Proposed New Lots

Proposed Lot No.	Lot Size (m ²)
1	20,850
2	21,350
3	20,770
4	20,017
5	143,055

3.3 District Plan Zone

The site is zoned as Rural Production under the Operative District Plan. Based on the mapped plan zone of the subject site, it is understood that the subdivision will be deemed a Restricted Discretionary Activity by Far North District Council.

4 Environmental Setting

4.1 Site Walkover

A site walkover was undertaken on the 28th of June 2024 and was focused around assessing the future development sites and access areas. Site photos were collected and have been presented in Appendix E.

The eastern half of the site (containing Lot's 1-4) exhibits near level to gentle sloping ground, with gradients not exceeding 1V:10H (6°). The area falls east toward Ness Road, with frequent localised shallow undulations denoting the nature of the underlying geology (i.e. mass basalt flow).

Puggy areas were encountered during our walk over though the central and eastern areas of Lots 1, 2 and 3 which have been identified as natural wetland area per the drawings provided in Appendix B. The upper most portion of the surface water flow catchment; approximately 50 linear metres in extent, originates on the western side of the proposed sub-allotments, and meets Ness Road, perpendicularly, per Figure 2 below.



Figure 2: Aerial Excerpt of Site Outlining the Location of FNDC Mapped OLFP (in Blue).

Surface water from the site is collected by the open roadside swale on the western side of Ness Road, which conveys stormwater through a 750mm \varnothing concrete culvert to the eastern side of Ness Road, refer Figure 3. Stormwater discharge from the culvert subsequently feeds to a small creek which forms an upper tributary of the Waipapa Stream.



Figure 3: Image of roadway culvert near the south-eastern corner of the subject site (Source: google maps)

4.2 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, 1981: “*Whangaroa-Kaikohē*” (Rocks);
- NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1980: “*Whangaroa-Kaikohē*” (Soils).

The site is within the bounds of the GNS Geological Map 2 “*Geology of the Whangarei area*”, 1:250,000 scale. Geological sites are presented in Table 2.

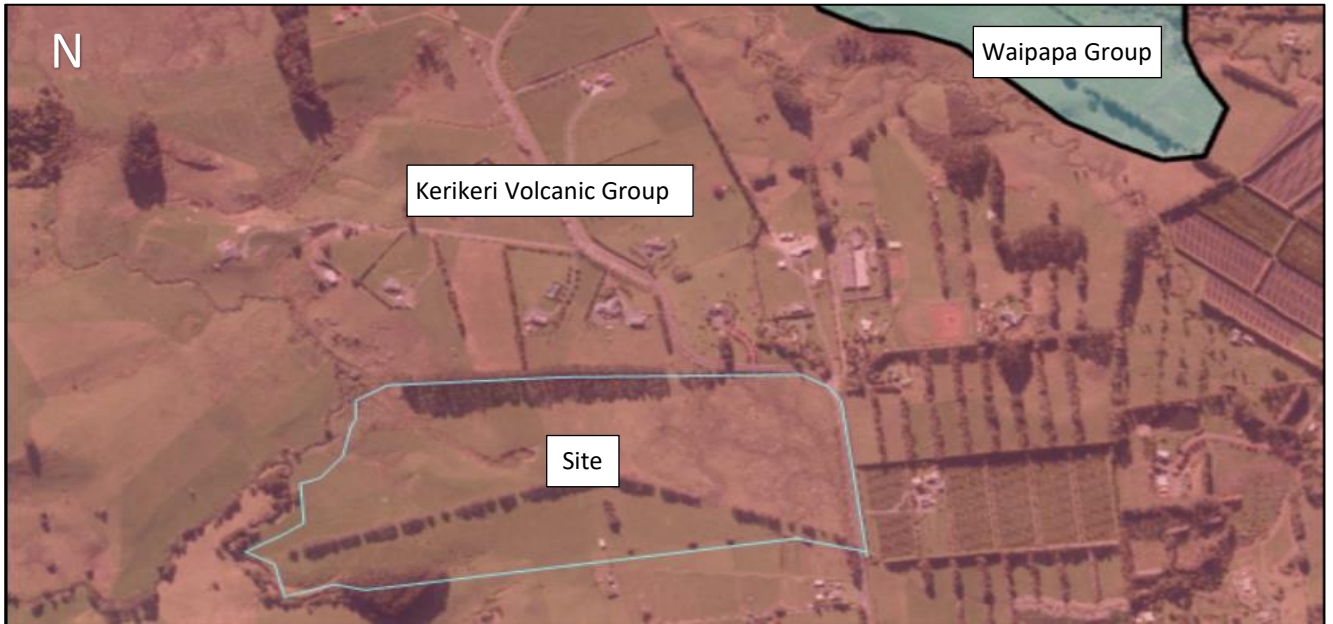


Figure 4: Aerial excerpt of Pt Lot 5 DP 102613 depicting mapped geology (Source: GNS web maps)

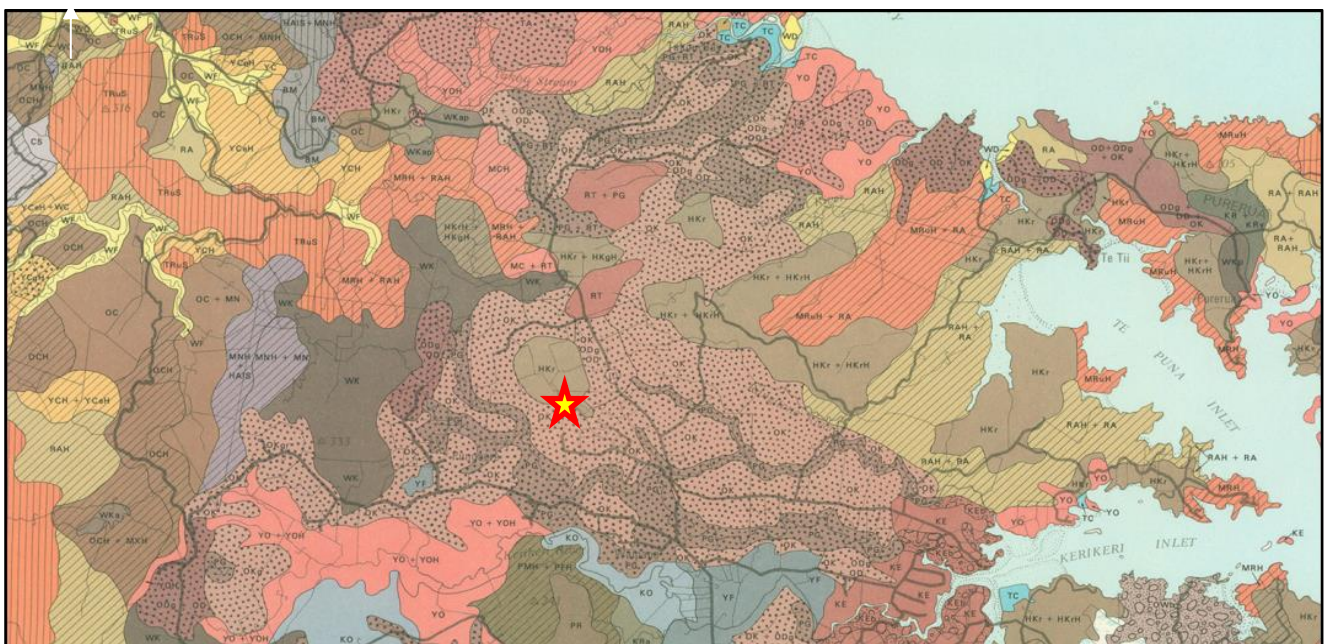


Figure 5: Excerpt of site soil maps (NZMS290 Sheet Q04/05)

Table 2: Geological Legend

Symbol	Site Name	Description
Qvkb	Kerikeri Volcanic Group	Basalt lava and volcanic plugs. Early Pleistocene to Late Pleistocene age igneous rocks.
TJw	Waipapa Group	Greywacke, massive to thin bedded, lithic volcanoclastic metasandstone and argillite. Permian to Jurassic age.

Geology underlying the site is Kerikeri Volcanic Group basalt (as confirmed by Haigh Workman geotechnical investigations).

Similarly, the New Zealand Land Inventory, Rock Map indicates the area to be underlain by basalt, specifically;

- *F6₂ - Basalt: flows and cones of very fine to medium grained crystalline basalt, dense and moderately fractured; hard to very hard. Surfaces form terraces and plateaus generally without rocky outcrops. Weathered to soft red brown or dark grey brown clay to depths of 20 m with many rounded corestones.*

According to the New Zealand Land Inventory, Soil Map (Figure 5) the site soils are classified as:

- *OK – Okaihau gravelly friable clay, 'well to moderately well drained'*

The below site photo of an existing cut face within the original farms rock-quarry, confirms the mapped geology descriptions.



Figure 6: Site photo of large cut face in Lot 5 (existing farm quarry)

4.3 Surface Water Features and Flooding

A summary of available information pertaining to hydrology and hydrogeology observed at the site during the investigation is presented in the Table 3.2.

Table 4.3 - Surface Water Features & Flooding

	Presence/Location	Comments
Groundwater sources including springs/wells within 500 m	There is 1 groundwater bore on NRC's maps within 500 m of the site.	The closest well (LOC.201102) is located 250 m southeast of the site and is used for private water supply. The winter groundwater table is estimated as 5m-10m deep from information collected from our desk study and site investigations. However, perched, ephemeral surface water is expected to be present in winter months within the eastern portion of the subdivision due to ephemeral overland flows ponding in shallow depressions over the areas of surface basalt rock. No groundwater was encountered in any of the proposed lots nominated building / on-site services envelopes.
Surface Water Features within 250 m (Ponds, Lakes etc)	Surface water ponding is present in Lots 1, 2 and 3.	No Northland Regional Council (NRC) flood hazards are mapped across Lots 1-4 or in the widespread elevated areas of Lot 5. However, the investigation did identify areas of surface water ponding, as previously discussed. These areas are considered to be perched overland flow water, accumulating above relatively impermeable basalt rock found at shallow depths beneath the site (refer to site photos in Appendix E). The client relayed that the 750Ø culvert pipe beneath Ness Road was blocked when the property was purchased and has since been cleared. This clearance will facilitate the conveyance of natural overland flow from the site to the Waipapa Stream, which is the natural watercourse, as documented in the Bay Ecology Report. Following discussions with the client, it is understood that the surface water ponding observed during our site visits is primarily ephemeral and tends to subside with seasonal variations in rainfall.
Watercourses within 500 m	An existing water course is located running northwest to southeast across proposed subdivision area. An established stream runs along the parent allotments western boundary.	The water course is defined on FNDC Web Maps and has been assessed as a natural wetland by an Ecologist. This stream is well offset to the currently proposed future building platform within Proposed Lot 5.
Flood Risk	NRC River Flood Hazard Maps shows mapped	The western boundary of Lot 5 is within the NRC river flood hazard modelling areas (50, 100 and 100+CC). However, the future building platform in this lot is well set back from this mapped flood area.

5 Geotechnical

5.1 Preliminary Geotechnical Investigation

Shallow intrusive geotechnical investigations were undertaken by Haigh Workman on the 28th of June 2024. The investigations comprised of conducting test pits throughout each allotment, including a test pit within each potential build sites on Lots 1-4. The test pits were advanced to depths between 0.2m to 1.7m below ground level (mbgl).

5.2 Ground Conditions

Based on the results of the geotechnical investigation and review of published geological maps, it is considered that underlying natural soils within the proposed allotments areas are generally underlain by Kerikeri Volcanic Group soil and rock. The identified wetland area subsoils have experienced chemical alteration due to waterlogging (i.e. gley soil). These areas have been demarcated on the attached site plan in Appendix B.

5.2.1 Topsoil

Topsoil across the development was described as a brown or dark brown silt with no plasticity. Topsoil was of a high quality, supported by its dark brown colour, adequate thickness and general moistness. Topsoil on site is expected to perform well for effluent disposal.

5.2.2 Gley Volcanic Soils

Gley soils are in-situ subsoils that have undergone chemical alteration and reduction due to extended periods of waterlogging. Shallow gley Kerikeri Volcanic soil was encountered near the identified natural wetlands on-site. This soil is described as dark to light grey silt, moist-saturated and of low plasticity. The soil was surficial in most areas identified (under 1.0m thickness). All locations of the gley soils were found to be directly underlain by basalt rock.

5.2.3 Kerikeri Volcanic Group

Residual Kerikeri Volcanic soils were encountered across the parent allotment and were variable between test locations. These soils exhibited various fractions of clay, silt, gravels, cobbles and large diameter boulders. Most soil colours ranged from orange to dark brown and had low to no plasticity. In addition, large expanses of mass basalt flow is present throughout Lots 1-3 (refer to Figure 7, below).



Figure 7: Basalt flow outcrops present throughout the majority of Lots 1, 2 and 3.

Flow outcrops are more prevalent in the eastern most portion of Lots 3 and 4, and present frequently from the surface throughout the western and southern areas of Lots 1 and 2. The investigated building platform in Lot 5 was underlain by homogenous fine-grained volcanics but the same variability encountered in Lots 1-4 is also expected across Lot 5 due to its size.

5.3 Groundwater Conditions

In eastern portion of the development (Lots 1-4), perched surface water infiltrated into the test pits from ground level during excavation, which made it difficult to assess static groundwater levels. Towards the western portion of the development, ground water was not encountered in the exploratory test pits which reached depths of 2.0m below current ground level.

As a part of our site walk over, we were able to observe a sizable cut face within the existing farm quarry (see Figure 6). Groundwater was found daylighting out of the fractured volcanic rock cut face at an approximate RL of 140m NZVD (per interpreted LINZ lidar data). Lots 1-4 have NZVD relative ground levels that range from 150m-145m indicating static levels of -5m to -10m underlying the lots.

Furthermore, neighbouring bore well data available from NRC indicate similar static water levels of approximately -7.0 to -13.4m below current ground level.

5.4 Slope Stability

No instability features were observed on land immediately surrounding the investigated building platform areas through Lot 1-4. Some soil creep was noted on steeper ground in the western portion of Lot 5 however we consider there is ample room within this lot to choose a future building platform that is void of land stability issues, provided any future cuts and fills are supported or battered to a safe angle.

5.5 Liquefaction Potential

Liquefaction potential at the site has been considered using MBIE guidance: planning and engineering guidance for potentially liquefaction prone ground. The published geology and investigation data indicates the nominated building envelopes are generally underlain by residually weathered loam soils of the Kerikeri Volcanic Group, including areas of unweathered basalt rock and an array of less weathered volcanic gravels, cobbles and boulders. The gley soil encountered on site is surficial only, with the investigations confirming the presence of an unweathered basalt shelf, directly underlying this layer in all applicable locations. Furthermore, cut faces in the farms brown-rock quarry, along with escarpments located on neighbouring properties, further provided evidence of the continuity of the underlying geology. Based on the above observations, we consider through qualitative assessment that the nominated building envelopes are unlikely susceptible to liquefaction following a seismic event.

