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DONALDSONS
REGISTERED LAND SURVEYORS

PLANNING REPORT

PROPOSED BOUNDARY ADJUSTMENT

J. & R. MURRAY

680 WAIMATE NORTH ROAD, KERIKERI

Date: 11 April 2025 Reference: 8198

CONTENTS

INTRODUCTION

The applicants have two titles and they seek consent for a boundary adjustment to improve parcel configuration.

One title with an area of 3048m² is segregated from their other title having an area of 8.529ha, by Waimate North Road, and to relocate the title so both are on the one side of the road would serve to assist with their broader goal to build a second dwelling on the relocated title.

Although the parent title has subdivision entitlements that could achieve the same outcome, another title to build their new dwelling, this is not the preferred option.

Current situation:	Proposed outcome:
Section 11 SO-440211 = 8.5929 ha (RT 583599)	Lot 1 = 2.16 ha
Section 20 SO-462258 = 3084m² (RT 1076086)	Lot 2 = 6.58 ha

The subject properties are zoned Rural Production under both the Operative and Proposed District Plans, and overall, the application is presented as a Controlled activity.

SITE DESCRIPTION

The application site legal reference:

Estate	Lot Number Deposited Plan	Area	Proprietor	Record of Title
Fee Simple	Section 11 SO-440211	8.5929 ha	Jemma Murray Richard Murray	RT-583599
Fee Simple	Section 20 SO-462258	3084m²	Jemma Murray Richard Murray	RT-1076086

The properties are located at 680 Waimate North Road, Okaihau, within a rural setting characterised by a mix of lifestyle and farming blocks.

Lot 1 features an established dwelling and implement shed, accessible via a metalled driveway connecting to Waimate North Road. The site has a moderate southwest-facing slope (approximately 1:6) and is primarily in pasture, with a few scattered trees.

Lot 2 and Section 20 SO 462258 are currently vacant, covered in pasture, and have gentle slopes trending southward.
An existing overhead power line runs near the western boundary, extending through both Lots 1 and 2.

OPERATIVE DISTRICT PLAN

The property is located within the Rural Production zone and is not influenced by any Resource overlays under the Operative District Plan.

SUBDIVISION

Boundary Adjustments
13.7.1 BOUNDARY ADJUSTMENTS: ALL ZONES EXCEPT THE RECREATIONAL ACTIVITIES AND CONSERVATION ZONES

Boundary Adjustments Performance Standards
Boundary adjustments to lots may be carried out as a controlled (subdivision) activity provided that:

(a)
There is no change in the number and location of any access to the lots involved;

The boundary adjustment does not increase the number of accesses to the site. There remains two entrance and both exist.

(b)
There is no increase in the number of lots;

There would remain 2 titles.

(c)
The area of each adjusted lot complies with the allowable minimum lot sizes specified for the relevant zone, as a controlled activity in all zones except for General Coastal or as a restricted discretionary activity in the General Coastal Zone (refer Table 13.7.2.1); except that where an existing lot size is already non-complying the degree of non-compliance shall not be increased as a result of the boundary adjustment;

The boundary adjustment decreases the level of existing noncompliance, where title area to Section 20 SO 462258 is 3084m² and this would increase to 6.88ha.

(d)
The area affected by the boundary adjustment is within or contiguous with the area of the original lots;

The areas remain contiguous with that of the current boundary layout.

(e)
All boundary adjusted sites must be capable of complying with all relevant land use rules (e.g building setbacks, effluent disposal);

The adjusted boundary complies with all permitted land use rules.

(f)
All existing on-site drainage systems (stormwater, effluent disposal, potable water) must be wholly contained within the boundary adjusted sites.

The proposal complies.

ALLOTMENT DIMENSIONS

(Buildable Area)

Zone	Minimum Dimension
Rural Production	30m x 30m

Both lots provide a width over 50m, and the boundary adjustment does not compromise the ability to configure a 30m x 30m shape parameter in accordance with the 10m setbacks.

ASSESSMENT CRITERIA

Property Access
The boundary adjustment has no impact on the existing access arrangements.
The entrances exist and conditions of consent may include that they be upgraded to seal in accodarance with council standard.

Hazards
The NRC Maps do not record the site with any natural hazards.
Flooding is known to occur within the lower contour but this is well below the existing and future building sites.

Water Supply
There is no change to the existing water supply arrangements.

Stormwater
There is no change to the stormwater disposal, and there is no increase in any impermeable surfaces.
All existing impermeable surfaces have been lawfully established and therefore uphold existing use rights pursuant to Section 10 RMA.
Both lots continue to uphold permitted impermeable surface coverage of 15%.

Both lots have natural gully's that collect overland flow stormwater in a controlled manner.

Sewage
The boundary adjustment does not compromise effluent disposal.
The attached wastewater report confirms adequacy of onsite wastewater disposal.

Energy Supplies & Telecommunications
There are no changes to electricity or telecommunication services.
Comments from Top Energy are attached without concern.

Easements - Land Covenants - Amalgamations
There are no existing easements or covenants.

There is one proposed easement for electricity supply as shown area 'A'.

Proposed covenants would relate to any consent notice that may be considered appropriate by local authority.

There is one proposed amalgamation conditions pursuant to Section 220(1)(b)(ii) that require DLR approval.

Preservation
There are no listed outstanding landscapes as shown in the Resource Overlays or under Appendix 1a-1g of the plan.

Access to Reserves and Waterways
Not applicable.

Land Use Incompatibility
The land transfer exchange does not alter the rural lifestyle land use.

NATURAL AND PHYSICAL RESOURCES

There is no vegetation clearance and no earthworks.

There is no adversity to the life supporting capacity of soil, eco-systems, water quality, or air.

There are no historic or cultural concerns.

PROPOSED DISTRICT PLAN

The properties are both located in the Rural Production zone and are not subject to any resource overlays.

The proposed boundary adjustment does not affect sites within a heritage overlay, is not an activity that would cause or worsen the effects of natural hazards, does not require any earthworks, and is not land that has a significant ecological value, thereby the proposed district plan has limited legal affect.

SUBDIVISION

The following describes relevant subdivision objectives and policies.

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 mitigates and existing risks reduced; and
f) manages adverse effects on the environment.

Policies

SUB-P1
Enable boundary adjustments that:

a) do not alter:
i) the degree of non compliance with District Plan rules and standards;
ii) the number and location of any access; and
iii) the number of certificates of title; and
b) are in accordance with the minimum lot sizes of the zone and comply with access, infrastructure and esplanade provisions.

The proposal accords with relevant subdivision objectives and policies.

BOUNDARY ADJUSTMENTS
SUB-R1

Standards
SUB-S1 Minimum allotment sizes
Activity status: Controlled

Rural Production	*40ha*

SUB-S2 Requirements for building platforms for each allotment

Rural Production, Horticulture, Rural Lifestyle, Rural Residential	*30m x 30m*

CON-1

SUB-1 Minimum allotment sizes for controlled activities, except where an existing allotment size is already non-compliant, the degree of non-compliance shall not be increased;	These are both existing allotments and although sized less than 40ha, the boundary adjustment does not change the degree of non-compliance.
SUB-S2 Requirements for building platforms for each allotment	No concern both sites have suitable area for building.
SUB-S3 Water supply	As described under the proposed plan assessment.
SUB-S4 Stormwater management	As described under the proposed plan assessment. Complies with the 15%.
SUB-S5 Wastewater disposal	As described under the proposed plan assessment.
SUB-S6 Telecommunications and power supply	As described under the proposed plan assessment.
SUB-S7 Easements for any purpose	As described under the proposed plan assessment.

CON-2
the boundary adjustment does not alter

the ability of existing activities to continue to be permitted under the rules and standards in this District Plan;	The existing activities continue to uphold permitted activity status. The proposed boundary does not compromise those land use activities.
the degree of non compliance with zone or district wide standards;	There is no change to the degree of non-compliance with the zone or district wide standards.
the number and location of any access	There is no change in the number or location of any access where the affected lots currently have 3 entrance and this continues to remain unchanged.
the number of certificates of title	There is no increase in the number of titles.

CON-3
1. The boundary adjustment complies with standard:
SUB -S8 Esplanades
Any subdivision involving the creation of one or more allotments less than 4ha which adjoins:

1 - The line of MHWS;	N/A
2 - The bank of a river whose bed has an average width of 3m or more;	N/A
3 - A lake that is larger than 8 ha in size	N/A

An esplanade reserve must be provided with a minimum width of 20m, in accordance with section 230 of the RMA.	N/A

In summary, the proposed boundary adjustment would also uphold the Controlled Activity standards under the proposed district plan.

RESOURCE MANAGEMENT ACT 1991

FOURTH SCHEDULE - RMA

ASSESSMENT OF ENVIRONMENTAL EFFECTS

There is no use of hazardous substances.

There is no discharge of contaminants.

The proposal does not increase adverse effects on the environment or contribute negatively to existing effects.

The proposal overall is considered to present less than minor effects or effects arguably nil.

The proposal is not considered contrary to Part 2 purpose and principles of the RMA, and is not affected by matters of national importance.

The proposal has no impact on Local Iwi or Hapu Management plans. There are no heritage concerns, and the proposal does not concern Section 104 RMA, having no impact on matters listed under the Regional Policy Statement.

There is no impact on amenity values as the land use activities already exist.

CLAUSE 6

(1) An assessment of the activity's effects on the environmental must include the following information:

(a) *if it is likely that the activity will result in any significant adverse effects on the environment, a description of any possible alternative locations or methods for undertaking the activity:*

No concern.

(b) *an assessment of the actual or potential effects on the environment of the activity.*

No concern.

(c) *if the activity includes the use of hazardous substances and installations, an assessment of any risk to the environment that are likely to arise from such use.*

Not applicable.

(d) *if the activity includes the discharge of any contaminants, a description of –*
(i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
(ii) any possible alternative methods of discharge, including discharge into any other receiving environment:

Not applicable.

(e) *a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effects:*

There are no issues to address.

(f) *identification of the persons affected by the activity and consultation undertaken, and any response to the views of any person consulted:*

All effects are considered less than minor not to require consultation.

(g) *if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:*

No monitoring is necessary.

(h) *if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).*

No concern.

(2)
A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.

This is covered under the heading 'Northland Regional Policy Statement' below.

CLAUSE 7

7 Matters that must be addressed by assessment of environmental effects

(1) An assessment of an activity's effects on the environment must address the following matters:

(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:

The proposal is considered to promote the zone guidelines and surrounding land use, without any unreasonable effects to concern the wider community including social and economic or cultural aspects.

(b) any physical effects on the locality, including any landscape, and visual effects.

No concern.

(c) Any effects on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity.

The subdivision does not result in any habitat disturbance.

(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural values, or other special value, for present and future generations:

The values outlined are not depleted.

There is no influence on Fisheries.

(e) any discharge of contaminants in to the environment, including any unreasonable emissions of noise, and options for the treatment and disposal of contaminants:

None.

(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.

To the best of our knowledge there are no concerns.

Overall, the proposal can occur without causing any effects contrary to the purpose and principles of the Resource Management Act 1991.

NORTHLAND REGIONAL POLICY STATEMENT

The Northland Regional Policy Statement presents underlying environmental guidelines for the northland region.

PART 3: OBJECTIVES
3.4 Indigenous ecosystems and biodiversity
Safeguard Northland's ecological integrity by:
a) Protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna;
b) Maintaining the extent and diversity of indigenous ecosystems and habitats in the region; and
c) Where practicable, enhancing indigenous ecosystems and habitats, particularly where this contributes to the reduction in the overall threat status of regionally and nationally threatened species.

There is no immediate risk to or impact on ecosystems.

6.1.1 Policy – Regional and district plans
Regional and district plans shall:
(a) Only contain regulation if it is the most effective and efficient way of achieving resource management objective(s), taking into account the costs, benefits and risks;
(b) Be as consistent as possible;
(c) Be as simple as possible;
(d) Use or support good management practices;
(e) Minimise compliance costs and enable audited self-management where it is efficient and effective;
(f) Enable subdivision, use and development that accords with the Regional Policy Statement; and
(g) Focus on effects and where suitable use performance standards.

The subdivision activity is small-scale absent of any unreasonable adverse effects on the environment.

There is no impact on production land or versatile soils given the direct exchange of area.

The proposal is not seen to clash with the Regional Policy Statement and therefore should be assessed under Resource Consent on an enabling basis.

Aspects outlined under the National Environmental Standards for Freshwater 2020 are considered to be upheld not to trigger the need for land use consent under the Northland Regional Plan.

NATIONAL POLICY STATEMENT FOR HIGHLY PRODUCTIVE LAND 2022

Highly productive land is to be protected for use in land based primary production, both now and for future generations, and is to be recognised as a resource with finite characteristics and long term values for land based primary production.

1.3 Interpretation
Highly productive land – means land that has been mapped in accordance with clause 3.4 and is included in an operative regional policy statement as required by clause 3.5 (but see cluse 3.5(7) for what is treated as highly productive land before the maps are included in an operative regional policy statement and cluse 3.5(6) for when land is rezoned and therefore ceases to be highly productive land).

The sites do not have any class 1 – 3 soils.

CONCLUSION

The proposed boundary adjustment presents a low impact activity with no measurable adverse effects.

The application is recommended for approval with standard conditions.

Micah Donaldson
MNZIS - Assoc.NZPI

DONALDSONS
Land / Engineering Surveyors and Development Planners

NZIS
REGISTERED PROFESSIONAL SURVEYOR

Quickmap Title Details

Information last updated as at 02-Feb-2025

RECORD OF TITLE
DERIVED FROM LAND INFORMATION NEW ZEALAND
FREEHOLD

Identifier **583599**

Land Registration District **North Auckland**

Date Issued 04 May 2012

Prior References

NA13B/204

Type Fee Simple

Area 8.5929 hectares more or less

Legal Description Section 5, 11 Survey Office Plan 440211

Registered Owners

Jemma Louise Murray and Richard Paul Murray

8992906.3 Compensation Certificate pursuant to Section 19 Public Works Act 1981 by Far North District Council - 24.2.2012 at 7:00 am

13091910.2 Mortgage to Westpac New Zealand Limited - 23.8.2024 at 3:15 pm

VISION CONSULTING ENGINEERS

ONSITE WASTEWATER FEASIBILITY REPORT

Feasibility Onsite Wastewater, Proposed Lot 2, 680 Waimate North Road, Kerikeri

Prepared for

Donaldsons Registered Land Surveyors

14/04/2025

Report Information Summary

Job no.	J15816
Report Author	Harry Miller
Report Reviewer	Ben Perry/Dan Simmonds
Version No.	1
Status	Final
Date	14/04/2025

Version No.	Date	Description
1	14/04/2025	Final issued to client.

