

Application for resource consent or fast-track resource consent

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

1. Pre-Lodgement Meeting

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

Yes No

2. Type of consent being applied for

(more than one circle can be ticked):

- Land Use
- Fast Track Land Use*
- Change of Consent Notice (s.221(3))
- Certificate of Compliance (s.139)
- Extension of time (s.125)
- Other (please specify)
- Discharge: Total volume = m³
Note; volumes >3m³ requires NRC Consent.
- Subdivision
- Existing Use Certificate (s.139A)
- Consent under National Environmental Standard
(e.g. Assessing and Managing Contaminants in Soil)

*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:
The Resource Consents Planning Technicians, planning_technicians@fndc.govt.nz

5. Applicant details

Name/s:

Norman & Ann Lambers

Email:

Phone number:

Postal address:

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

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

If yes, please provide details.

6. Address for correspondence

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

Name/s:

Williams & King, Attention: Natalie Watson

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.

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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:

As per applicant.

Property address/
location:

8. Application site details

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

Name/s:

Site address/
location:

1 Kendall Road

Kerikeri

Postcode 0230

Legal description:

Lot 1 DP 89164

Val Number:

00215-67801

Certificate of title:

NA46B/322

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

Site visit requirements:

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

Is there a dog on the property? Yes No

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

Please phone applicant to arrange site visit.

9. Description of the proposal

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

Proposed subdivision to create one additional lot and land use for infringement of building coverage and impermeable surface standards in the Rural Living Zone. Consent required under NES:CS.

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.

The proposal has been prepared in accordance with the following version of the FNDC Engineering Standards:

2009 2023

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 Disturbing, removing or sampling soil
 Changing the use of a piece of land Removing or replacing a fuel storage system

13. Natural hazards (National Policy Statement for Natural Hazards 2025)

Is the site subject to known or potential natural hazards (for example, flooding, coastal inundation, erosion, or unstable land), as contemplated by the National Policy Statement for Natural Hazards 2025? Yes No

If yes, please identify the relevant natural hazard(s) by ticking the applicable box(es) below:

- Flooding Active Faults
 Landslips Liquefaction
 Coastal Erosion Tsunami
 Coastal Inundation

Please ensure all relevant technical reports are submitted with the application.

14. 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

15. Draft conditions:

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

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

16. 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)

Norman and Ann Lambers

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)

Norm Lambers

Signature:

(signature of bill payer)

Date 18 May 2026

MANDATORY

17. 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.

18. Declaration

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

Name (please write in full)

Natalie Watson

Signature

Date 18.5.26

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

See overleaf for a checklist of your information...

Checklist of your information

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.*

Norman & Ann Lambers

Proposed Subdivision, Impermeable Surfaces,
Building Coverage and Consent under the Resource
Management (National Environmental Standard for
Assessing and Managing Contaminants in Soil to
Protect Human Health) Regulations 2011

1 Kendall Road, Kerikeri

Williams & King, Kerikeri¹
14 May 2026



¹ Williams & King - a Division of Survey & Planning Solutions (2010) Ltd
Surveyors, Planners, Resource Managers - Kerikeri and Kaitaia
PO Box 937 Kerikeri Phone (09) 407 6030 Email: nat@saps.co.nz

1. Overview

The Applicants, Norman and Ann Lambers, are seeking resource consent to subdivide an existing rural residential property at 1 Kendall Road, Kerikeri, to create one additional site.

Vehicle access to Lots 1 and 2 will be shared using the existing vehicle crossing and driveway off Kendall Road. The vehicle crossing requires minor upgrade to comply with the Type 1A standard in the 2023 FNDC Engineering Standards and Guidelines.

The subject site is zoned Rural Living in the Operative Far North District Plan. Combined subdivision and land use consent is required for the subdivision and for the existing and proposed extent of impermeable surface and building coverage on Lots 1 and 2. The application is for a non-complying activity overall.

Under the Proposed Far North District Plan, the site is zoned Rural Residential. There are no relevant rules with legal effect at this time.

Consent is also required as a controlled activity under the Resource Management (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. The Preliminary and Detailed Site Investigation commissioned for the proposal concludes that soil contamination does not exceed the applicable standard in Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (“NESCS”) regulation 7, and it is highly unlikely that the proposed subdivision and soil disturbance of the site would present a risk to human health.

This assessment accompanies the Resource Consent application made by the Applicant and is provided in accordance with Schedule 4 of the Resource Management Act 1991 (“RMA”). It is intended to provide the necessary information, in sufficient detail, to provide an understanding of the proposal and any actual or potential effects the proposed activity may have on the environment. It has been assessed that the proposed activity passes both limbs of the RMA section 104D “gateway” tests as the adverse effects of the activity on the environment will be minor and it is not contrary to the objectives and policies of the Operative and Proposed District Plans.

Written approvals have been obtained, and the proposal is assessed as meeting the criteria to be treated as non-notified.

2. Description of proposal

2.1 Proposed Subdivision

The overarching purpose of the proposal is to enable the creation of one additional record of title, resulting in a managed change to the property without detriment to the surrounding environment.

The proposed subdivision creates Lots 1 and 2 as summarised in **Table 1**.

Lot Number	Area (Subject to Final Survey)	Existing / Proposed Use
Lot 1	1,810m ²	Vacant rural residential site. Proposed future impermeable surface coverage of 35%. Proposed future building coverage of 20%.
Lot 2	2,283m ²	Developed rural residential site.

Table 1: Summary of lot sizes and existing and proposed land use.

The Scheme Plan is attached in **Appendix 1** and in **Figure 2**. All areas and dimensions are subject to final survey.



Figure 1: Scheme Plan illustrating proposed subdivision

2.2 Vehicle access

Lots 1 and 2 will share the existing formed vehicle crossing and driveway off Kendall Road that are used by the existing dwelling. It is anticipated that the vehicle crossing will require upgrade to provide a sealed or concreted surface in accordance with FNDC Engineering Standards Sheet 21 – Type 1A.

It is noted that an existing Local Purpose Reserve (Utility Reserve) (legally described as Lot 3 DP 89164) separates the site from Landing Road and all but 24.26m of Kendall Road.

2.3 Stormwater management, impermeable surface coverage

Proposed stormwater management to achieve neutrality and avoidance or mitigation of any adverse effects of stormwater runoff on receiving environments is described in detail in the Site Suitability Report.

Lot 1 contains existing impermeable area comprising the existing driveway within easement A. Future impermeable surface coverage is likely to comprise roof area associated with a dwelling and garage, as well as additional driveway, manoeuvring and/or outdoor parking areas. Land use consent is sought for this lot to have up to 35% impermeable surface coverage, which allows an additional ~500m² of impermeable area on this lot. The Site Suitability and Civil Infrastructure Report notes that future impermeable surface coverage on this lot will require attenuation to the 50% and up to the 10% annual exceedance probability (AEP) storm events and notes that flooding downstream in the 100-year event will have a negligible effect by the small additional area of impervious surface. A similar tank will be required on Lot 1 to the 25,000L tank proposed on Lot 2. A condition requiring stormwater attenuation design details to provide attenuation to the 50% and up to the 10% annual exceedance probability (AEP) storm events can be imposed as a consent notice condition on Lot 1, and a condition of land use consent.

Lot 2 contains existing impermeable surface coverage, amounting to approximately 32% site coverage. It is proposed to install stormwater attenuation, comprising a new 25,000 litre, 2.4m high, detention tank with specified orifices.

Existing and anticipated post development impermeable surfaces are shown in Table 2 below.

	Existing Impermeable Surface Coverage	Proposed Impermeable Surface Coverage	Total Impermeable Surface Coverage	Percentage Coverage
Lot 1	108m ²	525m ²	633m ²	35%
Lot 2	720m ²	-	720m ²	32%

Table 2: Table of post development impermeable surfaces

2.4 Wastewater disposal

An effluent field and reserve area can be located on Lot 1 in compliance with the current rules, based on assessed loading rates for drip irrigation and design occupancy and flows. Dripper irrigation disposal is suitable, with specific design considerations outlined in the Site Suitability Report and Civil Infrastructure Report. Development specific designs for onsite treatment and disposal of wastewater will be provided in conjunction with a building consent application for Lot 1, based on the LDE Report recommendations. A consent notice to this effect is proposed.

The existing wastewater system on Lot 2 has recently been upgraded, and the disposal and reserve disposal areas remain within the area of Lot 2 with adequate setbacks from the proposed lot boundaries.

2.5 Earthworks

Besides minor upgrades to the existing vehicle crossing, earthworks are not required to complete the proposed subdivision.

3. Application site details and description

3.1 Location

The subject site is located at 1 Kendall Road, within the Riverview suburb, approximately 2.5km north east of central Kerikeri. The property is located to the south east of the intersection between Kendall Road and Landing Road; however, Lot 3 DP 89164 (Local Purpose Utility Reserve) separates the site from Landing Road and part of Kendall Road. Therefore, the site only has legal frontage to 24.26m of Kendall Road along its northern boundary. Refer to the location and cadastral maps in **Figures 2 and 3**.



Figure 2: Location map (source: QuickMap)

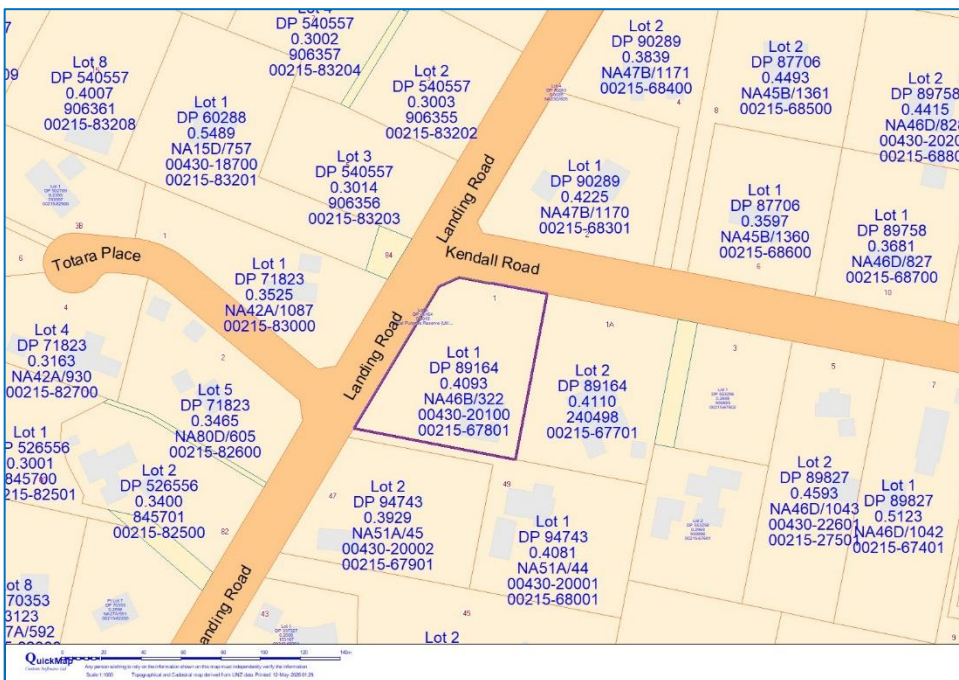


Figure 3: Cadastral map (source: QuickMap)

3.2 Legal details

The subject site is legally described as Lot 1 DP 89164 and held in Record of Title NA46B/322, comprising 4,093m² more or less in area. The Record of Title is attached as **Appendix 4**. The Record of Title does not have any relevant interests or encumbrances.

3.3 Site conditions

The site is developed with an existing dwelling, shed, onsite wastewater system and swimming pool within the southeastern corner of the site, and these existing features will be accommodated within proposed Lot 2 and accessed by the existing metalled driveway from the existing entrance located at the eastern end of the site's frontage to Kendall Road. The existing onsite wastewater treatment plant serving the dwelling is located near the south eastern corner of the lot, and the disposal field is located at the southern and western side of the lot. The remainder of the site is currently in lawn with landscaping, including gardens specimen trees and remnant citrus trees. Existing hedging and/or fencing are located around the perimeter of the site. Refer to **Photographs 1 – 5**.



Photograph 1: View from Lot 2 over Lot 1, including existing driveway within easement A.



Photograph 2: View south along western boundary, parallel to Landing Road.



Photograph 3: View south east over Lot 1.



Photograph 4: View east over Lot 1.



Photograph 5: View east over Lot 2.

A detailed description of the geology and hydrology of the site is provided within the LDE Preliminary and Detailed Site Investigation in **Appendix 3**, and descriptions of the environmental setting in the LDE Site Suitability Report and Civil Infrastructure Report in **Appendix 2**.

3.4 Character of the site and surrounding environment

The character of the subject land and its surrounding environment is based on the existing characteristics of the built, modified and natural environment, which is predominantly made up of the elements of rural residential development, such as dwellings and accessory buildings, landscaping and driveways. The Riverview area has a large-lot residential character, which reflects its per-urban location.

3.5 Recorded Natural Features

The subject site is not part of the coastal environment and does not include any areas of high or outstanding natural character, or outstanding natural landscapes or features as recorded in the Regional Policy Statement.

The site is not part of any ecological unit recorded in the Department of Conservation Protected Natural Area mapping or part of a North Island brown kiwi habitat.

The site is mapped as comprising Land Use Capability (“LUC”) Unit IIs1. Soil and geological information is provided in detail within the LDE Site Suitability and Civil Infrastructure Report (**Appendix 2**). LUC Unit IIs1 meets the definition of ‘highly versatile soils’ as per the definition provided in the Regional Policy Statement. This unit comprises “fertile, free-draining brown and red loams developed on flat to undulating slopes on young basaltic lava flows, basaltic scoria, and occasional ash”.²

4. District Plan Assessment

4.1 Far North District Operative District Plan

The application site is zoned Rural Living and is not subject to any Resource Features. The proposal is assessed against the relevant rules of the Operative District Plan as follows.

4.1.1 Rural Living Zone

Existing built development and impermeable surface coverage is present on proposed Lots 1 and 2. This, along with future potential development on Lot 1, is assessed against the relevant Rural Living zone standards below.

Rule	Discussion	Activity Status
8.7.5.1.1 Residential Intensity	Following the subdivision, residential intensity will not exceed a single residential unit for a single household on each lot.	Permitted Activity
8.7.5.1.4 Sunlight	Existing buildings on Lot 2 comply.	Permitted Activity

² Harmsworth, GR (1996): *Land use capability of the Northland region: A report to accompany the second edition New Zealand Land Resource Inventory*. Manaaki Whenua – Landcare Research, Lincoln, Canterbury, New Zealand.

8.7.5.1.5 Stormwater management / 8.7.5.2.2 Stormwater Management / 8.7.5.4 Discretionary activities	Existing impermeable areas on Lot 2 amount to 32% coverage – refer to the Scheme Plan. Anticipated impermeable surface coverage on Lot 1 is estimated as 608m ² , and consent is sought for 35% impermeable surface coverage on this lot.	Discretionary Activity.
8.7.5.1.6 Setback from Boundaries	Existing buildings on Lot 2 are more than 3m from the proposed lot boundaries.	Permitted Activity
8.7.5.1.13 Building Coverage	Existing building coverage on Lot 2 amounts to approximately 13% of the lot area. Anticipated building coverage of up to 350m ² (20%) is applied for on Lot 1.	Discretionary Activity

4.1.2 Subdivision

Rule	Discussion	Activity Status
13.6.5 Legal Frontage	Each lot has frontage to Kendall Road, either directly or via Right of Way.	Controlled Activity
13.6.12 Suitability for Proposed Land Use	The land is considered suitable for the proposal, namely future residential development as described in the Site Suitability and Civil Infrastructure Report.	Controlled Activity
13.7.2.1 Minimum Area for Vacant New Lots 13.9.1 Discretionary (Subdivision) Activities 13.11 Non-Complying (Subdivision) Activities	The areas of Lots 1 and 2 do not comply with the controlled or discretionary activity minimum lot size for the Rural Living Zone.	Non-complying Activity
13.7.2.2 Allotment Dimensions	Lots 1 and 2 include a dimension of 30 x 30m, plus 3m boundary setbacks.	Controlled Activity

4.1.3 Transportation

Rule	Discussion	Compliance
15.1.6C.1.1 Private Accessway in all Zones	Private access has been designed to comply with the permitted standards.	Permitted Activity
15.1.6C.1.5 Vehicle crossing standards in Rural ... Zones	The existing vehicle crossing will be upgraded to comply with Sheet 21 – Type 1A of the 2023 FNDC Engineering Standards.	Permitted Activity
15.1.6C.1.7 General Access Standards	Access to the boundary of each lots meets this standard, with adequate area for future onsite manoeuvring available.	Permitted Activity
15.1.6C.1.8 Frontage to Existing Roads	Kendall Road is of sufficient legal and carriageway width to comply with this rule.	Complies

4.1.4 Summary of Activity Status under the Far North Operative District Plan

Overall, the proposal has been assessed as a non-complying activity. The relevant considerations specified in Sections 104, 104B, 104D and 106 of the Resource Management Act 1991 are addressed in Sections 5 and 6 of this Report.

4.2 Far North Proposed District Plan

The application site is zoned Rural Residential in the Far North Proposed District Plan, and is not subject to any Overlays. The proposal is assessed against the relevant rules of the Proposed District Plan as follows.

4.2.1 Area-Specific Matters - Rural Residential Zone

Rule	Discussion	Activity Status
RRZ-R2 Impermeable Surface Coverage	Lots 1 and 2 will exceed 12.5% coverage. Restricted Discretionary activity status directed.	These rules do not have legal effect.
RRZ-R3 Residential Activity	A single residential unit per lot is intended.	
RRZ-S2 Height in Relation to Boundary	Existing buildings comply.	
RRZ-S3 Setback	Existing buildings on Lot 2 are more than 3m from the proposed lot boundaries.	
RRZ-S5 Building or Structure Coverage	Existing coverage on Lot 2 marginally exceeds 12.5%, proposed building coverage on Lot 1 will also exceed 12.5%. Restricted Discretionary activity status directed.	

4.2.2 District-Wide Matters – General District-Wide Matters – Energy, Infrastructure, & Transport - Transport

Rule	Discussion	Activity Status
TRAN-R2 Vehicle crossings and access, including private accessways	Permitted activity conditions met. Shared private access will serve less than 8 household equivalents and is not off the road types listed in PER-3. Access widths will be sufficient width for fire fighting, manoeuvring will be available within the lots where they are more than 90m from Access Road. There will be no unused vehicle crossings. The private accessway will meet TRAN-Table 9 for 5 residential units in a rural setting (6m minimum legal width and minimum total carriageway width 4.5m). Passing bays are not required. Vehicle crossing standards comply based on the 60m minimum sight distance required for posted speed limit of 50km/hr on access / low volume roads.	This rule does not have legal effect.

4.2.3 District Wide Matters – Subdivision

Rule	Discussion	Activity Status
SUB-R3 Subdivision of land to create a new allotment.	CON-1 <ul style="list-style-type: none"> Lots 1 and 2 contain building envelope dimension plus boundary setbacks. 	This rule does not have legal effect.

	<ul style="list-style-type: none"> • Reticulated water supply and fire hydrants available. • Stormwater management is proposed in accordance with required mitigation. • Onsite wastewater disposal is feasible. • Power and fibre connections are proposed. • Easement A shown on scheme plan. <p>CON-2</p> <ul style="list-style-type: none"> • Controlled / Discretionary activity minimum lot size of 4,000m² / 2,000m² is not met. • No esplanade reserve requirements. 	
SUB-R4 Subdivision that creates a private accessway	The private accessway serves less than 8 sites. Complies.	This rule does not have legal effect.

4.2.4 Summary of Activity Status under the Far North Proposed District Plan

There are no relevant rules with legal effect at this time.

5. Assessment of environmental effects

Section 104(1)(a) and (ab) require the consent authority, subject to Part 2 of the Act, to have regard to any actual and potential effects on the environment of allowing the activity and any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity.

Section 104(2) indicates that a consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard of the plan permits an activity with that effect and Section 104(3)(a)(ii) requires a consent authority to not, when considering an application, have regard to any effect on a person who has given written approval to the application (unless that person has withdrawn the written approval before the date of a hearing or before the application is determined, as set out in 104(4)). The properties owned by a person who has given written approval to the application are highlighted in **Figure 4**.

Clauses 6 and 7 of Schedule 4 of the RMA indicate the information requirements and matters that must be addressed in or by an assessment of environmental effects, both of which are subject to the provisions of any policy statement or plan. The relevant criteria listed under Rules 13.10 (Assessment Criteria – Subdivision of the Operative Far North District Plan) are also addressed in the following assessment.