5.6 Soil Expansivity

Soil expansivity has not been covered in this report due to the large variability in soil type encountered across the subdivision. We recommend soil expansivity determination be carried out at Building Consent stage if the final building locations are located on subgrade consisting of cohesive soils.

5.7 Foundations

Based on our preliminary intrusive investigation, we consider that each lot can provide for a stable building platform. However, due to the variability of the ground conditions encountered during our investigations, site specific geotechnical investigations will be required at building consent stage confirm the subsoil conditions within the future chosen building platforms and provide specific geotechnical recommendations for foundation design. The nominated envelopes on the appended site plan are indicative only, the final building location may be changed subject to *further geotechnical investigation* and recommendations supplied by a Chartered Professional Geotechnical Engineer. We consider that raft foundations are the most feasible solution in Lots 1 and 2 and potentially Lot 3.

6 Natural Hazards

6.1 Natural Hazards

Under Section 2 of the Resource Management Act (RMA) 1991, **natural hazard** means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

Natural hazards listed in Section 71(3) of the Building Act 2004 include: erosion, falling debris, subsidence, inundation or slippage. We assess the susceptibility of future building platforms to these potential hazards as:

Table 4: Natural Hazards Assessment

Natural Hazard	Risk
Erosion (including coastal erosion, bank erosion, and sheet erosion)	Low, provided adequate grassed vegetation cover is maintained, and appropriate ESC methods are implemented prior to commencing earthworks.
Falling debris (including soil, rock, snow, and ice)	Not applicable
Subsidence (vertical settlement)	Our preliminary investigations indicate that there is ample room within each lot for a future building platform away from soft soils that may be prone to subsidence. This should be confirmed at

	building consent stage with a site-specific geotechnical investigation, once the final building positions are known.
Inundation (including flooding, overland flow, storm surge, tidal effects, and ponding)	Low. The proposed building platforms are not near any mapped flood zones and the clearance of the Ness Road stormwater culvert has improved the sites drainage capabilities. Nominated building envelopes have been provided for on each Lot that have sufficient offset and elevation to the identified surface water ponding features that present in winter months.
Slippage	For Lots 1-4, not applicable due to the gentle contour of the sites. For Lot 5 – Low risk, provided that any future cuts/fills/battered slopes and/or retaining walls are appropriately designed and constructed in accordance with any future applicable site-specific geotechnical advice.

6.2 NRC Flood Mapping

The western boundary of the parent allotment is modelled as being subject to flooding in the 10, 50 and 100 year+ CC flooding events, refer Figure 8 below. The mapped flood zone spans approximately 70-80 meters in width, extending inward from the site’s western boundary. The land that is mapped as at risk is low lying and forms an eastern flood plain area of the Waipapa Stream. Adjacent to the flood-prone area, the terrain quickly ascends into moderately sloping grassy hillsides. Lot 5's proposed building platform is positioned roughly 90 meters east of the flood-prone area, elevated more than 10 meters above the highest point of the flood zone.

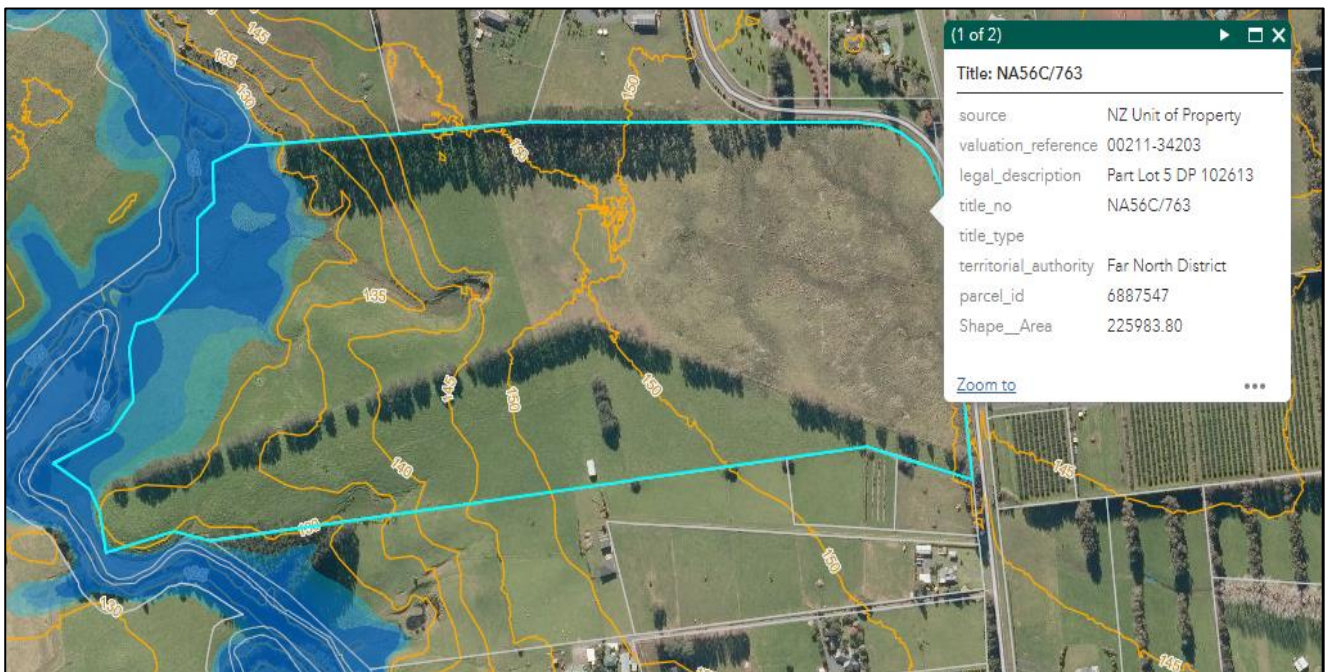


Figure 8: Aerial Excerpt from NRC Flood Maps

7 Access

7.1 New Lot Access off Ness Road

The subdivision will have two access points. Per Figure 9 below, entrance 1 is the existing access point to the site and may require to be upgraded. Entrance 2 requires a new vehicle crossing. As a part of subdivision works, we recommend that Rural Type 1A vehicle crossings are constructed at both access points, in accordance with the FNDC Engineering Standards, 2023.

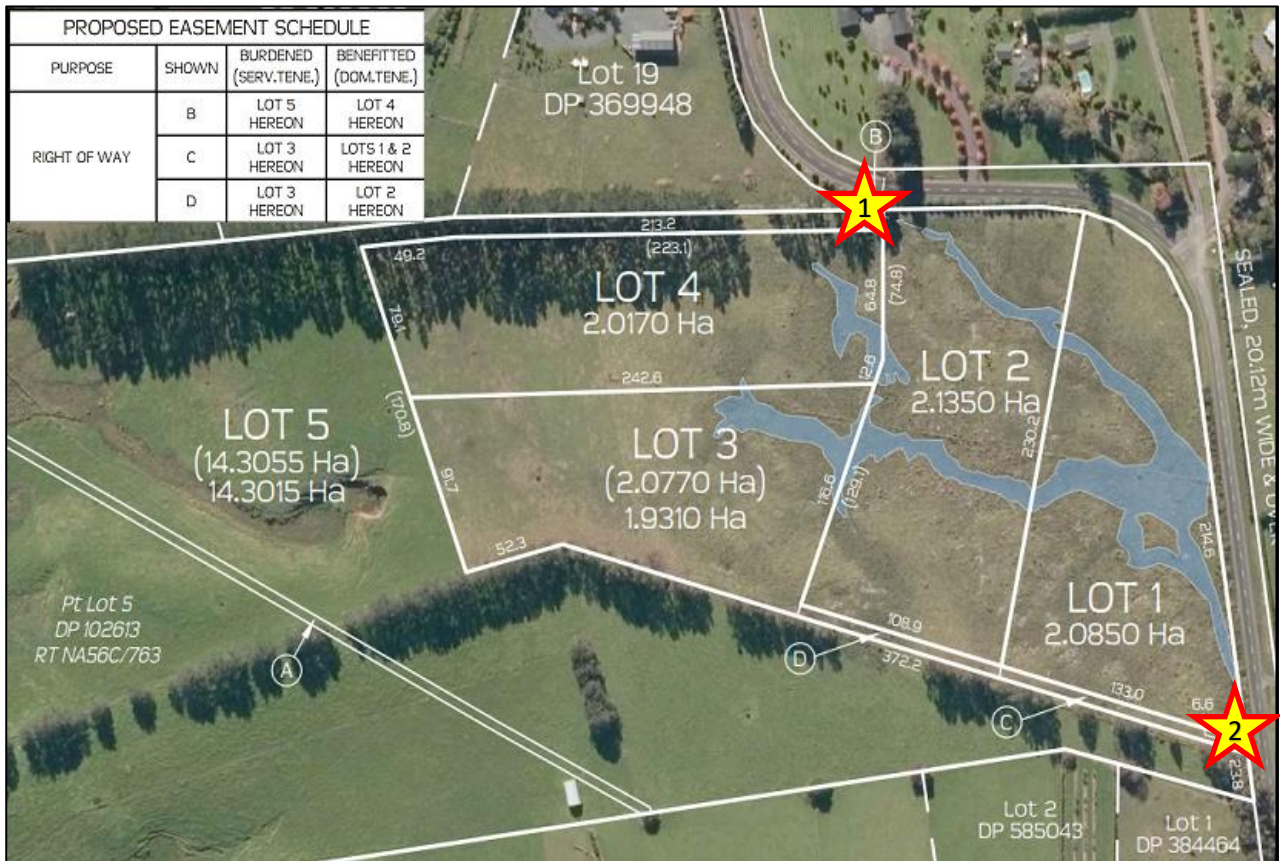


Figure 9: Excerpt of proposed subdivision scheme plan.

Lot 1-3 will have site access from entrance 2, while lots 4 and 5 will have access from the entrance 1. It is proposed that Lot 2 will have a secondary access from ROW B (entrance 1).

An assessment of the Ness Road operating speeds and available sight distances at the access points, are given below in Table 5.

Table 5: Operating Speed and Sight Distances for Proposed Crossings

Crossing	Direction	Posted Speed Limit	Operating Speed	FNDC Min. Sight Distance	Visibility Achieved (m)
1 (northern)	North	80km/h	60km/hr	135m	135
	East	80km/h	60km/hr		135
2 (southern)	North	80km/h	80km/h		240
	South	80km/h	80km/h		250

Internal access ROWs are required to be constructed with a minimum carriage width of 3.0m in accordance with Appendix 3B-1 of the Far North District Council Operative District Plan.

On-site driveways will be constructed at the building consent stage and do not form part of the resource consent application. The earthworks associated with private on-lot driveway formation is not included in the estimated earthworks volume for the development.

7.2 Parking and Manoeuvring

Parking and associated manoeuvring can be accommodated within the proposed sites. Far North District Plan Appendix 3C specifies 2 car parking spaces for each standard residential unit. The car parking spaces requirement will easily comply with District Plan Appendix 3D dimensions.

8 Earthworks

8.1 Site Formation

Earthworks will be required to form both the Northern and Southern ROW's. Our preliminary estimate of the areas and volumes of earthworks required for the subdivision, including aggregate for roading, is as follows:

Table 6: Earthworks Volumes

Development	Approximate length (m)	Width (m)	Area (m ²)	Cut Volume (m ³)	Fill Volume (m ³)
Northern ROW	10	3	30	9	9
Southern ROW	133	3	399	120	120
Total			429	129	129
				258m ³	

The earthworks quantities do not include on-lot development which will occur at a later date.

8.2 Far North District Plan

The land is zoned Rural production. Under the District Plan rules, allowable excavation and/or filling, excluding mining and quarrying, on any site in the Rural Production Zone is permitted, provided that:

- a) it does not exceed 5,000m³ in any 12-month period per site; and
- b) it does not involve a continuous cut or filled face exceeding an average of 1.5m in height over the length of the face i.e. the maximum permitted average cut and fill height may be 3m.

All other cuts/fills proposed to form accessways for the development are deemed as a Permitted Activity under the Operative District Plan.

The Proposed Far North District Plan was notified on 27 July 2022.

The Proposed Plan defines earthworks as:

The alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.

The following Proposed Plan rules and standards have legal effect and will be complied with:

- Earthworks Rule EW-R12 (Earthworks and the discovery of suspected sensitive material)
- Earthworks Rule EW-R13 (Earthworks and erosion and sediment control)
- Standard EW-S3 Accidental Discovery Protocol
- Standard EW-S5 Erosion and sediment control

8.3 Proposed Regional Plan for Northland

The Proposed Regional Plan for Northland (Appeal version November 2021) is now operative in respect of earthworks rules. Under Rule C.8.3.1, the maximum permitted earthworks quantity is '5000 square metres of exposed earth at any one time'. Under the Regional Plan definitions, earthworks include cut to fill but does not include placing roading aggregates. Under the Proposed Regional Plan, a resource consent is not required for earthworks.

8.4 NES - FW

There is a natural inland wetland located centrally in the eastern portion of the subdivision that has been confirmed in the Bay Ecological Consultancy Ltd Report; *Wetland Determination Report, PT Lot 5 DP 102613, Ness Road, Waipapa. Ref. SPRUIT, dated July 2024*. There is also wetland area on the western boundary of Lot 5, which is well offset from any proposed development area. The wetland areas have been depicted on the attached Site Plan (C01).

We believe on reasonable grounds that a 10m setback for earthworks can be kept following development of the subdivision for residential development. A 10m set back line has been provided on the appended plans to demonstrate the above.

8.5 Construction

Site formation of the ROWs will comprise minor cuts and fills using material won from the site. Any spoil (topsoil etc.) material must be carefully disposed of onsite, well clear of the wetland areas. Overall, the proposed earthworks for subdivision formations are considered minimal.

8.6 Earthworks Operations

A large part of the excavated soil will be topsoil which will be used to re-grass batters or placed on the adjoining lots. A spoil disposal site has not been finalised at this stage.

As required by Proposed Plan, Earthworks Rule EW-R13, we recommend the provided erosion and sediment control plan be implemented, as a condition of the subdivision consent. The ESCP is provided in Appendix F, as per GD05, will be carried out in accordance with Council's Engineering Standards and Guidelines and Auckland Council GD05. Provided the earthworks are carried out in good weather, the most appropriate erosion and sediment control measures are mulching, and silt fences as detailed in GD05, as is maintaining vegetation cover where possible to reduce erosion potential. Suitable Erosion and Sediment Controls must be implemented prior to the commencement of earthworks, with specific emphasis given to protecting neighbouring wetland areas.

9 Stormwater Management

9.1 Existing Site Drainage

Lots 1-4 drain in an easterly direction across near-level sloping ground, into the identified wetland area. The stormwater catchment feeding the wetland area is relatively local in extent. The wetland area is ephemeral, generally becoming dry, in summer months when winter rains subside. In winter months, surface water exits the eastern boundary of Lot 1 and into the western roadside swale of Ness Road. From here, the swale leads to a 750Ø concrete culvert as described in Section 4.1. Flood prone land is present approximately 500m east of the subdivision, forming due to the deepening of the natural stormwater flow path, which becomes a western tributary of the Waipapa Stream.