Document Acceptance

Action	Name	Signed	Date
Author	Harry Miller	Engineering Geologist, BSci (Geo)	14/04/2025
Reviewer	Dan Simmonds	Senior Engineer MIAUST CPEng, CMEngNZ	14/04/2025
Reviewer	Ben Perry	Managing Director FMEngNZ, CPEng	14/04/2025

Limitations

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VISION CONSULTING ENGINEERS

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Contents

1 Introduction

Vision Consulting Engineers Ltd (VISION) was requested by Donaldsons Registered Land Surveyors to conduct an on-site wastewater site-and-soil evaluation for the proposed Lots 1 and 2 as part of the subdivision of Section 11 Survey Office Plan, 44021 mad Section 20 Survey Office Plan 462258.

It is proposed to subdivide the property into two Lots being Proposed Lot 1 and Proposed Lot 2. The site is located in a rural setting with lifestyle blocks and farmland adjoining the site. The locality of the site is shown in Figure 1.

This report was based on Donaldsons Registered Land Surveyors plan titled "Proposed Boundary Adjustment Between Sec 11 SO 440211 & SEC 20 SO 462258" dated Feb 2025, as presented in Figure 2 and in Appendix A.

This document provides specific information about the site, soil conditions, setback features and overall area available for wastewater disposal after subdividing. It also provides a detailed assessment for proposed Lot 2 including a concept design for a suitable on-site wastewater management system, including recommendations for monitoring and management requirements. VISION has also ensured that there is space available on the proposed lots after subdividing to provide a 100% reserve area.

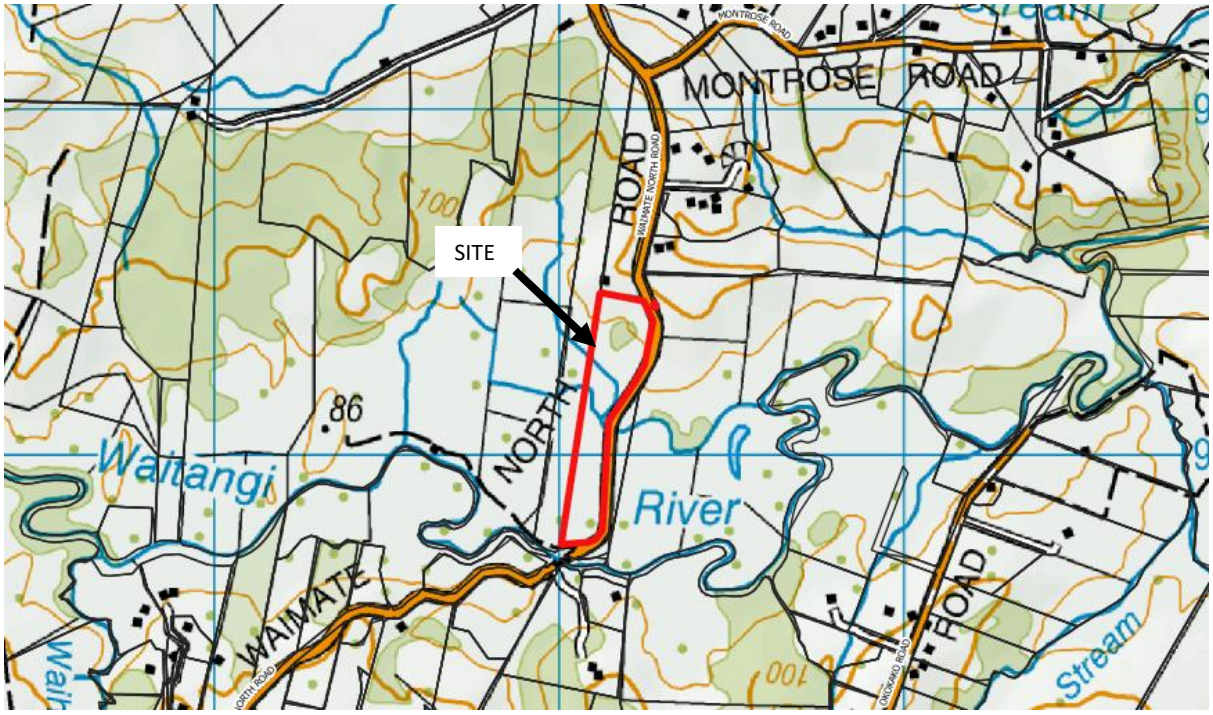


Figure 1. Locality Map

Locality map showing the site highlighted red, north is up the page.

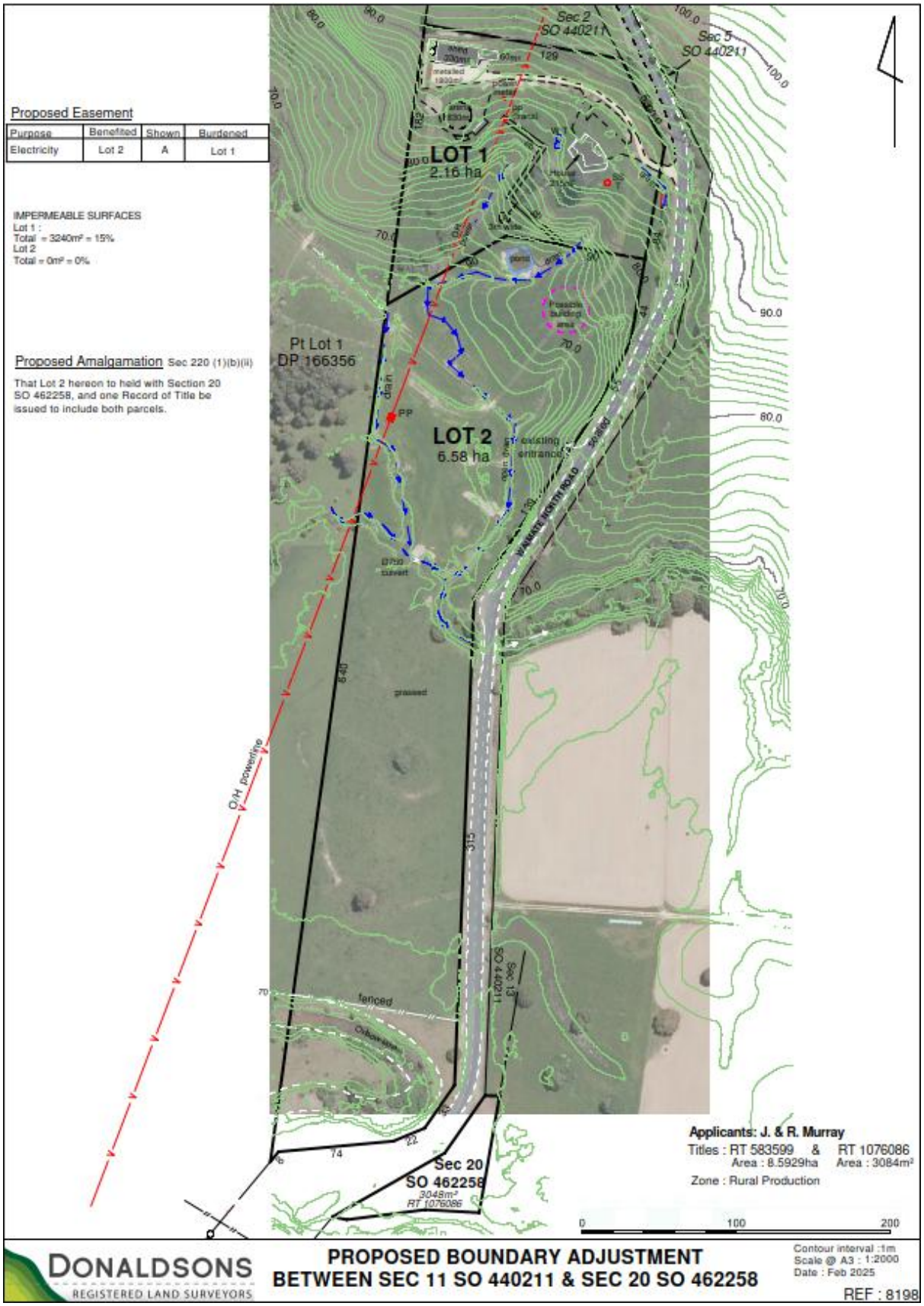


Figure 2. Scheme Plan

Based on Donaldsons Registered land Surveyors Proposed Subdivision Plan, dated Feb/2025

2 Site Details

Proposed Lot 2 is located at 630 Waimate North Road.

For the purpose of this report, the 'site' is limited to the area appurtenant to the 'Possible Building Area' located in the northern portion of proposed Lot 2 as shown in Figure 3 below.

Basic details of the site are provided in Table 1.

Table 1. Summary of Site Details

Item	**Details**
Site Address	680 Waimate North Road, Kerikeri
Owner	Jemma and Richard Murray
Legal Description	Section 11 Survey Office Plan, 44021 mad Section 20 Survey Office Plan 462258
Council Area	Far North District Council
Zoning	Rural Production
Engaged By	Donaldsons Registered Land Surveyors
Property Area	85,929 m^2
Proposed Lot sizes	Proposed Lot 1 = 2.16 ha 21600 m^2 Proposed Lot 2 = 6.58 ha 65800 m^2 + Proposed amalgamation of SEC 20 3084 m^2
Domestic Water Supply	Roof collection
Anticipated Wastewater Load from future dwellings:	Assume 4-bedroom dwelling (6 people maximum design occupancy). Design flow allowance is 160 L/person/day, therefore total design load = 960 L/day. This design load is sourced from ARC TP58:2004, given comments in Section 6.3.2 and is considered conservative. Concept design calculations are presented in Appendix C.
Availability of Sewer	The area is unsewered and unlikely to be sewered in the long term.

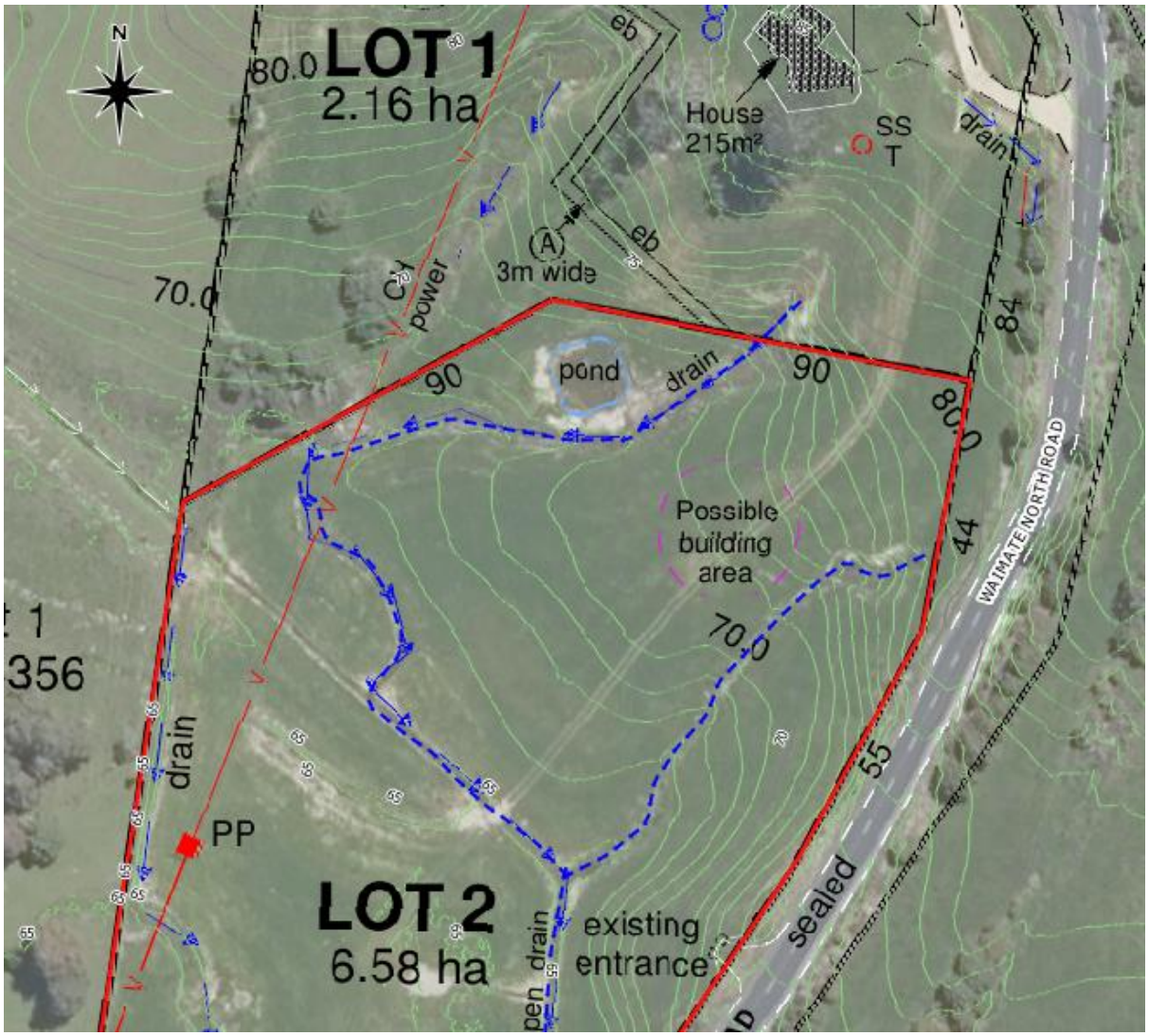


Figure 3. Site Location

Approximate location of the proposed property boundary outlined in red, Donaldsons possible building area dashed pink, 1m contours provided by LINZ, north at top, not to scale

3 Site Evaluation

VISION undertook site investigations on 20/03/2025. The weather was fine at the time of the investigation. A range of site features were assessed in terms of the degree of limitation they present for a range of on-site wastewater management systems. A summary of key features in relation to effluent management at the site are listed below. The site is within the Waitangi water supply catchment area.

Table 2. Site Evaluation

Feature	Description
Climate	Northland is a sub-tropical climate zone, with warm humid summers and mild winters. Typical summer temperatures range from 22°C to 26°C (maximum daytime) but seldom exceed 30°C. In winter, high temperatures are between 14°C to 17°C. Annual sunshine hours average about 2000 in many areas. Mean annual rainfall is 1400mm for the site location.
Exposure	The site is moderately exposed providing medium sun and wind exposure.
Vegetation	The site is generally covered in grass and occasional trees.