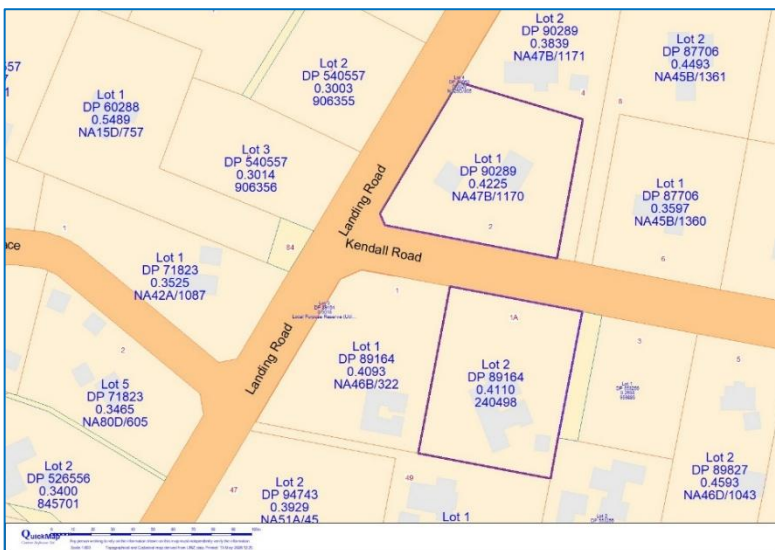


Figure 4: Properties whose owners have provided written approval

5.1 Allotment sizes and dimensions and building locations

The average density over the subdivision equates to one lot per 2046.5m². Lots 1 and 2 are regular in shape, with the dimensions of the proposed lots meeting the controlled activity standard for subdivision in the Rural Living Zone. The lots will utilise shared access off Kendall Road, resultantly less of the lot area will be occupied by formed accessways in support of the reduced lot size. Each lot has been assessed as having sufficient area to accommodate future buildings, onsite servicing, and the ability to manage stormwater without generating adverse effects.

A suitable building location is available on Lot 1 based on the site conditions. The building site is generally flat, and able to be built upon to take advantage of passive solar gain.

The subject site is located within an existing rural residential area, with this being the dominant land use. Discussion on the compatibility of the proposed lots within the Riverview area is provided further in Section 5.13, where it is concluded that although the lots are smaller in area than provided for in the District Plan, they will fit within the range of existing development in the surrounding environment. Further, the regular shape of the lots gives them the ability to comply with the minimum controlled activity allotment dimension. Overall, it is considered that the proposed subdivision is in context with the existing settlement pattern and that the proposed lots will share characteristics with the receiving environment. As a result, the character of the subject land following the development will be compatible with the present settlement pattern found surrounding the site within the Rural Living zone, in order to retain the overall character of the existing natural and built environment.

Overall, any direct or cumulative adverse effects on the wider rural environment generated by the proposal are considered to be less than minor, with the size of the lots being suitable for their intended purpose and the subdivision being an efficient use of land.

5.2 Natural and other hazards

The Site Suitability and Civil Infrastructure Report lists a low level of natural hazard risk in all categories except "Ground conditions – expansive soils". This can be mitigated by foundation design in accordance with the recommendations of the report, with confirmation of final foundation design to be provided at building consent stage.

The lots are devoid of any areas of significant vegetation which would cause fire hazard. Water supply for fire-fighting purposes is already available via existing fire hydrants located within close proximity to the site. Refer to Figure 6 of the Site Suitability Report, showing nearby fire hydrants.

The PSI / DSI concludes that soil contamination does not exceed the applicable standard in NESCS regulation 7. Therefore, it is highly unlikely that the proposed subdivision and any future soil disturbance would present a risk to human health.

As discussed above, a consent notice condition can be applied to Lot 1 to require specific foundation design at building consent stage, in order to ensure that relevant adverse effects related to natural hazards are avoided.

5.3 Water supply

The property is within the area of benefit for water reticulation, with an existing connection available for Lot 2, and a new connection to be supplied to Lot 1.

Water supply for fire fighting purposes is already available via the existing hydrants within close proximity of the subject site. Refer also to Section 4.1.1 of the Site Suitability and Civil Infrastructure Report.

No adverse effects with respect to water supply are anticipated.

5.4 Stormwater disposal

Proposed stormwater management to achieve neutrality and avoidance or mitigation of any adverse effects of stormwater runoff on receiving environments is described in the LDE Site Suitability and Civil Infrastructure Report.

This includes attenuation of stormwater runoff from existing development on Lot 2 for the 50% and up to the 10% annual exceedance probability (AEP) storm events to reduce peak flows from the proposed development and help mitigate potential adverse downstream effects. It is proposed to collect stormwater runoff from the roof areas in an above ground tank for attenuation. Stormwater runoff from proposed hardstand areas is not proposed to be captured, within the proposed tank, however, attenuation of these areas has been accounted for through oversizing of the tanks and specific configuration of the tank's orifices.

Furthermore, attenuation of stormwater runoff from future impermeable surface coverage on Lot 1 will be required, to reduce peak flows and mitigate potential adverse downstream effects. Typical good practice measures, such as avoiding concentrated discharge of surface water, can also be implemented at lot development stage. The proposal therefore avoids adverse effects on adjoining and downstream properties. The final design for onsite stormwater attenuation in association with future residential development can be submitted in conjunction with a building consent application, and required via a consent notice condition.

The discharge point for both sites will be the swale drain along Kendall Road, next to the existing vehicle crossing.

With the proposed stormwater attenuation, there will be a negligible impact on the total catchment impermeability.

Residential development is not generally considered to create a long-term impact on water quality. For this development the existing and nominated building platforms will be surrounded by grassed or vegetated surfaces providing a buffer to runoff, trapping contaminants and sediments.

5.5 Sanitary sewage disposal

There is an existing wastewater system for Lot 2 and no changes to the system are proposed, with the wastewater treatment and disposal field including reserve area having adequate setback from the proposed lot boundaries.

An effluent field and reserve area can be located on Lot 1 in compliance with the current rules, based on the assessed aerial loading rates for drip irrigation and design occupancy and flows. Disposal via dripper irrigation is suitable. Development specific designs for onsite treatment and disposal of wastewater will be provided in conjunction with a building consent application for Lot 1, and based on the recommendations of the LDE Site Suitability and Civil Infrastructure Report. A consent notice to this effect is proposed.

Overall, it is considered that onsite sanitary sewage disposal can be achieved in such a way that avoids and mitigates adverse environmental effects, such that they will be less than minor.

5.6 Energy and telecommunications supply

Connections to power and telecommunications services will be provided to the boundary of Lot 1.

Correspondence received from Top Energy (see **Appendix 5**) confirms that Lot 2 has an existing supply, and that costs to supply power to Lot 1 will be provided following application and on-site survey.

Accordingly, the proposed subdivision will provide an adequate standard of power and telecommunications, and this can be included as a condition of consent.

5.7 Access

Property access from Kendall Road to the boundary of each lot is proposed in such a way that complies with the Operative District Plan permitted activity standard as well as the FNDC Engineering Standards and Guidelines. Upgrade of the vehicle crossings can be included as a condition of consent.

The existing legal and formation widths of Kendall Road are suitable for its status as a Local Road with a typical rural roading standard.

The proposal uses a shared access formation to Lots 1 and 2 to avoid a proliferation of vehicle crossings, and to avoid additional earthworks and impermeable surfaces associated with vehicle access, and associated environmental effects.

Additional traffic generated by the subdivision will be in the vicinity of ten daily one-way movements. With the upgrade of the existing vehicle crossing, the use of the Kendall Road for minimal additional traffic movements will not cause any significant disruption to the efficient and safe use of the road.

Overall, it is considered that the additional traffic generated by the proposal can be accommodated by proposed vehicle access arrangements to each lot, and that the effects of the proposal on existing roading and traffic safety will be less than minor.

5.8 Heritage resources

The site does not contain any known or mapped heritage resources or archaeological sites or sites of cultural significance. The standard Accidental Discovery Protocol advice note can be applied to the consent, outlining the procedures to be followed should any archaeological site be inadvertently uncovered, in order to avoid adverse effects on heritage resources.

5.9 Ecological resources

As noted, the site is devoid of indigenous vegetation, and is not part of any protected natural area having been mapped by the Department of Conservation nor is it part of a North Island brown kiwi habitat.

The proposal will avoid direct and indirect adverse effects in this respect.

5.10 Soil

The site contains highly versatile / Class II soils; however, the site is not within a primary production zone and has been zoned for rural residential use, in accordance with the existing settlement pattern of subdivision and use present in the Riverview area. Therefore, despite the site being mapped as comprising Land Use Capability Unit IIs1, it is considered that the proposed subdivision and future use of the vacant lot for rural residential use will have a negligible effect on soil resources and the availability of suitable land for primary production.

Soil erosion will not occur provided that the recommended stormwater management system is implemented.

5.11 Land use incompatibility

The development of Lot 1 for rural residential use will be compatible with existing pattern of development in this predominantly rural residential area, and future development of these sites is unlikely to suffer any effects associated with land use incompatibility, nor is likely to generate any adverse reverse sensitivity effects.

Through its location, the proposal is therefore considered to avoid adverse effects associated with incompatible land use and reverse sensitivity, such that the existing and proposed uses of the lots and surrounding land can be accommodated.

5.12 Visual amenity and rural / natural character

Proposed Lot 2 is fully developed and there will be no additional effects on the surrounding locality from the use of this site, which will retain private open space and areas of mature plantings surrounding the existing building. The effect of future development on vacant Lot 1 has been considered in terms of the effect on visual character and the local amenity values.

Properties to the north and east have both provided written approval to the proposed activity, and visual and amenity effects on those properties can be disregarded. Refer to **Figure 4**. To the south of the property, there will be no change to their outlook, with Lot 2 having existing residential development.

The landscape character of the Riverview area is defined by the residential land use on sites with mixed sizes. The sites accommodate dwellings and accessory buildings and are typically planted with household landscaping to enhance the amenity values of the site and provide privacy between neighbouring properties. The existing vegetative framework within the area gives it the ability to absorb a higher density of residential development and the zoning of the site has encouraged the clustering of buildings in this area with low levels of natural character and outside visually sensitive areas such as the Kerikeri Basin Heritage Precinct Visual Buffer.

The subject site is surrounded by existing hedges and fencing which provide privacy from the adjacent public roads and from adjoining rural residential properties. Existing screening will allow future built development on Lot 1 to be in context with the surrounding environment.

The application site is modified by buildings, formed vehicle access and parking and household landscaping, with the existing built development being located close to the southern boundary, making the site suitable to accommodate additional built development in the front half of the site. It does not have any distinguishing landscape features and is not identified as an outstanding landscape, or as having high or outstanding natural character, in the relevant District and Regional mapping.

The subdivision density, and future residential intensity, will be one lot or residential dwelling per 2,046.5m². The density of development along Kendall Road varies within the spectrum of large lot residential development. Lot sizes between 3,000m² - 5,000m² are common along the western to mid extent of Kendall Road, with smaller sites such as at 3, 13, 13A, 23A and B, 30A Kendall Road. At the eastern end of Kendall Road, the lot sizes are generally smaller, predominantly in the vicinity of 1,200m² to 2,000m². Refer to **Figure 5**.



Figure 5: Properties on Kendall Road with areas less than 3,000m².

As such, the proposed lot sizes fit within the range of existing development along Kendall Road and in the wider Riverview neighborhood and as a result, it is considered that the residential intensification will not significantly alter or undermine the existing character. Further, it is noted that there is already a pattern of existing residential dwellings built close to the road frontages, and future development of Lot 1 would be consistent with the character of the existing streetscape.

The site's visibility is limited, with the primary effects associated with future development on Lot 1 primarily being upon the adjacent site to the east, whose owner has provided written approval, allowing those effects to be disregarded. Any wider views of the site are temporary and viewed in the context of the existing residential environment that characterises the locality.

Overall, it is considered that impact of the proposed subdivision and future development of Lot 1 on the features and characteristics of the existing landscape that provide the character in this suburban environment will be no more than minor and that the potential adverse visual effects of the proposed subdivision will be less than minor.

6. Statutory assessment

Section 104(1)(b) of the Resource Management Act 1991 requires the consent authority, subject to Part 2 of the Act, to have regard to any relevant provisions of a national environmental standard, other regulations, a national policy statement, a New Zealand coastal policy statement, a regional policy statement, a plan or proposed plan, and any other matter the consent authority considers relevant and reasonably necessary to determine the application. Of relevance to the proposed activity are the following documents, which are commented on in Sections 6.1 – 6.6 of this Report. This is followed by an assessment of Part 2 of the Act.

- Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011
- National Policy Statement for Natural Hazards 2025
- Regional Policy Statement for Northland
- Far North Operative District Plan
- Far North Proposed District Plan
- Regional Plan for Northland

6.1 National Environmental Standards

Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (“NESCS”)

The application is accompanied by a Preliminary and Detailed Site Investigation (“PSI / DSI”) prepared by LDE – refer to **Appendix 3**. The PSI/DSI concludes that soil contamination does not exceed the applicable standard in NESCS regulation 7. Therefore, it is highly unlikely that the proposed subdivision, and any future soil disturbance will present a risk to human health. The proposed activity requires consent as a controlled activity under the above regulations.

6.2 National Policy Statement for Natural Hazards 2025 (“NPS-NH”)

This is reported on within the LDE Site Suitability and Civil Infrastructure Report, which lists a low level of natural hazard risk in all categories except “Ground conditions – expansive soils”. This can be mitigated by foundation design.

An assessment of the NPS-NH objective and policies is provided below.

Part 2: Objective and policies

2.1 Objective

1. *Natural hazard risk to people and property associated with subdivision use and development is managed using a risk-based proportionate approach.*

This has been considered using the risk matrix and in response to the policies below.

2.2 Policies

Policy 1: *When considering natural hazard risk associated with subdivision, use or development, the risk level must be assessed using the risk matrix.*

A low level of natural hazard risk has been assessed, provided that recommendations of the Site Suitability and Civil Infrastructure Report are adhered to.

Policy 2: *Natural hazard risk associated with subdivision, use and development must be managed using an approach that is proportionate to the level of natural hazard risk.*

Refer to the Site Suitability and Civil Infrastructure Report.

Policy 3: *Where subdivision, use or development is assessed as having very high natural hazard risk, that risk must be avoided.*

Not applicable.

Policy 4: *Where subdivision, use or development, including any associated mitigation measures, will create or increase significant natural hazard risk on other sites, that risk must be avoided or mitigated using an approach that is proportionate to the level of natural hazard risk.*

Not applicable.

Policy 5: *Natural hazard risk assessment and decisions must be based on the best available information and must be made even when that information is uncertain or incomplete.*

Most recent natural hazard mapping and site-specific investigations have been used.

Policy 6: *The potential impacts of climate change to at least 100 years into the future must be considered.*

Not applicable.

6.3 Regional Policy Statement for Northland (“RPS”)

The RPS provides an overview of resource management issues and gives objectives, policies, and methods to achieve integrated management of natural and physical resources of the region.

The subject site is not in the coastal environment, does not include any outstanding natural landscapes or features and does not include any areas of high or outstanding natural character.

The relevant RPS policy is addressed below.

Policy 5.1.1 – Planned and coordinated development, requires co-ordinated location, design and building or subdivision, use and development. Relevant matters are listed under (a), (c), (e), (g) and (h). These matters have been considered in preceding sections of this report. In particular:

- Servicing with the necessary infrastructure is viable, with a connection to a reticulated water, power and telecommunication system being available for the vacant lot, and onsite wastewater disposal being feasible, as described in the Site Suitability Report.
- The development connects well with existing development to make use of opportunities for (semi) urban intensification to minimise the need for urban development in greenfield areas;
- There is an existing network of footpaths along Kendall and Landing Road;
- The site is not near any significant mineral resources;
- The proposal does not affect any landscape or natural character values, historic or cultural heritage values, significant ecological areas or species, or transport corridors;

- Adverse effects associated with natural hazards and downstream flooding are avoided.
- The site contains highly versatile soils, however, is not within a primary production zone.
- The proposed use of the lots as rural residential sites is consistent with both the zoning of the land under the Operative and Proposed District Plan, as well as the predominant land use development pattern in the surrounding environment, so as to be compatible with other surrounding land use activities and avoid reverse sensitivity effects. The rural residential pattern of development is anticipated by the zoning of the site, and the character of the surrounding environment can be retained.
- Matters such as renewable energy, sustainable design technologies can be further addressed at the time that development on the vacant lot is proposed.

6.4 Objectives and policies – Far North Operative District Plan

The objectives and policies of the Rural Environment, Rural Living Zone and Subdivision Sections of the District Plan are relevant to this proposal. Comments on the objectives and policies of the Rural Environment and Rural Living Zone have been grouped together as they have many overlapping themes. As discussed below, it has been concluded that the proposal is not contrary to the overall objectives and policies of the District Plan and consequently meets the test of section 104D(1)(b).

RURAL ENVIRONMENT

8.3 OBJECTIVES

- 8.3.1 *To promote the sustainable management of natural and physical resources of the rural environment.*
- 8.3.2 *To ensure that the life supporting capacity of soils is not compromised by inappropriate subdivision, use or development.*
- 8.3.3 *To avoid, remedy or mitigate the adverse and cumulative effects of activities on the rural environment.*
- 8.3.4 *To protect areas of significant indigenous vegetation and significant habitats of indigenous fauna.*
- 8.3.6 *To avoid actual and potential conflicts between land use activities in the rural environment*
- 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.*
- 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.*

8.4 POLICIES

- 8.4.1 *That activities which will contribute to the sustainable management of the natural and physical resources of the rural environment are enabled to locate in that environment.*
- 8.4.2 *That activities be allowed to establish within the rural environment to the extent that any adverse effects of these activities are able to be avoided, remedied or mitigated and as a result the life supporting capacity of soils and ecosystems is safeguarded and rural productive activities are able to continue.*
- 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.*
- 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.*
- 8.4.6 *That areas of significant indigenous vegetation and significant habitats of indigenous fauna habitat be protected as an integral part of managing the use, development and protection of the natural and physical resources of the rural environment.*
- 8.4.7 *That Plan provisions encourage the efficient use and development of natural and physical resources, including consideration of demands upon infrastructure.*
- 8.4.8 *That, when considering subdivision, use and development in the rural environment, the Council will have particular regard to ensuring that its intensity, scale and type is controlled to ensure that adverse effects on habitats (including freshwater habitats), outstanding natural features and landscapes on the amenity value of the rural environment, and where appropriate on natural character of the coastal environment, are avoided, remedied or mitigated. Consideration will further be given to the functional need for the activity to be within rural environment and the potential cumulative effects of non-farming activities.*

RURAL LIVING ZONE

8.7.3 OBJECTIVES

8.7.3.1 To achieve a style of development on the urban periphery where the effects of the different types of development are compatible.

8.7.3.2 To provide for low density residential development on the urban periphery, where more intense development would result in adverse effects on the rural and natural environment.

8.7.4 POLICIES

8.7.4.1 That a transition between residential and rural zones is achieved where the effects of activities in the different areas are managed to ensure compatibility.

8.7.4.2 That the Rural Living Zone be applied to areas where existing subdivision patterns have led to a semi-urban character but where more intensive subdivision would result in adverse effects on the rural and natural environment. 8.7.4.3 That residential activities have sufficient land associated with each household unit to provide for outdoor space, and where a reticulated sewerage system is not provided, sufficient land for onsite effluent disposal.

8.7.4.4 That no limits be placed on the types of housing and forms of accommodation in the Rural Living Zone, in recognition of the diverse needs of the community.

8.7.4.7 That provision be made for ensuring that sites, and the buildings and activities which may locate on those sites, have adequate access to sunlight and daylight.

8.7.4.8 That the scale and intensity of activities other than a single residential unit be commensurate with that which could be expected of a single residential unit.

8.7.4.9 That activities with effects on amenity values greater than a single residential unit could be expected to have, be controlled so as to avoid, remedy or mitigate those adverse effects on adjacent activities.

8.7.4.10 That provision be made to ensure a reasonable level of privacy for inhabitants of buildings on adjoining sites.

The objectives and policies of the Rural Environment include two main themes – protection / maintenance of natural and amenity values and managing effects on rural production, all with the goal of promoting sustainable management of natural and physical resources. The Rural Living Zone objectives and policies expand on these strategies to require that the style of development suits the transitional nature of the zone, being situated between urban and rural areas, and to ensure that residential activities have sufficient land to provide for outdoor living space, onsite treatment and disposal of effluent, and access to sunlight and daylight.

Section 5 of this Report details that the natural and amenity values of the site and its wider context can be maintained by the proposed subdivision and that the vacant lots are suitable for the disposal of wastewater. Lot 2 will retain ample open space and existing outdoor living areas and existing buildings will continue to comply with the permitted activity standards for sunlight.

Although the lots are smaller than the lot sizes provided for in the District Plan, their dimensions meet the controlled activity standard. The locality is considered to be capable of accommodating the development with any adverse effects in terms of local amenity, rural landscape character and the natural environment being less than minor.

The site does not have any significant natural values.

The proposal will intensify the existing residential use of the site without detriment to primary production, and without generating any land use incompatibility or reverse sensitivity issues, given that the surrounding environment is used for low density residential activities and the site is more than 500m away from the Rural Production Zone.

As the site is not suitable for commercial primary production, given its size and location amongst an existing rural residential environment, the proposed subdivision is considered to be an efficient use of the land, which will not significantly compromise the life supporting capacity of soils.

Overall, the proposed subdivision is considered to represent sustainable management, resulting in minimal adverse effects on natural and physical resources.

SUBDIVISION

13.3 OBJECTIVES

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.*

13.3.2 *To ensure that subdivision of land is appropriate and is carried out in a manner that does not compromise the life-supporting capacity of air, water, soil or ecosystems, and that any actual or potential adverse effects on the environment which result directly from subdivision, including reverse sensitivity effects and the creation or acceleration of natural hazards, are avoided, remedied or mitigated.*

13.3.5 *To ensure that all new subdivisions provide ... on-site water storage and include storm water management sufficient to meet the needs of the activities that will establish all year round.*

13.3.8 *To ensure that all new subdivision provides an electricity supply sufficient to meet the needs of the activities that will establish on the new lots created.*

13.3.9 *To ensure, to the greatest extent possible, that all new subdivision supports energy efficient design through appropriate site layout and orientation in order to maximise the ability to provide light, heating, ventilation and cooling through passive design strategies for any buildings developed on the site(s).*

13.3.10 *To ensure that the design of all new subdivision promotes efficient provision of infrastructure, including access to alternative transport options, communications and local services.*

13.4 POLICIES

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;

(d) amenity values;

(g) existing land uses.