9.2 Regulatory Framework

9.2.1 Far North District Plan Provisions

The site is zoned as Rural Production. The relevant permitted activity rule for impermeable surfaces is;

8.6.5.1.3 STORMWATER MANAGEMENT

The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 15%

Estimated future surface coverage of the site is calculated as follows;

Table 7: Conservative future impermeable surfaces coverage estimation

Proposed Lot	Area (m ²)	Existing Structures (m ²)	Future Dwelling + Garaging (m ²)	Hardstand (m ²)	Total Imperm. Surface (m ²)	Coverage (%)
1	20,850	-	800	300	1,100	5.2
2	21,350	-	800	300	1,100	5.1
3	20,770	-	800	433	1,233	6.1
4	20,170	-	800	300	1,100	5.5
5	143,055	~300	800	2000	3,100	2.2
TOTAL	226,195					

As detailed above, future **conservative** impermeable surface areas between 1100m²-3,100m² has been provisioned for, for each Lot. Site coverage typically ranges from 2-6% and therefore will comfortably comply with Rural Production Permitted Activity coverage allowances in the District Plan.

9.2.2 Proposed Regional Plan for Northland and NES - FW

The Proposed Regional Plan for Northland (Appeal version November 2021) is now operative in respect of stormwater discharge rules.

Proposed Rule C.6.4.2 provides for the diversion and discharge of stormwater into water or onto land from an impervious area or by way of a stormwater collection system, is a permitted activity, provided (amongst other conditions):

2) 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 percent annual exceedance probability, or flooding of buildings on another property in a storm event of up to and including a one percent annual exceedance probability.

6) the diversion and discharge does not cause permanent scouring or erosion of the bed of a water body at the point of discharge.

Stormwater from the site is proposed to be disposed of within the boundaries of each respective lot through low impact design methods. This approach ensures the local hydrological cycle of the land within each lot is maintained, avoiding any hydrological disturbance to the wetland as well as avoiding exacerbating any downstream flooding effects.

Following residential development across Lots 1-4, the total impermeable surface increase is estimated to average 5% of the total gross site area (8.31Ha). Collected roof water will be captured and conveyed to rainwater harvesting tanks, for potable water use in the future residential dwellings on the lots. Use of the water will inevitably be returned to the to the land in full, through the on-site wastewater effluent disposal areas. Collection and use of rainwater in this way will ensure a similar pre-development volume, will return back to the land.

Scouring and erosion is mitigated as rainwater tank overflow will be discharged back to the land via spreader devices, and septic water, applied to the land via trickle irrigation. Given the ability to implement low impact design methods , stormwater management in each of the new lot will comply with Rule C.6.4.2.

9.3 Stormwater Management – Low Impact Design Approach

Low impact design methods are recommended for future stormwater management for all new lots. The large lot sizes, gentle contour, and good pasture cover will allow stormwater from future impermeable surfaces to be absorbed into the ground without significant negative impacts.

For the proposed gravelled right-of-ways (ROWs), stormwater runoff should be directed into vegetated swales for sediment filtration before discharging into natural watercourses.

Future stormwater management must control flows, reduce scour, and comply with District and Regional Plan rules. With large grassy areas around building platforms, runoff will be filtered naturally, trapping contaminants and sediments, ensuring negligible water quality impacts. The stormwater management plan focuses on ground absorption, with system components including:

- Rainwater collection tanks with overflow pipes to dispersed outlets
- Surface flow dispersal from driveways and impermeable surfaces
- Soakage into volcanic soils where applicable.

10 Water Supply

10.1 Potable Water Supply

All units will be dependent on roof runoff collected in water tanks.

10.2 Fire Fighting

Council Engineering Standards require a water supply that is adequate for firefighting purposes. Where there is currently no reticulated water supply, then each residential lot will be responsible for providing adequate onsite firefighting supply.

For a single-family home without a sprinkler system in a non-reticulated supply area, the New Zealand Fire Service (NZFS) Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008 recommends a firefighting supply a minimum water storage capacity of 45 m³ within 90 m of the dwelling, fitted with an adequate means for extracting the water from the tank.

10.3 Alternative to Fire Fighting Supply

The Code (SNZ PAS 4509:2008) specifically allows for alternative methods to be used in meeting the Code requirements, as long as there is approval from an appropriate person nominated by the NZFS National Commander. Clause 4.4 of the Code states that:

- Fire engineers or similar competent persons may use alternative methods to determine firefighting water supplies. To comply with this code of practice, such alternatives must be submitted for approval to the person(s) nominated by the National Commander. The person(s) so nominated will approve these cases on confirmation that the method and calculations used are correctly applied.
- Alternative methods will need to show that the calculated firefighting water supply makes allowances for tactical flow rates (that is, the amount needed above a theoretical amount to absorb the released heat for operational effectiveness).

The procedure to be followed in the case of an alternative fire-fighting supply is as follows:

- The competent person should submit a firefighting facilities checklist (FFFC), with a scale site map showing contours and proposed alternatives to Table 2 with rationale for assessment to NZFS.

If the proposed supply is approved by a nominated NZFS person, Council will accept the FFC and compliance with the Code will be achieved.

NZFS considers that a 'one size fits all' volume is not appropriate in all circumstances. There are alternatives to firefighting couplings, but firefighters are not expected to lift pumps or hoses onto the top of water tanks.

11 Onsite Effluent Disposal

11.1 Preliminary Design to Demonstrate Regulatory Compliance

11.1.1 General

The preliminary design guidance below has been provided with the purpose to demonstrate that onsite effluent treatment and disposal at the site can comply with the applicable council standards. Specific design of future systems is required at building consent stage and therefore alternative configurations may be also acceptable. Please refer to Appendix C and D for additional information.

11.1.2 Design Occupancy

For the purposes of this site suitability report, we have assumed that each proposed lot will contain a 3-bedroom, 5-person household.

11.1.3 Source of Water Supply

Water supply is to be sourced from individual roof tanks. Standard flow reduction fittings may be used, but this cannot be assumed in assessing potential wastewater flows.

11.1.4 Design Flows

Households with standard fixtures including automatic washing machine allows for 180 litres/person/day of wastewater generation for on-site water supply.

For subdivision purposes, we assume any new house on the new lots will be 3-bedroomed, with 5 occupants. On that basis, the design household wastewater flow is $5 \times 180 \text{ litres/day} = 900 \text{ litres per day}$.

11.1.5 Effluent Field Area

The soil categories throughout the subdivision vary, so we have based the preliminary design off a 3mm/day loading rate.

On this basis, a new wastewater system discharging 900 litres effluent/day to pressure compensating drip irrigation lines would require $900/3 = 300\text{m}^2$ of disposal area. Primary treatment plants with discharge to soakage trenches may also be feasible on some lots.

Per the FNDC DP Plan rules a reserve area of 100% of the design area, is required to be provided for subdivision.

As such, a 600m² area has been supplied on the appended site for all lots to demonstrate the ability for each allotment to comply with the above.

11.2 Design for Treatment System

11.2.1 Treatment Plant Design Sizing

Treatment plants must meet the requirements of AS/NZS 1546.3:2001. Notwithstanding the outcome of specific design at building consent stage, we anticipate that the system on Lot 1 and 2 will need to meet the quality output of AS/NZS 1546.3:2003, producing effluent of less than 20 g/m³ of 5-day biochemical oxygen demand (BOD₅) and no greater than 30 g/m³ total suspended solids (TSS).

As the ground conditions within Lots 3, 4 and 5 are more easily excavatable, at the discretion of the future land owner and within the context of a future design complying with the design requirements of the PRPN and AS/NZS 1547:2012, the above recommendation may be replaced with a standard powerless septic tank, producing effluent of a quality of no more than 30 g/m³ of 5-day biochemical oxygen demand (BOD₅) and 45 g/m³ total suspended solids (TSS).

11.2.2 Siting Requirements

Restrictions on siting of 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;

The excavation for septic tanks within Lots 1, 2 and potentially 3, are expected to be difficult and will most likely require robust rock breaking equipment.

Appendix A – Stormwater Assessment Criteria

The proposed stormwater management has been assessed against the Assessment Criteria in Section 11.3 and 13.10.4 of the Far North District Plan as follows:

Table 8: Far North District Plan Section 11.3 Assessment Criteria

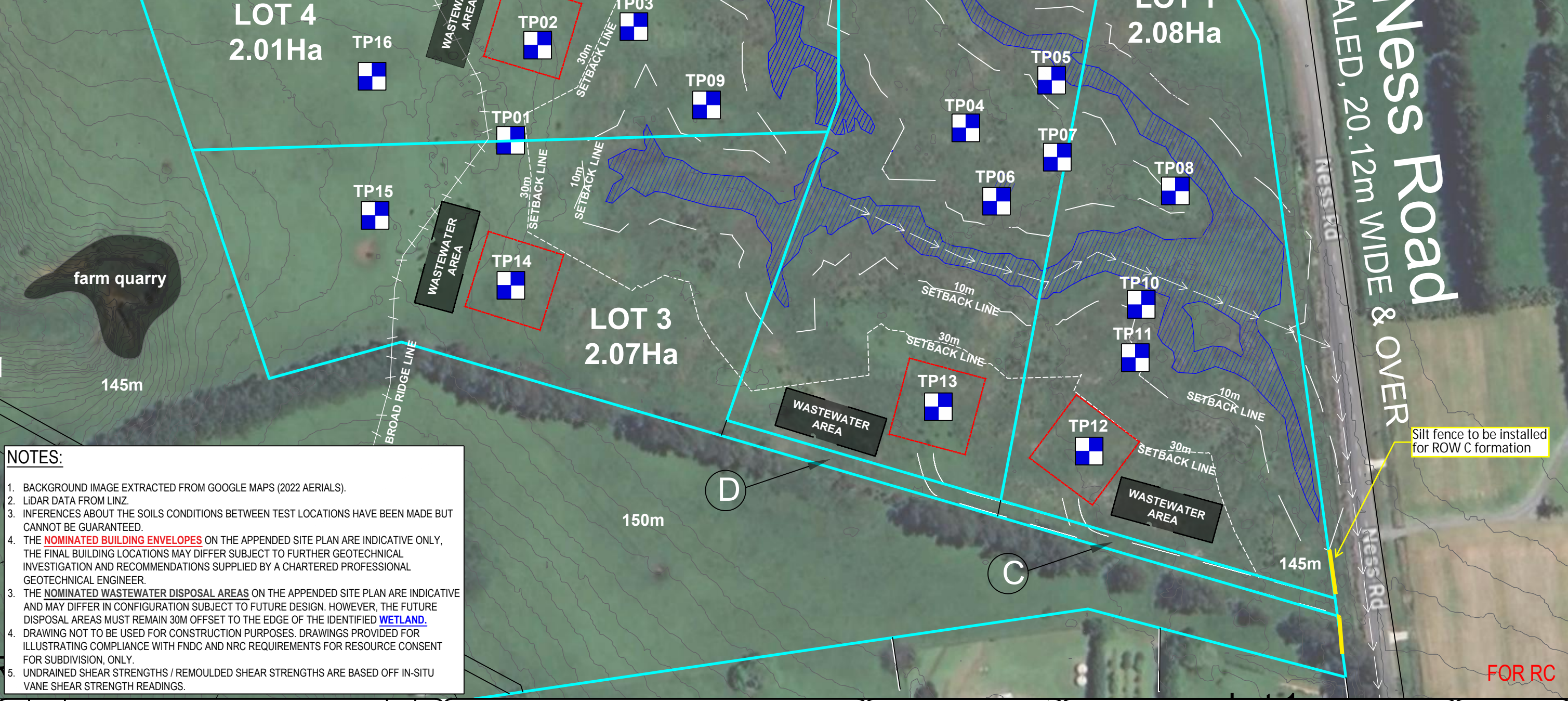
Criterion	Comment
(a) The extent to which building site coverage and impermeable surfaces result in increased stormwater runoff and contribute to total catchment impermeability and the provisions of any catchment or drainage plan for that catchment.	The soils are free draining and able to absorb runoff from impermeable surfaces. There are no drainage plans for the catchment.
(b) The extent to which Low Impact Design principles have been used to reduce site impermeability.	Natural overland flow paths will be retained. Vegetated ROW swale drains proposed, rainwater collection tanks and discharge/spreader devices are proposed where appropriate, which are Low Impact Design methods.
(c) Any cumulative effects on total catchment impermeability.	Stormwater runoff from the site is self-contained with negligible adverse effects off site.
(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.	Natural contours and drainage paths are maintained.
(e) The physical qualities of the soil type.	Variably textured, residually weathered Kerikeri Volcanic soil & rock. Generally, a well performing geology.
(f) Any adverse effects on the life supporting capacity of soils.	No effect on the soil, no changes proposed.
(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 onsite area for wastewater disposal on all lots (min 600m ² per site. The onsite stormwater discharge is separated from the effluent disposal.
(h) The extent to which paved, impermeable surfaces are necessary for the proposed activity.	The impermeable surfaces are necessary to provide vehicular access to the new lots.
(i) The extent to which landscaping may reduce adverse effects of run-off.	Effect likely to be minimal due to soil type, large lot sizes and mature pasture cover.
(j) Any recognised standards promulgated by industry groups.	N/A
(k) The means and effectiveness of mitigating stormwater run-off to that expected by the permitted activity threshold.	The increased stormwater runoff on each site can be mitigated via low impact design principles. Due to the large size of the sub allotments, no lot is anticipated to have impermeable surfaces proposed that breach the permitted activity threshold.
(l) The extent to which the proposal has considered and provided for climate change.	No attenuation is required there for this item is not applicable.
(m) The extent to which stormwater detention ponds and other engineering solutions are used to mitigate any adverse effects.	Simple Low impact design methods can be utilised to appropriately control local stormwater runoff concentrations.