Slope	The site is located on the lower portion of a generally south-west facing slope in the northern portion and on a low lying generally flat alluvial plane in the southern portion. The northern portion of the site is the focus of this feasibility report and generally slopes between 2 and 10 degrees to the south-west.
Fill	There were no obvious signs of fill in the vicinity of the site.
Erosion Potential	No signs of erosion were noted in the vicinity of the site during the site walkover assessment. The erosion potential is slight to moderate soil slip, earth slip, sheet and gully based on the Land Use Capability maps.
Surface Water	The following are located on or near proposed Lot 2: • Open drain adjacent to the proposed northern boundary that meanders through the site. These all have the potential for surface water diversion or interception, therefore setbacks have been adopted suitably. VISION is not aware of the use of surface water for domestic purposes within 500m of proposed Lot 2. • Surface water enters the site from the north and west and is generally diverted into farm drains that discharge into a tributary of the Waitangi river in the central portion of the site. • A 750mm diameter stormwater culvert is present in the central portion of the site beneath a farm raceway. • It is anticipated that springs are feeding the open drains located to the north and south of the possible building area. • Waimate North Road cuts off surface flows that enter the site from the north-east. • Surface water originates on site and exits the site to the south.
Flood Potential	Proposed Lot 2 is not mapped by the FNDC or the NRC as being subject to flooding. The flat alluvial plateau in the southern portion of the property may be subject to flooding. Further details are provided in Section 4.
Stormwater run-on and upslope seepage	The proposed systems should include surface water cut-off drains where appropriate
Groundwater	Subsurface conditions were logged from the boreholes performed on the site. Groundwater was not observed to be present in the boreholes extended to a depth of up to 1.2m below ground level. Groundwater was also not observed in during VISION'S Geotechnical Investigation as the site to a depth of 5.0m bgl.
Site Drainage and Subsurface Drainage	Site drainage will need to be addressed at the time of Building Consent. At this stage no subsurface drainage is recommended.
Recommended Buffer Distances	All buffer distances recommended in Northland Regional Council's Regional Soil and Water Plan, the District Plan and ARC TP58:2004 are achievable and do not appear to significantly limit the positioning of a new wastewater system.

4 Flood Hazard

Proposed Lot 1 and 2 are not mapped as being affected by inland or coastal flooding on the FNDC or NRC Hazard maps.

Based on VISION's desktop study of the site, the southern portion of the site appears to be situated on a flat alluvial plateau (flood plain) that is anticipated to be at risk of flooding.

Waimate North Road runs along the eastern boundary and traverses the flood plain to the south. It is anticipated that the road could effectively act as a dam in an extreme weather event if the bridge were blocked or overwhelmed. If this situation occurred, the flood water would build up to the west and flow over the road. The road surface elevation determines the flood elevation up stream. The elevation of Waimate North Road adjacent to the central and southern portion of Proposed Lot 2 is approximately 65.8 m NZVD 2016 for a distance of approximately 213.0 m. The catchment is estimated at 8 hecares. As a extremely conservative measure VISION has created a potential flood area for the

site based on the surface elevation of 65.8 m plus a 1.0 meter flow depth over the road bringing the maximum flood elevation to 66.8 m.

The proposed site and proposed wastewater disposal area are elevated above the 67.0 m contour line therefore the risk of flooding is expected to be low.

5 Soils

The site soils have been assessed for their suitability for on-site wastewater disposal by a combination of soil survey and desktop review of published soil survey information as outlined in this section.

5.1 Published Soil Information

The 1:250,000 geological map, Whangarei Area (Edbrooke and Brook et al 2009) indicates that the site is underlain by Melange, comprising a matrix of sheared mudstone with included tectonic blocks of Northland Allochthon. A geological boundary exists to the south-west of the site with the generally flat land to the south being underlain by the Tauranga Group comprising unconsolidated to poorly consolidated mud, sand, gravel and peat deposits of alluvial, colluvial and lacustrine origins.

The soils have been mapped by Landcare Research which describes soils under the New Zealand Revised Soil Classification.

The site is mapped as being Aponga clay being soils of the rolling and hilly land, imperfectly to very poorly drained and Okaka clay and silty clay being soils of the rolling and hilly land, imperfectly to very poorly drained.

The generally flat land to the south is mapped as being Whakapara silt loam and clay loam being soils of the flood plains, well to moderately well drained

5.2 Soil Survey and Analysis

A soil survey was undertaken at the site to determine the suitability for application of treated effluent. The soil survey was carried out based on two 1.2m boreholes in the vicinity of the site on proposed Lot 2.

The soils overlying proposed lot 2 generally consist of a layer of topsoil (silty clay), which is underlain by silty clay to a depth of at least 1.2m below ground level. The Borehole logs are included in Appendix B and the approximate locations of the subsurface investigations are shown on Figure 3.

6 Assessment of Environmental and Public Health Effects

To assess the impact of the proposed activity, site investigation and design procedures include the risk evaluation of the actual and potential environment and public health effects. This assessment ensures that the on-site system will produce effluent that complies with the public health and environmental quality requirements of the Northland Regional Soil and Water Plan.

The following sub-sections outline the assessed effects and measures mitigating any potential effects.

6.1 Actual Effects

No negative actual effects are perceived. The level of treatment and application rate is such that the receiving soils will be able to receive and further treat any residual contaminants in a sustainable manner with no net offsite effects.

Noise will be virtually undetectable as all pumps (if required) are small and submersible, and odours during normal operation are expected to be negligible.

6.2 Potential Effects

6.2.1 Effects on the Environment Within the Property

6.2.1.1 Surface Water

Sufficient land is available for the on-site wastewater treatment system including appropriate setbacks from surface water and concentrated flow paths. The area identified for the concept design of the wastewater disposal area is located to the south-west of the possible building area and slopes at approximately 3 to 5 degrees to the south-west. The slope configuration in relation to surface water runoff is generally linear divergent. The location of the concept wastewater disposal area is presented on Figure 3.

6.2.1.2 Groundwater

Groundwater was not observed in the boreholes (progressed up to depth of 1.2m). It is anticipated that groundwater is lower than 1.2m providing proposed Lot 2 with sufficient setback distances for effluent disposal. Groundwater was also not observed during VISION's geotechnical investigation at the site, progressed to a depth of 5.0m. During detailed design, this is typically checked as part of the design process, and a suitable system can be achieved given the groundwater depths measured at the site. Groundwater separation distances from ARC TP58:2004 should be adopted to ensure that suitable treatment is achieved.

6.2.2 Effects on the Environment Beyond the Property

The majority of potential effects to the environment and public health are contained within the property boundary.

6.2.2.1 Surface Water

As described in Section 5.2.1 which describes effects on the environment within the property boundary relating to surface water and groundwater, due to appropriate setback distances it is considered unlikely that there will be effects on the environment beyond the boundary.

6.2.2.2 Groundwater

Groundwater outside the property is not anticipated to be infiltrated by treated effluent so long as the setbacks from groundwater within the property are achieved.

6.2.2.3 Amenity Values

Most items related to effluent disposal via drip irrigation will be installed subsurface below a mulch layer. Only small plastic lids and the surface mounted drip lines are potential visible from a distance. The 150mm mulch layer will also provide a natural looking cover to mitigate the visibility of the drip lines.

6.2.3 Cumulative Effects

Due to appropriate setback distances and modelling of a large dwelling and driveway on proposed lot 2 to show conservative area available, there is not expected to be any adverse effect from cumulative hazards.

The major impacts related to this development will result from building works during the construction phase. The works for the wastewater treatment and disposal system is expected to be minimal. Installers are required to work within working hour limitations set out in the District Plan and establish appropriate erosion and sediment control.

6.3 Summary of Design Responses Required

Mitigation measures to protect public health and the environment include the following:

- Treatment system selection shall ensure that the minimum level of treatment, prior to land application, is at a Secondary Treatment standard.

- Provision of a sustainable disposal land treatment system
- Mitigation of run-off from the site and visual impact to the greater community by placing a minimum of 150mm bark or mulch layer over the surface mounted drip irrigation lines. Sub-surface drip irrigation lines could also be installed if desired.
- Minimum setback distances from surface water must be maintained at all times.

7 Performance of Existing Systems

Performance of the existing system on Lot 1 is unknown however the owner advised that they have had no problems with their sub-surface mounted PCDI lines and secondary treatment system.

8 Treatment System Selection

An appropriate land-application system and the treatment option to precede it is outlined in this section based upon a review of the physical site constraints and the assessment of environmental & public health effects.

8.1 Alternatives Considered

For the purposes of feasibility we have considered secondary aerated wastewater treatment systems only. Detailed design during the building consent stage may consider alternatives available for each proposed lot based on the soil type, environmental constraints, location and size of the proposed dwelling.

8.2 Treatment System

The treatment system suitable for the proposed subdivision is a Secondary Treatment system with a 120 micron filter or as recommended by manufacturer. Should the activities at the site generate a large volume of grease, the owner may wish to install a grease trap on the kitchen drainage.

8.3 Land Application

It is anticipated that surface mounted pressure compensating drip lines covered with mulch will be suitable for the proposed future activities. We have assumed a soil category of 6 with a loading rate of 3 litres per square meter per day and a 100% reserve area. Concept design calculations are presented in Appendix C.

Table 3. Summary of land application area

Proposed Lots	Area Required for Disposal of Effluent (using the assumed proposed development with 100% Reserve)(m^2)
1	Existing System not assessed
2	320m^2 (active) + 320 m^2 (reserve) = 640 m^2

Proposed Lot 2 was found to have sufficient area available for an on-site wastewater treatment system as outlined in this report. Indicative available areas are presented below in Figure 4.

8.4 Siting and Configuration of the Land Application Area

The indicative building area on undeveloped proposed Lot 2, setbacks from features, areas available for wastewater disposal and an indicative location for an active and reserve are presented below in Figure 4.

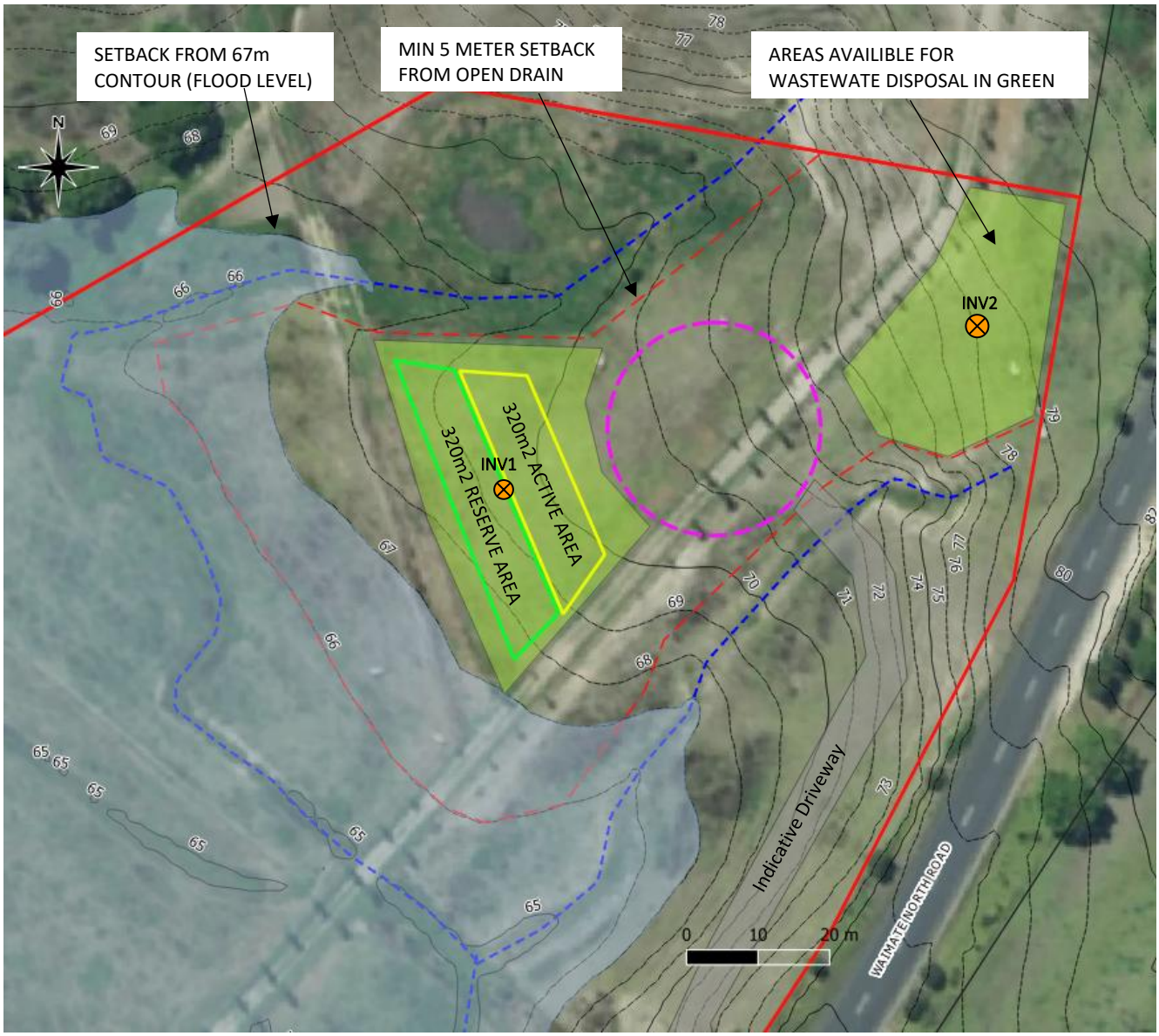


Figure 4. Wastewater Feasibility Plan

Based on Donaldsons Registered land Surveyors Proposed Subdivision Plan, dated Feb/2025, open drains in blue, areas available for wastewater disposal in green, wastewater setback line dashed red, a conservative maximum flood extent shaded blue, possible building area is a dashed-magenta circle.

8.5 Factors of Safety and Buffer Distances

The design process includes a risk assessment approach in which constraints are identified and addressed by various mitigation measures. The mitigating measures include, adopting an indicative dwelling and driveway location on proposed Lot 2 basing the volume of effluent produced for a 4-bedroom dwelling and for the lots and providing setbacks.

9 Monitoring, Operation and Maintenance

VISION recommend that the TP58 reports at the time of Building Consent require the inclusion of an operation and maintenance list for the homeowner.

If it is deemed that a treatment plant (Aerated, textile filter, etc) is to be used, a service contract shall be entered into between the owner and a service provider approved by the FNDC. The service contract will involve regular inspections of the system.

10 Area Available

Taking into consideration the Assessment of Environmental and Public Health Effects as well as the Treatment System Selection, areas suitable for on-site disposal have been identified on the proposed lots. Table 4 provides a summary of the areas identified as being available (suitable) for wastewater disposal, the area required for disposal of effluent, and the excess area available.

Table 4. Summary of Area Available (Proposed Lot 2 only)
A summary of the land area available for effluent disposal.

Proposed Lot	Area Available	Area Required for Disposal of Effluent	Excess Area Available
	(m^2)	*(m^2)*	*(m^2)*
2	1796*	640	1156

*Table Notes : Area available is for feasibility purposes and more available areas for wastewater disposal may be present on proposed Lot 2 than identified in this report

As can be seen in Table 4, proposed lot 2 has sufficient area to allow for an on-site wastewater management system.