13.4.2 *That standards be imposed upon the subdivision of land to require safe and effective vehicular and pedestrian access to new properties.*

13.4.3 *That natural and other hazards be taken into account in the design and location of any subdivision.*

13.4.4 *That in any subdivision where provision is made for connection to utility services, the potential adverse visual impacts of these services are avoided.*

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.*

13.4.6 *That any subdivision proposal provides for the protection, restoration and enhancement of ... significant habitats of indigenous fauna, threatened species, the natural character of ... riparian margins ... where appropriate.*

13.4.8 *That the provision of water storage be taken into account in the design of any subdivision.*

13.4.13 *Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the applicable zone in regards to s6 matters. In addition subdivision, use and development shall avoid adverse effects as far as practicable by using techniques including:*

(a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;

(b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land ...

(e) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;

(g) achieving hydraulic neutrality and ensuring that natural hazards will not be exacerbated or induced through the siting and design of buildings and development.

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.*

The proposal is consistent with the objectives and policies of the Rural Living Zone, and represents a sustainable use of the land resource at a density that results in an efficient use of the land. The site includes highly versatile soils, however the property is not within a primary production zone.

The existing access formation will serve the proposed lots, with works being designed to achieve compliance with the permitted standard for private access, and thereby avoid adverse safety and efficiency effects on the use of the public roading network.

The proposed lot sizes fit within the range of existing development along Access Road and as a result, it is considered that the residential intensification will not significantly alter or undermine the existing

character. The subdivision is located amongst an existing rural residential environment so as to avoid causing reverse sensitivity issues.

Reticulated water supply, and onsite management of wastewater and stormwater can be achieved in such a way that avoids adverse effects on the environment – refer to the Site Suitability and Civil Infrastructure Report. Electricity and fibre connections are available, and will be provided through conditions of the subdivision consent. A future building site on Lot 1 will have access to sunlight along its northern and eastern face, and a future dwelling is able to be sustainably developed in accordance with energy efficient principles.

Section 6 matters have been recognised and a consent notice condition requiring specific foundation design to account for the potentially expansive soils is proposed.

The proposed subdivision avoids adverse effects on natural character and can retain the existing character of the environment and amenity values.

Overall, the proposed subdivision is considered to be an appropriate use of the land, which represents sustainable management, having regard to the range and scale of potential adverse effects identified.

6.5 Objectives and policies - Far North Proposed District Plan

Relevant objectives and policies are set out under the chapters 'Rural Residential Zone' and 'Subdivision', and are commented on below, and it is concluded that the proposal will be consistent with the relevant strategies.

Rural Residential Zone

Objectives

RRZ-O4 Land use and subdivision in the Rural Residential zone:

- (a) maintains rural residential character and amenity values;*
- (b) supports a range of rural residential and small-scale farming activities; and*
- (c) is managed to control any reverse sensitivity issues that may occur within the zone or at the zone interface.*

Policies

RRZ-P4 Require all subdivision in the Rural Residential zone to provide the following reticulated services to the boundary:

- a. telecommunications:*
 - i. fibre where it is available;*
 - ii. copper where fibre is not available;*
 - iii. copper where the area is identified for future fibre deployment.*
- b. local electricity distribution network.*

RRZ-P5 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. consistency with the scale and character of the rural residential environment;*
- b. location, scale and design of buildings or structures;*
- c. 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;*
- d. the capacity of the site to cater for on-site infrastructure associated with the proposed activity;*
- e. the adequacy of roading infrastructure to service the proposed activity;*
- f. managing natural hazards;*
- g. any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity; and*
- h. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.*

The above strategies are similar in nature to those for the Rural Living Zone of the Operative District Plan; however, in addition it can be noted that the site is not located at a zone interface, and that fibre reticulation is available and can be installed. As noted, the proposal provides for large lot residential development with onsite servicing, in a location close to the urban environment of Kerikeri, and which is compatible with the anticipated character of the surrounding environment along Kendall Road and Landing Road and the wider zone. Reverse sensitivity effects are avoided. Overall, it is considered that the proposal will be consistent with the above objectives and policies.

Subdivision

Objectives

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.*

Policies

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 in accordance with the purpose, characteristics and qualities of the zone.*

SUB-P11 Manage 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. consistency with the scale, density, design and character of the environment and purpose of the zone;*
- b. the location, scale and design of buildings and structures;*
- c. the adequacy and capacity of available or programmed development infrastructure to accommodate the proposed activity; or the capacity of the site to cater for on-site infrastructure associated with the proposed activity;*
- d. managing natural hazards;*
- e. Any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and*
- f. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.*

The proposed subdivision is an efficient use of land and in accordance with the Rural Residential Zone objectives. The lots have sufficient size and shape to support the existing and future residential development including feasible stormwater and wastewater disposal provisions. The proposed subdivision and future land use activities can proceed, subject to the proposed mitigation measures, without generating any significant adverse impact on character, amenity values, heritage or cultural values, land use compatibility, legal and physical property access, supply of services and infrastructure, and does not increase natural hazard risk.

6.6 Regional Plan for Northland

Proposed stormwater management has been designed to comply with the permitted activity rules of the Regional Plan for Northland. Stormwater management proposals for the site are based on Proposed Regional Plan for Northland Rule C.6.4.2; in that downstream flooding is avoided by way of the stormwater attenuation proposals, and scour and erosion can be avoided.

The discharge of sewage effluent onto land is controlled by the permitted activity rules C.6.1.3 of the Regional Plan for Northland. The existing system has recently been upgraded and is subject to building consent BC-2016-371_0. An effluent field and reserve area can be located on the vacant lot in compliance with the current rules.

No consents are considered necessary for the proposed subdivision under the Regional Water and Soil Plan or Proposed Regional Plan for this proposal, although careful design of the onsite wastewater system will be required at building consent stage.

6.7 Part 2 of the Resource Management Act 1991

An assessment of the proposal in relation to the relevant purpose and principles of Part 2 of the Resource Management Act 1991 is given below.

PART 2 PURPOSE AND PRINCIPLES

5 Purpose

- (1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while-*
 - (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
 - (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
 - (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (h) *The management of significant risks from natural hazards.*

7 Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, shall have particular regard to-

- (b) *The efficient use and development of natural and physical resources;*
- (c) *The maintenance and enhancement of amenity values;*
- (f) *Maintenance and enhancement of the quality of the environment;*

8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

The proposal is considered to promote sustainable management as per the purpose of the Act (Section 5) by creating one additional allotment within an existing rural-residential area at a density that fits within the spectrum of existing development in the immediate environment and wider Riverview neighbourhood, and in a location that does not compromise any significant natural values.

The proposal will not detract from the existing amenity, character or landscape values present in the surrounding environment. Servicing of each lot is achievable.

There is no significant risk from natural hazards that would cause Section 106 of the Resource Management Act to apply. The Site Suitability and Civil Infrastructure Report notes that the site is suitable for development, provided that its recommendations are adhered to. Therefore, the management of risk as per Section 6 has been recognised and provided for.

The proposed subdivision is considered to be an efficient use of this land. A future building site on Lot 1 can be developed without affecting overall amenity values, and there is space on each lot to provide for future planting to increase privacy between the sites. The existing amenity values associated with the built development on Lot 2 can be retained. The proposal will maintain amenity values and the overall quality of the environment in terms of section 7.

The proposal has no implications in terms of the Treaty of Waitangi.

The proposal is considered to be consistent with the purpose and principles of the Resource Management Act 1991.

7. Other matters

Section 104(1)(c) requires the consent authority, subject to Part 2 of the Act, to have regard to any other matter the consent authority considers relevant and reasonably necessary to determine the application.

7.1 Precedent effect

The precedent resulting from granting a resource consent is an 'other matter' that Council can have regard to in considering an application for consent for a non-complying activity. The non-complying activity status does not of itself create a precedent effect; however, a relevant consideration is whether granting this consent, and the anticipation that like cases will be treated alike, will contribute to an adverse cumulative effect that follows from this activity.

The proposed subdivision is a non-complying activity due to the proposed lot sizes. It intends to create an additional site to make use of vacant land on the site. The site is part of a large and extensive tract of land zoned Rural Living, which includes mixed lot sizes, including a number of sites with areas less than 3,000m². Due to the existing settlement pattern of the surrounding neighbourhood, the proposed development will not result in an adverse cumulative effect on the established settlement character of the Riverview area. This is further supported by the proposed subdivision's ability to create lots that comply with the controlled activity allotment dimension, due to the fact that the existing built development is located at the corner of the site, and that the site has a regular shape.

The existing pattern of rural residential development is the predominant characteristic of the neighbourhood, allowing the additional proposed site to be accommodated without setting a wider precedent that would challenge the integrity of either the Operative or Proposed District Plan.

8. Consultation and notification assessment

8.1 Summary of consultation

The applicants have obtained written approval from the owners of the property to the north (on the opposite side of Kendall Road) and the property to the east of the application site. These are attached in **Appendix 6** and highlighted in **Figure 4**.

8.2 Public notification

Step 1: Public notification is not required in terms of the criteria listed in 95A(3).

Step 2: Public notification is not precluded in terms of 95A(5).

Step 3: There are no relevant rules that require public notification. Section 95A(8)(b) requires Council to assess, in accordance with section 95D, whether the activity will have or is likely to have adverse effects on the environment that are more than minor. Section 95D directs Council, among other things, to disregard any effects on persons who own or occupy the application site and any adjacent land; and allows adverse effects of activities permitted by a rule or national environmental standard to be disregarded.

For the purposes of deciding public notification, any effects on persons who own or occupy the application site, or adjacent land may be disregarded.

As outlined in Section 5 of this report, it is submitted that the adverse effects associated with the proposed subdivision will be avoided, remedied, and mitigated so that they are not more than minor. The application can therefore proceed without being publicly notified.

Step 4: No special circumstances are considered to exist that warrant the application being publicly notified in terms of 95A(9).

8.3 Limited notification

Step 1: There are no affected customary rights groups in terms of Section 95B(2)(a). The proposed activity is not on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement in terms of Section 95B(3)(a).

Step 2: Limited notification is not precluded in terms of Section 95B(6).

Step 3: In terms of 95B(8) an assessment has been undertaken in accordance with section 95E.

Figure 4 highlights the property whose owners have provided written approval to the proposed subdivision, who are not 'affected' as specified in section 95E(3).

Those parties aside, section 95E(1) specifies that a person is an affected person if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor).

Section 95E(2) provides further guidance as to how a consent authority should assess an activity's adverse effects on a person for the purposes of Section 95E, including clause (a), where they may disregard an adverse effect of the activity on a person if a rule or national environmental standard permits an activity with that effect. There is no permitted baseline for subdivision that needs to be considered as part of this assessment. Potential adverse effects above permitted activity baseline for impermeable surface and building coverage can be considered. Stormwater runoff from existing and proposed impermeable surfaces is to be attenuated to avoid, and perhaps improve effects beyond the boundary. These stormwater management design ensures that stormwater runoff from the site avoids exacerbating downstream flooding.

Vehicle access to Lots 1 and 2 will use an existing vehicle crossing, which will be upgraded to meet the relevant Engineering Standards and Guidelines.

In terms of outlook and privacy, the effect of future development on proposed Lot 1 must be considered along with the perceived increase in residential density. Lot 1 is surrounded by existing fencing and hedging, excluding the vehicle crossing, which provide a degree of screening. As noted, potential visual and amenity effects on the properties to the north and east of Lot 1 can be disregarded, with the western boundary adjoining Local Purpose Utility Reserve and Landing Road (with an existing intervening hedge), and the southern boundary adjoining the existing development on Lot 2. It is considered that the potential adverse effects on properties other than those whose owners have provided written approval will be less than minor.

As such, it is considered that limited notification is not required.

Step 4: There are no special circumstances that warrant notification of the application to any other person.

8.4 Summary of notification assessment

As outlined above, it is considered that the proposal achieves the statutory criteria to be processed on a non-notified basis.

9. Conclusion

In terms of sections 104, 104B and 104D of the Resource Management Act 1991, we consider that:

- the proposed activity achieves the “gateway test” set out in 104D(1) as:
 - the adverse effects of the activity on the environment resulting from the proposed activity, disregarding the effects on people who have provided their written approval, will be minor or less; and
 - the proposal is consistent with the relevant objectives and policies of the Operative and Proposed District Plan.
- The proposal is in accordance with the Purpose and Principles of the Resource Management Act 1991.
- The proposal is not contrary to the Regional Policy Statement for Northland, or the National Policy Statement for Natural Hazards.

We also note that:

- Written approvals have been obtained from adjacent property owners.
- The proposal has been assessed as satisfying the statutory requirements to proceed without notification.



Signed
Natalie Watson,
Resource Planner

Date 14 May 2025
WILLIAMS & KING
Kerikeri

10. Appendices

- Appendix 1** Scheme Plan
- Appendix 2** LDE Site Suitability and Civil Infrastructure Report
- Appendix 3** LDE Preliminary and Detailed Site Investigation
- Appendix 4** Record of Title
- Appendix 5** Top Energy Correspondence
- Appendix 6** Written Approvals



GENERAL NOTES

Ground levels shown on this plan are current levels and may not be the Ground Level as defined by the FNDC District Plan.

Consideration in terms of the FNDC definition should be undertaken in order to correctly assess the Building Height and Sunlight Rules.

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	Name	Date
Surveyed	MP	Feb 2026
Designed		
Drawn	WF	Feb 2026

Height Datum NZ Vertical Datum 2016

Local Reference

Contour Interval	Major 1.0m	Minor 0.2m
Address	1 Kendall Road, Kerikeri	
Title	NA46B/322	Area 0.4093 ha.

JOB/CLIENT:

NORM & ANN LAMBERS

KERIKERI

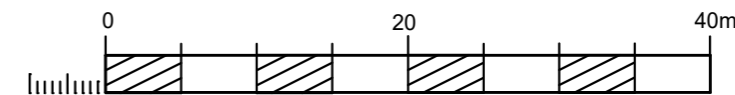
SHEET TITLE:
**PROPOSED
SUBDIVISION
OF
LOT 1 DP 89164**

PROPOSED MEMORANDUM OF EASEMENTS

PURPOSE	SHOWN	BURDENED LAND	BENEFITTED LAND
RIGHT OF WAY RIGHT TO CONVEY POWER TELECOMMUNICATIONS & WATER	A	LOT 1 HEREON	LOT 2 HEREON

LOT 2 IMPEARMEABLE AREAS

Drive 250m²
Buildings pool and paths 470m²
Total 720m² / 31.6%



Williams & King
Registered Land Surveyors, Planners &
Land Development Consultants
27 Hobson Ave
PO Box 937, Kerikeri
Tel: 09-407 6030
Email: kerikeri@saps.co.nz

Job No: 24772

File: Lambers

SCALE @ A3 1:500	SHEET No 1/1
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NL and A Lambers

SITE SUITABILITY AND CIVIL INFRASTRUCTURE REPORT

1 Kendall Road, Kerikeri

Project Reference: 30495
May 18, 2026

DOCUMENT CONTROL

Version	Date	Comments
A	14/04/2026	Issued for Consent
B	18/05/2026	Issued Consent – Minor Scheme Plan Change

Prepared By	Reviewed By	Authorised By
<p>Caleb Gasston Senior Engineering Geologist/Geophysicist <i>PhD (Geology), MEngNZ</i></p>	<p>Hamish Gibson Senior Civil Engineer <i>BEng(Hons) Civil, MEngNZ</i></p>	<p>Conor Pullman Associate Engineering Geologist <i>BSc, PGDipSci, CMEngNZ (PEngGeol)</i></p>

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APPENDIX A: GEOTECHNICAL INVESTIGATION PLAN
APPENDIX B: TEST LOGS
APPENDIX C: EXISTING DWELLING STORMWATER DESIGN INFORMATION

1 INTRODUCTION

LDE Ltd was engaged by NL and A Lambers to undertake a civil and geotechnical engineering assessment for the proposed subdivision of Lot 2 DP 89164, 1 Kendall Road, Kerikeri (Figure 1). It is proposed to subdivide the existing property to create one additional residential lot. Lot 2 will contain the existing dwelling and Lot 1 will contain a proposed building platform for an assumed 4-bedroom dwelling.

This report has been prepared for submission alongside a Resource Consent application to the Far North District Council (FNDC).



Figure 1: Location plan for 1 Kendal Road, Kerikeri.

2 PROPOSED DEVELOPMENT

It is proposed to subdivide the site into two residential lots. The existing metaled accessway will be retained to provide access to proposed Lot 2 (containing the existing dwelling) and access to the new proposed Lot 1. The vehicle crossing from Kendall Road will require upgrading to FNDC standards. The proposed Lot 2 is to have a land area of approximately 2,283 m², the proposed Lot 1 will have a land area of approximately 1,810 m².

A 30x30 m building site has been identified on the proposed Lot 1 (marked with red square on Figure 2). The proposed scheme plan is shown in Figure 2, below.



3 DESKTOP STUDY

3.1 Site Description

The site is situated approximately 2.2 km to the northwest of the Kerikeri township on the southern side of the intersection of Kendall Road and Landing Road (Figure 3). The site, legally described as LOT 2 DP 89164, is a roughly rectangular residential lot which comprises approximately 4,000 m² of land. The surrounding area consists mainly of rural residential properties and is zoned Rural Living under the Operative District Plan. The site is sloping towards the north-west with a slope grade of 2-3%. The lot is serviced by town water supply but is outside of the reticulation boundary for stormwater and wastewater. No evidence of obvious land instability is visible at the site.

An existing dwelling with a shed, and a pool is in the southern 1/3 of the site, (proposed Lot 2) (Figure 2). The existing dwelling has an unsealed vehicle crossing from Kendall Road (sealed road). The existing dwelling is serviced by an on-site waste-water treatment and disposal system.



Figure 3: Subject property marked.

3.2 Mapped Hazards

LDE has undertaken a review of FNDC's Far North Maps (Te Kaunihera o Te Hiku o te Ika (FNDC), 2026) and NRC's Hazard Maps (Northland Regional Council, 2026). The site is not mapped as being impacted by any of the natural hazards mapped or assessed by FNDC or NRC.

3.3 Historical Information

LDE's review of relevant historical information including historic aerial photographs revealed the following:

- The site was vacant, used predominantly for pastoral land up until at least the time of the 1951 Aerial photograph.
- The 1968 Aerial photograph shows the site had been developed as part of a larger orchard (Figure 4).
- Sometime between the 1979 and 1982 Aerial photographs a dwelling was built on the property, approximately in the location of the existing dwelling (Figure 5).
- The pool was the subject of a 1983 building consent application.
- From the time of the 2000 aerial photograph until the present day, orchard trees have been periodically removed from the site, with the bulk of the trees removed by the time of the 2017 satellite image.



Figure 4. Aerial imagery 1968. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.



Figure 5. Aerial imagery 1982. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

4 INFRASTRUCTURE ASSESSMENT

4.1 Water Supply

4.1.1 Onsite Supply

Reticulated water supply is available at the site and meets servicing requirements for potable water for both the existing and new lots.

There are three fire hydrants within 100 m of the property, 1no. on Kendall Road, and 2no. on landing road. As such, water supply for firefighting requirements will be adequately provided for by existing services.

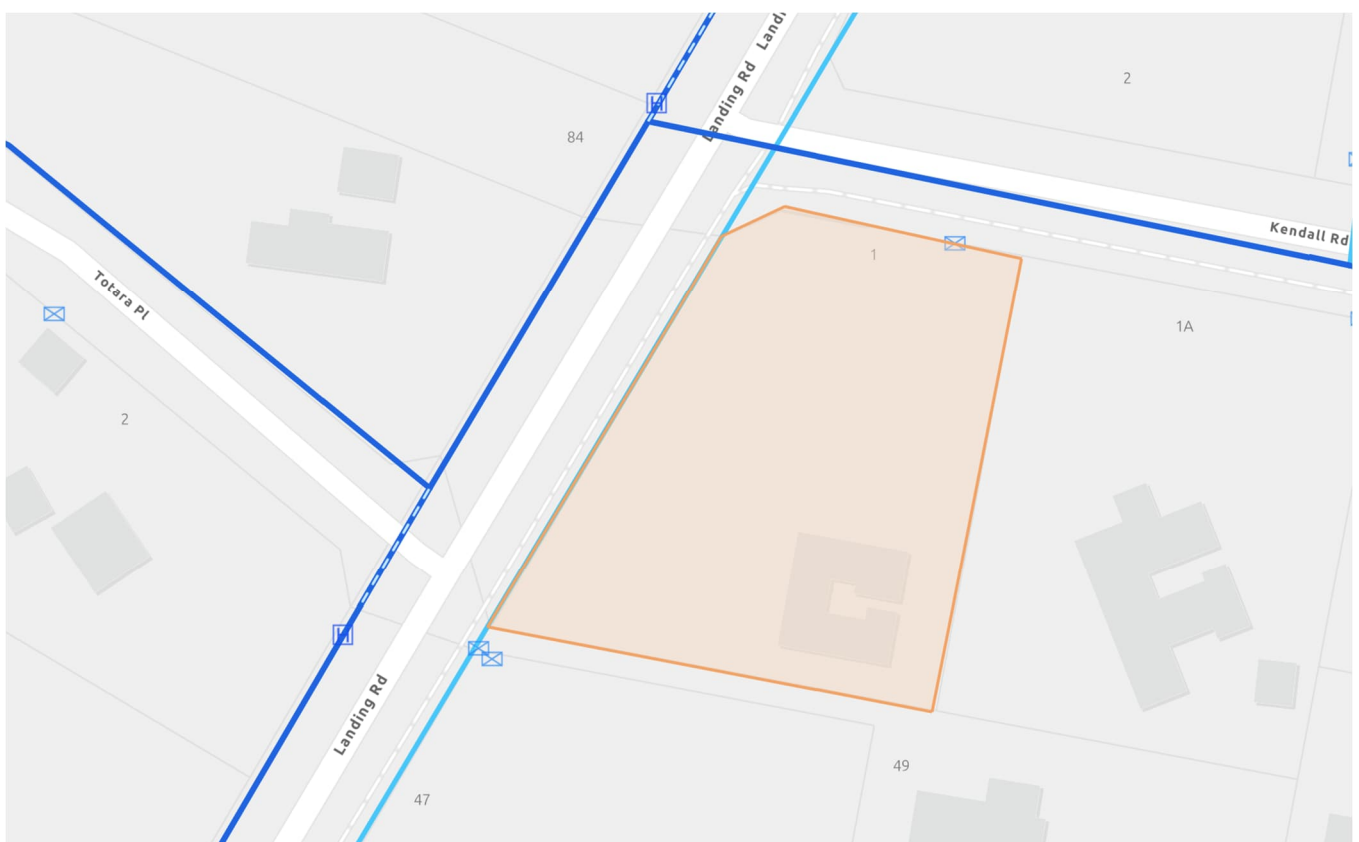


Figure 6: Existing water supply at the property from (FNDC, 2024).