Appendix B – Drawings

Consultant	Reference	Title
Haigh Workman	24 145	Site Feature Plans
Reyburn and Bryant Survey	S17815	Proposed subdivision of Lot 3 DP 59491

EXISTING EASEMENTS IN GROSS			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	GRANTEE / CREATED
WATER SUPPLY RIGHT	A	LOT 5 HEREON	KERIKERI IRRIGATION COMPANY LTD B299445.1

PROPOSED EASEMENT SCHEDULE			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	BENEFITTED (DOM.TENE.)
RIGHT OF WAY	B	LOT 5 HEREON	LOT 4 HEREON
	C	LOT 3 HEREON	LOTS 1 & 2 HEREON
	D	LOT 3 HEREON	LOT 2 HEREON



NOTES:

- BACKGROUND IMAGE EXTRACTED FROM GOOGLE MAPS (2022 AERIALS).
- LIDAR DATA FROM LINZ.
- INFERENCES ABOUT THE SOILS CONDITIONS BETWEEN TEST LOCATIONS HAVE BEEN MADE BUT CANNOT BE GUARANTEED.
- THE **NOMINATED BUILDING ENVELOPES** ON THE APPENDED SITE PLAN ARE INDICATIVE ONLY, THE FINAL BUILDING LOCATIONS MAY DIFFER SUBJECT TO FURTHER GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS SUPPLIED BY A CHARTERED PROFESSIONAL GEOTECHNICAL ENGINEER.
- THE **NOMINATED WASTEWATER DISPOSAL AREAS** ON THE APPENDED SITE PLAN ARE INDICATIVE AND MAY DIFFER IN CONFIGURATION SUBJECT TO FUTURE DESIGN. HOWEVER, THE FUTURE DISPOSAL AREAS MUST REMAIN 30M OFFSET TO THE EDGE OF THE IDENTIFIED **WETLAND**.
- DRAWING NOT TO BE USED FOR CONSTRUCTION PURPOSES. DRAWINGS PROVIDED FOR ILLUSTRATING COMPLIANCE WITH FNDC AND NRC REQUIREMENTS FOR RESOURCE CONSENT FOR SUBDIVISION, ONLY.
- UNDRAINED SHEAR STRENGTHS / REMOULDED SHEAR STRENGTHS ARE BASED OFF IN-SITU VANE SHEAR STRENGTH READINGS.

Rev	Date	Description	By	Checked
1	AUG 2024	SITE PLAN - APPENDIX A	KM	TA

DWG	SITE FEATURE PLAN - PROPOSED LOTS 1, 2, 3, & 4	
A3 Scale	1: 1500	Date AUG 2024
Drawn	KM	Checked TA
Approved	JP	
File	T:\CLIENTS\JK FARM LTD\24 145 LOT 5 NESS ROAD, WAIPAPA\ENGINEERING\DRAWINGS\24 145_20240709_SITE PLAN 2 CONCEPT DWG	

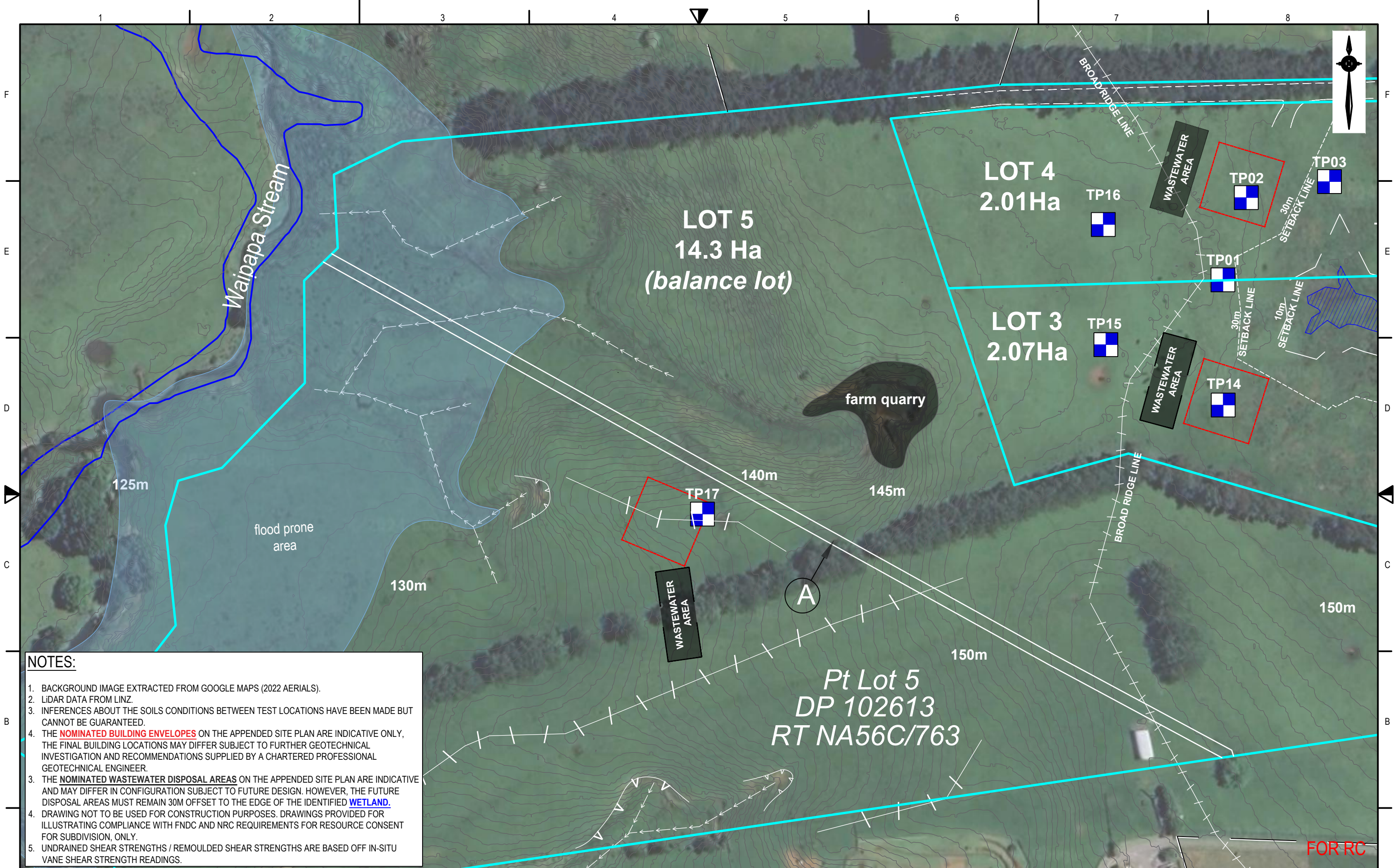
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Civil & Structural Engineers

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Project	SITE FEATURES PLAN NESS ROAD, WAIPAPA		Stage
Client	JK FARMS LTD.		Dwg No. C01
Project No.	24 145	RC no.	Sheet No. 1 OF 2



- NOTES:**
1. BACKGROUND IMAGE EXTRACTED FROM GOOGLE MAPS (2022 AERIALS).
 2. LIDAR DATA FROM LINZ.
 3. INFERENCES ABOUT THE SOILS CONDITIONS BETWEEN TEST LOCATIONS HAVE BEEN MADE BUT CANNOT BE GUARANTEED.
 4. THE **NOMINATED BUILDING ENVELOPES** ON THE APPENDED SITE PLAN ARE INDICATIVE ONLY, THE FINAL BUILDING LOCATIONS MAY DIFFER SUBJECT TO FURTHER GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS SUPPLIED BY A CHARTERED PROFESSIONAL GEOTECHNICAL ENGINEER.
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Rev	Date	Description	By	Checked
1	AUG 2024	SITE PLAN - APPENDIX A	KM	TA

DWG SITE FEATURE PLAN - PROPOSED LOT 5

A3 Scale 1: 1500 Date AUG 2024

Drawn KM Checked TA Approved JP

File T:\CLIENTS\JK FARM LTD\24 145 LOT 5 NESS ROAD, WAIPAPA\ENGINEERING\DRAWINGS\24 145_2024\0709_SITE PLAN 2 CONCEPT DWG

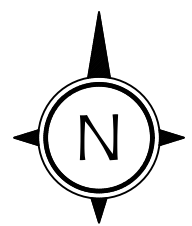
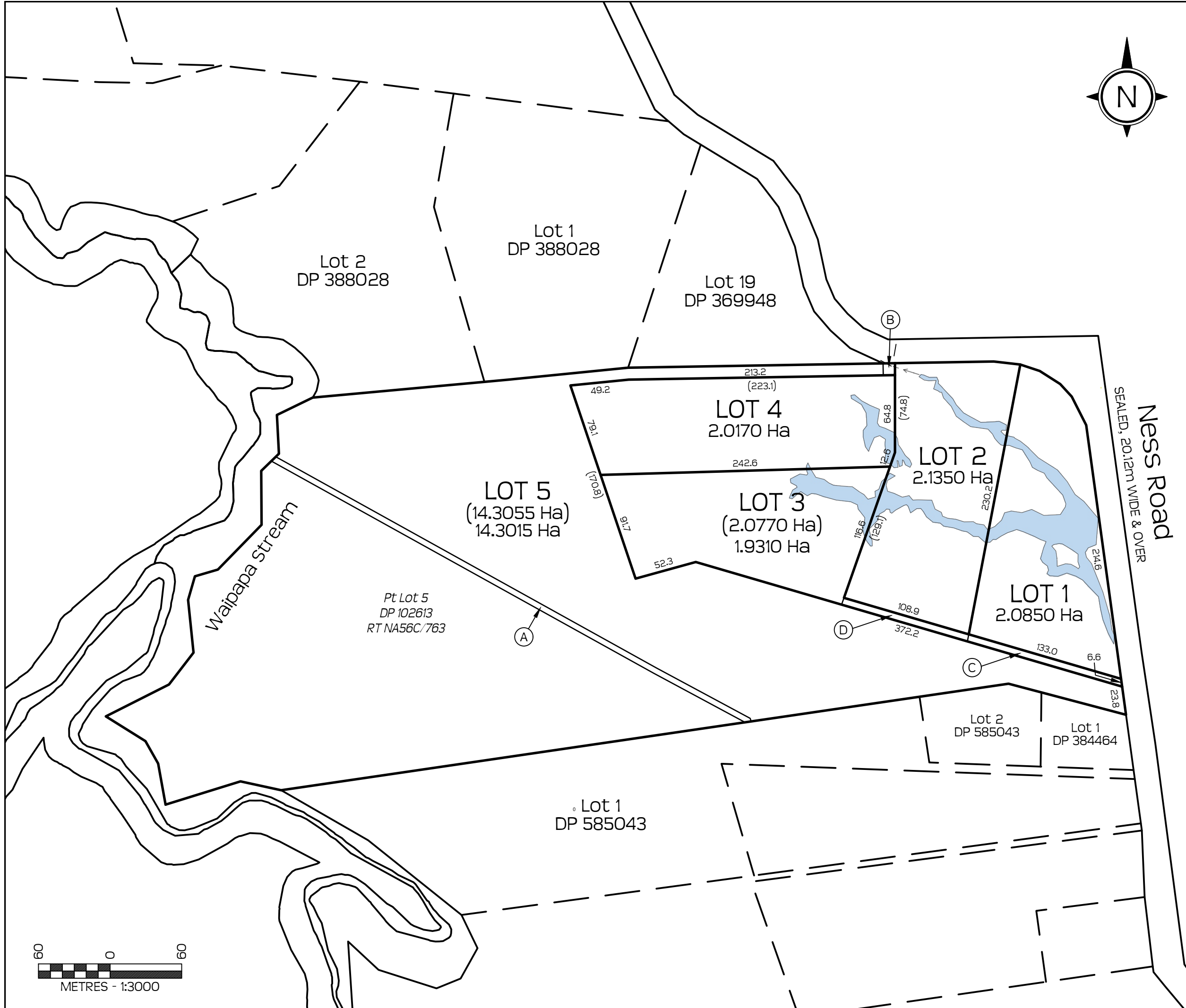
HAIGH WORKMAN
Civil & Structural Engineers

6 Fairway Drive
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Project	SITE FEATURES PLAN NESS ROAD, WAIPAPA	Stage	
Client	JK FARMS LTD.	Dwg No.	C02
Project No.	24 145	Sheet No.	2 OF 2
RC no.			

FOR RC



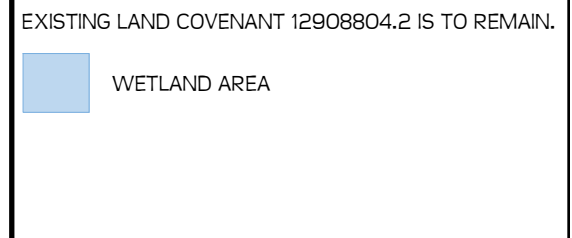
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- DESIGNED BY REYBURN & BRYANT - WHANGAREI - NEW ZEALAND
- 04m 2014-2016 RURAL AERIAL SOURCED FROM AERIAL SURVEYS LTD INFORMATION AVAILABLE ON LINZ DATA SERVICE.
- BOUNDARIES SOURCED FROM QUICKMAP. COORDINATES IN TERMS OF MOUNT EDEN 2000.

EXISTING EASEMENTS IN GROSS			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	GRANTEE / CREATED
WATER SUPPLY RIGHT	A	LOT 5 HEREON	KERIKERI IRRIGATION COMPANY LTD B299445.1

PROPOSED EASEMENT SCHEDULE			
PURPOSE	SHOWN	BURDENED (SERV.TENE.)	BENEFITTED (DOM.TENE.)
RIGHT OF WAY	B	LOT 5 HEREON	LOT 4 HEREON
	C	LOT 3 HEREON	LOTS 1 & 2 HEREON
	D	LOT 3 HEREON	LOT 2 HEREON

EXISTING LAND COVENANT 12908804.2 IS TO REMAIN.



TOTAL AREA: 22.6195Ha
 COMPRISED IN: RT NA56C/763
 THIS SITE IS ZONED 'RURAL PRODUCTION' AND THE BUILDING SETBACKS ARE THUS: 10m FROM ALL BOUNDARIES.

REV	DATE	DESCRIPTION
E	18.07.24	AMENDED LOT BOUNDARIES - JH/MW
D	03.07.24	AMENDED WETLAND AREA - JH/MW
A	01.02.24	FIRST ISSUE - JH/MW

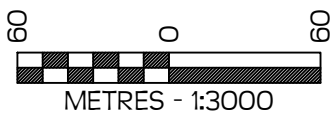
REF. DATA:

Ph: 09 438 3563 PO Box 191, Whangarei 0140
 7 Selwyn Ave, Whangarei www.reyburnandbryant.co.nz

CLIENT
**JAMIE SPRUIT
 NESS ROAD
 WAIPAPA**

TITLE
**PROPOSED SUBDIVISION OF
 PT LOT 5 DP 102613**

DATE	JULY 2024	SCALE	1:3000 @A3
DRAWING REF.	S17815	SHEET	01 OF 01
REV	E		



Appendix C - Onsite Wastewater Disposal Investigation Procedure

The following assessment is supplied in accordance with the recommended Onsite Wastewater Disposal Investigation procedures provided within the FNDC Engineering Standards 2023.

This form is to be read in conjunction with AS/NZS 1547:2012 (or any amendments as applicable), and, in particular with Part 4: Means of Compliance

Part A – Contact Details

1 - Applicant

Name: JK Farm Ltd.

Property Address: PT LOT 5 DP 102613, Ness Road, Waipapa

Lot/DP Number: PT LOT 5 DP 102613

2 – Consultant / Site Evaluator

Site Evaluator Name: Keavy Mitchell

Company Name: Haigh Workman Ltd

Postal Address: PO Box 89, Kerikeri

Business Phone: 09 407 8327 Mobile: 027 472 3712

Email: info@haighworkman.co.nz

SQEP Registered*: Yes, If No, details of suitably registered SQEP who will countersign the report are to be supplied below.