11 Recommendations and Discussion

To ensure that the proposed on-site wastewater treatment and land application system continues to perform to a high standard and not contribute to an accumulated adverse effect on the environment it is recommended that the proposal be given Resource Consent for the subdivision based upon the following conditions:

- That a TP58 report is prepared at the time of Building Consent require the inclusion of an operation and maintenance list for the homeowner. A site-specific investigation and design at the Building Consent stage may identify a suitable alternative design to that assumed in this report. Such systems should be designed by a suitably qualified and experience person.

We have demonstrated that all lots can accommodate a Secondary Treatment system discharging to surface mounted pressure compensating drip lines consisting of a land application area of 320 square metres. A reserve of 100% has also been accommodated. Construction costs associated with the installation of type of system typically range from $20,000-25,000 excluding GST.

12 Conclusions

As requested we have undertaken an on-site wastewater site-and-soil evaluation for proposed Lot 2 of the subdivision. This investigation demonstrates that proposed Lot 2 has sufficient area available for the disposal of domestic wastewater under typical loading conditions.

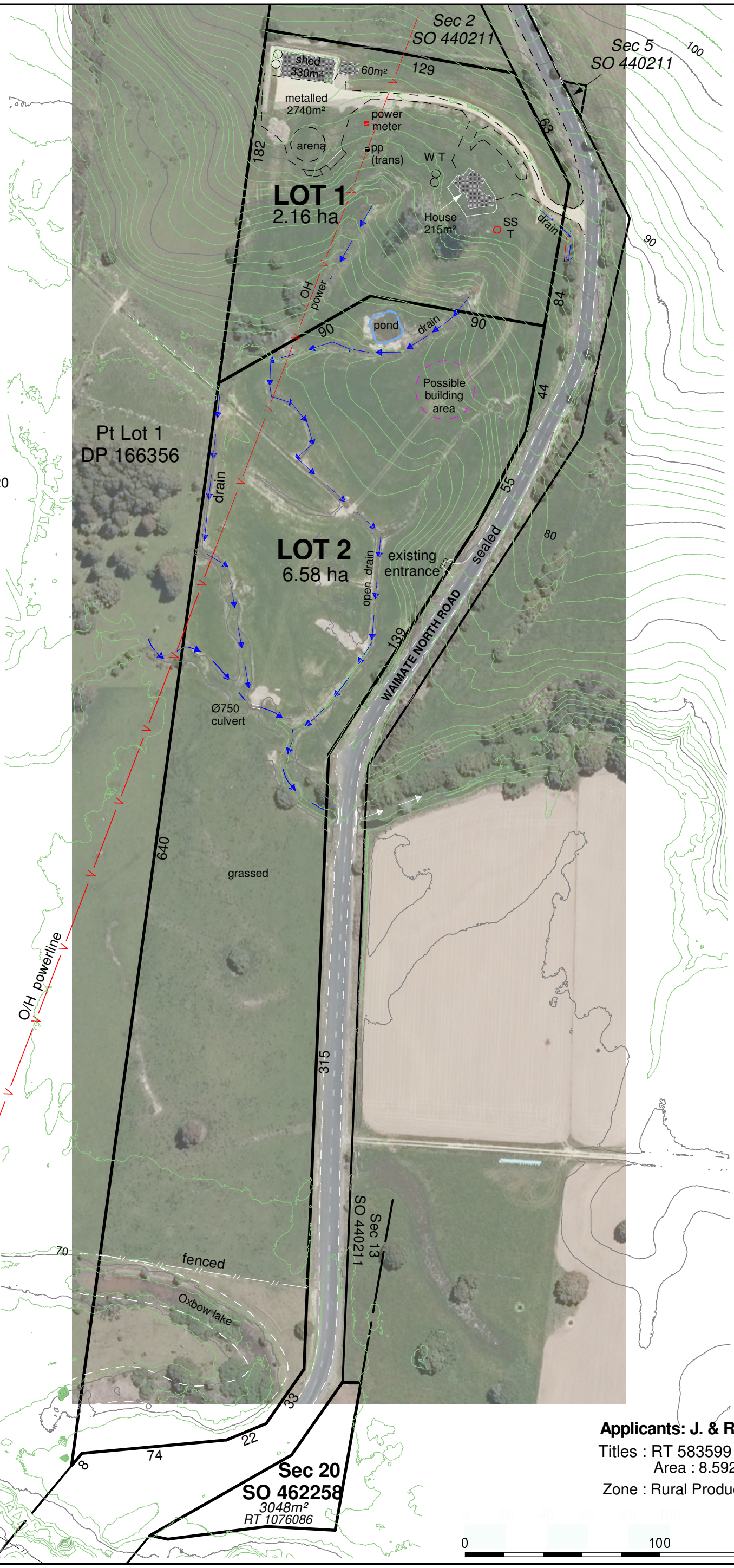
Provided that the recommendations of this report are implemented, we consider that the subdivision is feasible from the perspective of on-site wastewater disposal.

Appendix A
Donaldson Scheme Plan

IMPERMEABLE SURFACES
Lot 1 :
Total = 3345m² = 15.5%
Lot 2
Total = 0m² = 0%

Proposed Amalgamation

That Lot 2 hereon to held with Section 20 SO 462258, and one Record of Title be issued to include both parcels.



Applicants: J. & R. Murray

Titles : RT 583599 & RT 1076086
Area : 8.5929ha Area : 3084m²

Zone : Rural Production

PROPOSED BOUNDARY ADJUSTMENT BETWEEN SEC 11 SO 440211 & SEC 20 SO 462258

DONALDSONS
REGISTERED LAND SURVEYORS

Contour interval :1m
Scale @ A3 : 1:2000
Date : Feb 2025

REF : 8198

Appendix B
VISION Field Logs

BOREHOLE LOG - INV1

Client: Feasibility Wastewater Investigation	**Project: J15816**	**Project No.: Donaldsons Registered Surveyors**	
Project Location: 680 Waimate North Road, Kerikeri	**Borehole Location:** See Wastewater Plan	**Drilled by:**	HM
		Logged by:	HM
Hole started: 20/03/2025	**Drill method:** 50mm handauger		
Hole completed: 20/03/2025			

VISION CONSULTING ENGINEERS

Depth (m)	Graphic	Moisture	Soil Description	**Geology** & other notes
0.00		D	Silty CLAY, trace fine subangular gravel, pale brown; trace rootlets	TOPSOIL
0.05				
0.10				
0.15				
0.20		D-M	Silty CLAY, pale orange; trace grey	TAURANGA GROUP
0.25				
0.30				
0.35				
0.40		M		
0.45				
0.50				
0.55				
0.60				
0.65				
0.70				
0.75				
0.80				
0.85			pale orange with pale grey	
0.90				
0.95				
1.00				
1.05				
1.10				
1.15				
1.20			End of hole at 1.2m bgl	
1.25			Groundwater not encountered	
1.30			Target depth achieved	
1.35				
1.40				
1.45				
1.50				
1.55				
1.60				
1.65				
1.70				
1.75				
1.80				
1.85				
1.90				
1.95				
2.00				
2.05				
2.10				
2.15				
2.20				
2.25				
2.30				
2.35				
2.40				
2.45				
2.50				
2.55				
2.60				
2.65				
2.70				
2.75				
2.80				
2.85				
2.90				
2.95				

BOREHOLE LOG - INV2

Client: Feasibility Wastewater Investigation	**Project: J15816**	**Project No.: Donaldsons Registered Surveyors**	
Project Location: 680 Waimate North Road, Kerikeri	**Borehole Location:** See Wastewater Plan	**Drilled by:**	HM
		Logged by:	HM
Hole started: 20/03/2025	**Drill method:** 50mm handauger		
Hole completed: 20/03/2025			

VISION CONSULTING ENGINEERS

Depth (m)	Graphic	Moisture	Soil Description	**Geology** & other notes
0.00		D	Silty CLAY, trace fine subangular gravel, pale brown; trace rootlets	TOPSOIL
0.20		D-M	Silty CLAY, pale orange; trace pale grey	TAURANGA GROUP
1.10			pale orange with pale grey	
1.20			End of hole at 1.2m bgl Groundwater not encountered Target depth achieved	

Appendix C
VISION Calculations

Project No.: J15816
Project: 680 Waimate North Road
Client: Donaldsons Registered Surveyors
Date: 1/04/2025
By: HM
Checked: BP

VISION CONSULTING ENGINEERS

COMPONENT	HEAD LOSS (m)	COMMENTS
Emitter	4.0	Minimum pressure required.
Lateral	0.0	Head loss insignificant for short run.
Submain	0.0	Using No Submain x m length.
Main (Note 1)	1.5	Using 19mm LDPE x 20 m length.
Valve	0.0	No Valve
Filter	4.0	For a semi blocked (3m) to blocked (5m) filter.
Tank Depth (Note 2)	2.0	OR actual depth.
Water Meter (Note 3)	0.0	
Elevation:		
Septic Tank	69.0	Height of the septic tank lid
Upslope	70.5	Height to uppermost point of field pipework
Downslope	67.0	Height of lowest point of field pipework
Head Loss Range	**9-13**	(Note 5)
Total plus 10%	**8-15**	

Note:
1. Depends on distance from treatment plant to irrigation systems.
2. Actual depth to pump to be used if more than 2.0m.
3. Depends on type of water meter used.
4. Include antisiphoning measures at pump station when pumping downhill.
5. Calculation based on Irrigation Technology Services "Drip Irrigation Effluent Disposal Fields Design Manual" for standard pressure compensation irrigation lines. ITS 2001 and Netafim design guidelines. For the use of alternative pressure compensating irrigation systems the design/installer is to confirm the manufacturers recommended head loss guideline values.

Where the land disposal application system is located downslope of the pump it is important to ensure the system does not empty the tank by uncontrolled siphoning. Where the system is uphill of the pump the difference in elevation between top of the pump and the highest point of elevation is to be added to the head loss calculation.

Project No.: J15816
Project: 680 Waimate North Road
Client: Donaldsons Registered Surveyors
Date: 1/04/2025
By: HM
Checked: BP

VISION CONSULTING ENGINEERS

COMPONENT	Pipe diam (mm)	Total Length (m)	Volume (Ltr)	COMMENTS
Lateral w/ emitters	12.9	320	41.8	lateral emitter pipe total length per pump cycle
Submain	No Submai	0.0	0.0	submain dimensions
Main (Note 1)	19	20.0	5.7	main dimensions
Pump			1.0	volume of water in pump
TOTAL			**48**	approx. Pipework Volume
Rec. Pump Volume			**97**	recommended duty volume
Min. Pump Volume			**65**	minimum recommended duty volume

Note:
1. Assumes gridded latteral lines over entire Unit Loading Area.
2. Actual volume of pump to be used if more than 1.0 litres.
3. Calculation based a unit loading area, the total field size may be larger with sequencing valves cycling to each unit area.

System and Pump Volume Checks

It is important to ensure that the volume of the effluent in the pipes is replaced each cycle. We generally recommend that the volume within the pipes is half of the pump chamber duty volume.

Project No.: J15816
Project: 680 Waimate North Road
Client: Donaldsons Registered Surveyors
Date: 1/04/2025
By: HM
Checked: BP

VISION CONSULTING ENGINEERS

COMPONENT	Value	Units
Design Daily Flow	960	litres per day
Total Design Area	320	m2
No. Unit Areas	1	
Unit Loading Area	320	m2
Unit Application rate	3.0	litres per m2
Pump-out Volume	97	litres (pump chamber)
Dripper rate	1.6	litres per hour
Dripper spacing	0.5	m
lateral spacing	1.0	m
Total Design flow rate	1024.0	litres per hour (main)
Unit Area flow rate	No Submain	litres per hour (submain)
Pump-on time	5.7	minutes

Note:
1. Assumes gridded latteral lines over entire Unit Loading Area.
2. Actual volume of pump to be used if more than 1.0 litres.
3. Calculation based a unit loading area, the total field size may be larger with sequencing valves cycling to each unit area.

Pump on-time and total area flow calculations.

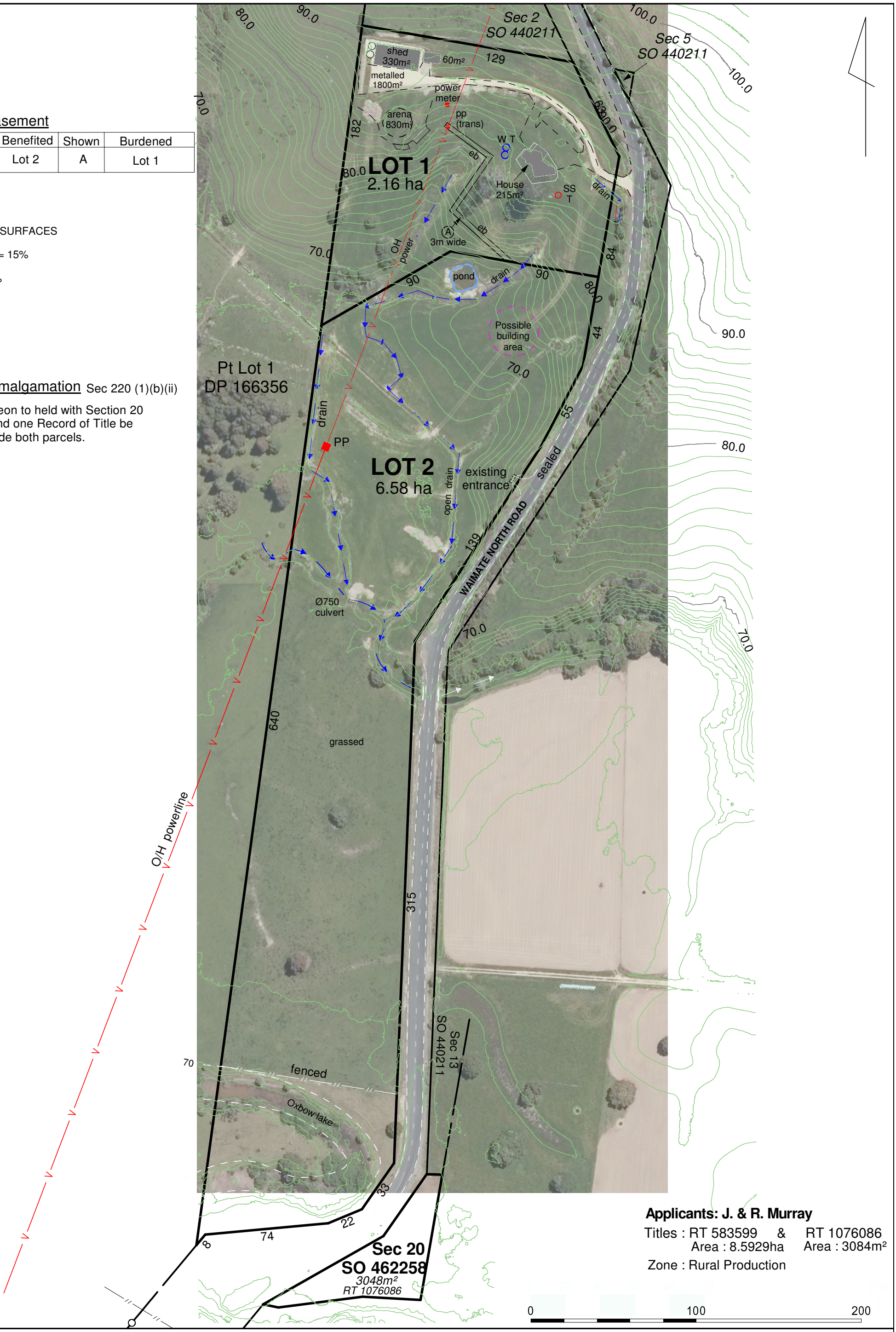
Proposed Easement

Purpose	Benefited	Shown	Burdened
Electricity	Lot 2	A	Lot 1

IMPERMEABLE SURFACES
Lot 1 :
Total = 3240m² = 15%
Lot 2
Total = 0m² = 0%

Proposed Amalgamation Sec 220 (1)(b)(ii)

That Lot 2 hereon to held with Section 20 SO 462258, and one Record of Title be issued to include both parcels.