4.2 Onsite Wastewater Disposal

4.2.1 Site Investigation and Appraisal

There is no existing public reticulated wastewater system available and therefore onsite wastewater disposal will be required for the new Lot 1. The dwelling on Lot 2 will be serviced by the existing wastewater system.

The proposed wastewater treatment and disposal system is to be located on an elevated site well above the elevation of the nearest mapped flood hazard or water course. No overland flow paths were observed within the vicinity of the location of the proposed system. The location is exposed to free airflow and a good deal of sun.

The site investigation consisted of 2no. 50 mm hand augered boreholes to depths of up to 3.0 m. The soils encountered across the site were consistent and found to be stiff silts and clays, equivalent to Category 4 – ‘CLAY Loam – Moderately Draining.’

4.2.2 Existing Onsite Wastewater System

The proposed Lot 2 has an onsite wastewater system that services its existing building, this has recently been upgraded and is subject to an existing building consent (BC-2016-371_0).

The location of this system is located within the proposed boundaries of proposed Lot 2 and appears to be in good working order with no surface ponding noticed and/or odour from the septic tank vent at the time of inspection.

4.2.3 Proposed Onsite Wastewater System

4.2.3.1 Lot 1 Onsite Wastewater System

For Lot 1, we assume a 4-bedroom dwelling with an occupancy of 6 persons is likely to be constructed, we have calculated the required disposal areas to demonstrate that onsite disposal is available within the proposed lot.

For the purposes of design, we have assumed a design loading rate of 3 mm per m² per day, based on the Category 4 soils.

The assumed design requirements for the on-site wastewater treatment and disposal system are as follows:

Occupancy Allowances: refer Table 6.1	Number of bedrooms	= 4
	Occupancy	= 6 persons
Flow Allowances: refer Table 6.2	Reticulated supply	= 180 l/person/day

Max Daily Wastewater Flow:	6 x 180	= 1,080 l/day
-----------------------------------	---------	---------------

Areal Application Area Calculation		
Design Land Disposal Area:	1,080 l/day l/m ² /day	= 360 provide: 360 m ²
Linear Length of Drippers:	360 m ² / 1.0 m spacing	= 360 m

$$\text{Area: Volume Ratio} = \frac{\text{Gross Lot Area}}{\text{Max Daily Flow}} = \frac{1,810}{1,080} = 1.68$$

This area:volume ratio exceeds the 1.5 threshold, and the maximum daily flows do not exceed 2000-litres/day therefore the activity is a permitted activity in accordance with Northland Regional Councils regulations.

A building-specific design will be required for the dwelling at building consent which will specifically size the treatment device and disposal field.

4.2.3.2 Clearances

Minimum separation distances must be maintained as per the Far North District Council Guidelines and Auckland Councils TP58. The following setbacks are required for a secondary wastewater system:

- A 1.5 metre clearance from the disposal field to all site boundaries.
- A minimum 900mm groundwater table separation.
- A 15 m setback from any surface water.

We consider a wastewater disposal field can be located within the proposed Lot 1 meeting the required setback distances.

In the LDE investigation of the proposed wastewater disposal fields, no groundwater table was encountered 1.2m below the existing ground levels when a 50 mm auger was sunk at the proposed location of the disposal field.

4.2.3.3 Recommended System

For resource consent purposes, a secondary treatment system is proposed. Many secondary treatment systems could be suitable which will be determined in the detailed design stage once developed plans for each dwelling are available. We consider the most viable option for the site is a secondary treatment system disposing to land via pressure compensated dripper lines, with a loading rate of 3 mm/m²/day. The disposal field for Lot 1 will be 360 m², with a reserve field area of 180 m². The disposal fields of this size can be located within the lots as shown on Figure 7. Accordingly, we consider that the proposed development can achieve wastewater disposal on site.



Figure 7: Site plan of proposed Wastewater and fire tank Layout

4.2.4 Detailed Design

We note the design outlined above is for resource consent application and a specific design suitable for building consent and construction will be required following the development of the house design plans for Lot 1.

4.3 Stormwater

4.3.1 Existing Infrastructure

There is no existing underground stormwater infrastructure. All surrounding sites discharge to the ground or to the roadside drains (Figure 8 to Figure 11).



Figure 8: View along Kendall Road toward Landing Road from the site entrance, showing the existing swale/culverts.



Figure 9: View to the south, along Landing Road, from the intersection of Landing and Kendall Roads, showing the existing swale.



Figure 10: View to the north of the intersection of Kendall and Landing Roads, showing the existing swale and drainage.



Figure 11: View eastward along Kendall road showing the existing swale.

4.3.2 Overland Flow Paths / Flood Risk

Northland Regional Council GIS shows no flood-prone areas in the direct vicinity of the subject site.



Figure 12: Natural Hazard Map (Northland Regional Council GIS)

Flood-prone areas have been identified on the NRC map shown in Figure 12 to the west of the subject site. The subject site has been identified with an orange square.

4.3.3 Stormwater Disposal

It is proposed to attenuate new impervious areas for the 50% and up to the 10% annual exceedance probability (AEP) storm events to reduce peak flows from the proposed development and help mitigate potential adverse downstream effects. The discharge point for both sites will be the swale drain along Kendall Road, next to the existing Vehicle crossing.

We have utilised HEC-HMS software to analyse both pre- and post-development scenarios to calculate the required storage volume and the configuration of outlet orifice(s) to achieve stormwater neutrality. The post-development stormwater discharge can be attenuated to less than or equal to the pre-development discharge rate using this method.

It is proposed to collect stormwater runoff from the roof areas in an above ground tank for attenuation. Stormwater runoff from proposed hardstand areas is not proposed to be captured, within the proposed tank, however, attenuation of these areas has been accounted for through oversizing of the tanks and specific configuration of the tank's orifices.

4.3.3.1 Existing Dwelling (Lot 2)

The existing dwelling has no stormwater attenuation, and, due to land development, attenuation will be required to comply with the Far North District Council plans. The existing accessway will be retained, and the attenuation of the accessway will be split between the Lots.

Table 1: Pre- and post-development areas for Lot 2.

	Pre-development	Post-development
Proposed Site Area (Lot 2)	2,283	2,283
Roof Area	0	320
Pavement Area	0	150
Total Impervious	0	470

4.3.3.2 Analysis Results

The table below shows the pre- and post-development peak flow rates produced by the proposed design. The full output tables from the HEC-HMS modelling are attached in Appendix B.

Table 2: Peak runoff flow rates for the 50 and 10% AEP rainfall events.

AEP	Pre-development (L/s)	Post-development (L/s)
50%	3.33	3.26
10%	8.39	7.98

The results show that the proposed design attenuates post-development peak flows to less than the pre-development flows from the site.

If impermeable areas different to those analysed in this design are proposed, then a revision of the design outlined in this report may be required and we should be contacted.

4.3.3.3 Stormwater Devices and Outfall Recommendation

4.3.3.4 Attenuation

Stormwater runoff from the new roof shall be plumbed directly to the detention tank and will be attenuated by one 25,000 litre, 2.4 m high detention tank with orifices as set out below.

Table 3: Orifice details for attenuation tank.

Orifice	Diameter (mm)	Height above tank base or Distance below overflow invert (m)
Outlet 1	18	0.10
Outlet 2	40	1.2
Overflow	100	2.30

The location of the tank is not critical and may be moved so long as the requirements of this report and appendices are met.

4.3.3.5 Proposed dwelling (Lot 1)

The proposed dwelling on Lot 1 will require attenuation to the 50% and up to the 10% annual exceedance probability (AEP) storm events. The Flooding downstream in the 100-year event will have a negligible effect by the small additional area of impervious surface. A similar tank will be required on Lot 1 to the 25,000L tank proposed on Lot 2. This will need to be a consent condition of the Building Consent for Lot 1.

4.4 Accessway

4.4.1 Sight Distances

Access onto Kendall Road will need an application to FNDC and certain conditions will likely be enforced. An upgrade to FNDC ES Drawing sheet 21 "Type 1A) will likely be the minimum required.

The work required for this upgrade will include the sealing of the vehicle crossing and ensuring adequate widening(s) of the crossings are allowed for.



Figure 13: Left – Existing crossing for proposed Lot 2 looking west. Right – Existing crossing for proposed Lot 2 looking North.

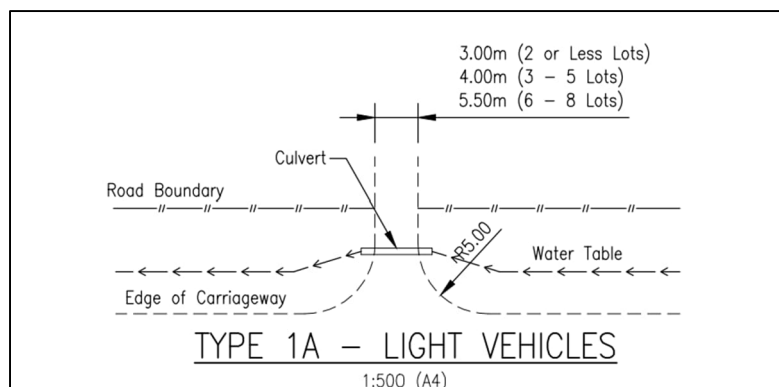


Figure 14: FNDC Diagram C for unsealed accessway to sealed carriageway.

4.4.2 Proposed Access and Vehicle Crossing

A metal vehicle crossing exists for Lots 1 and 2. The vehicle crossing will need to be upgraded to comply with FNDC Engineering Standards sheet 21 – Type 1A. There is an existing metalled accessway which is to be used to access lots 1 and 2 this will need to be measured to ensure it is compliant with FNDC standards. The existing and proposed accessways will comply with the council requirements with a formed width of 3.0 m and maximum grades of 5% along their alignments.



Figure 15: Existing metal accessway for proposed Lots 1 and 2

5 GEOTECHNICAL SUITABILITY ASSESSMENT

LDE has undertaken a geotechnical assessment at the site to assess ground conditions and quantify any potential geotechnical hazards which may impact on the subject development.

5.1 Geology

The 1:250k Geology Map of New Zealand (Heron, 2020) GNS Science identifies the site as being underlain by Late-Miocene aged Basalt lava flows of the Kerikeri Volcanic Group – Bay of Islands Volcanic Field. Our assessment of the site indicates that the basalt has weathered to an iron-stained, residual soil.

5.2 Geomorphology

The subject site occupies the NE flanks of a broad plateau. The site itself slopes to the northwest at a gradient of approximately 1V:25H. The Waipapa Stream is located approximately 500 m northwest of the property.

5.3 Site Investigation

A site walkover and hand testing were undertaken on the 11/03/2026 by a senior engineering geologist from LDE. One hand auger was undertaken to refusal in the middle of the proposed building platforms for Lot 1 (HA1) and one in the location of the proposed wastewater disposal field (HA2). Shear vane tests were undertaken every 0.2 m depth in the tests for the building platforms. Test locations are shown on the geotechnical investigation plan below (Figure) and in Appendix A. Detailed test logs are provided in Appendix B.



Figure 13: Geotechnical investigation plan.

5.4 Ground Conditions

Iron rich, orangish brown clay and silt are exposed at the surface across the property.

The building platform for Lot 1 is underlain by very stiff, low plasticity, clayey silts and silty clays which underlie topsoil (0.3 m) and extend to beyond the depth of our testing at 3.0 m. Measured in-situ shear strengths were in the range of 165 kPa to >227 kPa, averaging >220 kPa. Soils were found to be insensitive to moderately sensitive with ratios of peak to remoulded shear strength <4.

Ground water was not encountered in any of the test locations.

5.5 Natural Hazards

This section summarises our assessment of the natural hazards within the property near the proposed building platforms as broadly required by Section 106 of the Resource Management Act (1991 and subsequent amendments) and including geotechnical and coastal hazards given in Section 71(3) of the Building Act (2004). This includes erosion, inundation, subsidence, and slippage.

This section also includes our assessment of ground beneath the building site which is outside the definition of “Good Ground” as defined by NZS3604 (2011) “Timber Framed Buildings”.

5.5.1 Natural Hazards Risk Assessment

A risk assessment is provided in accordance with the National Policy Statement for Natural Hazards 2025 (Ministry for the Environment, 2025). This requires the assessment of a likelihood of the hazard occurring at the site in terms of Annual Exceedance Probability for any given year (AEP) or Average Recurrence Interval or ‘return period’ (ARI).

Where possible, this information is taken from existing reporting or site assessments, for example region wide coastal inundation reporting or council flood mapping available from online GIS hazard mapping databases. Table 4 below from the NPS-NH 2025 (Ministry for the Environment, 2025) outlines the risk levels for various combinations of likelihoods and consequence levels.

Table 5 sets out the consequence of any given hazard in terms of damage to property and potential for injury or fatalities.

Table 4 - NPS-NH 2025 Risk Matrix
Likelihood Level

		Almost Certain	Very Likely	Likely	Possible	Unlikely	Rare	Very Rare
ARI (years)		up to 10	10-20	20-50	50-100	100-500	500-5000	>5000
AEP		10% or more	10% to 5%	5% to 2%	2% to 1%	1% to 0.2%	0.2% to 0.02%	<0.02%
Consequence Level	Catastrophic	Very High	Very High	Very High	High	Medium	Medium	Medium
	Major	Very High	Very High	High	High	Medium	Medium	Medium
	Moderate	High	High	High	Medium	Medium	Low	Low
	Minor	Medium	Medium	Medium	Medium	Low	Low	Low
	Negligible	Low	Low	Low	Low	Low	Low	Low

Table 5 - Consequence Table

Consequence Level	Damage to property	Potential for injury or fatalities
Catastrophic	Severe damage to land and building(s), potential for collapse or total destruction of structures. Building(s) need to be demolished, rebuilt or relocated.	High threat to life safety, with probable fatalities and/or critical injuries.
Major	Major damage to land and building(s), including structural damage. Loss of use and substantial repair required.	Unsafe for people, with potential for many injuries, or critical injuries and/or fatalities.

Moderate	Some damage to land and non-structural damage to building(s). Limited loss of use, repairs required.	Unsafe for people, with potential for injuries, although expected to be minor.
Minor	Minor damage to land and building(s). No loss of use, minimal repairs required.	Isolated minor injuries possible.
Negligible	No loss of use, no building repairs required.	No injuries.

A summary of the results of the assessment of the risk to the development for different hazards is presented in Table 6. Hazards for which the risk to the proposed development, or to land, is assessed as being medium or higher are discussed in further detail in the sections that follow. Engineering mitigation measures are provided in Section 6.

Table 6: Summary of natural hazards, their impacts on the development and the interpreted risk.

Hazard		Assessment Description	Consequence	Likelihood	Risk
Ground Conditions	Low Bearing Materials	The surficial soils beneath the site are typically stiff to very stiff. The surficial soils are expected to have a static geotechnical ultimate bearing capacity (GUBC) of >300 kPa	Minor	Unlikely	Low
	Compressible Soils	Uncertified fill and compressible soils were not encountered in our hand testing.	Negligible	Unlikely	Low
	Expansive Soils	The plasticity of the surficial soils encountered on site is low. The soils are classified as being moderately expansive when assessed in accordance with B1/AS1 (2021). A 500-year design characteristic ground movement (ys) of up to 44 mm is expected.	Moderate	Unlikely	Medium
Earthquake	Surface Fault Rupture	The GNS Active Faults Database (2022) does not show any faults passing beneath the site. There also does not appear to be any surface expressions which would indicate the presence of an active fault beneath or within proximity to the site.	Minor	Very Rare	Low
	Seismicity	The national seismic hazard model for New Zealand shows that the area has low seismicity.	Moderate	Rare	Low
	Liquefaction	The site is mapped by FNDC as being unlikely to be impacted by liquefaction. Ground conditions at the site reflect this assessment.	Negligible	Rare	Low
	Cyclic Softening	The clay soils encountered at the site were generally insensitive; hence the risk of cyclic softening is considered low.	Negligible	Rare	Low
	Lateral Spreading	The risk of lateral spreading occurring at the site is considered to be low given the low liquefaction risk.	Negligible	Rare	Low
Tsunami	The site is elevated at approximately 100 m and is not considered to be at risk of inundation during a Tsunami.	Negligible	Rare	Low	
Slope Instability	The development area is generally level and set well back from the nearest slope, therefore we do not consider there to be a slope stability hazard impacting on the development area.	Negligible	Rare	Low	
Flooding	The site is elevated approximately 25 m above the nearest water course and is not considered to be at risk from flooding.	Minor	Unlikely	Low	

Hazard	Assessment Description	Consequence	Likelihood	Risk
Coastal Hazards	The site is not located near the coast and is not considered to be at risk from coastal hazards.	Minor	Unlikely	Low
<u>Notes</u> <ul style="list-style-type: none"> LDE risk matrixing index values are as per Table 1 from NPS-NH 2025 				

5.5.2 Site Subsoil Class

Based on the published geological information for the region discussed in sections 5.1 and 5.3, we consider that the site classification of C- "Shallow Soil" Site is appropriate as defined by NZS 1170.5 (2004).

5.5.3 Seismic Actions

In accordance with the NZ Building Code and NZS 1170.5 (2004): Any proposed structures at the site are likely to be Importance Level 2 (IL2) with a design working life of 50 years, and therefore: -

- The Serviceability Limit State (SLS) design earthquake has an annual exceedance probability of 1/25.
- The Ultimate Limit State (ULS) design earthquake has an annual exceedance probability of 1/500
- Furthermore, an intermediate state event (ILS) has been considered in accordance with Module recommendations (New Zealand Geotechnical Society (NZGS) & Ministry of Business Innovation and Employment (MBIE, 2021) for an annual exceedance probability of 1/100.

Ground motions adopted in accordance with Module 1 (2021) for geotechnical design are summarised in Table 7.

Table 7: Summary of adopted seismic parameters

Seismic Parameters	SLS	ILS	ULS
Horizontal Peak Ground Acceleration (PGA), g	0.03	0.07	0.19
Effective Magnitude, Mw	5.8	5.8	6.5

5.5.4 Expansive Soils

No laboratory testing of the soil properties was completed. Based on field tests, the surficial soils display characteristics of low plasticity at the field moisture content and may maintain plastic behaviour over a broad range of moisture content. By extension of soil mechanics principles, the soils are best regarded as potentially being moderately reactive. The site subsoils are therefore best regarded as being class 'M' – Moderately Expansive when assessed in accordance with B1/AS1 (2021). A 500-year design characteristic ground movement (ys) of up to 44 mm is expected.

Foundations shall be embedded the minimum depths as outlined in Section 6.3. below where effects of soil volume changes between seasons is expected to be minor.

5.6 Conclusions

From our assessment of the natural hazard and ground deformation risks presented to the proposed development we consider that the site is suitable for development, provided that the recommendations given in Section 6 are adopted in full.

6 ENGINEERING RECCOMENDATIONS

6.1 Building Platform Development

The proposed building platforms fall across topography of a relatively low grade (3%) bulk earthworks are not required to form the platforms or to enable site access.

6.2 Site Contouring and Topsoiling

The finished ground level should be graded so that water cannot pond against, beneath or around the buildings for the economic life of structure. To achieve this, it will be important that the building platform beneath the topsoil grades away from the site. Contouring should avoid the potential for concentration and discharge of surface water over point locations which could result in soil erosion or instability.

6.3 Foundation Recommendations

6.3.1 Foundation Type

Based on the site investigation and analysis, we consider that foundations comprising of shallow strip footings, or bored and poured timber piles, embedded below a depth of 600 mm, or a reinforced, waffle raft, concrete slab are likely suitable for the site conditions though this should be confirmed at building consent.

So long as these recommendations are adhered to, we anticipate the residual risk to the development presented by Expansive Soils to be Low.

6.3.2 Design Considerations

Based on the scope of work completed, the following aspects need to be considered in detailed design:

- Site Class - Class C - Shallow soil
- Expansive soils – M - moderately reactive

6.4 Surface Water

The stormwater system for the buildings should be operational as soon as the roof is in place. This is to ensure that the ground within the vicinity of the building is not compromised by the negative effects and potential consequences of soil saturation.