Name of SQEP: John Papesch

Company Name: Haigh Workman Ltd

Postal Address: PO Box 89, Kerikeri

Business Phone: 09 407 8327 Mobile: _____

Email: johnp@haighworkman.co.nz

* It is a requirement that the Evaluator be SQEP registered to carry out on-site effluent investigations/designs. If not, then evaluation/design will need to be counter-signed by a suitably registered SQEP

Part B - Site and Soil Evaluation

1: Desk Study

Requirements (✓ appropriate box) Please complete **all** options. (If more than one option applies to land under consideration, please clarify with supporting information)

<input type="checkbox"/>	FNDC REQUIREMENT	APPLIES TO LOT(S)	COMMENTS
1	Hazard maps/GIS Hazard layer - stability		
✓	Low instability risk		<i>Instability risk assessed as low</i>
	Medium instability risk		
	High instability risk		
2	GIS Hazard layer - effluent on slope stability		
	Low disposal potential		
✓	Moderate disposal potential		<i>No layer present.</i>
	High disposal potential		
3	GIS Hazard Layer - effluent suitability		
✓	Medium unsuitability		
	High unsuitability		<i>No layer present.</i>
4	GIS Hazard Layer - Flood susceptibility		
	Is flood susceptible		
	Is partially flood susceptible		
✓	Is not flood susceptible		<i>No NRC mapped Flood risk on the site.</i>
5	GIS land resources layer - Streams		
	Are there streams on or adjacent to land under investigation?	<input checked="" type="checkbox"/> Yes	<i>Wet Land and overland flows. Offsets can be maintained.</i>
		<input type="checkbox"/> No	
6	GIS land resources layer – aquifers at risk		
	Is land situated over or adjacent to aquifer?	<input type="checkbox"/> Yes	
		<input checked="" type="checkbox"/> No	
7	Annual Rainfall (HIRDS)	<i>1500 mm – 2000mm</i>	

Note: It is to be noted that all information obtained off FNDC GIS/Hazard Maps is to be taken as a guide only.

Note: All information obtained from the above sites is to be confirmed by a specific site investigation as localised conditions could vary substantially. However, should the above data checks indicate the potential for a hazard/non-complying activity etc., this must be further investigated to confirm/deny the indicated situation.

2: On-Site Evaluation

a. Determination of Soil Category (refer table 4.1.1 AS/NZS 1547:2012) (✓ appropriate box)

SOIL CATEGORY	STRUCTURE	APPLIES TO LOT(S)	COMMENTS
1 Gravels & Sands	<input type="checkbox"/> Structureless (massive)		<i>Soil type ranges across the development – see assessment comments below.</i>
2 Sandy loams	<input type="checkbox"/> Weakly Structured		
	<input type="checkbox"/> Massive		
3 Loams	<input checked="" type="checkbox"/> High/Moderate structured		
	<input type="checkbox"/> Weakly structured or Massive		
4 Clay loams	<input checked="" type="checkbox"/> High/moderate structured		
	<input type="checkbox"/> Weakly structured		
	<input type="checkbox"/> Massive		
5 Light clays	<input checked="" type="checkbox"/> Strongly structured		
	<input type="checkbox"/> Moderately structured		
	<input type="checkbox"/> Weakly structured or massive		
6 Medium to heavy clays	<input type="checkbox"/> Strongly structured		
	<input type="checkbox"/> Moderately structured		
	<input type="checkbox"/> Weakly structured or massive		

Note: Refer 4.1 A4 – Soil Assessment AS/NZS 1547:2012 for assessment criteria.

Note: Details of the method used to determine soil type etc. are to be clearly stated, along with positions of boreholes/test pits etc. clearly marked on a site plan. Bore logs are to be provided. Photos should be included.

Note: The site plan should also clearly show the intended area for effluent disposal, along with any site features such as drains, water bores, overland flows etc., along with separation distance achieved.

On-Site Evaluation Continued

b. Site Characteristics for Proposed Disposal Area: (if there is a marked difference between sites, please fill in a separate form for each site and clearly note which site the assessment applies to) (ü appropriate box)

<input type="checkbox"/>	DETAILS	APPLIES TO SITE(S)
1	Flooding potential to proposed field and reserve field (refer note 1 below)	
<input checked="" type="checkbox"/>	Fields will not flood, or	
	Fields will flood in	
<input type="checkbox"/>	20% AEP event	
<input type="checkbox"/>	5% AEP event	
<input type="checkbox"/>	1% AEP event	
2	Surface water separation to proposed field and reserve field (refer note 2 below)	
<input checked="" type="checkbox"/>	Main/reserve disposal field comply with NRC rules	

	Main/reserve disposal field do not comply with NRC rules		
3	Surface water separation to proposed field and reserve field (refer note 2 below)		
✓	Main/reserve disposal field comply with NRC rules		
	Main/reserve disposal field do not comply with NRC rules		
4	Winter ground water separation to proposed field and reserve field (refer note 3 below)		
✓	Main and reserve disposal field comply with NRC rules		
	Main and reserve disposal field do NOT comply with NRC rules		
5	Slope of ground of proposed field and reserve field (refer note 4)		
Description		Gentle to near level.	
6	Shape of ground of proposed field and reserve field (Refer note 5 below)		
	Waxing divergent	<input type="checkbox"/>	Linear divergent
	Waxing planar	✓	Liner planar
	Waxing convergent	<input type="checkbox"/>	Linear convergent
Comments		Small variability between these types. Not overly pronounced.	
<input type="checkbox"/>	DETAILS	APPLIES TO SITE(S)	
7	Intended water supply source		
	Public supply		
✓	Rainwater	All sites.	
	Bore		
8	Proposed method of disposal and recommended Daily Loading rate (DLR) (refer note 6 below)		
Description		Pinned PCDI dripper lines. DIR 3 mm/day – covered in mulch or topsoil. – Or as per specific design at building consent stage.	
Peak loading factored in (refer not 6 below)		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Comments		Standard residential dwellings proposed	
9	Site exposure (refer note 7 below)	Description	Applies to Site(s)
Site(s) aspect		south	

<i>Pre-dominant wind direction</i>	<i>west</i>	
<i>Presence of shelter belts</i>	<i>n/a</i>	
<i>Presence of topographical features or structures</i>	<i>Very few</i>	
10	Proximity of water bores (include adjacent to properties) (refer note 9 below)	
	<i>None close</i>	
11	Visible evidence of slips / instability (refer not 8 below)	
	<i>Nil</i>	
12	Total suitable area available for type of effluent disposal proposed (including reserve area)	
	<i>275 m² disposal area + 82.5m² reserve area (30%) + 10m buffer zone and additional 5m offset to ephemeral</i>	
	<i>Stormwater course</i>	
13	Setback areas proposed (if any) (refer note 10 below)	
	<i>Exclusion areas and setback distances are provided in Table 9 of the Regional Plan and presented herein</i>	

Notes

- If the FNDC hazard maps/GIS indicate a flooding susceptibility on the site being evaluated, an on -site evaluation is to be carried out to determine the effects from 20%, 5% and 1% AEP storm events. This evaluation is to include all calculations to substantiate conclusions drawn. If necessary, include a detailed contour plan and photos.*
- NRC Water & Soil plan defines surface water as 'All water, flowing or not, above the ground. It includes water in continually or intermittently flowing rivers, artificial watercourses, lakes and wetlands, and water impounded by structures such as dams or weirs but does not include water while in pipes, tanks, cisterns, nor water within the Coastal Marine Area'. By this definition, separation (complying with NRC rules) is to be maintained by both the proposed disposal and reserve areas from any overland flowpaths and/or swale drains etc. or R/C will be required from NRC. Surface water is to be clearly marked on each site plan, showing the extent of a 1% AEP storm event, and detailing separation distances to main/reserve disposal areas.*
- Positions of test borehole/s to be shown and bore logs to be provided. Separation (complying with NRC rules) is to be maintained by both the proposed disposal and reserve areas from winter ground water level or R/C will be required from NRC. If the investigation is done outside of the winter period, allowance is to be made in determining the likely winter level.*
- Slopes of ground are to be compared with those recommended maximums for type of system proposed (refer Appendix 4.2B AS/NZS 1547:2012). Designs exceeding those maximums will require specific design to justify the proposal and may also need Resource Consent from NRC.*
- Shape of ground is important as it will determine whether there is potential for concentrated overland flows from the upper slopes and also if effluent might be concentrated at base of slope if leeching occurs. Refer Figure 4.1B2 AS/NZS 1547:2012.*
- The proposed system (for residential developments) should be sized to accommodate an average 3 bedroom house with 5 people. Sites in holiday areas need to take peak loading into effect in determining daily volumes. The design must state what DLR was used to determine area necessary (including reserve area). If ground conditions are marginal for type of disposal proposed, then a soil permeability test utilising the constant head method is to be carried out across the proposed disposal area. Refer Appendix 4.1F AS/NZS 1547:2012.*
- The site aspect is important as a north-facing site that is not sheltered from wind and sun by shelterbelts or other topographical features or structures will perform far better than a south-facing site on the lee of a hill that is shaded from wind and sun etc.*
- If any effluent disposal area (including any reserve area) proposed has or is adjacent to areas that show signs of instability, then a full report from a CPEng (Geotech) will be required to justify the viability of the area for effluent disposal.*
- If there are any water bores on the subject property or adjacent properties then a site plan will be required showing bore positions in relation to any proposed effluent field(s).*
- If setback areas are proposed to mitigate effects, the extent and position/s need to be shown on a site plan*

Appendix D - Summary of Regulatory Requirements

Proposed Regional Plan

C.6.1.3 Other on-site treated domestic wastewater discharge – permitted activity

The discharge of domestic type wastewater into or onto land from an on-site system and the associated discharge of odour into air from the on-site system are permitted activities, provided:

<p><i>Proposed Regional Plan for Northland</i> <i>Section C.6.1.3</i> <i>Other on-site treated domestic wastewater discharge – permitted activity</i></p>
<p>The discharge of domestic type wastewater into or onto land from an on-site system and the associated discharge of odour into air from the on-site system are permitted activities, provided:</p>

Item	Requirement	Compliance Statement
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	Can Comply
2)	The volume of wastewater discharged does not exceed two cubic metres per day, and	Can Comply
3)	The discharge is not via a spray irrigation system or deep soakage system, and	Can Comply
4)	The slope of the disposal area is not greater than 25 degrees, and	Can Comply
5)	For wastewater that has received secondary treatment or tertiary treatment, it is discharged via: <ul style="list-style-type: none"> a) a trench or bed system in soil categories 3 to 5 that is designed in accordance with Appendix L of Australian/New Zealand Standard On-Site Domestic Wastewater Management (AS/NZS 1547:2012); or b) an irrigation line system that is dose loaded and covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and 	Can Comply
6)	for the discharge of wastewater <u>onto the surface of slopes greater than 10 degrees:</u> <ul style="list-style-type: none"> c) the wastewater, excluding greywater, has received at least secondary treatment, and d) the irrigation lines are firmly attached to the disposal area, and e) where there is an up-slope catchment that generates stormwater runoff, a diversion system is installed and maintained to divert surface water runoff from the up-slope catchment away from the disposal area, and f) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the disposal area, and g) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or 	Can Comply

	h) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark, and	
7)	the disposal area and reserve disposal area are situated outside the relevant exclusion areas and setbacks in Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems, and	Can Comply
8)	for septic tank treatment systems, a filter that retains solids greater than 3.5 millimetres in size is fitted on the outlet, and	Can Comply
9)	the following reserve disposal areas are available at all times: a) one hundred percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or b) thirty percent of the existing effluent disposal area where the wastewater has received secondary treatment or tertiary treatment, and	Can Comply
10)	<i>the on-site system is maintained so that it operates effectively at all times and maintenance is undertaken in accordance with the manufacturer's specifications, and</i>	Can Comply
11)	<i>the discharge does not contaminate any groundwater water supply or surface water, and</i>	Can Comply
12)	<i>there is no surface runoff or ponding of wastewater, and</i>	Can Comply
13)	<i>there is no offensive or objectionable odour beyond the property boundary.</i>	Can Comply

Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems

FEATURE	OFFSET REQUIREMENTS (METERS)			SUBJECT SITE
	PRIMARY	SECONDARY	GREYWATER	
Exclusion Areas				
<i>Floodplain</i>	5% annual exceedance probability	5% annual exceedance probability	5% annual exceedance probability	n.a
Horizontal Set Back Distances				
<i>Identified stormwater flow path (including a formed road)</i>	5	5	5	30m

<i>with kerb and channel, and water-table drain) that is down-slope of the disposal area</i>				
<i>River, lake, stream, pond, dam or natural wetland</i>	20	15	15	30m
<i>Coastal marine area</i>	20	15	15	n.a
<i>Existing water supply bore</i>	20	20	20	>200m
<i>Property boundary</i>	1.5	1.5	1.5	>1.5m
<i>Retaining Walls</i>	3	3	3	>3m
<i>Residential Dwelling</i>	3	3	3	>3m

Vertical setback distances

<i>Winter groundwater table</i>	1.2	0.6	0.6	Lot 1 and 2 - >0.6m Lot 3, 4 and 5 >1.2m
---------------------------------	-----	-----	-----	---

Far North District Plan

12.7.6.1.4 Land Use Activities Involving Discharges of Human Sewage Effluent

Land use activities which produce human sewage effluent (including grey water) are permitted provided that:

CRITERION	SUBJECT SITE
(a) the effluent discharges to a lawfully established reticulated sewerage system; or	na
(b) the effluent is treated and disposed of on-site such that each site has its own treatment and disposal system no part of which shall be located closer than 30m from the boundary of any river, lake, wetland or the boundary of the coastal marine area.	Can Comply

Note: The discharge may also require consent under the Regional Water and Soil Plan.

Appendix E – Site Photographs

1.



Site photo of Lot 1. Digger location is approximate location of the Lot 1 nominated building envelope.

2.



Site photo taken near shared boundary of Lot 2 and 3 toward the eastern boundary of Lot 1. Digger location is approximate location of the Lot 2 nominated building envelope.

3.



Approximate location of Lot 3 nominated building envelope.

4.



Approximate location of the Lot 4 nominated building envelope.

5.



Approximate location of the Lot 5 nominated building envelope (subject to change).

6.



Site photo taken from Lot 2 overlooking Lot 1 and Ness Road. Aspect is south-east.

7.



Site photo taken from Lot 2 toward the proposed vehicle entrance at the northern boundary of the subdivision.

8.



Site photo taken at south-east corner of Lot, 3 toward northern boundary of Lot 4.

9.



Site photo taken from Lot 2 toward the southern boundary of Lot 3.

10.



Existing farm quarry for farm track maintenance. Area is well offset from boundaries.

11.



Quarry face depicting nature of the geology underlying the site (residually weathered Kerikeri Volcanic soil/rock). Ground level near rock pile is estimated around 140mRL per review of LINZ LiDAR data (NZVD)

12.



Exposed bank near the western boundary of the subdivision depicting nature of the geology underlying the wider area (residually weathered Kerikeri Volcanic soil/rock). Ground level at this location is estimated around 125mRL per review of LINZ LiDAR data (NZVD)

13



View from southern vehicle access point. ~240m + sight distance is available to the north.