Applicants: J. & R. Murray

Titles : RT 583599 & RT 1076086
Area : 8.5929ha Area : 3084m²

Zone : Rural Production

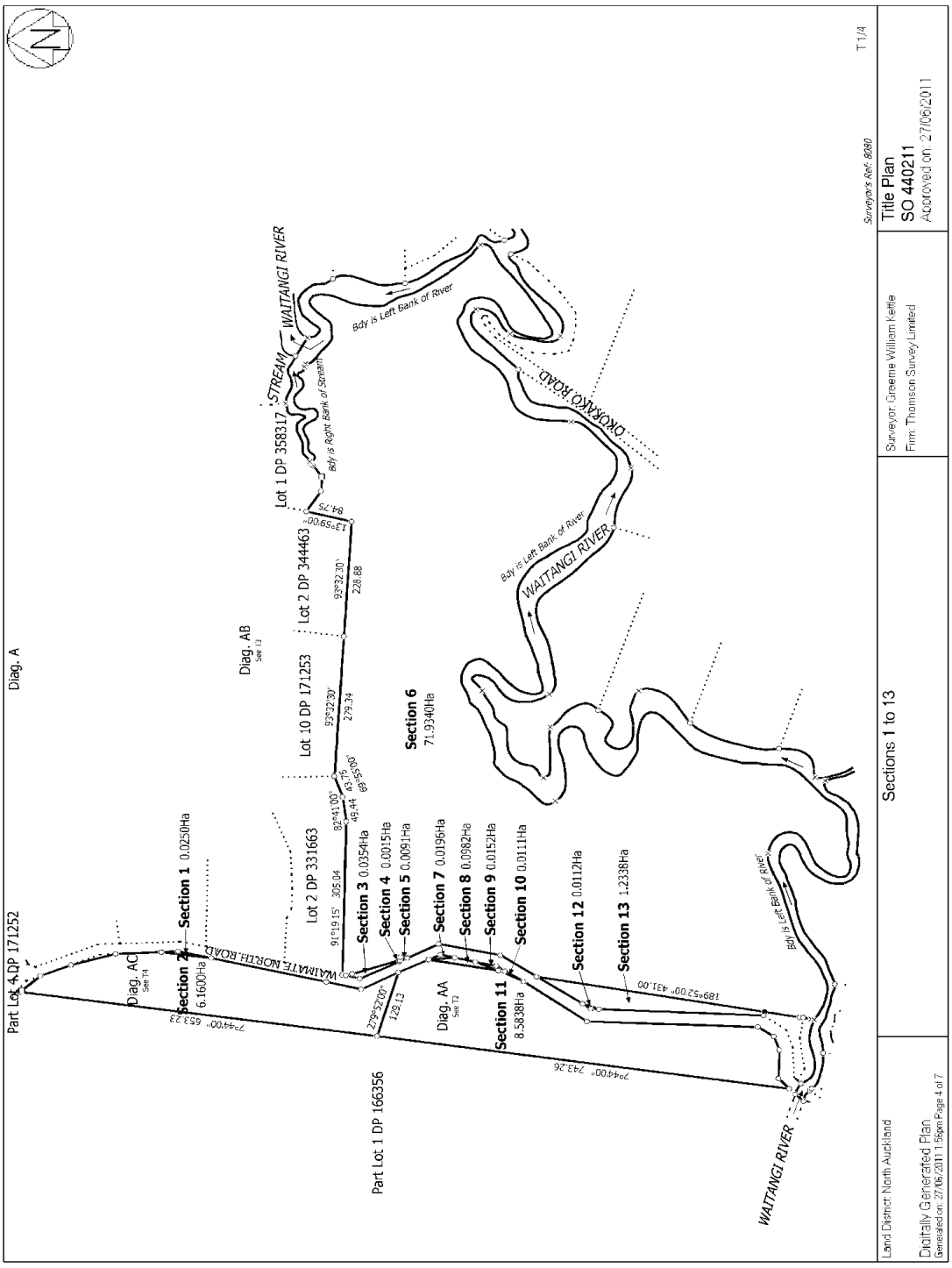
0 100 200

DONALDSONS
REGISTERED LAND SURVEYORS

PROPOSED BOUNDARY ADJUSTMENT BETWEEN SEC 11 SO 440211 & SEC 20 SO 462258

Contour interval :1m
Scale @ A3 : 1:2000
Date : Feb 2025

REF : 8198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Part Lot 4 DP 171252
Diag. AC
See T4
Section 1 0.0250Ha
Section 2 6.1600Ha
MAIMATE NORTH ROAD
Lot 2 DP 331663
Lot 10 DP 171253
Diag. AB
See T3
Lot 2 DP 344463
Lot 1 DP 358317
STREAM
WAITANGI RIVER
Bdy is Right Bank of Stream
Bdy is Left Bank of River
OROKAKO ROAD
Section 3 0.0354Ha
Section 4 0.0015Ha
Section 5 0.0091Ha
Section 6 71.9340Ha
Section 7 0.0196Ha
Section 8 0.0982Ha
Section 9 0.0152Ha
Section 10 0.0111Ha
Section 11 8.5838Ha
Section 12 0.0112Ha
Section 13 1.2338Ha
Diag. AA
See T2
Part Lot 1 DP 166356
Sections 1 to 13
Land District North Auckland
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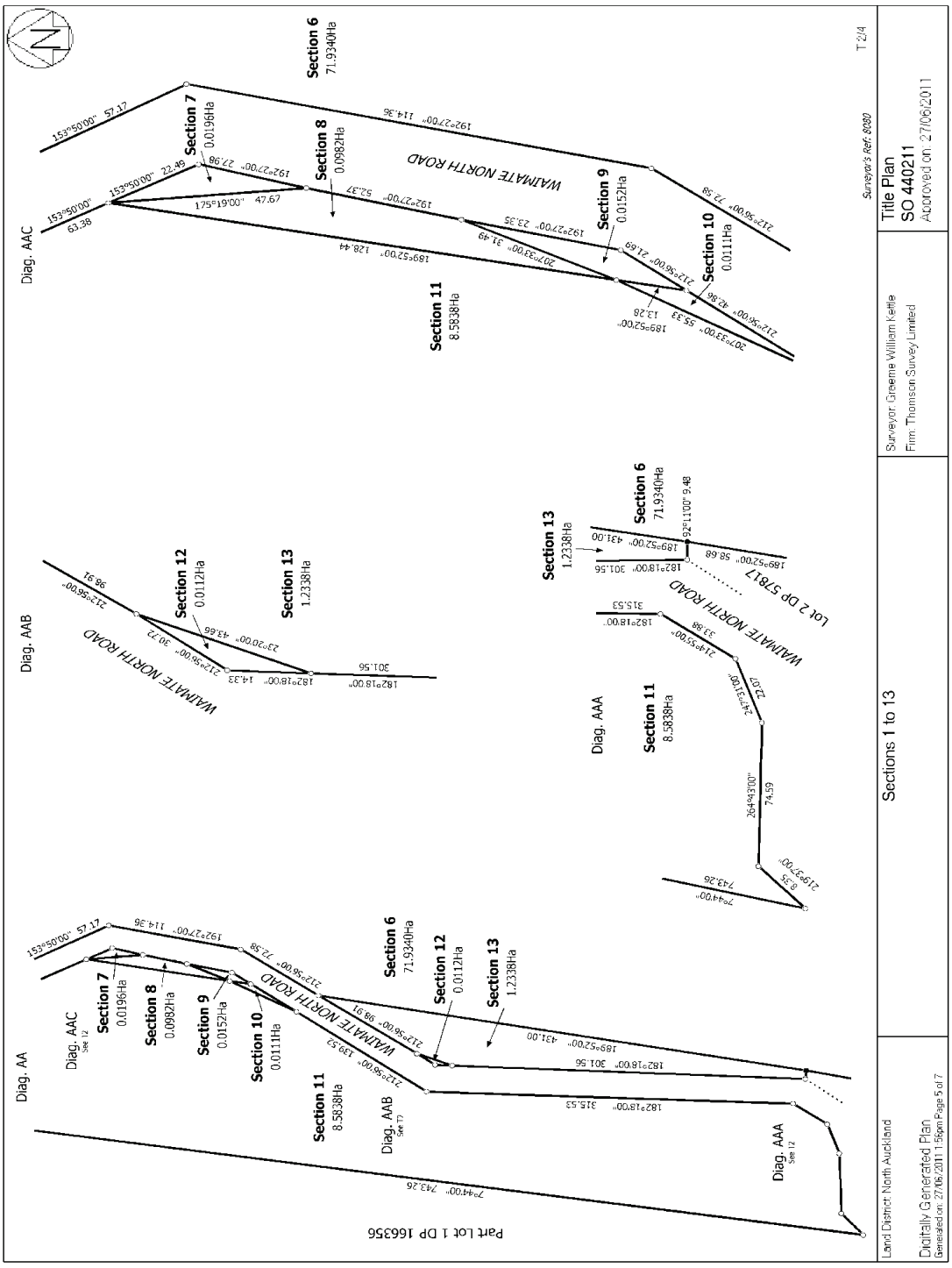
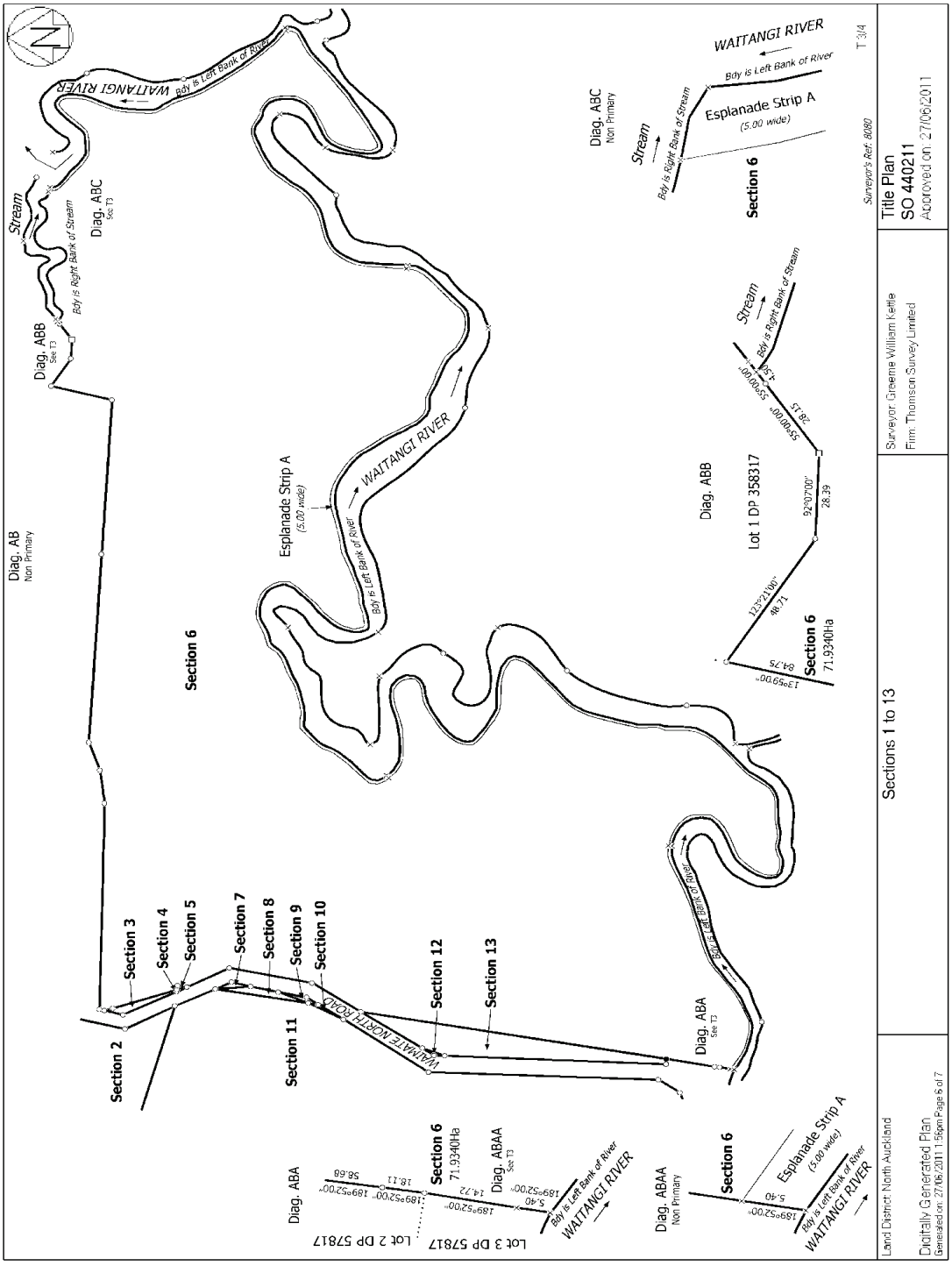
Generated on: 27/06/2011 1:56pm Page 4 of 7
Surveyor: Graeme William Kettle
Firm: Thomson Survey Limited
Surveyor's Ref: 8080
Title Plan
SO 440211
Approved on: 27/06/2011
T 1/4


Title Plan
SO 440211
Approved on: 27/06/2011
Surveyor: Graeme William Kettle
Firm: Thomson Survey Limited
Sections 1 to 13
Land District: North Auckland
Digitally Generated Plan
Generated on: 27/06/2011 1:56pm Page 5 of 7
Surveyor's Ref: 8280
T 2/4
Section 6
71.9340Ha
Section 7
0.0196Ha
Section 8
0.0982Ha
Section 9
0.0152Ha
Section 10
0.0111Ha
Section 11
8.5838Ha
Section 12
0.0112Ha
Section 13
1.2338Ha
WAIMATE NORTH ROAD
Diag. AA
Diag. AAC
Diag. AAB
Diag. AAA
Lot 2 DP 57817
Part Lot 1 DP 166356