6.4.1 Effluent Disposal

In accordance with Section 4.2, we consider that the proposed development can achieve wastewater disposal on site.

6.4.2 Service Pipes

All service pipes, stormwater structures should be designed and constructed to ensure adequate capacity, strength, and water tightness to prevent leakage into the platform through blockage, running under pressure, or structural failure.

All service pipes installed within any fill should be flexible, or flexibly joined, so that they may deflect without breaking if the ground settles.

A record should be kept of the position, type, and size of all subsoil drains, and in particular of their outlets.

6.5 Trees and Shrubs

Trees can cause damage through heaving as a result of root growth and / or settlement resulting from soil shrinkage from the moisture uptake of the roots. Existing trees are located on the proposed building platform for Lot 1. This should be taken into consideration when determining the location of any future buildings/determining the appropriate foundation system/installing services. Mitigation may be required to prevent adverse effects of tree roots on services and building foundations.

If new trees, shrubs or gardens are established, care should be taken to ensure:

- The vegetation does not interfere with any subfloor ventilation or services to the structure.
- Over-watering of the vegetation does not saturate the ground near the foundations.
- Trees or shrubs with the potential to develop significant root systems should be planted a minimum distance equal to the mature height of the plant away from the foundations.

6.6 Site Maintenance

Prompt repair of plumbing leaks should be undertaken. Blocked, broken or faulty spouting should be attended to immediately.

The discharge of uncontrolled surface water over the site and surrounding areas should be avoided at all costs.

7 SUSTAINABILITY

Considering sustainability as early as possible in a project's development, could lead to significant project opportunities and wider positive outcomes. Geotechnical opportunities for increased sustainability for this project include:

- Stripping and stocking topsoil for reuse (dependant on presence/ levels of contaminants).
- Designing for cut and fill balance where possible.
- Reuse of site won materials, or using materials won from other sites including use of recycled crushed concrete aggregate for hard fill.
- Contributing site investigation data to the New Zealand Geotechnical Database (NZGD) to help reduce the site investigations needed in the future.
- Using local consultants and contractors to reduce transport related emissions

8 CONCLUSION

The purpose of this report is to accompany a resource consent application for the proposed two lot subdivision at 1 Kendall Road, Kerikeri

Following development of the site in accordance with our recommendations, we consider that:

- a) The land in respect of which a consent is sought, or any structure on the land built in accordance with our recommendations, is unlikely to be subject to material damage by erosion, falling debris, subsidence, slippage, or inundation from any source; and
- b) In accordance with the National Policy Statement on Natural Hazard 2025, all natural hazards have been assessed as low risk and/or the recommended engineering measures are sufficient to manage the risk to the development; and
- c) Any subsequent use that is likely to be made of the land is unlikely to accelerate, worsen, or result in material damage to the land, other land, or structure by erosion, falling debris, subsidence, slippage, or inundation from any source; and
- d) Sufficient provision has been made for physical access to each allotment to be created by the subdivision.
- e) the proposed development can be adequately serviced with regard to water supply, firefighting water supply, wastewater, stormwater using the recommendations outlined in this report.

9 LIMITATIONS

This report should be read and reproduced in its entirety including the limitations to understand the context of the opinions and recommendations given.

This report has been prepared exclusively for NL and A Lambers in accordance with the brief given to us or the agreed scope and they will be deemed the exclusive owner on full and final payment of the invoice. Information, opinions, and recommendations contained within this report can only be used for the purposes with which it was intended. LDE accepts no liability or responsibility whatsoever for any use or reliance on the report by any party other than the owner or parties working for or on behalf of the owner, such as local authorities, and for purposes beyond those for which it was intended.

Opinions given in this report are based on visual methods and subsurface investigations at discrete locations designed to the constraints of the project scope to provide the best assessment of the environment. It must be appreciated that the nature and continuity of the subsurface materials between these locations are inferred and that actual conditions could vary from that described herein. We should be contacted immediately if the conditions are found to differ from those described in this report.

This report was prepared in general accordance with current standards, codes and best practice at the time of this report. These may be subject to change.

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APPENDIX A

GEOTECHNICAL INVESTIGATION PLAN



LEGEND

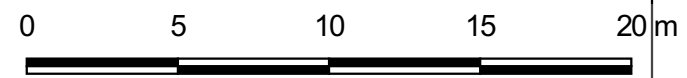
Geotechnical Testing

 Hand Auger Borehole

Basemaps

LINZ Aerial Imagery

Aerial Imagery Basemap



SCALE A3: 1:250

NOTES

1. Aerial basemap and property boundaries sourced from LINZ Data Service (CC-BY 4.0).
2. Topographic contours derived from LiDAR data.
3. Investigation locations shown approximately only.

CLIENT

Norm Lambers

PROJECT

Geotechnical Investigation for subdivision
1 Kendall Road,
Kerikeri

DRAWING TITLE

Geotechnical Investigation Plan



PROJECT REF 30495	DRAWING REF 30495-1	REVISION A
DATE 18/05/2026	PREPARED BY CJG	CHECKED BY CP

FILE PATH

M-FILES\LDE - Project\05736-30495\Geo QGIS Zip Folder (ID 79084)\30495 QGIS Site Maps\30495 1 Kendall Road.qgz

APPENDIX B

TEST LOGS



Hand Auger Borehole Log

Test ID: **HA01**

Project ID: 30495

Sheet: 1 of 1

Client: Norm Lambie
Project: Geotechnical Investigation - 1 Kendall Road, Kerikeri
Location: 1 Kendall Road, Kerikeri
Test Site: Refer to site plan

Coordinates: 6103307mN, 1687738mE
System: NZTM
Elevation: 35.4m
Located By: GIS/Web Map

Test Date: 11/03/2026
Logged By: CJG
Prepared By: CJG
Checked By: CP

Depth (m)	Geology	Graphic Log	Material Description	Water	In-situ Testing				Values	RL (m)
					Dynamic cone penetrometer (blows / 50mm)					
					Vane undrained shear strength, s_u (kPa)					
	Topsoil		Topsoil.							
0.5	Kerikeri Volcanics		Silty CLAY; brown. Very stiff; dry to moist; low plasticity.	Groundwater not encountered						227+
			0.50m - 0.60m: GRAVEL; red and yellow; gravel, fine to medium, subangular, highly weathered. Brown with some red and orange.							227+
			Orangish brown with some red and orange.							227+
1.0			1.00m - 1.05m: GRAVEL; red and orange; gravel, fine to medium, subangular, highly weathered.							227+
1.5			Clayey SILT; reddish brown with some grey. Very stiff; moist; low plasticity.							227+
2.0			SILT, with some clay; orangish brown and light brown with light grey flecks. Very stiff; moist; low plasticity.							227+
			Clayey SILT; reddish brown and light grey with some yellow. Very stiff; moist; low plasticity.							227+
2.5			SILT, with some clay; brown with purple, light grey, yellow, black and orange. Very stiff; moist; low plasticity.							214 / 53 (4.0)
										227+
3.0			Clayey SILT; low plasticity.							209 / 102 (2.0)
										165 / 99 (1.7)
3.5										

Hole Depth: 3.00m **Termination:** Reached target depth

Remarks:

Materials are described in general accordance with NZGS 'Field Description of Soil and Rock' (2005).
 No correlation is implied between shear vane and DCP values.

● Vane peak ▼ Standing water level
 ○ Vane residual ◁ Groundwater inflow
 ◆ Vane UTP ▷ Groundwater outflow
 UTP = Unable to Penetrate

Generated with CORE-GS by Geroc - HAX-TP Log v9 - 17/03/2026 3:30:35 pm



Hand Auger Borehole Log

Test ID: **HA02**

Project ID: 30495

Sheet: 1 of 1

Client: Norm Lambie
Project: Geotechnical Investigation - 1 Kendall Road, Kerikeri
Location: 1 Kendall Road, Kerikeri
Test Site: Refer to site plan

Coordinates: 6103312mN, 1687718mE
System: NZTM
Elevation: 36.2m
Located By: GIS/Web Map

Test Date: 11/03/2026
Logged By: CJG
Prepared By: CJG
Checked By: CP

Depth (m)	Geology	Graphic Log	Material Description	Water	In-situ Testing				Values Vane ID: N/A peak / residual (sensitivity)	RL (m)
					Dynamic cone penetrometer (blows / 50mm)					
					2	4	6	8		
	Topsoil		Topsoil.	Groundwater not encountered						36.0
0.5	Kerikeri Volcanics		Clayey SILT; brown with some red and yellow; moist; low plasticity.							35.5
1.0			Silty CLAY; orangish brown with some red and yellow; moist; low plasticity.							35.0
1.5									34.5	
2.0									34.0	
2.5									33.5	
3.0									33.0	
3.5									32.5	

Hole Depth: 1.20m **Termination:** Reached target depth

Remarks:

Materials are described in general accordance with NZGS 'Field Description of Soil and Rock' (2005).
 No correlation is implied between shear vane and DCP values.

- Vane peak
- Vane residual
- ◆ Vane UTP
- ▼ Standing water level
- ◁ Groundwater inflow
- ▷ Groundwater outflow

UTP = Unable to Penetrate

Generated with CORE-GS by Geroc - HAX-TP Log v9 - 17/03/2026 3:30:36 pm

APPENDIX C

EXISTING DWELLING STORMWATER

HEC-HMS RESULTS

TANK LAYOUT

HEC HMS LAYOUT



50%AEP

Project: Lot 2 , 1 Kendal Simulation Run: 2yr Pre_Run

Start of Run: 01Jan2000, 00:00 Basin Model: Pre-development
 End of Run: 02Jan2000, 00:00 Meteorologic Model: 2yr pre Metro setup
 Compute Time: 27Mar2026, 11:05:38 Control Specifications: Control 1

Show Elements: All Elements Volume Units: MM 1000 M3 Sorting: Watershed Explorer

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (MM)
Pre_Pervious Area	0.00047	0.00333	1 January 2000, 1...	37.64
Pre_Site Outlet	0.00047	0.00333	1 January 2000, 1...	37.64

Project: Lot 2 , 1 Kendal Simulation Run: 2yr Post_Run

Start of Run: 01Jan2000, 00:00 Basin Model: Post-development
 End of Run: 02Jan2000, 00:00 Meteorologic Model: 2yr post Metro setup
 Compute Time: 27Mar2026, 11:05:37 Control Specifications: Control 1

Show Elements: All Elements Volume Units: MM 1000 M3 Sorting: Watershed Explorer

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (MM)
Lot 1 Roof	0.00032	0.00564	1 January 2000, 1...	92.48
Tank	0.00032	0.00077	1 January 2000, 1...	89.68
Lot 1 Hardstand	0.00015	0.00264	1 January 2000, 1...	92.48
Post_Site outlet	0.00047	0.00326	1 January 2000, 1...	90.58

10%AEP

Project: Lot 2 , 1 Kendal Simulation Run: 10yr Pre_Run

Start of Run: 01Jan2000, 00:00 Basin Model: Pre-development
 End of Run: 02Jan2000, 00:00 Meteorologic Model: 10yr pre Metro setup
 Compute Time: 27Mar2026, 11:05:37 Control Specifications: Control 1

Show Elements: All Elements Volume Units: MM 1000 M3 Sorting: Watershed Explorer

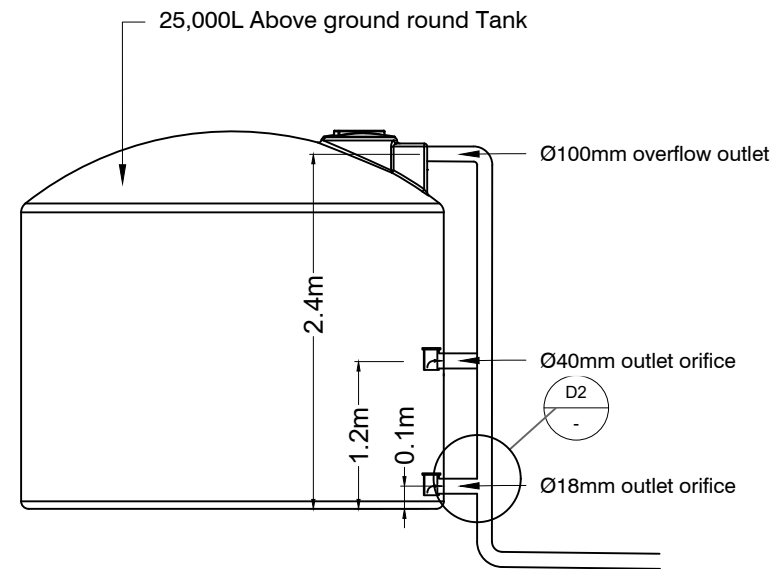
Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (MM)
Pre_Pervious Area	0.00047	0.00839	1 January 2000, 1...	93.67
Pre_Site Outlet	0.00047	0.00839	1 January 2000, 1...	93.67

Project: Lot 2 , 1 Kendal Simulation Run: 10yr Post_Run

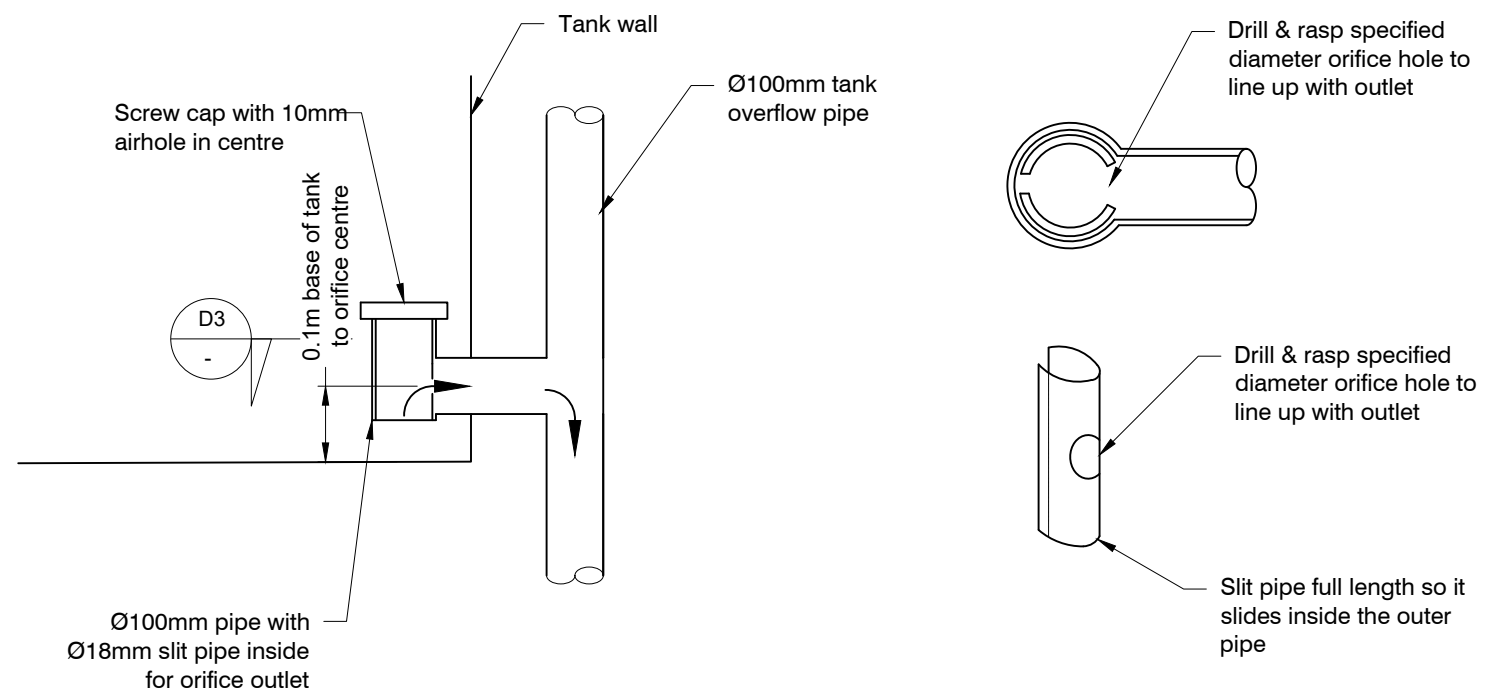
Start of Run: 01Jan2000, 00:00 Basin Model: Post-development
 End of Run: 02Jan2000, 00:00 Meteorologic Model: 10yr post Metro setup
 Compute Time: 27Mar2026, 11:05:36 Control Specifications: Control 1

Show Elements: All Elements Volume Units: MM 1000 M3 Sorting: Watershed Explorer

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (MM)
Lot 1 Roof	0.00032	0.01052	1 January 2000, 1...	175.46
Tank	0.00032	0.00384	1 January 2000, 1...	166.17
Lot 1 Hardstand	0.00015	0.00493	1 January 2000, 1...	175.46
Post_Site outlet	0.00047	0.00798	1 January 2000, 1...	169.13



D1
-
Lot 2 - Detention Tank
SCALE NTS

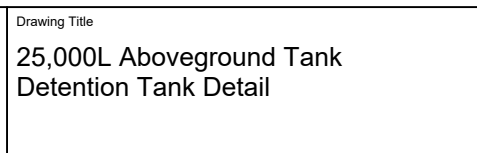


D2
-
Detail Tank Outlet
SCALE 1:20

D3
-
Detail Orifice
SCALE 1:20

Client	Project
NL and A Lanbers	1 Kendall Road Kerikeri

Drawing Title
25,000L Aboveground Tank Detention Tank Detail



No.	Issue/Revision	Appr'd	Date

Design:	H. Gibson
Drawn:	H. Gibson
Approved:	N. Douglas
Scale A3:	As Shown

Project status:	Consent
Project:	30495
Drawing No:	C 01
Issue/Rev:	-



NL and A Lambers

**PRELIMINARY AND DETAILED SITE INVESTIGATION
(PSI/DSI)**

1 Kendall Road, Kerikeri

DOCUMENT CONTROL

Version	Date	Comments
A	25/03/2026	PSI/DSI issued to support resource consent application for subdivision.

Version	Issued For	Prepared By	Reviewed & Authorised By
A	Issued for Consent	 Erin Gasston Environmental Scientist	  James Gladwin Environmental Group Manager SQEP

EXECUTIVE SUMMARY

A contamination preliminary and detailed site investigation (PSI & DSI) has been conducted for the site located at 1 Kendall Road, Kerikeri.

The objectives of the assessment were to identify any potential sources of contamination from past and present land-use activities at the site and surrounding area, to determine the contamination status of soils at the site, and to subsequently assess compliance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) for the proposed residential subdivision at the site.

The investigation comprises a PSI (i.e., site history review) and DSI (i.e., intrusive soil sampling investigation). Evidence from the PSI indicate that **HAIL A10**: '*Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*' and **HAIL I**: '*Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment*' is more likely than not to have occurred at the site.

Soil sampling was therefore carried out to provide an indication of the level of contamination in the soil (if any) from contaminants commonly associated with these activities undertaken at the site.

Soil testing indicates that contamination present at the site is below the applicable soil contaminant standards applicable for a 'Rural Residential/Lifestyle Block 25% Produce' land-use scenario, however concentrations of heavy metals, 4,4'-DDE and 4,4'-DDT are above predicted background ranges.

It is highly unlikely that subdivision or soil disturbance on the site will present a risk to human health.

Accordingly, a controlled activity resource consent will be required from Far North District Council. As per Regulation 9 (3)(c) the regulatory authority must be provided a copy of this report.

A SMP may be required as condition of consent if the permitted levels for soil disturbance and / or removal are exceeded during earthworks because the contaminant levels detected are above background.

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1 INTRODUCTION

LDE has been engaged by NL and A Lambers to undertake a soil contamination Preliminary Site and Detailed Site Investigation (PSI & DSI) for the site located at 1 Kendall Road, Kerikeri. LDE understands that the site is to undergo subdivision that may not meet the permitted activity conditions (Regulation 8) of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).

The PSI stage is therefore required to identify if there are or were any current or historical land-use activities that could have caused soil contamination that is a risk to human health to determine if the NESCS applies to the land and whether further investigation, a DSI is required to accompany the consent application for the proposed development. The DSI component of the investigation includes the collection and analysis of soil samples taken at the site. It is required to establish if soil contamination exceeds the applicable standard and to determine applicability and/or status of the site under the NESCS.

This site investigation has been prepared in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2021. It has been managed by a suitably qualified and experienced practitioner (SQEP); carried out in general accordance with the Contaminated Land Management Guidelines No.1- Reporting on Contaminated Sites in New Zealand (revised 2021) and Contaminated Land Management Guidelines No.5: Site Investigation and Analysis of Soils (revised 2021).

This report should be read in conjunction with LDE (2026) '*Site suitability and civil infrastructure report - 1 Kendall Road, Kerikeri.*'

1.1 Investigation Objectives

The objectives of the investigation are to:

- Assess whether there has been (or is more likely than not to have been) a potentially contaminating land use.
- Assess the nature and source of potential or likely contaminants.
- Identify the possible locations of contamination.
- Identify known or potential exposure pathways by which identified receptors could be exposed to the contaminants whilst undertaking the current or proposed future land use.
- Identify known or potential human and ecological receptors that could be exposed to contaminants.
- Assess if the project is covered by the NESCS Regulations.
- Determine if further investigation in the form of a DSI is required.
- Determine if soil contamination exceeds the applicable standard and to identify if the site is restricted discretionary or controlled under the NESCS.
- Delineate the extent (vertically and horizontally) of the contamination on the site.