14.



View from southern vehicle access point. ~250m + sight distance is available to the south.

15.



View from northern vehicle access point. 135m sight distance is available to the south.

16.



View from northern vehicle access point. 135m sight distance is available to the north-west.

Appendix F – Erosion and Sediment Control Requirements

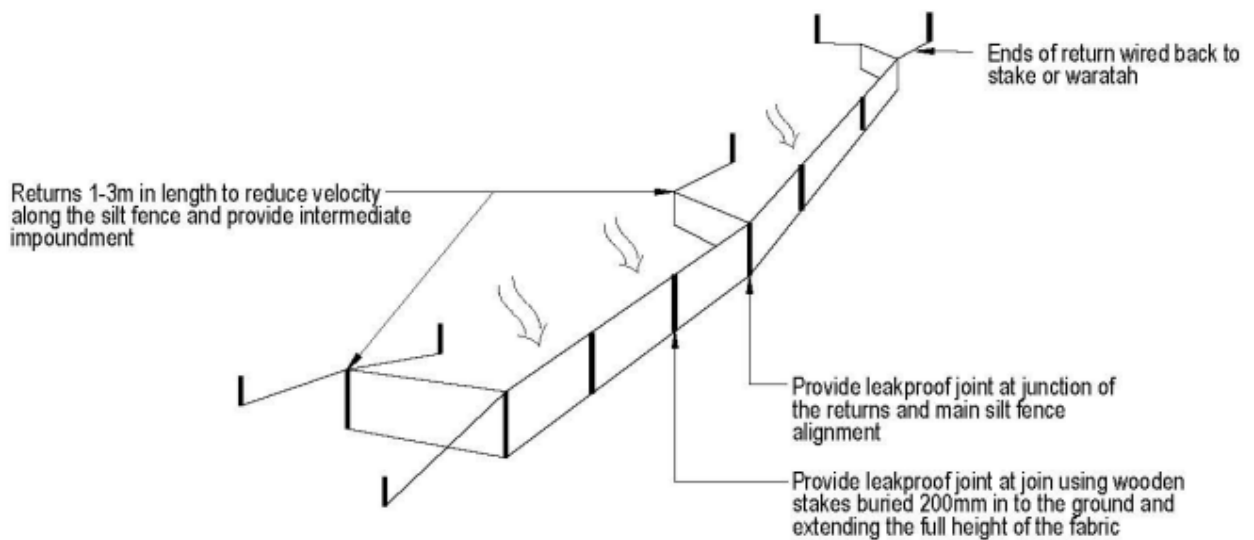
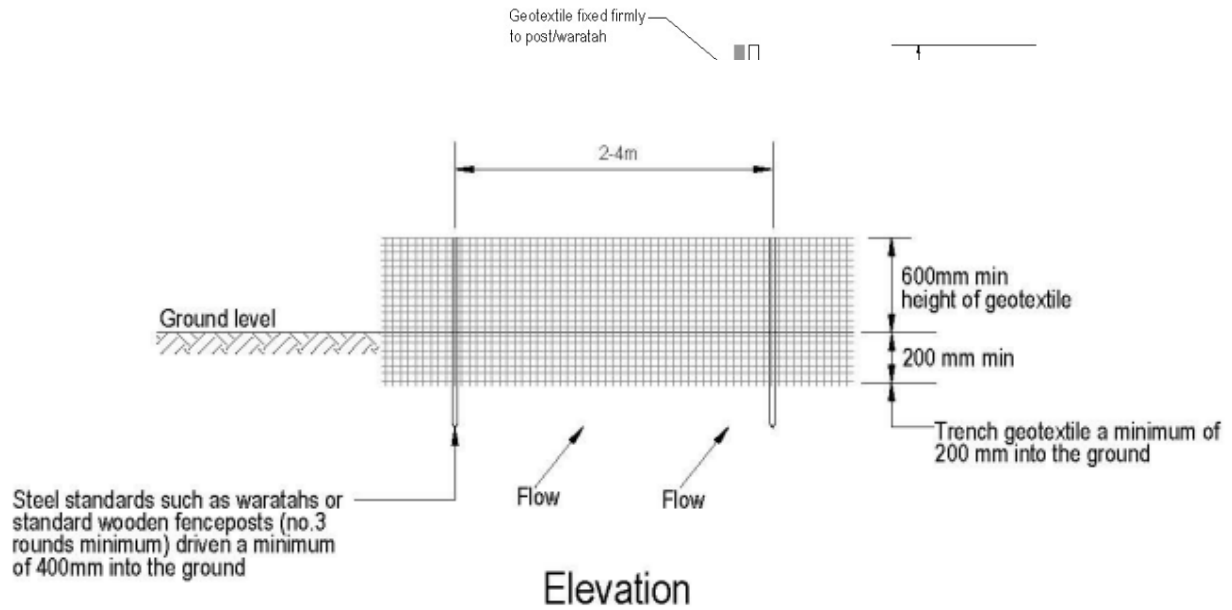
Appendix C1.14 Silt fence

Contractor:	Date: Time:	Consent #:	Site:
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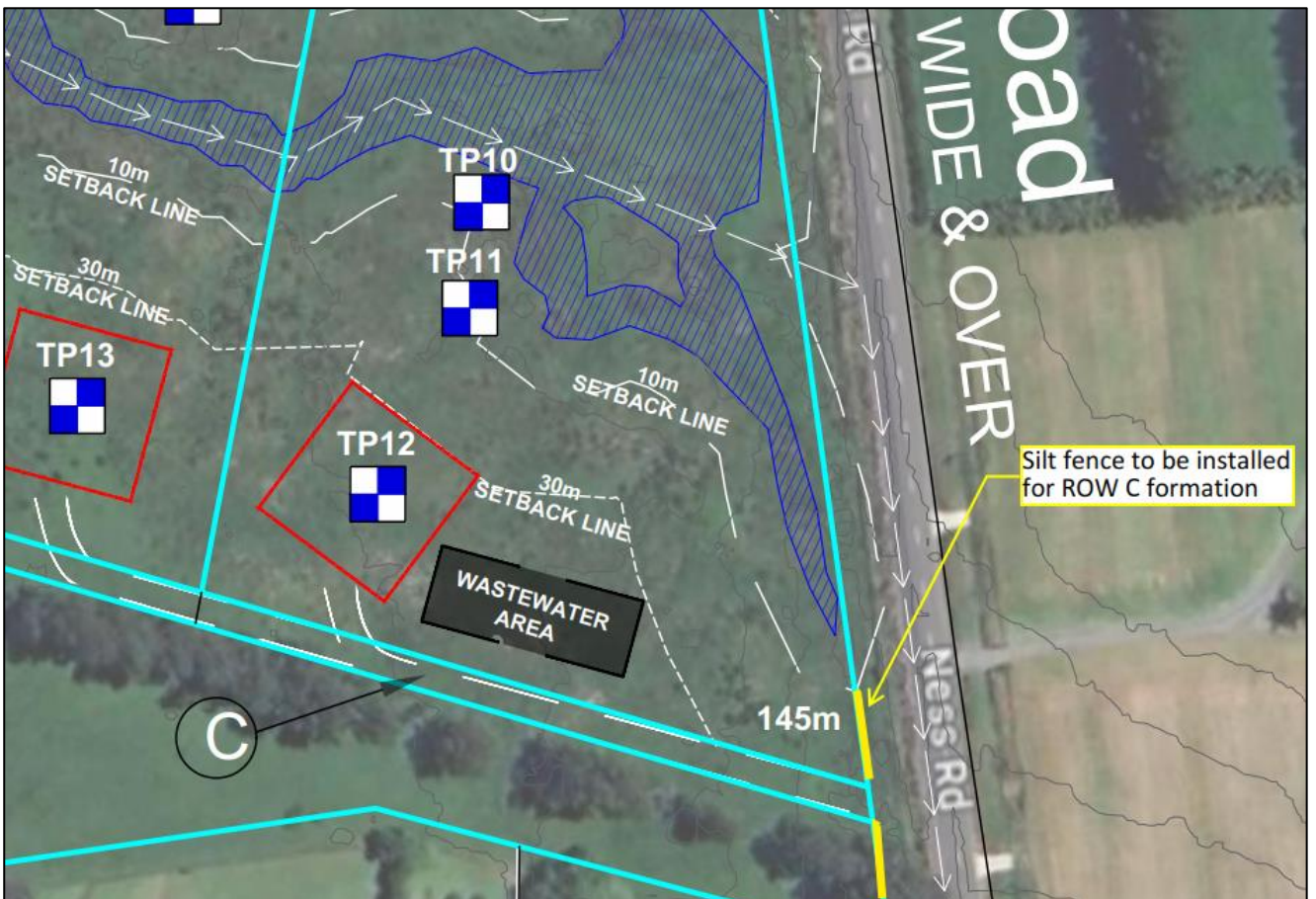
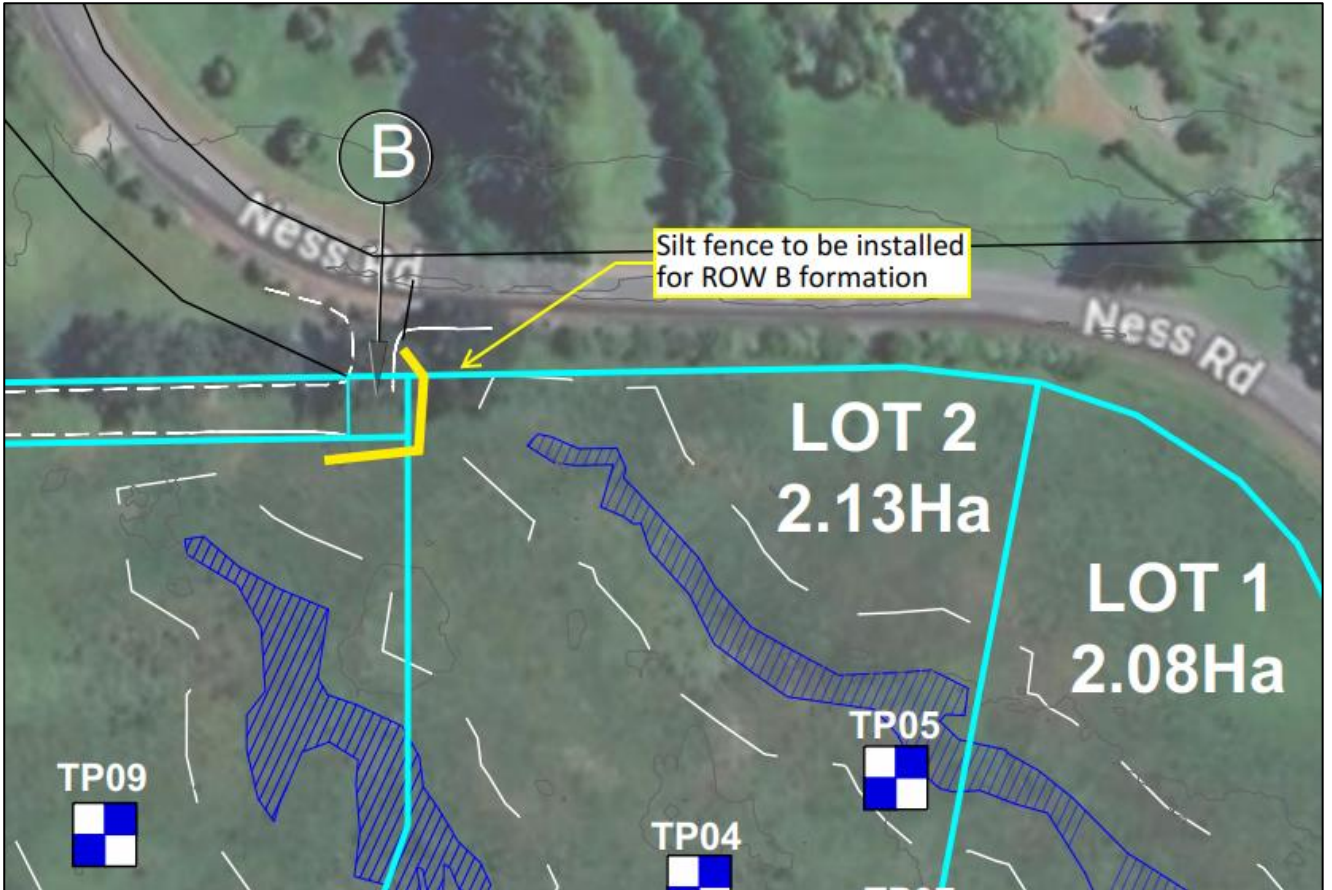
Construction checklist (refer Table and Figure over page and Section F1.3 of GD05 for further details)	Yes (✓)	No (X) (Add comments to explain)
The silt fence material used is appropriate to the site conditions and in accordance with the manufacturer's specifications		
Silt fences have been installed along the contour		
A trench of a minimum of 100 mm wide and 200 mm deep has been excavated along the proposed line of the silt fence		
Supporting posts /steel waratahs are installed at least 1.5 m length and 2-4 m apart		
Support posts/waratahs are installed on the down-slope edge of the trench, with silt fence fabric on the up-slope side of the support posts to the full depth of the trench. The trench is backfilled with compacted soil		
The top of the silt fence fabric is reinforced with a support made of high tensile 2.5 mm diameter galvanised wire. The wire is tensioned using permanent wire strainers attached to angled waratahs at the end of the silt fence		
The silt fence fabric is doubled over and fastened to the wire with silt fence clips at 500 mm spacings		
Where ends of the silt fence fabric come together, they are overlapped, folded and stapled/screwed to prevent sediment bypass		

Note: The purpose of this checklist is for contractors to complete on-site self-checks of construction quality for ESC practices. This is not a compliance or as-built checklist.