WAITANGI RIVER
Bdy is Left Bank of River
Stream
Bdy is Right Bank of Stream
Diag. ABB
See T3
Diag. ABC
See T3
Diag. AB
Non Primary
Section 6
Esplanade Strip A
(5.00 wide)
Diag. ABC
Non Primary
Section 6
Esplanade Strip A
(5.00 wide)
Diag. ABB
Lot 1 DP 358317
Section 6
71.9340Ha
Section 2
Section 3
Section 4
Section 5
Section 7
Section 8
Section 9
Section 10
Section 11
Section 12
Section 13
WAIMATE NORTH ROAD
Diag. ABA
See T3
Diag. ABA
Diag. ABAA
See T3
Diag. ABAA
Non Primary
Lot 2 DP 57817
Lot 3 DP 57817
Sections 1 to 13
Land District North Auckland
Digitally Generated Plan
Generated on: 27/06/2011 1:56pm Page 6 of 7
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Title Plan
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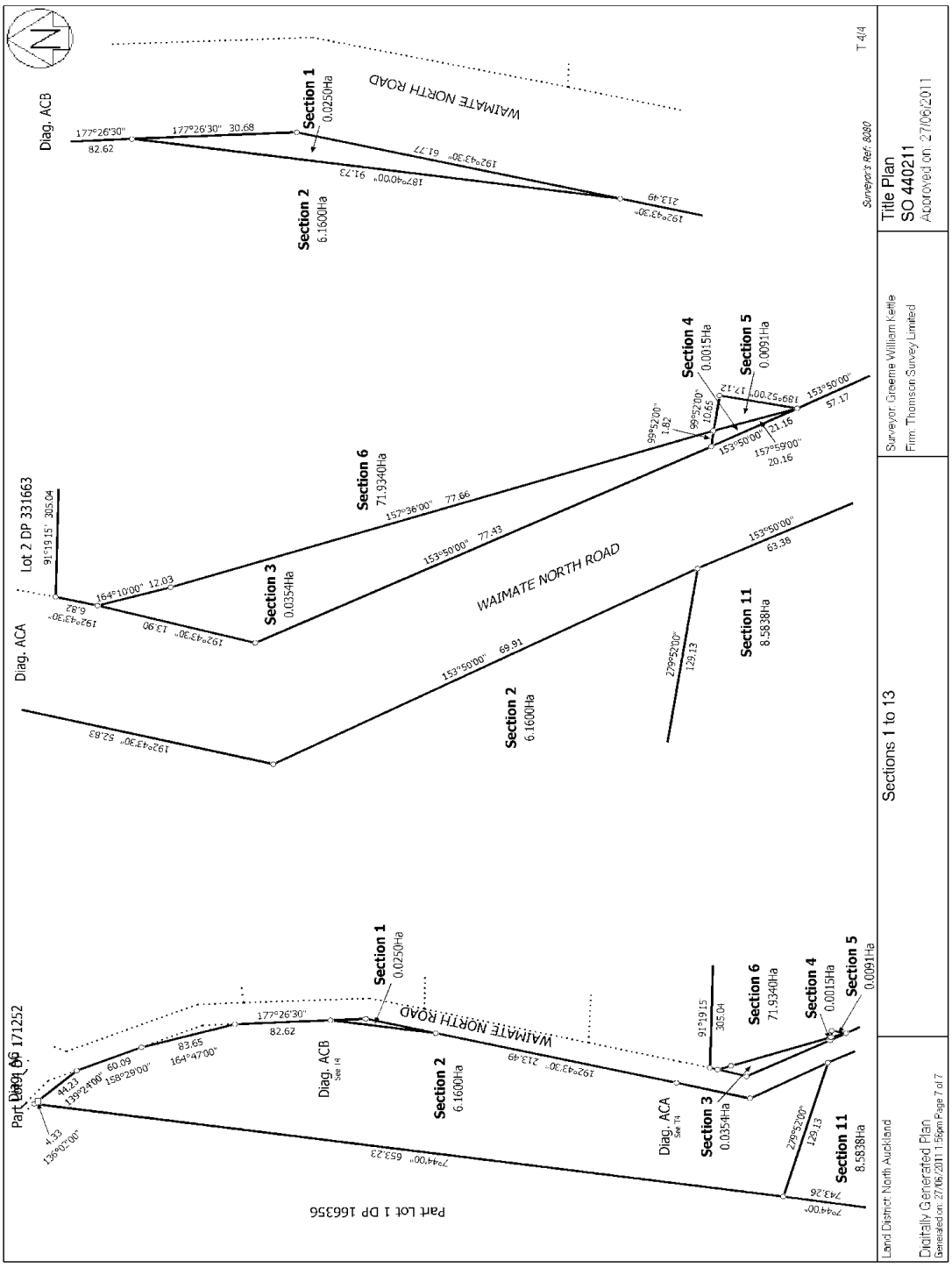
Approved on: 27/06/2011
T 3/4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Section 6 71.9340Ha
Section 11 8.5838Ha
Diag. ACB
Diag. ACA
Lot 2 DP 331663
Part Lot 1 DP 166356
Part Diag. A6 171252

VISION CONSULTING ENGINEERS

FEASIBILITY GEOTECHNICAL ASSESSMENT

Feasibility Geotechnical Assessment, Proposed Lot 2, 680 Waimate North Road, Kerikeri

Prepared for

Donaldsons Registered Land Surveyors

2/04/2025

Report Information Summary

Job no.	J15816
Report Author	Harry Miller
Report Reviewer	Dan Simmonds
Version No.	1
Status	Final
Date	2/04/2025

Version No.	Date	Description
1	2/04/2025	Issued to client.

Document Acceptance

Action	Name	Signed	Date
Author	Harry Miller	 Engineering Geologist, BSci (Geo)	2/04/2025
Reviewer	Dan Simmonds	 Senior Geotechnical Engineer MIAust CPEng, CMEngNZ	2/04/2025

Limitations

This report has been prepared by Vision Consulting Engineers Limited (VISION) based on the scope of our engagement. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. VISION does not accept any liability or responsibility in relation to the use of this report contrary to the above, or to any person other than the Client. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by VISION for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.

The ground conditions given in this report are based on visual methods and preliminary investigations at discrete locations. The nature and continuity of the subsurface conditions are inferred and it must be appreciated that actual conditions could vary from that described herein.

VISION CONSULTING ENGINEERS

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P: 09 401 6287 E: info@vce.co.nz

Contents

1 Introduction

Vision Consulting Engineers Ltd (VISION) was engaged to prepare a feasibility geotechnical assessment to support a Resource Consent application for proposed Lot 2, 680 Waimate North Road, Kerikeri, being a subdivision of Section 5, 11 Survey office Plan, 440211.

It is understood that the client wishes to demonstrate that a possible building area is present for proposed Lot 2 within the possible building area identified on the Donaldsons Subdivision Scheme plan, reference 8198, dated February 2025.

The project objective is to provide a feasibility geotechnical report to support a Resource Consent Application, demonstrating that a possible building area is present.

1.1 Scope and Exclusions

The following scope of work is proposed:

- Familiarisation with information provided by the client
- Obtain the property file from the FNDC
- Familiarisation with existing geotechnical information within the property file.
- Desk Study: Review published and unpublished information about the site
- Geomorphologic assessment of the property, including a review of historic aerial images and LiDAR data.
- Site walkover, visual inspection of the site and surrounding environs to assess geomorphology and any geotechnical hazards that may exist or have potential to exist.
- Intrusive testing to determine ground conditions, 1 hand auger borehole to a maximum depth of 5.0m or refusal)
- Provide a feasibility geotechnical report providing the findings of our assessment including site observations, anticipated subsurface conditions and preliminary geotechnical recommendations.

2 Property and Site Description

The property is located at 680 Waimate North Road, being Section 5, 11 Survey Office Plan 440211. The property is bounded by Waimate North Road to the east and rural production lots in all other directions. The northern portion of the property is gently to moderately sloping to the south-west and contains an existing dwelling, pool, gardens, driveways and sheds and an equestrian arena. Two small gullies are present that extend to the north-east that are fed by springs. The southern portion of the property is located on an alluvial plain and is generally flat and covered in grass. The property is accessed via an existing entrance off Waimate North Road in the northern portion of the property.

The location of the property is presented in Figure 1.

It is proposed to subdivide the property to create two Lots being Proposed Lot 1 and Proposed Lot 2.

The northern portion of proposed lot 2 is located on the lower portion of a generally south-west facing gently to moderately sloping hill feature. The southern portion of proposed Lot 2 is generally located on a low lying flat alluvial plane. It is proposed to utilise the existing access for Proposed Lot 1. It is proposed to access Proposed Lot 2 via an existing farm entrance way off Waimate North Road located in the northern portion of proposed Lot 2 as presented in Figure 2 and Figure 5.

For the purpose of this report, the ‘site’ is limited to the possible building area on proposed Lot 2 identified on the subdivision scheme plan as shown in Figure 2 and in Figure 5.

The site is located on a grassed hill slope that slopes generally between 4 and 8 degrees to the south-west. The land to the north-east of the site slopes approximately 8 and 10 degrees to the south-west. A spring is present to the north of the site that feeds a small pond and an open drain that flows around the site to the south-west and south. An open drain is present to the south of the site that flows to the south-west. Moderate to steep slopes are present to the west of Waimate North Road where it is expected that fill has been pushed out to the west during the construction of the road. It is proposed to create access to the site from the existing farm entrance located to the south of the site off Waimate North Road.

Basic details of the property are provided in Table 1.

Table 1. Property data

Data relating to this property

Item	Details
Territorial Authority	Far North District
Site Address	680 Waimate North Road, Kerikeri
Legal Description	Proposed Lot 2, being a subdivision of Section 5, 11 Survey office Plan, 440211
Property Area	85929 m^2
Proposed Lot sizes	Proposed Lot 1 = 2.16 ha 21600m^2 Proposed Lot 2 = 6.58 ha 65800m^2 + Proposed amalgamation of SEC 20 3084m^2
Zoning[a]	Rural Production

[a]Table Notes - As zoned at the time of this report

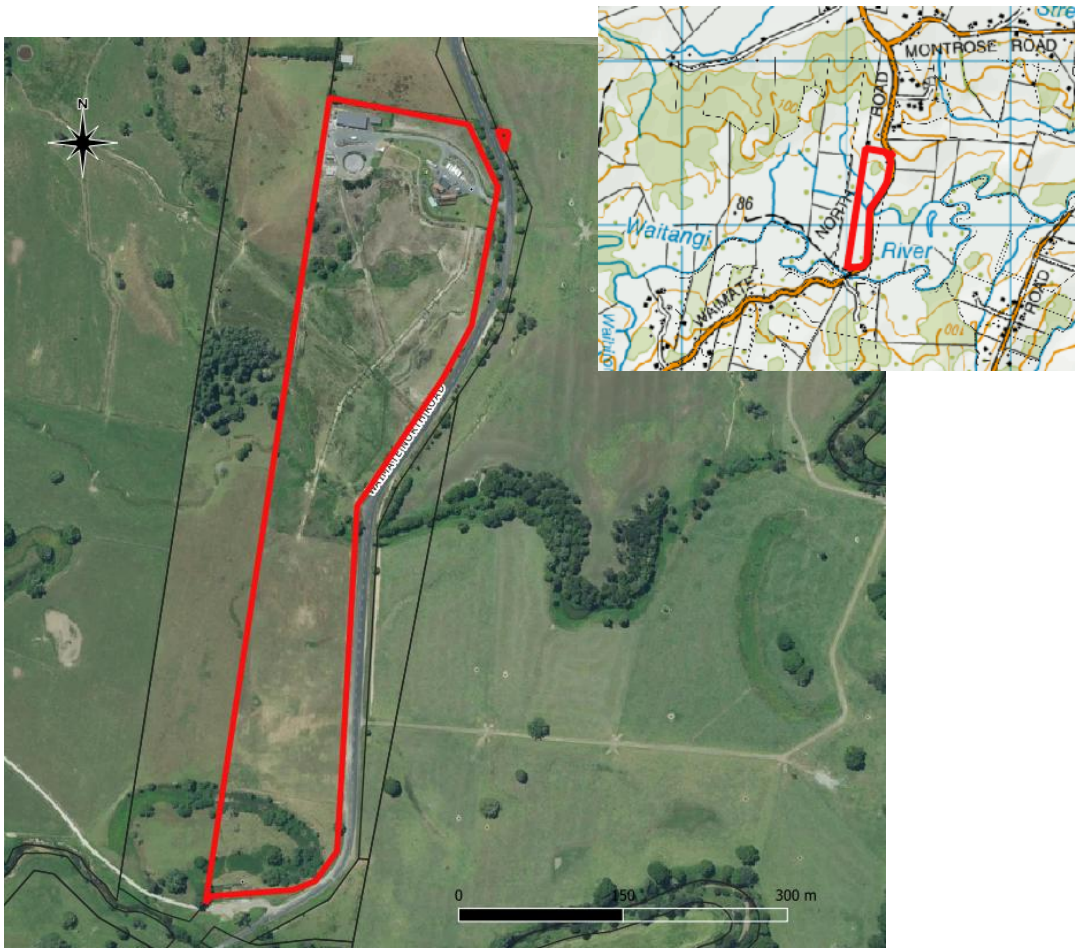


Figure 1. Property location

The property is highlighted red, north to top of page, boundary approximate only, image from LINZ.

3 Proposed Subdivision

The subdivision scheme plan supplied to VISION included Appendix A depicts that a 2 lot subdivision is proposed, with Lot 2 being the focus of this report. The subdivision scheme plan is included in Appendix A and present in Figure 2.

4 Possible Building Area

The possible building area for proposed Lot 2 is depicted on the subdivision scheme plan presented in Figure 2.

For the purpose of this report, it has been assumed that the future dwelling is a single storey light timber framed building, with light weight cladding and roofing and founded on timber pile foundations or a concrete slab on grade.