1.2 Site Identification

The site is located at 1 Kendall Road, Kerikeri, approximately 2 kms to the north-east of Kerikeri town centre. The site is zoned Rural Living under the Far North Operative District Plan (2009) and Rural Residential under the Proposed District Plan. The site comprises approximately 4,093 m² of land and is legally described as LOT 1 DP 89164. Figure 1 and Table 1 show the site location and land parcel details, respectively.



Figure 1. Site Location. Source: Google Earth (annotated image). Property boundary shown in yellow.

Table 1. Site Details.

Detail	Description
Site Address	1 Kendall Road, Kerikeri
Legal Description	Lot 1 DP 89164
Area	4,093 m ²
Owners	NL and A Lambers
Proposed Site Use	Residential Lifestyle

2 SITE DESCRIPTION

2.1 Environmental Setting

The site is generally flat and level. The site is located in a rural residential setting, with residential lifestyle blocks dominating the surrounding area. Riverview school is located approximately 430 m north east of the site.

Table 2 documents the surrounding land uses of the site.

Table 2. Surrounding Land Uses

Direction	Description
North	Kendall Road. Rural lifestyle properties.
East	Rural residential
South	Rural residential
West	Landing Road. Rural lifestyle properties.

2.1.1 Geology

The New Zealand Geology Web Map by GNS¹ Science identifies the site as being underlain by 'Kerikeri Volcanic Group Late Miocene basalt of Kaikohe – Bay of Islands Volcanic Field' described as 'basalt lava, volcanic plugs and minor tuff.'

SMaps indicates that soils in the area are likely to be Typic Nodular Oxidic Soils. This soil belongs to the Oxidic soil order of the New Zealand soil classification. Oxidic Soils are clayey soils that have formed as a result of weathering of volcanic ash or dark volcanic rock over extensive periods of time. Despite high clay contents the soils are friable, with low plasticity and fine structure. It is formed in highly weathered rock, from basalt parent material.

The topsoil typically has clay texture and is very stony. The subsoil has dominantly clay textures, with gravel content of more than 3% but below 35% for most part of the soil. pH can range between 4.5 to 5.5, Clay Content 15% to 35% (variable by location), Cation Exchange Capacity (CEC) 5 to 20 cmol/kg and Organic Carbon 1% to 3%. This would make these soils a sensitive soil based on table 8 of the UPDATED Development of soil guideline values for the protection of ecological receptors (Eco-SGVs): Technical document.

¹ <http://data.gns.cri.nz/geology/>. Retrieved March 2026.

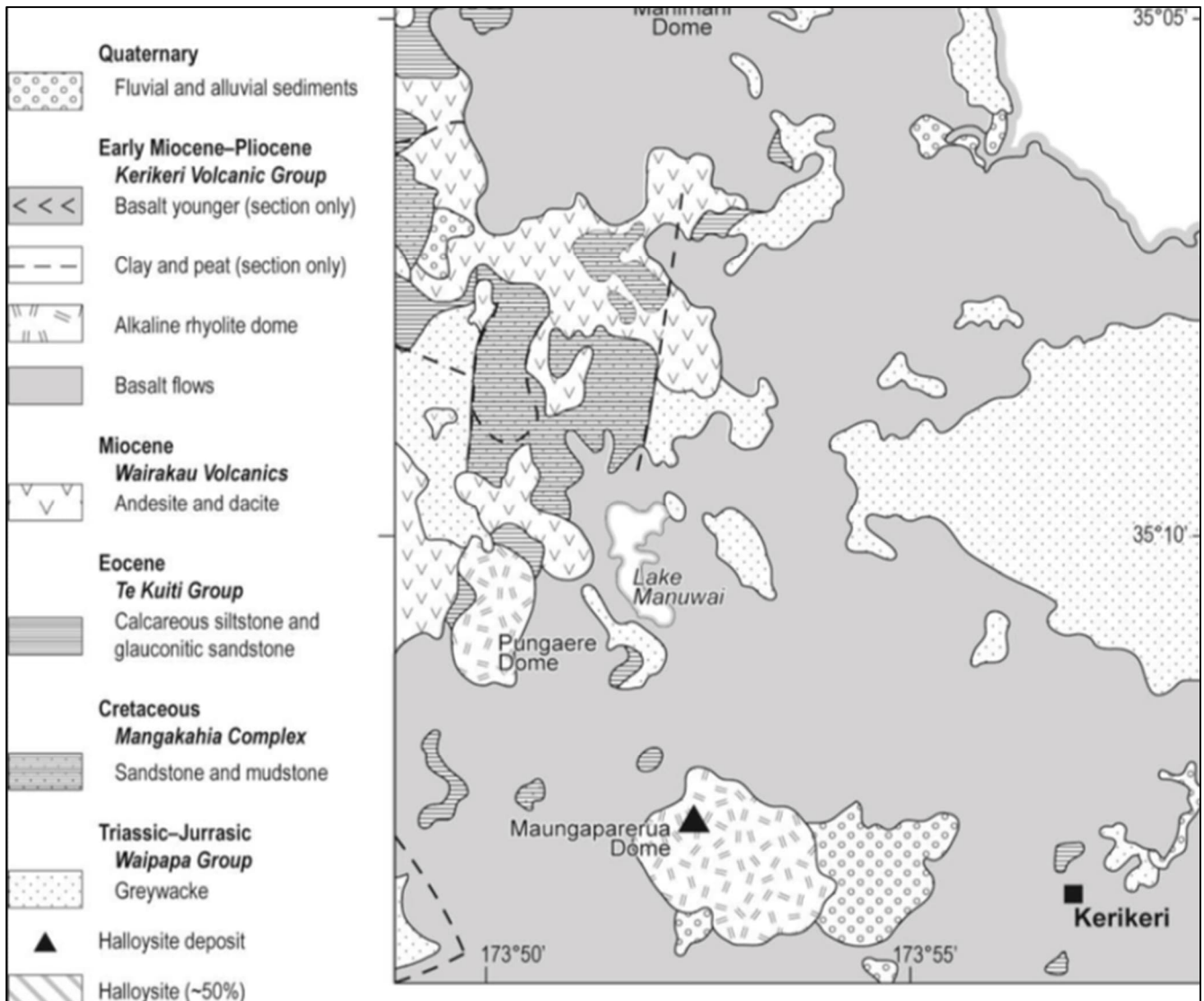


Figure 2. Extract from Wilson and Keeling (2016)² showing basalt flows beneath Kerikeri, and the surrounding area.

2.1.2 Hydrology

Puketotara Stream is the nearest body of water from the property and is located approximately 660 m southwest of the property at its closest point. Waipapa Stream is also located approximately 750m north of the site. Both streams flow east, to discharge into Pickmere Channel of the Kerikeri Inlet, located approximately 800m east of the site at its closest point.

² Wilson, I. and Keeling, J. (2016). *Global occurrence, geology and characteristics of tubular halloysite deposits*. *Clay Minerals* (51): 309-324.



Figure 3. Topo map showing nearby waterbodies. Approximate site location shown in red. Source: MapsPast³.

2.2 Proposed Development

The site is proposed to be split into two lots, with proposed Lot 2 to retain the existing residential dwelling and ancillary structures. Proposed Lot 1 will be vacant residential land.

³ <http://www.mapspast.org.nz/>. Retrieved March 2026.

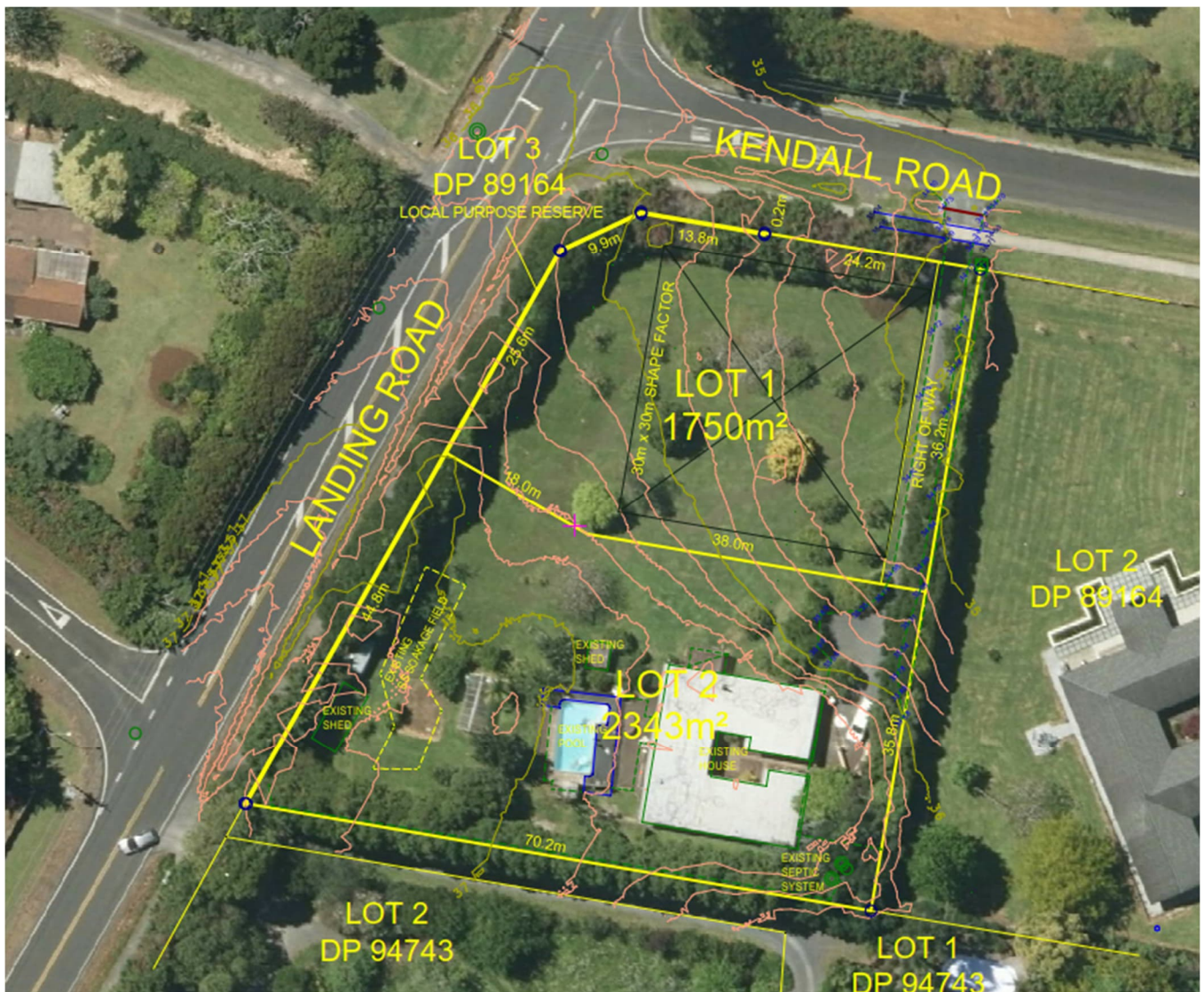


Figure 4. Proposed subdivision plan (provisional). Source: Williams and King Surveyors, provided on 4 March 2026.

2.3 Site Inspection

A walkover assessment was undertaken at the site on 6 March 2026. Proposed Lot 1 is vacant, with mature trees, including citrus, present across the site. The site boundary to the north and west are planted with mature trees used to screen the road. A small burn pad with vegetation and minor timber fragments is present towards the south western lot boundary. A pile of miscellaneous building rubble, including tiles, concrete, timber and brick, is present along the southern lot boundary, within the bounds of Proposed Lot 2. A gravel accessway follows the eastern site boundary to Proposed Lot 2.

Proposed Lot 2 has the existing residential dwelling, surrounded by vegetation and mature trees.



Figure 5. View across Proposed Lot 1 from the accessway (gravel), looking south west.



Figure 6. Landscaping and screening plants along the western site boundary of Proposed Lot 1.



Figure 7. View across Proposed Lot 1, looking east. Burn pile present in the centre of the site. Mature trees are present within Proposed Lot 1.



Figure 8. Burn pile containing vegetation. Minor small fragments of timber were noted.



Figure 9. Pile of miscellaneous building materials along the proposed boundary between Lots 1 and 2. Includes brick, tiles, concrete, timber, metal. No evidence of asbestos was noted.

3 HISTORIC SITE USE

The following information was reviewed to establish the history of the site:

- Council Records
- Historical aerial photographs
- Existing Investigation Reports
- Site walkover/visual assessment

3.1 Existing Investigation Reports

3.1.1 Review of Recent LDE Geotechnical Investigation

Geotechnical testing was undertaken concurrently with this investigation by LDE in March 2026. This report should be read in conjunction with the LDE Geotechnical Investigation.

This included the soil logging of one hand augur hole for the nominated building platform. The soil encountered was Kerikeri volcanic group silt/clay with occasional gravel to >3m below ground level. Groundwater was not encountered. No evidence of uncontrolled fill was encountered.

3.2 Council Information

The following sections provide a summary of information held by the local councils.

3.2.1 Northland Regional Council

The Northland Regional Council (NRC) Selected Land Use Register (SLUR) was reviewed on 4 March 2026. The site is not listed on the SLUR.

Two properties within 500m of the site are listed on the SLUR.

Table 3. Properties identified on NRC SLUR within 500m of the site.

Site Address	HAIL Category	Distance from Site	Likely migration of contaminants?
84 Landing Road	HAIL A10 Verified HAIL: At or below background - natural state	30m west	No contamination identified – land identified as natural state.
2A/2B Kendall Road	HAIL A10 Verified HAIL: Suitable for land use - natural state	500m east	No contamination identified – land identified as natural state.

3.2.2 Far North District Council

A search of the site property file was completed on 5 March 2026. A summary of the pertinent points are as follows:

1974	Subdivision approval (wider block)
1977	Subdivision approval to create present-day Lot 1. Subdivision plans indicate Lot 1 is an orange grove.
1981	Consent for dwelling construction.
1983	Consent for swimming pool
1988	Consent for a conservatory
2015	Consent to replace existing septic system
2021	Consent for major alterations on existing dwelling

3.3 Historical Aerial Imagery

Aerial images from 1951 to 2025 have been analysed as part of this investigation. A summary of our review of these images is as follows.

1951: The site is vacant. Surrounding properties are a mixture of production land and rural residential use.



Figure 10. Aerial imagery 1951. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

1968: The site, and the wider property, has been developed as part of an orchard. Surrounding properties to the north, east and south are orchards.



Figure 11. Aerial imagery 1968. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

1972: The site, and the surrounding sites, remain unchanged.



Figure 12. Aerial imagery 1972. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

1979: The site remains unchanged. The property immediately west has had the orchard removed.



Figure 13. Aerial imagery 1979. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

1982: A dwelling has been constructed in the SE site corner, in the location of the present day residential dwelling on site. The remaining site area has been retained as an orchard.



Figure 14. Aerial imagery 1982. Sourced from Retrolenz.nz and licensed by LINZ (annotated image). Approximate site boundary shown in yellow.

2000: Clearance of trees has been undertaken within the central portion of the site. A garage or addition has been constructed to the west of the dwelling.



Figure 15. Aerial imagery 2000. Sourced from LINZ (annotated image). Approximate site boundary shown in yellow.

2014: Further removal of trees is evident on site. A swimming pool has been constructed to the west of the dwelling.



Figure 16. Aerial imagery 2014. Sourced from LINZ (annotated image). Approximate site boundary shown in yellow.

2025: The site is generally unchanged. Boundary trees from the northern and eastern boundaries have been removed, and some further tree removal from the central portion of the site is evident.



Figure 17. Aerial imagery 2025. Sourced from Google Earth (annotated image). Approximate site boundary shown in yellow.

4 PSI RISK ASSESSMENT

This section uses a Conceptual Site Model (CSM) to assess the currently available information presented in this report to determine:

- whether there has been (or is more likely than not to have been) a potentially contaminating land use.
- the nature and source of potential or likely contaminants.
- the possible locations of contamination.
- known or potential exposure pathways by which identified receptors could be exposed to the contaminants whilst undertaking the current or proposed future land use.
- known or potential human and ecological receptors that could be exposed to contaminants.
- if the project is covered by the NESCS Regulations.
- if further investigation in the form of a DSI is required

4.1 Conceptual Site Model

The preliminary site CSM is provided in Table 4. A human health risk can only occur where there is a complete pathway between contaminant source and a receptor. Building floors and paved or sealed areas will largely or completely prevent contact with underlying soils and therefore, direct exposure pathways are or will be incomplete for such areas.

Table 4. Conceptual Site Model at the PSI stage.

HAIL, Potential Contaminants and Location	Receptors	Potential Pathways
HAIL A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds. Orchard identified on site since at least 1968. Several trees remain on site. Orchard was part of wider orchard operations in the surrounding area. Contaminants of concern include heavy metals (arsenic, cadmium, lead), organochlorine pesticides (OCPs) and acid herbicides.	Construction workers	Exposure via inhalation of contaminated dust or ingestion and skin contact (dermal).
	Future site users	Ingestion or skin contact with exposed soil
	Workers at off-site soil disposal sites	Inhalation of contaminated dust during placement at offsite disposal site.
	Ecological receptors	Discharges to air / water / land.
HAIL I – Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment Burn pad identified during site walkover, with vegetation and minor timber fragments. Area of building waste stockpile, including concrete, tiles, brick, timber. Contaminants of concern include heavy metals and asbestos.	Construction workers	Exposure via inhalation of contaminated dust (including asbestos fibres) or ingestion and skin contact (dermal).
	Future site users	Ingestion (including asbestos fibres) or skin contact with exposed soil
	Workers at off-site soil disposal sites	Inhalation of contaminated dust (including asbestos fibres) during placement at offsite disposal site.
	Ecological receptors	Discharges to air / water / land.

4.1.1 NESCS application

As per Regulation 6 (3) it is considered that it is more likely than not an activity or industry described in the HAIL has been undertaken on the piece of land. The likelihood that the soil is contaminated and is a risk to human health because of the activity or industry occurring is considered likely.

As per Regulation 8(4)(b), LDE considers that it is not highly unlikely that there will be a risk to human health if the activity is done to the piece of land. As a result, LDE considers that the site is covered by the NESCS Regulations.

5 PSI CONCLUSION

Evidence from the PSI and site history review, indicates **HAIL A10**: '*Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*' and **HAIL I**: '*Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment*' is more likely than not to have occurred at the site.

Based on the currently available information presented in this report LDE considers that the NESCS applies. This is because subdivision is covered by Regulations 5(5) and is in exceedance of the permitted activity conditions outlined in Regulation 8. The land is also covered by the NESCS because of HAIL activities that are more than likely to have been carried out at the site. A detailed site investigation is therefore required to establish if soil contamination exceeds the applicable standard and to determine if the site is restricted discretionary or controlled under the NESCS.

6 DETAILED SITE INVESTIGATION

Based on the findings of the PSI, further investigation was required to establish if soil contamination exceeds the applicable standard and to determine if the site is restricted discretionary or controlled under the NESCS.

The sampling objectives are to quantify the human health risk from potentially contaminated soil associated with the HAIL Activities identified in the PSI in relation to the end use of the site.

Based on the conceptual site model and taking into consideration the methodology for deriving soil contaminant standards (SCS) and the proposed development at the site, our investigation was designed to establish if site soils exhibit contaminant concentrations exceeding the soils contaminant standards applicable to the *'Rural Residential/Lifestyle Block 25% Produce'* land-use scenario.

6.1 Sampling and analysis plan

The field investigation was undertaken on 6 March 2026 by an LDE contaminated land scientist. Each one of the sample locations was selected based on the proposed development, site history, and site characteristics. Discrete samples from locations S1 to S12 at selective depths between ground level and 50mm below ground level (bgl) were collected across the site. All samples were tested for heavy metals, and two composite samples (comp 1 and comp 2) were analysed for OCPs and acid herbicides. The sample locations and details are shown in Figure 18 and Table 5.



Figure 18. Soil sampling site plan. The approximate soil sampling locations are shown in blue. Source: Google Earth (annotated image).

Table 5. Sample Details.

Test Pit / Borehole	Depth (mm)	Description	Sample(s)	Analysis	Rational
S1-S8, S10, S12	0-50	Topsoil	S1-S8, S10, S12	Heavy metals	Former orchard – check for contamination of surface soils.
S9	0-50	Topsoil	S9	Heavy metals, Asbestos	Burn pad identified on site, minor timber fragments. Check for soil contamination.
S11	0-50	Topsoil	S11	Heavy metals, Asbestos	Miscellaneous building materials identified, check for soil contamination as a result of storage.
Comp 1	0-50	Topsoil	Composite of S1, S2, S5, S6	OCPs, Acid herbicides	Former orchard – check for pesticide and herbicide residues.
Comp 2	0-50	Topsoil	Composite of S3, S4, S7, S8	OCPs, Acid herbicides	Former orchard – check for pesticide and herbicide residues.

6.2 Quality Assurance and Quality Control

6.2.1 Field QA/QC

The following procedures were adopted during soil investigation works:

- All fieldwork was carried out in compliance with a project specific Health and Safety Plan prepared for the site works.
- All works were conducted by trained LDE staff with precautions including implementation of procedures for the appropriate handling of potentially contaminated material.
- Prior to sampling, and between sample locations, equipment used to retrieve samples was cleaned by washing with potable water to minimise the chance of cross contamination.
- Soil samples were collected using a hand trowel / hand auger.
- A clean pair of nitrile gloves was also used for each sample location. All samples were placed into labelled laboratory supplied sample containers.
- Additional laboratory containers were taken to the site as a contingency for grab samples (one-off samples of material or soil that are of interest and observed by the sampler during a site inspection or sampling event) including soil stains, burn patches or pits, filled areas, and treated timber stockpiles.
- Following collection, all samples were transported, under standard chain of custody procedures, to an IANZ accredited laboratory (Hill Labs) for analysis. The chain of custody documentation is attached in Appendix A.