Slope steepness %	Slope length (m) (maximum)	Spacing of returns (m)	Silt fence length (m) (maximum)
Flatter than 2%	Unlimited	N/A	Unlimited
2 – 10%	40	60	300
10 – 20%	30	50	230
20 – 33%	20	40	150
33 – 50%	15	30	75
> 50%	6	20	40



Silt fence with returns and support wire




Appendix G – Test Pit Logs

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










Phone 09 407 8327
Fax 09 407 8378
www.haighworkman.co.nz
info@haighworkman.co.nz

Test Pit Log	01	Hole Location: Refer to Site Plan	JOB No. 24 145
---------------------	-----------	-----------------------------------	-----------------------

CLIENT: J K Farms Ltd. Date Started: 28/06/2024 Date Completed: 28/06/2024	SITE: PT Lot 5 DP 102613 DRILLING METHOD: Testpit Pit Width (mm) Variable	LOGGED BY: KM CHECKED BY: JP
---	--	---

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.				
SILT with some cobbles and coarse to fine gravels; brown, dry, low plasticity. Loosely packed; well graded; subangular to subrounded, slightly weathered basalt.	0.5	Kerikeri Volcanics		Groundwater Not Encountered	UTP	
Slightly weathered basalt flow.					UTP	
End of Testpit at 0.6m (Refusal on Rock)						
	1.0					
Test Pit Arising Photos						
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

LEGEND

 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 ROCK	Corrected shear vane reading 
						Remoulded shear vane reading 
						Scala Penetrometer 





Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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










Phone 09 407 8327
 Fax 09 407 8378
www.haighworkman.co.nz
info@haighworkman.co.nz

Test Pit Log	02	Hole Location: Refer to Site Plan	JOB No. 24 145
---------------------	-----------	-----------------------------------	-----------------------

CLIENT: J K Farms Ltd. Date Started: 28/06/2024 Date Completed: 28/06/2024	SITE: PT Lot 5 DP 102613 DRILLING METHOD: Testpit Pit Width (mm): Variable	LOGGED BY: KM CHECKED BY: JP
---	---	---

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.				
SILT with some cobbles and coarse to fine gravels; brown, dry, low plasticity. Loosely packed; well graded; subrounded, slightly weathered basalt.	0.5	Kerikeri Volcanics		Groundwater Not Encountered	UTP	
Slightly weathered basalt flow.	0.8				UTP	
End of Testpit at 0.8m (Refusal on Rock)	1.0					
Test Pit Arising Photos	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

LEGEND

 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 ROCK	Corrected shear vane reading 
						Remoulded shear vane reading 
						Scala Penetrometer 

Note: UTP = Unable to penetrate. T.S. = Topsoil.
 SV: DR2278
 Groundwater not encountered

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

Phone 09 407 8327
 Fax 09 407 8378
www.haighworkman.co.nz
info@haighworkman.co.nz

Test Pit Log

03

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. SITE: PT Lot 5 DP 102613
 Date Started: 28/06/2024 DRILLING METHOD: Testpit LOGGED BY: KM
 Date Completed: 28/06/2024 Pit Width (mm): Variable CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Groundwater Not Encountered	UTP	
SILT with boulders, some cobbles and coarse to fine gravels; brown, dry, low plasticity Loosely packed; well graded; subrounded, slightly weathered basalt.		Kerikeri Volcanics				
Slightly weathered basalt flow.						
End of Testpit at 0.4m (Refusal on Rock)	0.5					
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

Test Pit Arising Photos



LEGEND

TOPSOIL CLAY SILT SAND GRAVEL ROCK

Corrected shear vane reading
 Remoulded shear vane reading
 Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
 SV: DR2278
 Groundwater not encountered

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info@haighworkman.co.nz

Test Pit Log

04

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.
Date Started: 28/06/2024
Date Completed: 28/06/2024

SITE: PT Lot 5 DP 102613
DRILLING METHOD: Testpit
Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets. Slightly weathered basalt (Flow)	0.0	T.S. Kerikeri Volcanics		Groundwater Not Encountered	UTP	
End of Testpit at 0.2m (Refusal on Rock)	0.5					
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

Test Pit Arising Photos



LEGEND

	TOPSOIL		CLAY		SILT		SAND		GRAVEL		ROCK		Corrected shear vane reading
													Remoulded shear vane reading
													Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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Test Pit Log

05




Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.
Date Started: 28/06/2024
Date Completed: 28/06/2024

SITE: PT Lot 5 DP 102613
DRILLING METHOD: Testpit
Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Perched Groundwater Encountered at 0.5m	UTP	
Silty GRAVEL, some cobbles and coarse to fine gravels; greyish brown, wet-saturated loosely packed; well grade; sub angular to subrounded, slightly weathered basalt.		Gleyed Kerikeri Volcanics				
Slightly weathered basalt (Flow)	0.5					
End of Testpit at 0.5m (Refusal on Rock)						
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

Test Pit Arising Photos



LEGEND

 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 ROCK	Corrected shear vane reading 
						Remoulded shear vane reading 
						Scala Penetrometer 

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater encountered at 0.5m

Test Pit Log

06

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. **SITE:** PT Lot 5 DP 102613
Date Started: 28/06/2024 **DRILLING METHOD:** Testpit
Date Completed: 28/06/2024 **Pit Width (mm):** Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark grey. Very stiff, moist, low plasticity. Rootlets.	0.0	T. S.		Groundwater encountered at 1.0m	UTP	
Clayey SILT; dark grey mottled orange. Very stiff, moist, low plasticity. Trace rootlets.						
Completely Weathered Rock, SILT; grey mottled orange. Hard, moist-wet, non-plastic. (breaking a part into cobble and gravel sized blocks)	0.5	Gleyed Kerikeri Volcanics				
	1.0				UTP	
End of Testpit at 1.1m (Refusal on Rock)						
Test Pit Arising Photos						
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

LEGEND

TOPSOIL **CLAY** **SILT** **SAND** **GRAVEL** **ROCK**

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater encountered at 1.0m

Test Pit Log

07

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. SITE: PT Lot 5 DP 102613
Date Started: 28/06/2024 DRILLING METHOD: Testpit LOGGED BY: KM
Date Completed: 28/06/2024 Pit Width (mm): Variable CHECKED BY: JP

Soil Description

Based on NZGS Logging Guidelines 2005

Soil Description	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Groundwater encountered at 0.4m (perched on basalt rock)	UTP	
SILT with boulders, some cobbles and coarse to fine gravels; brown, dry, low plasticity Loosely packed; well graded; subrounded, slightly weathered basalt.		Gleyed Kerikeri Volcanics				
Slightly weathered basalt flow.						
End of Testpit at 0.4m (Refusal on Rock)	0.5					
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

Test Pit Arising Photos



LEGEND

- TOPSOIL**
- CLAY**
- SILT**
- SAND**
- GRAVEL**
- ROCK**

- Corrected shear vane reading
- Remoulded shear vane reading
- Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater encountered at 0.4m

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info@haighworkman.co.nz

Test Pit Log

08

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. SITE: PT Lot 5 DP 102613
Date Started: 28/06/2024 DRILLING METHOD: Testpit
Date Completed: 28/06/2024 Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Groundwater at CGL	UTP	
SILT with boulders, some cobbles and coarse to fine gravels; brown, dry, low plasticity Loosely packed; well graded; subrounded, slightly weathered basalt.		Gleyed Kerikeri Volcanics				
Slightly weathered basalt flow.						
End of Testpit at 0.4m (Refusal on Rock)	0.5					
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

Test Pit Arising Photos



LEGEND

TOPSOIL CLAY SILT SAND GRAVEL ROCK

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater at surface.

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Test Pit Log

09


Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.
Date Started: 28/06/2024
Date Completed: 28/06/2024

SITE: PT Lot 5 DP 102613
DRILLING METHOD: Testpit
Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, saturated, low plasticity, rootlets. Slightly weathered basalt (Flow)	0.0	T.S. Kerikeri Volcanics		Groundwater at CGL	✓	UTP	
End of Testpit at 0.2m (Refusal on Rock)							
	0.5						
	1.0						
	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

Test Pit Arising Photos



LEGEND

 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 ROCK	Corrected shear vane reading 
						Remoulded shear vane reading 
						Scala Penetrometer 

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater at surface

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info@haighworkman.co.nz

Test Pit Log

10

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. SITE: PT Lot 5 DP 102613
Date Started: 28/06/2024 DRILLING METHOD: Testpit
Date Completed: 28/06/2024 Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, wet, low plasticity, rootlets.	0.0	T.S.		Groundwater at 0.2m	N/A	UTP	
SILT with coarse to fine gravels; brown, saturated, low plasticity. Loosly packed; well graded; subrounded, slightly weathered basalt.		Kerikeri Volcanics					
Slightly weathered basalt flow.							
End of Testpit at 0.4m (Refusal on Rock)	0.5						
	1.0						
	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

Test Pit Arising Photos



LEGEND

TOPSOIL CLAY SILT SAND GRAVEL ROCK

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater encountered at 0.2m

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Test Pit Log

11

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. **SITE:** PT Lot 5 DP 102613
Date Started: 28/06/2024 **DRILLING METHOD:** Testpit
Date Completed: 28/06/2024 **Pit Width (mm):** Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description Based on NZGS Logging Guidelines 2005	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, wet, low plasticity, rootlets.	0.0	T.S.		Groundwater not encountered		UTP	
SILT with coarse to fine gravels; brown, moist, low plasticity. Gravels are loosely packed; well graded; subrounded, slightly weathered basalt. Slightly weathered basalt flow.		Kerikeri Volcanics					
End of Testpit at 0.4m (Refusal on Rock)	0.5						
<p><u>Test Pit Arising Photos</u></p>	1.0						
	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

LEGEND

TOPSOIL	CLAY	SILT	SAND	GRAVEL	ROCK	Corrected shear vane reading
						Remoulded shear vane reading
						Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
 SV: DR2278
 Groundwater not encountered

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Test Pit Log

12


Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.
Date Started: 28/06/2024
Date Completed: 28/06/2024

SITE: PT Lot 5 DP 102613
DRILLING METHOD: Testpit
Pit Width (mm): Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets. Slightly weathered basalt (Flow)	0.0	T.S. Kerikeri Volcanics		Groundwater Not Encountered	UTP	
End of Testpit at 0.2m (Refusal on Rock)						
<p>Test Pit Arising Photos</p> 	0.5					
	1.0					
	1.5					
	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					

LEGEND

TOPSOIL	CLAY	SILT	SAND	GRAVEL	ROCK	Corrected shear vane reading Remoulded shear vane reading Scala Penetrometer
----------------	-------------	-------------	-------------	---------------	-------------	--





Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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6 Fairway Drive
Kerikeri, 0230
New Zealand










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Test Pit Log	13	Hole Location: Refer to Site Plan	JOB No. 24 145
---------------------	-----------	-----------------------------------	-----------------------

CLIENT: J K Farms Ltd. Date Started: 28/06/2024 Date Completed: 28/06/2024	SITE: PT Lot 5 DP 102613 DRILLING METHOD: Testpit Pit Width (mm): Variable	LOGGED BY: KM CHECKED BY: JP
---	---	---

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.					
SILT with some cobbles and coarse to fine gravels; brown & dark orange, dry, low plasticity. Loosly packed; well graded; subrounded, slightly weathered basalt.	0.5	Kerikeri Volcanics		Groundwater Not Encountered		UTP UTP	
End of Testpit at 0.8m (Refusal on Boulders)	1.0						
Test Pit Arising Photos  	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

LEGEND

 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 ROCK	Corrected shear vane reading 
						Remoulded shear vane reading 
						Scala Penetrometer 

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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New Zealand

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Test Pit Log

14

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.	SITE: PT Lot 5 DP 102613	LOGGED BY: KM
Date Started: 28/06/2024	DRILLING METHOD: Testpit	CHECKED BY: JP
Date Completed: 28/06/2024	Pit Width (mm): Variable	

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Groundwater Not		UTP	
SILT with some cobbles and coarse to fine gravels; dark brown, dry, low plasticity. Loosely packed; well graded; subangular to subrounded, slightly weathered basalt.	0.5	Kerikeri Volcanics					
End of Testpit at 0.5m (Refusal on Rock)							
	1.0						
Test Pit Arising Photos							
							
							
	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

LEGEND

TOPSOIL	CLAY	SILT	SAND	GRAVEL	ROCK	Corrected shear vane reading
						Remoulded shear vane reading
						Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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Test Pit Log

15

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd.	SITE: PT Lot 5 DP 102613	LOGGED BY: KM
Date Started: 28/06/2024	DRILLING METHOD: Testpit	CHECKED BY: JP
Date Completed: 28/06/2024	Pit Width (mm) Variable	

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.				UTP	
SILT with some cobbles and coarse to fine gravels; dark brown, dry, low plasticity. Loosely packed; well graded; subangular to subrounded, slightly weathered basalt.	0.5	Kerikeri Volcanics		Groundwater Not Encountered			
End of Testpit at 0.5m (Refusal on Rock)							
	1.0						
Test Pit Arising Photos							
 	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

LEGEND

TOPSOIL	CLAY	SILT	SAND	GRAVEL	ROCK	Corrected shear vane reading
						Remoulded shear vane reading
						Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

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info@haighworkman.co.nz

Test Pit Log

16

Hole Location: Refer to Site Plan

JOB No. 24 145

CLIENT: J K Farms Ltd. **SITE:** PT Lot 5 DP 102613
Date Started: 28/06/2024 **DRILLING METHOD:** Testpit
Date Completed: 28/06/2024 **Pit Width (mm):** Variable

LOGGED BY: KM
CHECKED BY: JP

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)			
SILT; dark brown. Firm, dry, low plasticity, rootlets.	0.0	T.S.		Groundwater Not Encountered						
Clayey SILT; dark orange. Very stiff, moist, low plasticity.	0.5	Kerikeri Volcanics				3.8	143			
	1.0								3.1	196
End of Testpit at 1.5m (Target Depth)	1.5						250+			
	2.0									
	2.5									
	3.0									
	3.5									
	4.0									
	4.5									

Test Pit Arising Photos



LEGEND

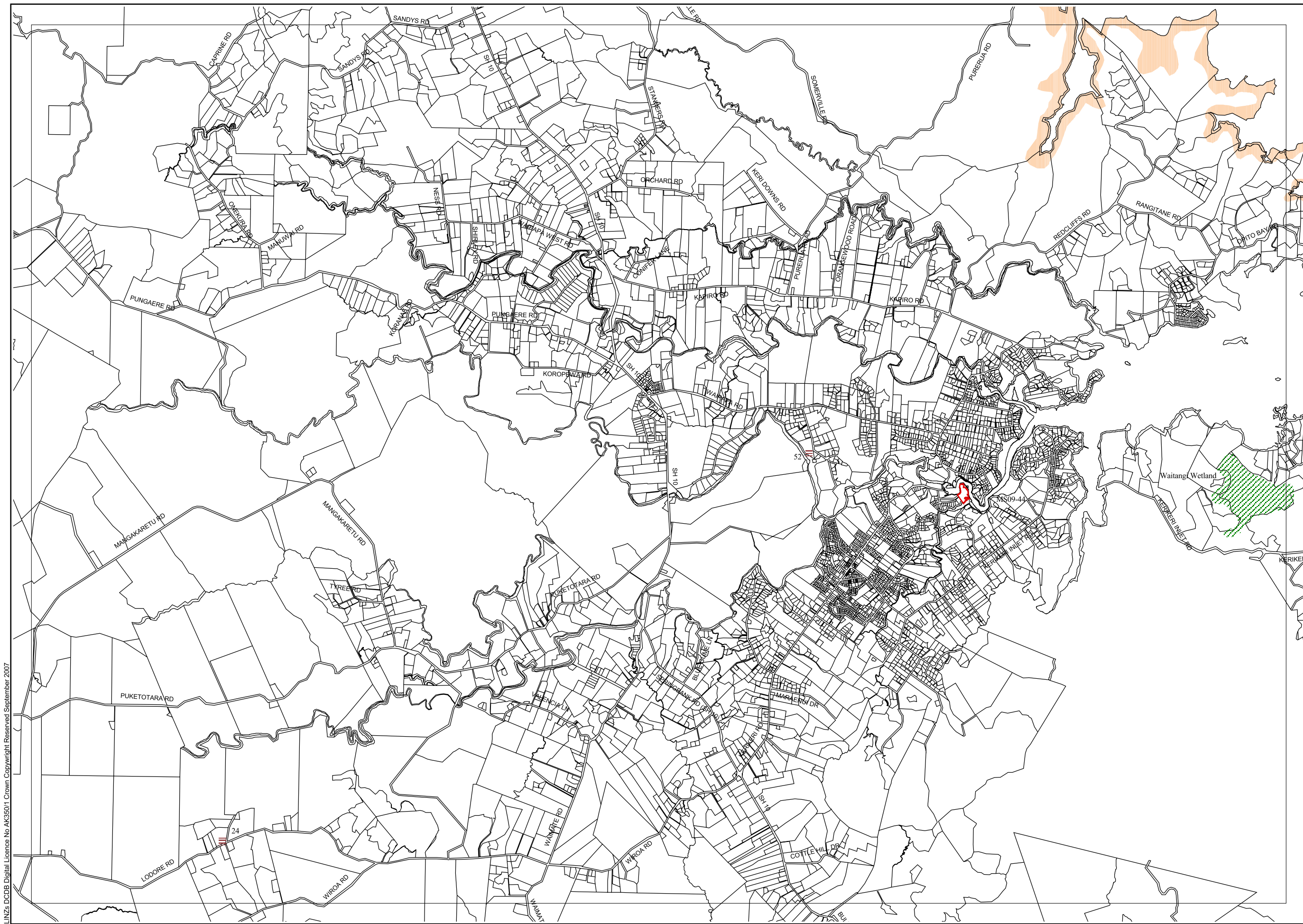
TOPSOIL **CLAY** **SILT** **SAND** **GRAVEL** **ROCK**