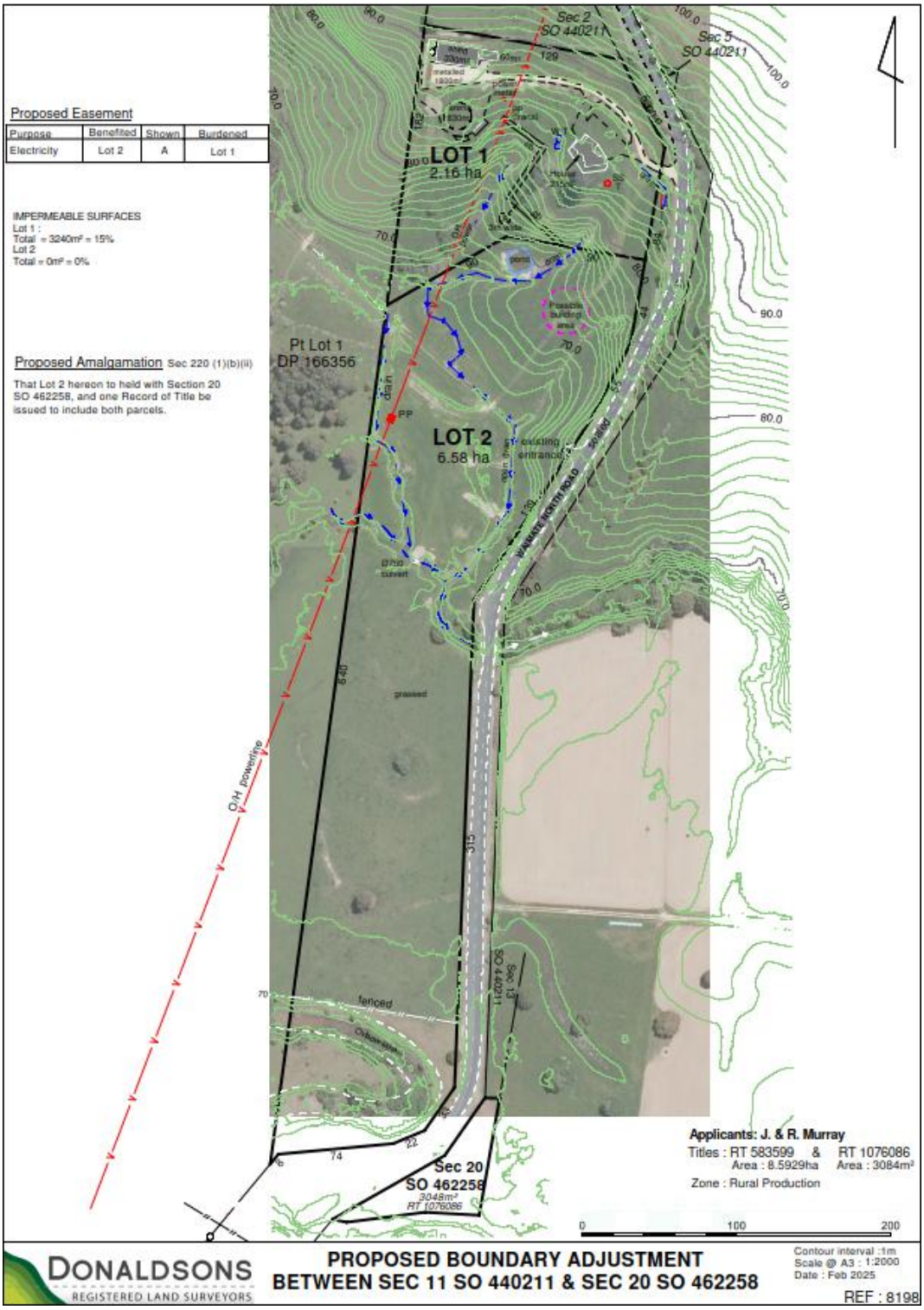


Figure 2. Site location

Extract from Donaldson scheme plan, not to scale, north to top of page.

5 Geology

The 1:250,000 geological map, Whangarei Area (Edbrooke and Brook et al 2009) indicates that the site is underlain by Melange, comprising a matrix of sheared mudstone with included tectonic blocks of Northland Allochthon. A geological boundary exists to the south-west of the site with the generally

flat land to the south being underlain by the Tauranga Group comprising unconsolidated to poorly consolidated mud, sand, gravel and peat deposits of alluvial, colluvial and lacustrine origins.

The soils have been mapped by Landcare Research which describes soils under the New Zealand Revised Soil Classification.

The site is mapped as being Aponga clay being soils of the rolling and hilly land, imperfectly to very poorly drained and Okaka clay and silty clay being soils of the rolling and hilly land, imperfectly to very poorly drained.

The generally flat land to the south is mapped as being Whakapara silt loam and clay loam being soils of the flood plains, well to moderately well drained.

6 Historic Aerial Photographs

A selection of historic aerial photographs sourced from Retrolens, the VISION archives and Google Earth taken between 1951 and 2024 were reviewed. The review of the aerial photographs indicates that the geomorphology has generally remained unchanged since 1951. In the 1969 aerial image the wet areas are visible to the north-west and south-east of the site that are now formed into a pond and open drains.

An extract from the 1969 aerial photograph is provided below in Figure 3.

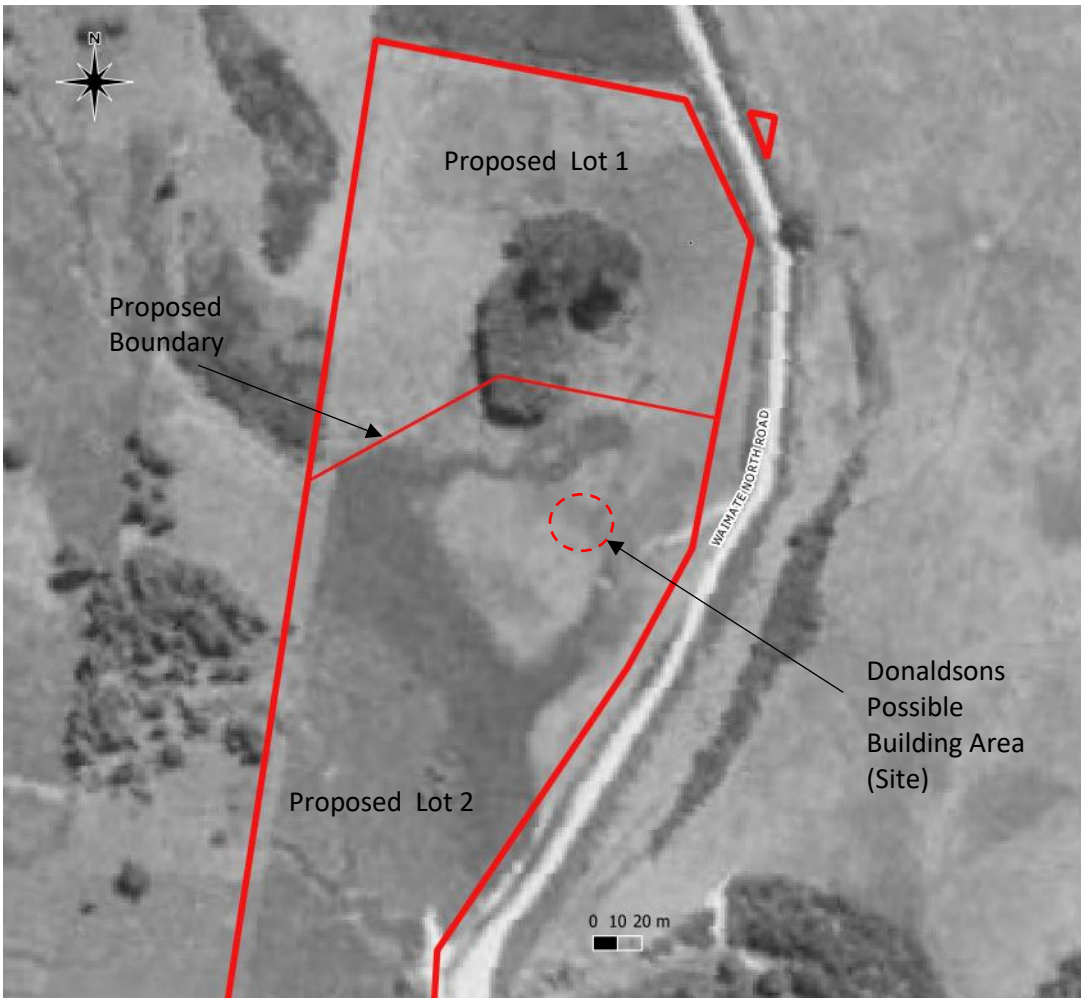


Figure 3. Historic Aerial Image, 1969

Image courtesy of Retrolens, LINZ boundaries approximate only

7 Geomorphology

The possible building area identified by Donaldsons Surveyors is located on the lower slopes of a generally south-west facing hill feature. The site is located on a small spur that slopes gently to the south-west that is bounded by an open drain to the north and south. To the south-west of the site the flattens out onto an alluvial plateau with farm drains present. No major signs of historical land instability were observed on the gentle slopes at the site however signs of historic land instability in the form of headscarps were observed in the greater area on the moderate slopes to the north and south-east of the property. Signs of soil creep in the form of terracettes were observed along the moderate to steep slopes to the west of Waimate North Road and around moderate slopes to the north of the site.

The geomorphology of the area is shown in Figure 4 below using a digital elevation model derived from the 2018 Northland Regional Council (NRC) Light Detection and Ranging (LiDAR) dataset and 1m contours.

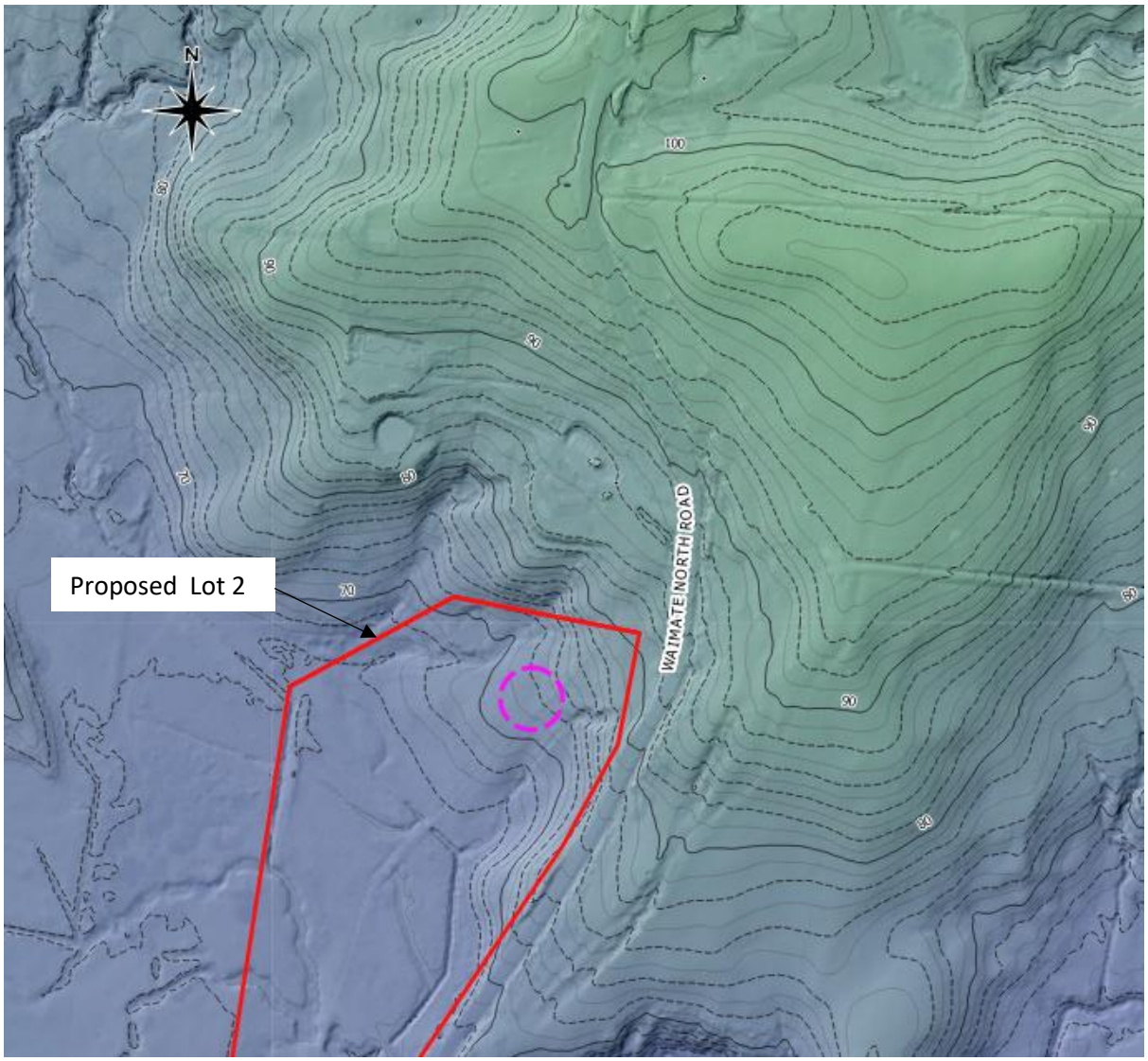


Figure 4. Site Geomorphology

Proposed Lot 2 boundary indicative only(bold red), Donaldsons possible building area dashed in pink, contours are shown at 1m intervals with blue shading lower elevations and green shading higher elevations, north is up the page. DEM courtesy of NRC

8 Site Observations and Desktop Study Findings

The following observations were made during the desktop study and site visit on 20 March 2025:

- **Drainage**: Open drains are present to the north and south of the site that drain to the south-west.
- **Groundwater**: Wet ground was observed in the open drains present to the north and south of the site. A pond is present to the north-west of the site. It is anticipated that the open drains are fed by springs.
- **Topography**: The site is gently sloping to the south-west and is bound by open drains to the south and north. The slopes present to the east of the site below Waimate North Road slope moderately to steeply to the west. The remaining land to the south is generally flat.
- **Slope Instability**: No obvious signs of land instability were observed at the site. Soil creep in the form of terracettes were observed on the moderate slopes to near the northern boundary and on the moderate to steep slopes to the west of Waimate North Road.
- **Building Area**: The site is located on a gently sloping portion of the site. A farm access track passes through part of the possible building area, with fences either side.

9 Feasibility Geotechnical Assessment

This feasibility geotechnical assessment is based on a desktop study and site visit observations conducted on 20 March 2024. The site is considered to be a Low Stability Hazard according to the FNDC Engineering Standards (May 2023).

Based on our desktop study and site observations, the following feasibility geotechnical assessment is provided for the site.

9.1 Site Conditions

The ground conditions present at the site are expected to comprise stiff to very stiff soils of the Melange of the Northland Allochthon.

9.1.1 Subsurface Conditions

The borehole log included in Appendix B shows the ground conditions encountered beneath the site during the feasibility site investigation. The approximate location of the subsurface investigation is shown below on Figure 3.

9.1.2 Soil profile and strength

One 50 mm handaugered borehole was completed at the site to a depth of 5.0 meters below ground level (m bgl). The investigation indicates that the site is underlain by pale brown silty clay (Topsoil) to a depth of 0.2 m bgl. Underlying the topsoil the investigation indicates that stiff to very stiff silty clay is present to a depth of 5.0 m bgl. Undrained shear strengths measured ranged from 60 to greater than 161 kPa.