6.2.2 Laboratory QA/QC

Laboratory reports from Hill Labs have been included in Appendix A. These include the analytical methods and detection limits used by the laboratory and the laboratory accreditation for analytical methods used.

All Laboratory Analysis was completed through Hill Labs. Hill Labs are accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised.

6.3 Background Concentrations, Soil Contaminant Standards (SCSs) and Guideline Values (SGVs)

6.3.1 Human Health

The NESCS references the Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health (MfE, 2011). This is a national risk-based methodology for deriving soil contaminant concentrations protective of human health. Soil Contaminant Standards (SCS) and Soil Guideline Values (SGVs) have been selected in accordance with regulation 7.

Regulation 7 states that if the contaminant of concern is a priority contaminant⁴ and the land use fits within an exposure scenario adopted in the Methodology⁵, the applicable standard is the soil contaminant standard for the priority contaminant. If the contaminant of concern is a priority contaminant and the land use does not fit within an exposure scenario adopted in the Methodology, the applicable standard is whichever of the following is more appropriate in the circumstances:

- a) the guideline value derived in accordance with the methods and guidance on site-specific risk assessment provided in the Methodology:
- b) the soil contaminant standard for the priority contaminant of the exposure scenario adopted in the Methodology with greater assumed exposure than the actual exposure.

If the contaminant of concern is not a priority contaminant, the applicable standard is whichever of the following is more appropriate in the circumstances:

- a) the guideline value derived in accordance with the methods and guidance on site-specific risk assessment provided in the Methodology:
- b) a guideline value for the protection of human health that is chosen in accordance with the current edition of Contaminated Land Management Guidelines No. 2–Hierarchy and Application in New Zealand of Environmental Guideline.

Following the guidance, the Soil Contaminant Standards (SCS) for selected priority contaminants and for non-priority contaminants guidelines values were selected following Regulation 7 and the Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values (Revised 2021) as screening criteria for the risk to humans at the site and to inform on-site management actions. If exceeded, further investigation and a Tier 2 assessment would be considered.

No applicable New Zealand guideline criteria exist for some of the tested metals (i.e., nickel and zinc) and therefore Health Investigation Level (HIL) values from the Australian Guideline on the Investigation Levels for Soil and Groundwater have been used under the residential land-use scenario as outlined in the MfE document.

The soil samples were tested at the laboratory for total chromium. However, the methodology document distinguishes between the stable chromium III and the potentially toxic and less stable chromium VI. For the purposes of this analysis all total chromium results have been conservatively compared to the chromium VI.

Asbestos results are compared against the New Zealand Guidelines for Assessing and Managing Asbestos in Soils (NZ GAMAS) for Fibrous Asbestos (FA), Asbestos Fines (AF) and Asbestos Containing Materials (ACM).

⁴ a contaminant for which the Methodology derives a soil contaminant standard.

⁵ The current edition of the Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health.

6.3.2 Environmental

All results are compared against the Predicted Background Soil Concentrations (Landcare Research Limited)⁶ to determine if soil concentrations are anthropologically affected and the applicability of the NESCS.

6.4 Results

6.4.1 Heavy Metals

Table 6 summarises the laboratory results of soil samples tested for heavy metals.

All metal concentrations were below the respective SCS for a '*Rural Residential/Lifestyle Block 25% Produce*' land-use scenario.

Concentrations of cadmium in all analysed samples are above the Predicted Background Soil Concentrations; various exceedances of arsenic, copper, lead and zinc are also noted above the Predicted Background Soil Concentrations. Exceedances of cadmium are likely to be a result of past phosphate-based fertiliser use on site.

No exceedances of the ecological guideline values are noted.

The full lab results are included in Appendix A.

⁶ <https://iris.scinfo.org.nz/layer/48470-pbc-predicted-background-soil-concentrations-new-zealand/>

Table 6. Laboratory tests (heavy metal) compared against the soil contaminant standard (SCS) for a 'Rural Residential/Lifestyle Block 25% Produce' land-use.

Sample ID	Depth (mm)	Sample Description	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
S1	0-50	Topsoil	4	0.34	77	33	10.7	15	47
S2	0-50	Topsoil	4	0.6	165	54	10.9	18	35
S3	0-50	Topsoil	4	0.51	148	43	12.6	19	33
S4	0-50	Topsoil	4	0.47	171	52	14.9	19	32
S5	0-50	Topsoil	4	0.42	141	35	11.5	18	26
S6	0-50	Topsoil	4	0.59	171	41	10	21	34
S7	0-50	Topsoil	4	0.68	170	50	10.9	19	34
S8	0-50	Topsoil	4	0.66	164	49	12.8	19	32
S9	0-50	Topsoil	4	0.53	166	38	10	16	51
S10	0-50	Topsoil	4	0.45	174	35	10.1	21	34
S11	0-50	Topsoil	10	0.61	133	75	19.6	36	129
S12	0-50	Topsoil	4	0.63	171	54	13.9	21	39
Rural residential / lifestyle block 25% produce¹			17	0.8	290	10000	160	400	7400
Soil guideline values for the protection of ecological receptors²			60	12	390	180	900	-	260
Background soil concentrations³			4.1	0.2	765	27.9	11.4	590	47.5

Notes: All results and standard values are presented in mg/kg (dry weight). All metals tested for 'Total Recoverable' at screen level. Depths are mm below ground level.

- 1 Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Ministry for the Environment, 2011.
- 2 Eco-SGVs Table 53 and 54 of [Soil Guideline Values for the Protection of Ecological Receptors](#). Assumes aged contamination and sensitive soils.
- 3 [Predicted Background Soil Concentrations, New Zealand, Landcare Research Limited](#).

6.4.2 Organochlorine Pesticide (OCP) Results

Table 7 summarises OCP results. Minor detections of 4-4'-DDE were present in both composite samples, and very low concentrations of 4,4'-DDT was detected in sample Comp 1. No other detections of OCPs were present in analysed samples. All concentrations of OCPs are below the applicable guideline values. The laboratory transcripts are appended in Appendix A.

Table 7. Laboratory test results for OCP.

Sample ID	Depth (mm)	Total DDT	Dieldrin	Aldrin	Aldrin+Dieldrin
Comp 1	0-50	<0.08	<0.014	<0.014	<0.028
Comp 2	0-50	<0.08	<0.013	<0.012	<0.026
Rural residential / lifestyle block 25% produce¹		45	1.1	1.1	1.1

Notes: All results and standard values are presented in mg/kg (dry weight). Depths are mm below ground level.

Total DDT = sum of DDT, DDD, and DDE.

DDT = dichlorodiphenyltrichloroethane.

DDD = dichlorodiphenyldichloroethane.

DDE = dichlorodiphenyldichloroethylene.

1. Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Ministry for the Environment, 2011.

6.4.3 Acid Herbicide Results

Acid herbicides in all samples were below the laboratory limit of reporting. The laboratory transcripts are appended in Appendix A.

6.4.4 Asbestos Results

Table 8 shows the semi-quantitative asbestos analysis completed for the site. No asbestos was detected in any analysed sample. The laboratory transcripts are appended in Appendix A.

Table 8. Asbestos Semi-Quantitative Analysis.

Sample ID	Depth (mm)	Trace Asbestos (Presence / Absence)	Asbestos (Presence / Absence)	ACM (W/W%)	AF / FA (W/W%)
S9	0-50	Absent	Absent	<0.010	<0.001
S11	0-50	Absent	Absent	<0.010	<0.001
Residential¹				0.010	0.001

Notes: Depths are mm below ground level.

ACM = asbestos containing material.

AF/FA = asbestos fines / fibrous asbestos.

W/W% = weight for weight %.

1. New Zealand Guidelines for Assessing and Managing Asbestos in Soil (GAMAS). BRANZ Limited, 2017.

7 DSI RISK ASSESSMENT

This section uses a Conceptual Site Model (CSM) to assess the currently available information presented in this report to determine:

- if the project is covered by the NESCS Regulations.
- if soil contamination exceeds the applicable standard and to identify if the site is restricted discretionary or controlled under the NESCS.

7.1 Conceptual Site Model

The preliminary site CSM is provided in Table 9. A human health risk can only occur where there is a complete pathway between contaminant source and a receptor. Building floors and paved or sealed areas will largely or completely prevent contact with underlying soils and therefore, direct exposure pathways are or will be incomplete for such areas.

Table 9. Conceptual Site Model at the DSI stage.

HAIL, Potential Contaminants and Location	Receptors	Pathways (Complete / Incomplete)
HAIL A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds. Orchard identified on site since at least 1968. Several trees remain on site. Orchard was part of wider orchard operations in the surrounding area.	Construction workers	Incomplete - Exposure via inhalation of contaminated dust or ingestion and skin contact (dermal). Contamination was not detected above the SCS or SGVs.
	Future site users	
	Workers at off-site soil disposal sites	Incomplete - Inhalation of contaminated dust during placement at offsite disposal site. Contamination was not detected above the SCS or SGVs.
	Ecological receptors	Incomplete - Dust sediment or surface water runoff during earthworks. Contamination was not detected above the ecological guideline values.
HAIL I – Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment Burn pad identified during site walkover, with vegetation and minor timber fragments. Area of building waste stockpile, including concrete, tiles, brick, timber. Contaminants of concern include heavy metals and asbestos.	Construction workers	Incomplete - Exposure via inhalation of contaminated dust (including asbestos fibers) or ingestion and skin contact (dermal). Contamination was not detected above the SCS or SGVs.
	Future site users	
	Workers at off-site soil disposal sites	Incomplete - Inhalation of contaminated dust (including asbestos fibers) during placement at offsite disposal site. Contamination was not detected above the SCS or SGVs.
	Ecological receptors	Incomplete - Dust sediment or surface water runoff during earthworks. Contamination was not detected above the ecological guideline values.

7.1.1 NESCS Application

As per Regulation 9, soil contamination does not exceed the applicable standard in Regulation 7 (refer to section 6.3.1 for description of each human health standard selected and the section 6.4 for results showing no exceedances of the human health standards) but is above background concentrations as per Regulation 5(9). As a result, LDE considers the site to be controlled under the NESCS.

It is highly unlikely that subdivision or soil disturbance on the site will present a risk to human health.

Lot 1 will be 1,750m² and Lot 2 will be 2,343m². This means the permitted levels for soil disturbance and removal for:

- Lot 1 are 87.5m³ and 17.5m³ respectively.
- Lot 2 are 117.15m³ and 23.43m³ respectively.

8 CONCLUSIONS AND RECOMMENDATIONS

Activities on the MfE HAIL were identified at the site. These included HAIL A10: '*Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*' and HAIL I: '*Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment*'. Soil sampling and analysis was therefore undertaken to identify if these activities have contributed to soil contamination that would be unacceptable for the proposed development.

Soil testing indicates that contamination present at the site is below the applicable soil contaminant standards applicable for a 'Rural Residential/Lifestyle Block 25% Produce' land-use scenario, however concentrations of heavy metals, 4,4'-DDE and 4,4'-DDT are above predicted background ranges.

It is highly unlikely that subdivision or soil disturbance on the site will present a risk to human health.

Accordingly, a controlled activity resource consent will be required from Far North District Council. As per Regulation 9 (3)(c) the regulatory authority must be provided a copy of this report.

A SMP may be required as condition of consent if the permitted levels for soil disturbance and / or removal are exceeded during earthworks because the contaminant levels detected are above background.

8.1 Site Investigation Certifying Statement

The document signatories of LDE certify that:

1. this preliminary and detailed site investigation meets the requirements of the Resource Management (National Environmental Standard for assessing and managing contaminants in soil to protect human health) Regulations 2011 because it has been:
 - a. done by a suitably qualified and experienced practitioner, and
 - b. done in accordance with the current edition of Contaminated land management guidelines No 5 – Site investigation and analysis of soils, and
 - c. reported on in accordance with the current edition of Contaminated land management guidelines No 1 – Reporting on contaminated sites in New Zealand, and
 - d. the report is certified by a suitably qualified and experienced practitioner.

This detailed site investigation concludes that:

- a. [For activities under Regulation 9 of the NESCS] does not exceed the applicable standard in Regulation 7 of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations.

Evidence of the qualifications and experience of the suitably qualified and experienced practitioner(s) (SQEPs) who have done this investigation and have certified this report is included in Appendix B.

9 LIMITATIONS

This investigation presents a preliminary and detailed site investigations of the potential for ground contamination, prepared exclusively for NL and A Lambers with respect to the brief given to us.

Information, opinions, and recommendations contained in it cannot be used for any other purpose or by any other entity without our review and written consent. LDE Ltd accepts no liability or responsibility whatsoever for or in respect of any use or reliance upon this report by any third party.

Opinions given in this report are based on a review of existing data, evidence gathered during a site walkover, anecdotal information, and specific soil sampling at discrete locations. There is still some possibility that contaminating activities have taken place or contamination at the site is more than that described in this report and LDE should be contacted immediately if the conditions are suspected to differ from that described.

10 REFERENCES

- BRANZ. (2017). *New Zealand Guidelines for Assessing and Managing Asbestos in Soil*. Porirua: BRANZ.
- Manaaki Whenua Landcare Research. (2019) *UPDATED Development of soil guideline values for the protection of ecological receptors (Eco-SGVs): Technical document*.
- MfE. (2011). *Users' guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*. Wellington: Ministry for the Environment.
- MfE. (2021). *Contaminated Land Management Guidelines No 1*. Wellington: Ministry for the Environment.
- MfE. (2021). *Contaminated Land Management Guidelines No 5*. Wellington: Ministry of the Environment.
- LDE (2026) *'Site suitability and civil infrastructure report - 1 Kendall Road, Kerikeri.'*

APPENDIX A

**LABORATORY TEST RESULTS AND CHAIN OF CUSTODY
RECORDS**

Certificate of Analysis

Page 1 of 3

Client:	LDE Limited	Lab No:	4128516	SPV2
Contact:	Erin Gasston C/- LDE Limited 27 Hobson Avenue Kerikeri 0230	Date Received:	11-Mar-2026	
		Date Reported:	19-Mar-2026	
		Quote No:	115238	
		Order No:	30495	
		Client Reference:	30495	
		Submitted By:	Erin Gasston	

Sample Type: Soil

	Sample Name:	S1 10-Mar-2026	S2 10-Mar-2026	S3 10-Mar-2026	S4 10-Mar-2026	S5 10-Mar-2026
	Lab Number:	4128516.1	4128516.2	4128516.3	4128516.4	4128516.5
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	4	4	4	4
Total Recoverable Cadmium	mg/kg dry wt	0.34	0.60	0.51	0.47	0.42
Total Recoverable Chromium	mg/kg dry wt	77	165	148	171	141
Total Recoverable Copper	mg/kg dry wt	33	54	43	52	35
Total Recoverable Lead	mg/kg dry wt	10.7	10.9	12.6	14.9	11.5
Total Recoverable Nickel	mg/kg dry wt	15	18	19	19	18
Total Recoverable Zinc	mg/kg dry wt	47	35	33	32	26

	Sample Name:	S6 10-Mar-2026	S7 10-Mar-2026	S8 10-Mar-2026	S9 10-Mar-2026	S10 10-Mar-2026
	Lab Number:	4128516.6	4128516.7	4128516.8	4128516.9	4128516.10
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	4	4	4	4	4
Total Recoverable Cadmium	mg/kg dry wt	0.59	0.68	0.66	0.53	0.45
Total Recoverable Chromium	mg/kg dry wt	171	170	164	166	174
Total Recoverable Copper	mg/kg dry wt	41	50	49	38	35
Total Recoverable Lead	mg/kg dry wt	10.0	10.9	12.8	10.0	10.1
Total Recoverable Nickel	mg/kg dry wt	21	19	19	16	21
Total Recoverable Zinc	mg/kg dry wt	34	34	32	51	34

	Sample Name:	S11 10-Mar-2026	S12 10-Mar-2026	Comp 1 10-Mar-2026	Comp 2 10-Mar-2026
	Lab Number:	4128516.11	4128516.12	4128516.13	4128516.14
Individual Tests					
Dry Matter	g/100g as rcvd	-	-	73	78
Heavy Metals, Screen Level					
Total Recoverable Arsenic	mg/kg dry wt	10	4	-	-
Total Recoverable Cadmium	mg/kg dry wt	0.61	0.63	-	-
Total Recoverable Chromium	mg/kg dry wt	133	171	-	-
Total Recoverable Copper	mg/kg dry wt	75	54	-	-
Total Recoverable Lead	mg/kg dry wt	19.6	13.9	-	-
Total Recoverable Nickel	mg/kg dry wt	36	21	-	-
Total Recoverable Zinc	mg/kg dry wt	129	39	-	-

Acid Herbicides Screen in Soil by LCMSMS					
Acifluorfen	mg/kg dry wt	-	-	< 0.2	< 0.2
Bentazone	mg/kg dry wt	-	-	< 0.2	< 0.2
Bromoxynil	mg/kg dry wt	-	-	< 0.2	< 0.2
Clopyralid	mg/kg dry wt	-	-	< 0.2	< 0.2
Dicamba	mg/kg dry wt	-	-	< 0.2	< 0.2
2,4-Dichlorophenoxyacetic acid (24D)	mg/kg dry wt	-	-	< 0.2	< 0.2

Sample Type: Soil					
Sample Name:	S11 10-Mar-2026	S12 10-Mar-2026	Comp 1 10-Mar-2026	Comp 2 10-Mar-2026	
Lab Number:	4128516.11	4128516.12	4128516.13	4128516.14	
Acid Herbicides Screen in Soil by LCMSMS					
2,4-Dichlorophenoxybutyric acid (24DB)	mg/kg dry wt	-	-	< 0.2	< 0.2
Dichlorprop	mg/kg dry wt	-	-	< 0.2	< 0.2
Fluazifop	mg/kg dry wt	-	-	< 0.2	< 0.2
Fluroxypyr	mg/kg dry wt	-	-	< 0.2	< 0.2
Haloxypop	mg/kg dry wt	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg dry wt	-	-	< 0.2	< 0.2
2-methyl-4-chlorophenoxybutanoic acid (MCPB)	mg/kg dry wt	-	-	< 0.2	< 0.2
Mecoprop (MCPP; 2-methyl-4-chlorophenoxypropionic acid)	mg/kg dry wt	-	-	< 0.2	< 0.2
Oryzalin	mg/kg dry wt	-	-	< 0.4	< 0.4
Pentachlorophenol (PCP)	mg/kg dry wt	-	-	< 0.2	< 0.2
Picloram	mg/kg dry wt	-	-	< 0.2	< 0.2
Quizalofop	mg/kg dry wt	-	-	< 0.2	< 0.2
2,3,4,6-Tetrachlorophenol (TCP)	mg/kg dry wt	-	-	< 0.2	< 0.2
2,4,5-trichlorophenoxypropionic acid (245TP,Fenoprop, Silvex)	mg/kg dry wt	-	-	< 0.2	< 0.2
2,4,5-Trichlorophenoxyacetic acid (245T)	mg/kg dry wt	-	-	< 0.2	< 0.2
Triclopyr	mg/kg dry wt	-	-	< 0.2	< 0.2
Organochlorine Pesticides Screening in Soil					
Aldrin	mg/kg dry wt	-	-	< 0.014	< 0.013
alpha-BHC	mg/kg dry wt	-	-	< 0.014	< 0.013
beta-BHC	mg/kg dry wt	-	-	< 0.014	< 0.013
delta-BHC	mg/kg dry wt	-	-	< 0.014	< 0.013
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.014	< 0.013
cis-Chlordane	mg/kg dry wt	-	-	< 0.014	< 0.013
trans-Chlordane	mg/kg dry wt	-	-	< 0.014	< 0.013
2,4'-DDD	mg/kg dry wt	-	-	< 0.014	< 0.013
4,4'-DDD	mg/kg dry wt	-	-	< 0.014	< 0.013
2,4'-DDE	mg/kg dry wt	-	-	< 0.014	< 0.013
4,4'-DDE	mg/kg dry wt	-	-	0.027	0.028
2,4'-DDT	mg/kg dry wt	-	-	< 0.014	< 0.013
4,4'-DDT	mg/kg dry wt	-	-	0.014	< 0.013
Total DDT Isomers	mg/kg dry wt	-	-	< 0.08	< 0.08
Dieldrin	mg/kg dry wt	-	-	< 0.014	< 0.013
Endosulfan I	mg/kg dry wt	-	-	< 0.014	< 0.013
Endosulfan II	mg/kg dry wt	-	-	< 0.014	< 0.013
Endosulfan sulphate	mg/kg dry wt	-	-	< 0.014	< 0.013
Endrin	mg/kg dry wt	-	-	< 0.014	< 0.013
Endrin aldehyde	mg/kg dry wt	-	-	< 0.014	< 0.013
Endrin ketone	mg/kg dry wt	-	-	< 0.014	< 0.013
Heptachlor	mg/kg dry wt	-	-	< 0.014	< 0.013
Heptachlor epoxide	mg/kg dry wt	-	-	< 0.014	< 0.013
Hexachlorobenzene	mg/kg dry wt	-	-	< 0.014	< 0.013
Methoxychlor	mg/kg dry wt	-	-	< 0.014	< 0.013

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-12
Soil Prep Dry for Organics, Trace*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	13-14
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-12
Acid Herbicides Screen in Soil by LCMSMS	Solvent extraction, LC-MS/MS analysis. Tested on dried sample. In-house.	0.2 - 0.4 mg/kg dry wt	13-14
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	13-14
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	13-14

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 12-Mar-2026 and 19-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Graham Corban MSc Tech (Hons)
Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	LDE Limited	Lab No:	4129173	A2Pv1
Contact:	Erin Gasston C/- LDE Limited 27 Hobson Avenue Kerikeri 0230	Date Received:	11-Mar-2026	
		Date Reported:	17-Mar-2026	
		Quote No:	115238	
		Order No:	30495	
		Client Reference:	30495	
		Submitted By:	Erin Gasston	

Sample Type: Soil				
Sample Name:		S9 10-Mar-2026	S11 10-Mar-2026	
Lab Number:		4129173.1	4129173.2	
Asbestos Presence / Absence		Asbestos NOT detected.		
Description of Asbestos Form		-		
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	
As Received Weight	g	455.0	433.5	
Dry Weight	g	313.8	295.9	
Moisture*	%	31	32	
Sample Fraction >10mm	g dry wt	1.1	9.2	
Sample Fraction <10mm to >2mm	g dry wt	174.8	162.5	
Sample Fraction <2mm	g dry wt	136.6	123.0	
<2mm Subsample Weight	g dry wt	57.7	52.7	
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	1-2
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	1-2
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	1-2
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1-2
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	1-2
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	1-2
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	1-2

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 16-Mar-2026 and 17-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Dexter Paguirigan Dip Chem Engineering Tech
Laboratory Technician - Asbestos

APPENDIX B

QUALIFICATIONS AND EXPERIENCE OF THE SQEP(S)

James Gladwin - BSc (Hons) Environmental Science, PgDip in Soil Science, CEnvP.