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

Note: UTP = Unable to penetrate. T.S. = Topsoil.
SV: DR2278
Groundwater not encountered

APPENDIX 5

PLANNING MAPS



- Resource**
- Outstanding Landscape
 - Outstanding Landscape Feature
 - Outstanding Natural Feature
 - Site of Cultural Significance to Maori

21	22	23
27	28	29
34	35	36

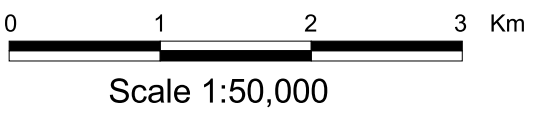
Map Index

Map 28

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





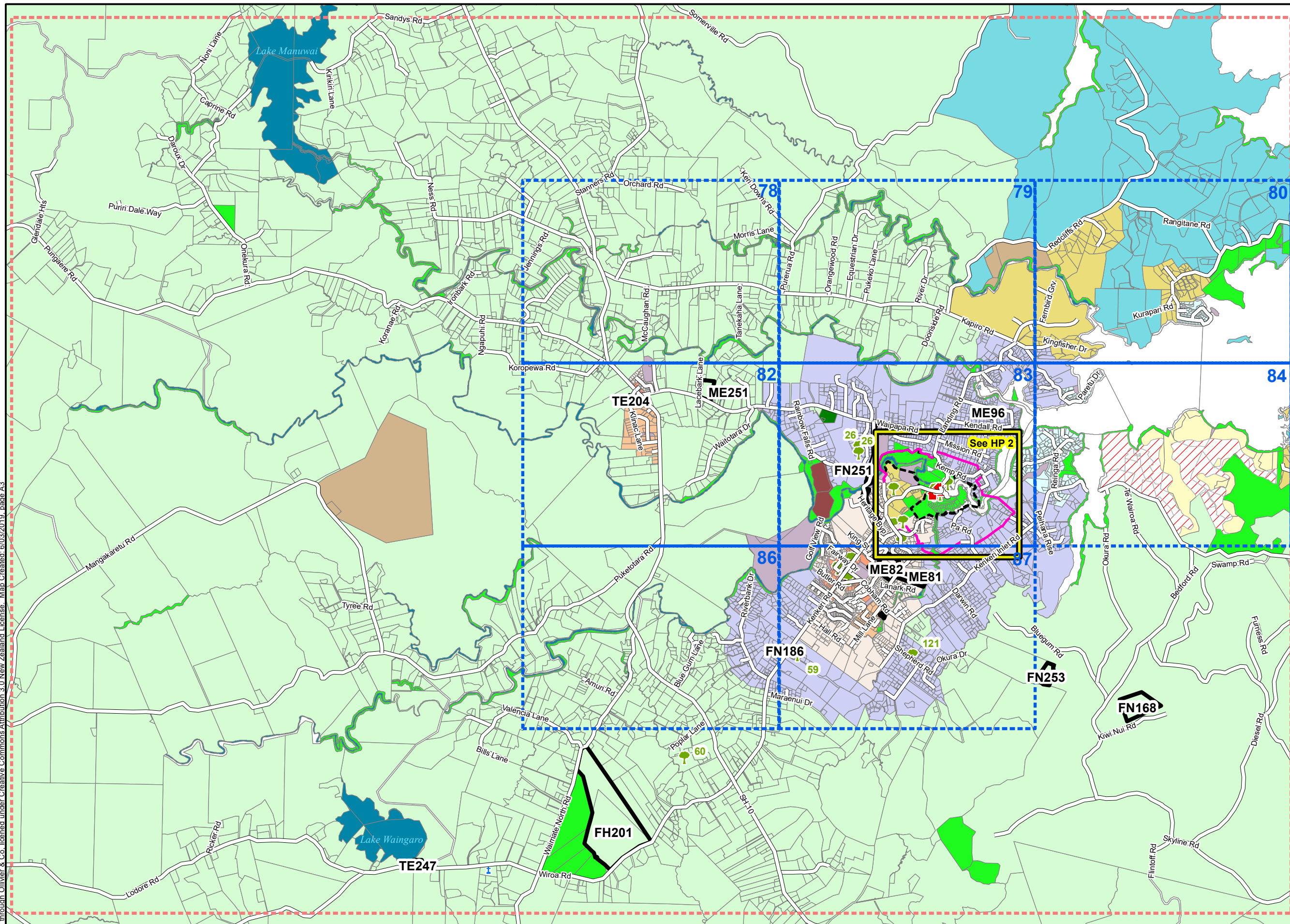
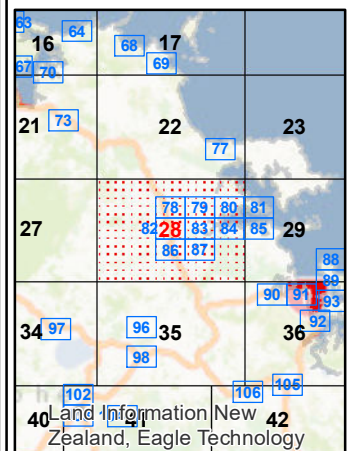
Far North District Plan - Resource Maps



DISCLAIMER
 Considerable care has been taken to avoid errors and omissions, and the latest information has been included in these District Plan maps. However, even with the greatest care inaccuracies may occur and therefore the Far North District Council cannot accept any responsibility for such errors and omissions.

Zone

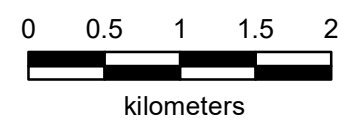
-  Zone: Cemetery
-  Zone: Historic
-  Zone: Notable Trees
-  Designations
-  Kerikeri Basin Precinct
-  Kerikeri Visual Buffer
-  Coastal Living
-  Coastal Marine
-  Coastal Residential
-  Commercial
-  Conservation
-  General Coastal
-  Horticultural Processing
-  Industrial
-  Lakes & Rivers
-  Minerals
-  Quail Ridge Country Club
-  Recreational
-  Residential
-  Road
-  Rural Living
-  Rural Production
-  South Kerikeri Inlet Zone
-  South Kerikeri Inlet Zone Sensitive Area



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Far North District Plan - Zone Maps



Note:
Roads carry the same zoning as the adjoining land.
If a boundary between zones follows a road,
the zone boundary is located on the centreline of
the formed road, or where unformed, the centreline
of the legal road.

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omissions, and the latest information has been included
in these District Plan maps.
However, even with the greatest care inaccuracies may
occur and therefore the Far North District Council cannot
accept any responsibility for such errors and omissions.

APPENDIX 6

RULE ASSESSMENT

Operative District Plan Provisions

Section 13 Subdivision		
Rule	Status	Comment
13.7 Controlled (Subdivision) Activities		
13.7.1 – Boundary Adjustments: All Zones except the Recreational Activities and Conservation Zones	N/A	Consent is not sought under this rule as an additional lot is proposed.
13.7.2 – Allotment Sizes, Dimensions and Other Standards	Restricted Discretionary	Consent is sought under Rule 13.8.1(b).
13.7.3.1 – Property Access	Permitted	Refer to assessments from Chapter 15 below.
13.7.3.2 – Natural and Other Hazards	N/A	There are no natural hazards on the sites.
13.7.3.3 – Water Supply	Controlled	The proposed lots will be supplied with water on-site.
13.7.3.4 – Stormwater Disposal	Controlled	The proposed lots will dispose of stormwater on-site.
13.7.3.5 – Sanitary Sewage Disposal	Controlled	The proposed lots will dispose of wastewater on-site.
13.7.3.6 – Energy Supply	Controlled	The proposed lots will be provided with electricity connections.
13.7.3.7 – Telecommunications	Controlled	The proposed lots will utilise wireless telecommunications connections
13.7.3.8 – Easements for any purpose	Controlled	Any necessary easements are shown on the scheme plan or will be provided as required.
13.7.3.9 – Preservation of Heritage Resources, Vegetation, Fauna and Landscape, and Land set aside for Conservation purposes.	N/A	There are no identified resources which require protection.
13.7.3.10 – Access to Reserves and Waterways	N/A	There are no public reserves, waterways or esplanade reserves on or adjoining the sites.
13.7.3.11 – Land Use Compatibility	N/A	No new land uses are proposed.
13.7.3.12 – Proximity to Airports	N/A	The site is not located in close proximity to an airport.
13.8 Restricted Discretionary Activities		

13.8.1 – Subdivision within the Rural Production Zone	Restricted Discretionary	<p>a. Not proposed</p> <p>b. Not proposed.</p> <p>c. NA56C/763 was created prior to 28 April 2000.</p> <p>Five lots are proposed.</p> <p>The proposed lots are each larger than 2ha.</p>
13.8.2 – Subdivision within 100m of Minerals Zone	N/A	Not proposed.
13.8.3 – Subdivision in the Golf Living Sub-Zone (Kauri Cliffs Zone)	N/A	Not proposed.
13.8.4 – Subdivision in the General Coastal Zone	N/A	Not proposed.
13.8.5 – Subdivision in the Coastal Living and South Kerikeri Inlet Zones	N/A	Not proposed.

Section 15.1.6 Traffic		
Rule	Status	Comment
15.1.6C Access		
15.1.6C.1.1 – Private accessway in all zones	Permitted	<p>a. Right of way 'B' will have 2 H.E.s. Right of way 'C' will have 3 H.E.s. Right of way 'D' will have 2 H.E.s.</p> <p>b. The accessways will have compliant centreline gradients.</p> <p>c. The private accessways will serve a maximum of 8 H.E.s.</p> <p>d. No more than 8 H.E.s use the private accessways.</p> <p>e. Accesses are not proposed within identified areas.</p>
15.1.6C.1.2 – Private accessways in urban zones	N/A	Not an urban zone
15.1.6C.1.3 – Passing bays on private accessways in all zones	Permitted	<p>a. The private accessways will have compliant widths, and passing bays are not required.</p> <p>b. Passing bays are not required.</p> <p>c. Vehicle queuing space will be provided at the vehicle crossings.</p>
15.1.6C.1.4 – Access over footpaths	N/A	There are no footpaths on Ness Road.

<p>15.1.6C.1.5 – Vehicle crossing standards in rural and coastal zones</p>	<p>Permitted</p>	<p>a. The vehicle crossings will be constructed in accordance with the FNDC ES. b. The first 5m of the accesses will be surfaced with a permanent impermeable surfacing. c. The private accessways will be 6m wide for at least 6m from the edge of the carriageway.</p>
<p>15.1.6C.1.6 – Vehicle crossing standards in urban zones</p>	<p>N/A</p>	<p>The site is not in an urban zone.</p>
<p>15.1.6C.1.7 – General access standards</p>	<p>Permitted</p>	<p>The accessways will be constructed to comply with the general access standards.</p>
<p>15.1.6C.1.8 – Frontage to existing roads</p>	<p>N/A</p>	<p>a. Ness Road has a sufficient legal road width. b. Ness Road is constructed to an appropriate standard. c. The site only has one road frontage. d. The carriageway does not encroach upon the site.</p>
<p>15.1.6C.1.9 – New roads</p>	<p>N/A</p>	<p>No new roads are to be vested.</p>
<p>15.1.6C.1.10 – Service lanes, cycle and pedestrian accessways</p>	<p>N/A</p>	<p>No new service lanes, cycle or pedestrian accesses are proposed.</p>
<p>15.1.6C.1.11 – Road designations</p>	<p>N/A</p>	<p>The site does not front an existing road which is subject to a designation for road acquisition and widening purposes.</p>

Proposed District Plan Provisions

Subdivision Chapter (SUB)		
Rule	Status	Comment
SUB-R1 – Boundary adjustments	N/A	Consent is not sought under this rule as an additional lot is proposed.
SUB-R2 – Subdivision of land solely to create an allotment that is for the purpose of public works, infrastructure reserves or access	N/A	Not proposed
SUB-R3 – Subdivision of land to create a new allotment	Non-complying	<ol style="list-style-type: none"> 1. The subdivision complies with SUB-S2 – S7. 2. The subdivision does not comply with SUB-S1 as proposed Lots 1 – 4 are smaller than 4ha.
SUB-R4 – Subdivision that creates a private accessway.	Controlled	The private accessways will serve a maximum of 8 sites each.
SUB-R5 – R21	N/A	Not proposed.
Overall Status	Non-complying	

Transport Chapter (TRAN)		
Rule	Status	Comment
TRAN-R1 – Parking	Permitted	Sufficient parking spaces will be provided for the proposed lots in accordance with TRAN-S1.
TRAN-R2 – Vehicle crossings and access, including private accessways	Permitted	<ol style="list-style-type: none"> 1. Each private accessway will serve a maximum of 8 sites. 2. The vehicle crossings and accesses will be constructed to provide sufficient access for fire appliances. 3. The vehicle crossings will not be off a State Highway or a road classified arterial or higher. 4. Any unused vehicle crossings will be reinstated to match the existing shoulder and berm. 5. The private accessways will be constructed to comply with TRAN-Table 9. 6. The vehicle crossings and accesses will comply with TRAN-S2 and S3.
TRAN-R3 – R10	N/A	Not proposed.
Overall Status	Permitted	

APPENDIX 7

NRC 'SELECTED LAND-USE SITES' DATABASE MAP



Legend

- SLU Points
- SLU Polygons