James is a Suitably Qualified and Experience Practitioner (SQEP). With 15+ years of experience in contaminated land covering a wide range of sites and contamination types, James has an excellent understanding of the investigation and remediation of contaminated land in accordance with the National Environmental Standards for Contaminated Land (NESCS) and the Contaminated Land Management Guidelines (CLMG).

James is a certified environmental practitioner (CEnvP) and has provided a wide range of contaminated land services to an array of clients. Key clients include the District and City Councils of the Bay of Plenty, the Bay of Plenty Regional Council, Christchurch City Council, Gisborne City Council, New Plymouth District Council, and the NZ Transport Agency. He has been a panel member that provided technical review and guidance for the development of contaminated sites. He has also provided technical reviews for contaminated land investigations completed by third parties. James currently sits on the Bay of Plenty Regional Council Environmental Panel and is a permanent member of ALGA.

James worked on the Kopeopeo Canal Remediation Project, providing independent technical analysis for dioxin contamination in soils, sediment, water, and air. He monitored and reported on the effectiveness of the dredge trial within resource consent requirements. This provided proof that the remediation methods were effective and practical so that the full-scale remediation of the canal could be completed. James continued to provide technical input through the remediation stage of the project.



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




R. W. Muir
Registrar-General
of Land

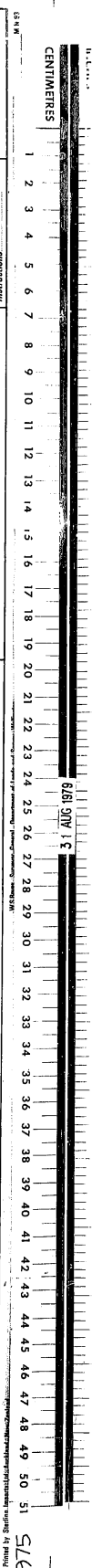
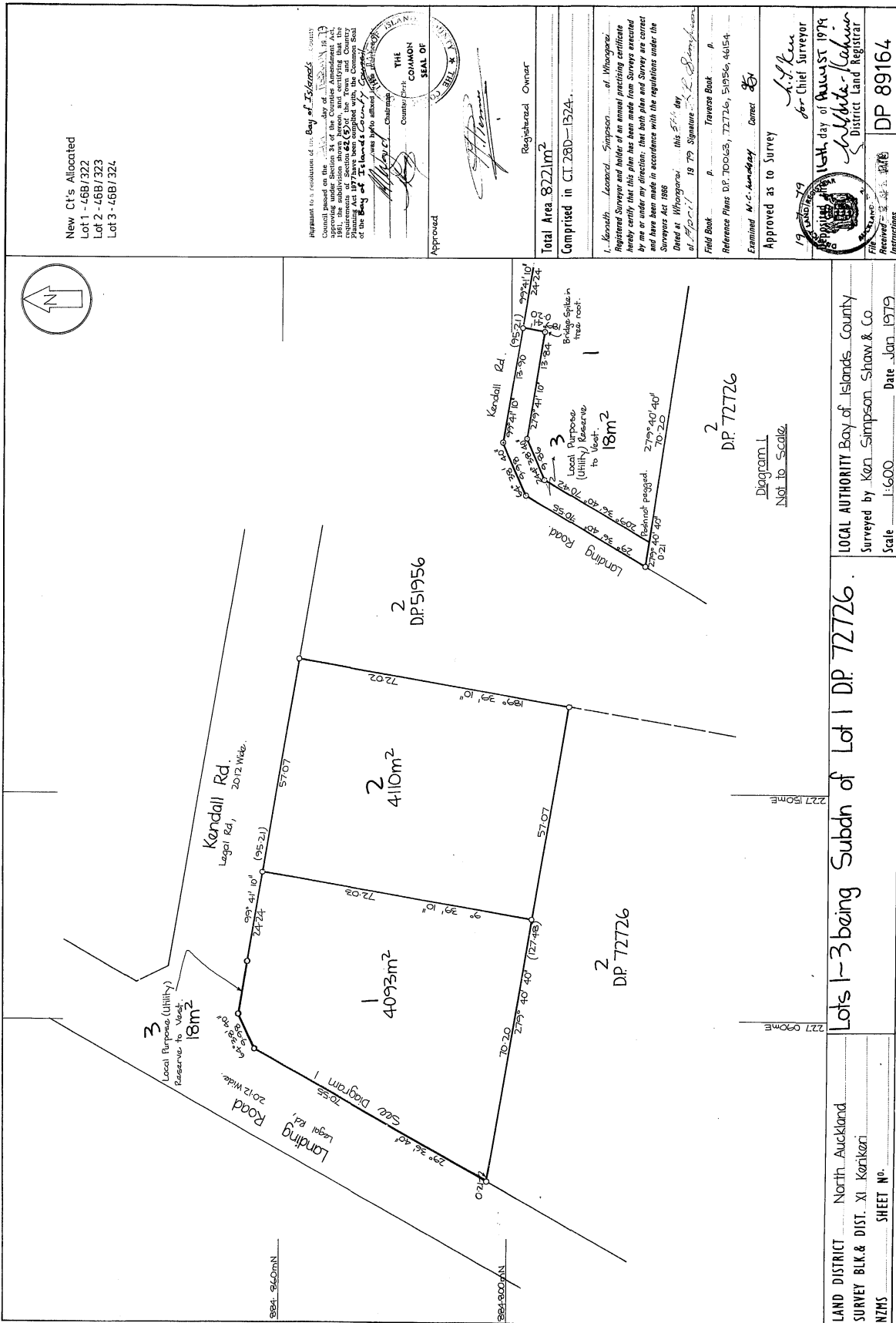
Identifier NA46B/322
Land Registration District North Auckland
Date Issued 16 August 1979

Prior References
NA28D/1324

Estate Fee Simple
Area 4093 square metres more or less
Legal Description Lot 1 Deposited Plan 89164

Registered Owners
Norman Luke Lambers and Ann Lambers

Interests
Fencing Agreement in Transfer 256268
Fencing Agreement in Transfer 688304
9872488.3 Mortgage to ANZ Bank New Zealand Limited - 24.10.2014 at 3:32 pm



13 May 2026

Natalie Watson
Williams & King
PO Box 937
KERIKERI 0230

Email: nat@saps.co.nz

To Whom It May Concern:

RE: PROPOSED SUBDIVISION
Norman Lambers – 1 Kendall Road, Kerikeri. Lot 1 DP 89164.

Thank you for your recent correspondence with attached proposed subdivision scheme plans.

Top Energy's requirement is that power be made available for the additional lot. Top Energy advises that there is an existing power supply to proposed Lot 2. Design and costs to provide a power supply to proposed Lot 1 would be provided after application and an on-site survey have been completed. Link to application: [Top Energy | Top Energy](#)

In order to get a letter from Top Energy upon completion of your subdivision, a copy of the resource consent decision must be provided.

Yours sincerely



Aaron Birt
Planning and Design
E: aaron.birt@topenergy.co.nz



NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	Norman & Ann Lambers
Address of proposed activity:	1 Kendall Road, Kerikeri
Legal description:	Lot 1 DP 89164
Description of the proposal (including why you need resource consent):	Proposed subdivision in the Rural Living Zone to create one additional lot. Existing impermeable surface coverage on Lot 2 of approximately 31%. Both lots will share use of the existing vehicle crossing off Kendall Road.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	<ol style="list-style-type: none"> 1. Proposed Scheme Plan prepared by Williams & King, Ref 24772, dated Feb 2026. 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

Notes to the party giving written approval:

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
2. You should only sign in the place provided on this form and accompanying plans and documents if you **fully understand** the proposal and if you **support** or have **no opposition** to the proposal. Council will not accept conditional approvals. If you have conditions on your approval, these should be discussed and resolved with the applicant directly.
3. Please note that when you give your written approval to an application, council cannot take into consideration any actual or potential effects of the proposed activity on you unless you formally withdraw your written approval **before** a decision has been made as to whether the application is to be notified or not. After that time you can no longer withdraw your written approval.
4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval: x

Peter and Kim Sainsbury

Address of affected property including legal description y

Lot 1, DP 90289 0.4225
2 Kendall Road, Kenikeri, Northland.

Contact Phone Number/s and email address y

Daytime: 021 0662779 email: classicconcrete@xtra.co.nz
021 668124

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

Please note: in most instances the approval of **all** the legal owners and the occupiers of the affected property will be necessary.

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
3. I/We understand and accept that once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature

K Sainsbury

Date

28.4.26

Signature

K Sainsbury

Date

28.4.26

Signature

Date

Signature

Date



NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

PART A – To be completed by Applicant

Applicant/s Name:	Norman & Ann Lambers
Address of proposed activity:	1 Kendall Road, Kerikeri
Legal description:	Lot 1 DP 89164
Description of the proposal (including why you need resource consent):	Proposed subdivision in the Rural Living Zone to create one additional lot. Existing impermeable surface coverage on Lot 2 of approximately 31%. Both lots will share use of the existing vehicle crossing off Kendall Road.
Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):	<ol style="list-style-type: none">1. Proposed Scheme Plan prepared by Williams & King, Ref 24772, dated Feb 2026.2. _____3. _____4. _____5. _____6. _____

Notes to Applicant:

1. Written approval must be obtained from all registered owners and occupiers.
2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

Notes to the party giving written approval:

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
2. You should only sign in the place provided on this form and accompanying plans and documents if you **fully understand** the proposal and if you **support** or have **no opposition** to the proposal. Council will not accept conditional approvals. If you have conditions on your approval, these should be discussed and resolved with the applicant directly.
3. Please note that when you give your written approval to an application, council cannot take into consideration any actual or potential effects of the proposed activity on you unless you formally withdraw your written approval **before** a decision has been made as to whether the application is to be notified or not. After that time you can no longer withdraw your written approval.
4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval:

BRENT HYLTON FOSTER
MARY RACHEL FOSTER

Address of affected property including legal description

1A KENNAUCE RD
HERIOTRY D.P 89164

Contact Phone Number/s and email address

Daytime: 021 805638 email: brent.foster@kkr@gmail.com

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

Please note: in most instances the approval of all the legal owners and the occupiers of the affected property will be necessary.

1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
2. I/We have signed each page of the plans and documentation in respect of this proposal (these need to accompany this form).
3. I/We understand and accept that once I/we give my/our approval the Consent Authority (Council) cannot take account of any actual or potential effect of the activity and/or proposal upon me/us when considering the application and the fact that any such effect may occur shall not be relevant grounds upon which the Consent Authority may refuse to grant the application.
4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature



Date

11 MAY 2026

Signature



Date

11 May 2026

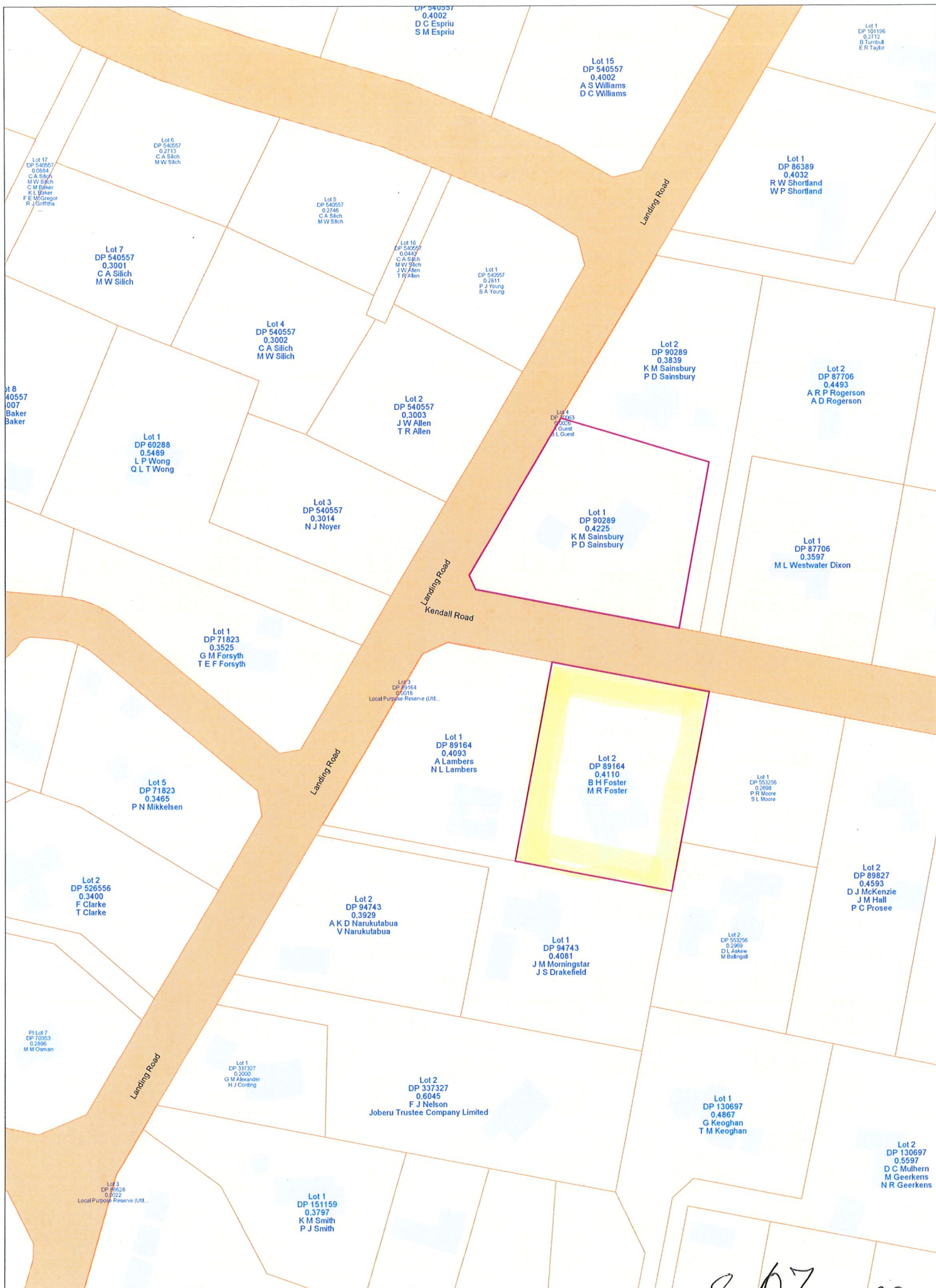
Signature

Date

Signature

Date





[Handwritten signature]

GENERAL NOTES

Ground levels shown on this plan are current levels and may not be the Ground Level as defined by the FNDC District Plan.

Consideration in terms of the FNDC definition should be undertaken in order to correctly assess the Building Height and Sunlight Rules.

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Name	Date
MP	Feb 2026
WF	Feb 2026
Local Datum	NZ Vertical Datum 2016
Contour Interval	
Major	1.0m
Minor	0.2m
Address	1 Kendall Road, Kerikeri
Title	NA46B322 Area 0.4093 ha.

JOB/CIENT:

NORM & ANN LAMBERS

KERIKERI

SHEET TITLE
PROPOSED
SUBDIVISION
OF
LOT 1 DP 89164

Williams & King
 Registered Land Surveyors, Planners &
 Land Development Consultants
 7 Hobson Ave
 PO Box 100
 Kerikeri, New Zealand
 Tel: 09 407 6030
 Email: kerikeri@wspks.co.nz

Job No: 24772

File: Lambers

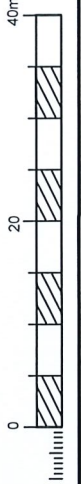
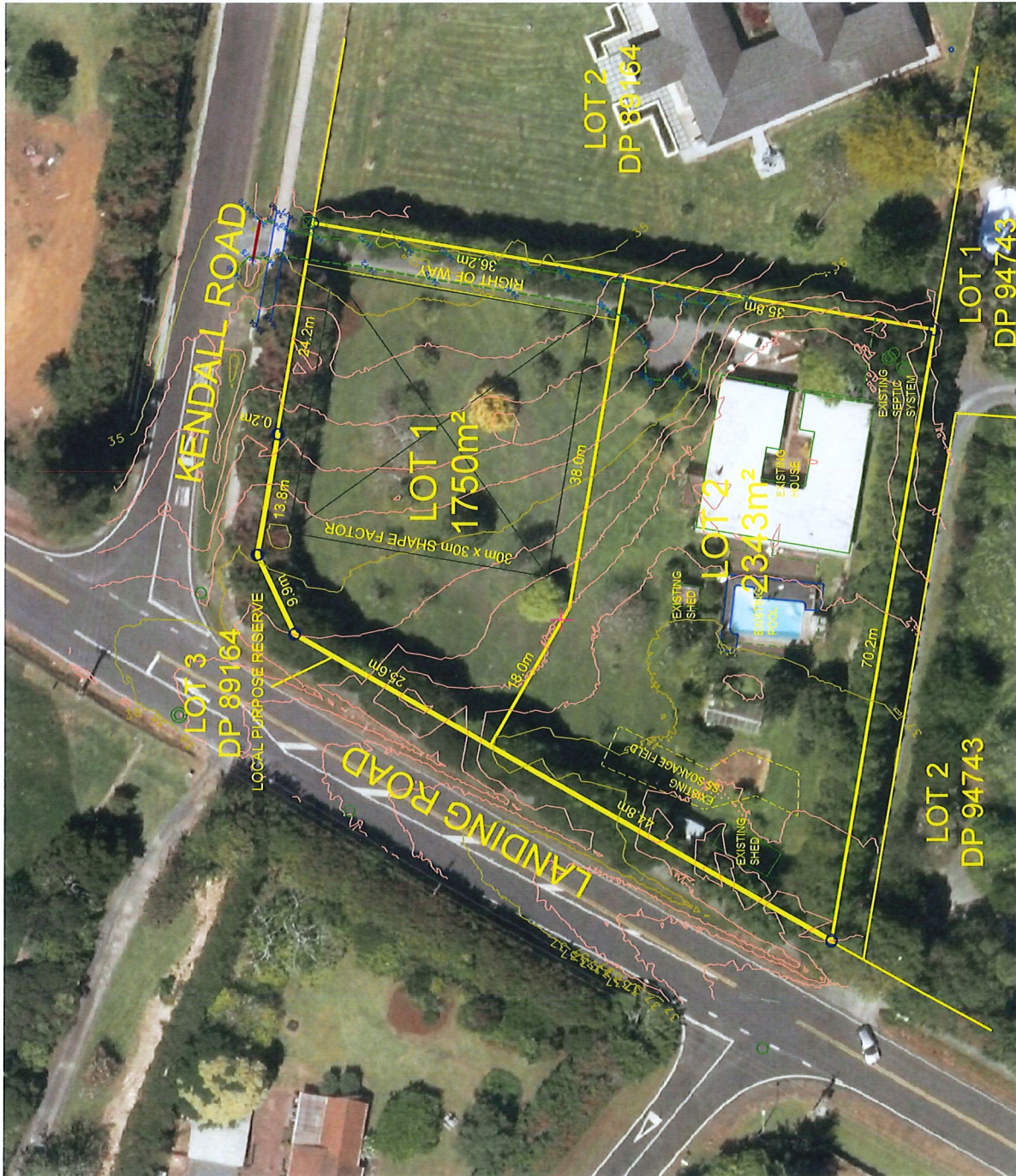
SCALE @ A3 **SHEET No**
 1:500 **1/1**



*** PROPOSED MEMORANDUM OF EASEMENTS**

PURPOSE	SHOWN	BURDENED LAND	BENEFITTED LAND
RIGHT OF WAY RIGHT TO CONVEY POWER TELECOMMUNICATIONS & WATER	A	LOT 1 HEREON	LOT 2 HEREON

LOT 2 IMPERMEABLE AREAS
 City's 250m²
 Buildings 470m²
 Total 720m² / 31%



S.P.F. MRS