9.1.3 Soil Moisture and Ground Water Levels

Ground conditions were generally moist and no groundwater was observed during the shallow ground investigation (progressed to a maximum depth of 5.0 m bgl).

Perched groundwater table could be expected during the winter months or extended periods of wet weather.

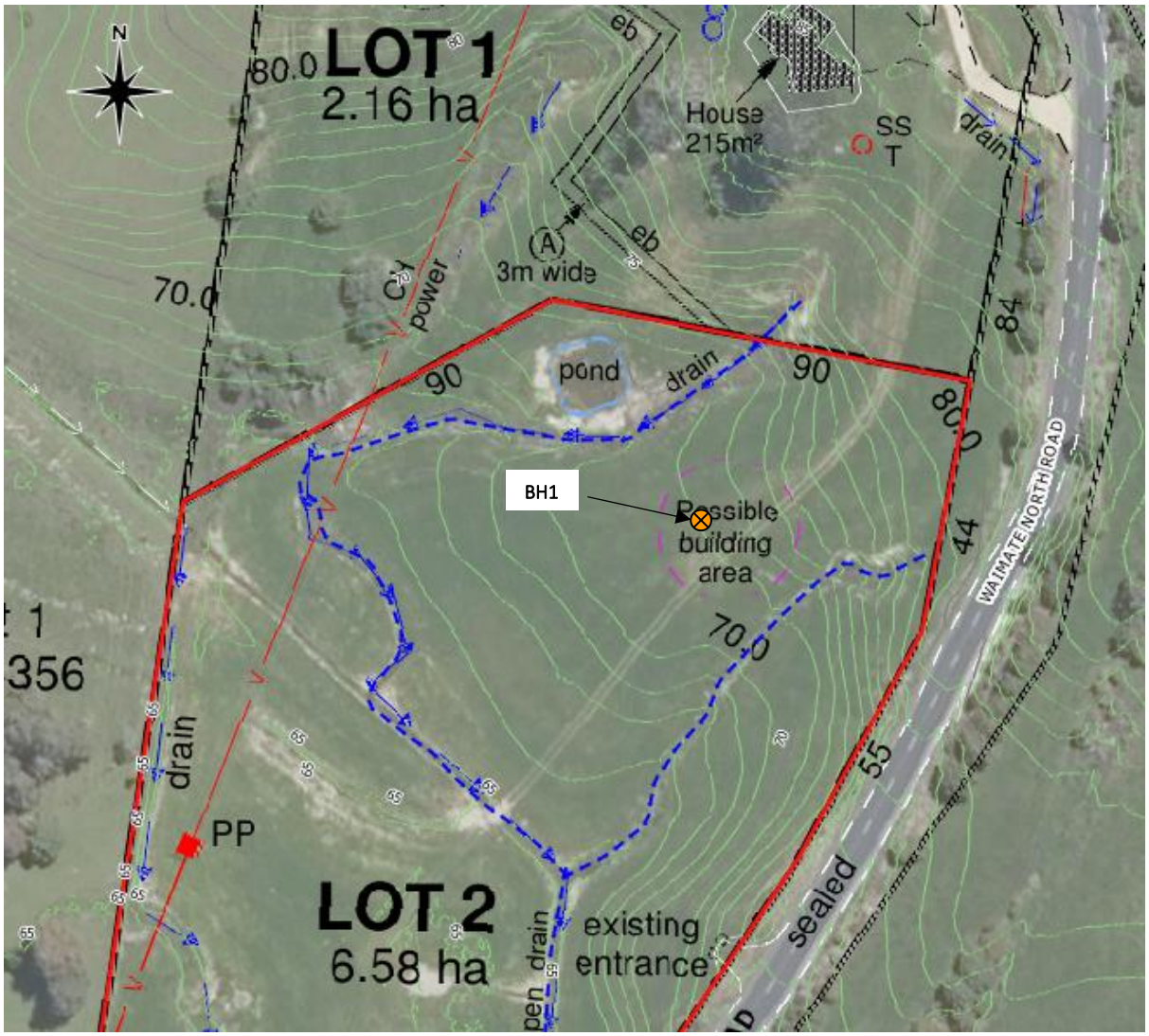


Figure 5. Geotechnical Testing Location Plan

Image based on Donaldsons survey scheme plan, Donaldsons Possible building area dashed pink.

9.2 Recommendations

- **Expansive Soils**: The ground conditions present do not meet the requirements of 'good ground' in accordance with NZS3604(2011) due to the expansive nature of the near surface soils. It is recommended that they expansivity is assessed at the time of the Building Consent.
- **Fill Material**: No obvious signs of fill were observed at the site. Fill material may be present to the east of the site adjacent to the eastern boundary associated with the formation of Waimate North Road.
- **Slippage Risk**: The site is considered to be a low stability risk due to its gently sloping nature. Due to the presence of open drains/overland flow paths to the north-west and south-east of the site, if the proposed building is located within 5 meters of these drains/overland flow paths, it is recommended that the stability is assessed by a Chartered Professional Engineer experienced in geotechnical engineering. This is to be assessed at the time of the Building Consent.
- **Earthworks**: Earthworks are likely to be undertaken to create access and living amenity areas. Earthworks may also be required depending on the style of foundations ultimately selected for future dwelling at the site.
- **Fill Slopes**: Fill placed on the flat to gently sloping land is to be limited to a maximum height of 0.5m and no steeper than 1V:3.0H. Fill batters should be protected from erosion. Where fill is to

be placed within 5 metres of the open drains/overland flow paths to the north-east and south-east of the site, it is recommended that the stability is assessed by a Chartered Professional Engineer with experience in geotechnical engineering.

- **Cut Slopes**: All site cuts are limited to a maximum height of 1.0m and are to be no steeper than 1V:3H. Where this cannot be achieved it is recommended that engineer designed retaining walls are used and/or specific geotechnical analysis is undertaken by a chartered professional engineer.
- **Foundation Design:** It is anticipated that deepened timber pile footings may be a solution to enable construction of a light weight timber framed structure at the site. It is recommended that site specific geotechnical investigations are carried out by a Chartered Professional Engineer with experience in geotechnical engineering at the time of the Building Consent to support the design of new structures.

10 Conclusion

Based on the findings of this feasibility geotechnical assessment, it is considered that a possible building area is present on proposed Lot 2.

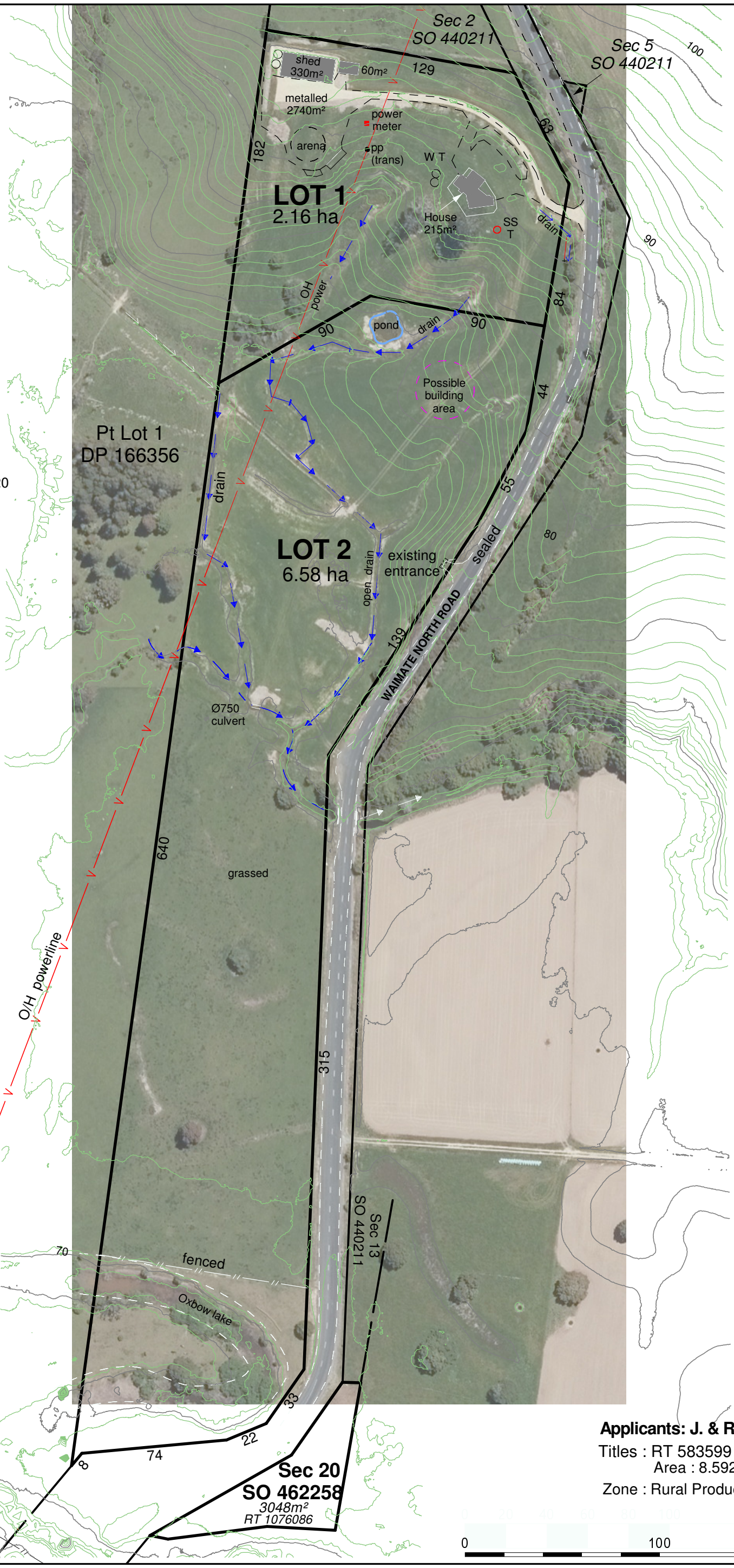
It is recommended that specific geotechnical investigations and reporting is carried out by a Chartered Professional Engineer experienced in geotechnical engineering at the Building Consent stage to provide recommendations regarding earthworks and foundation design.

Appendix A
Proposed Subdivision Scheme Plan

IMPERMEABLE SURFACES
Lot 1 :
Total = 3345m² = 15.5%
Lot 2
Total = 0m² = 0%

Proposed Amalgamation

That Lot 2 hereon to held with Section 20 SO 462258, and one Record of Title be issued to include both parcels.



Applicants: J. & R. Murray

Titles : RT 583599 & RT 1076086
Area : 8.5929ha Area : 3084m²

Zone : Rural Production

PROPOSED BOUNDARY ADJUSTMENT BETWEEN SEC 11 SO 440211 & SEC 20 SO 462258

DONALDSONS
REGISTERED LAND SURVEYORS

Contour interval :1m
Scale @ A3 : 1:2000
Date : Feb 2025

REF : 8198

Appendix B
Field Log

VISION CONSULTING ENGINEERS

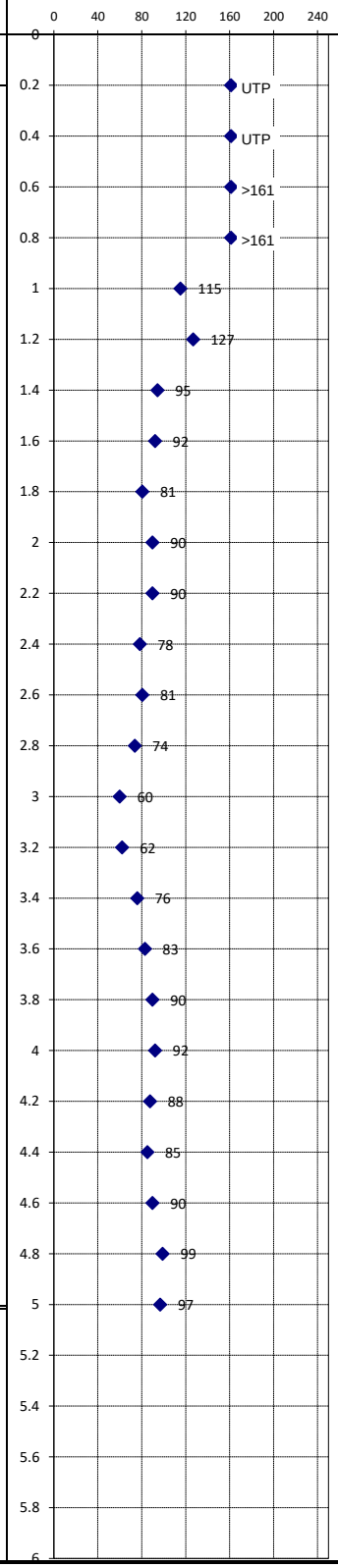
BOREHOLE LOG

BOREHOLE No: BH1

Client: Donaldsons Registered Surveyors	**Project:** Feasibility Geotech Investigation	**VISION Project No.:**	J15816
Project Location: 680 Waimate North Road, Kerikeri	**Borehole Location:** Refer to site plan	**Hole started:**	20/03/2025
		Hole completed:	20/03/2025
Drill method: 50mm Hand Auger		**Drilled by:**	HM
		Checked by:	DS

Depth (m)	Graphic	Strength	Moisture	Soil Description	GEOLOGY & additional observations
0.0			D	Silty CLAY, trace fine to medium subangular gravel, pale brown; trace rootlets, high plasticity	TOPSOIL
0.2		VSt	D-M	Silty CLAY, pale orange; trace pale grey, high plasticity	TAURANGA GROUP
0.6			M	pale orange with pale grey	
1.4		St			
1.8				pale grey with some orange	
2.4				pale orange trace pale grey	
2.9				pale grey	
5.0				End of hole at 5.0 m bgl Target depth achieved Groundwater not encountered	

Undrained Shear Strength (kPa)



Notes: Shear strength lines are indicative only.
Shear strength calibrated and adjusted for plasticity

Top Energy Limited
Level 2, John Butler Centre
60 Kerikeri Road
P O Box 43
Kerikeri 0245
New Zealand
PH +64 (0)9 401 5440
FAX +64 (0)9 407 0611

17 February 2025

Micah Donaldson
Donaldsons Surveyors Limited
PO Box 211
KERIKERI

Email: micah@donaldsons.net.nz

To Whom It May Concern:

RE: PROPOSED BOUNDARY ADJUSTMENT
J & R Murray – 680 Waimate North Road, Kerikeri. SEC 11 SO 440211 & SEC 20 SO 462258.

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

Top Energy's requirement for this subdivision is nil.
Top Energy advises that proposed Lot 1 has an existing power supply. Design and costs to provide a power supply to Lot 2 could 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
T: 09 407 0685
E: aaron.birt@topenergy.co.nz

Donaldson's Surveyors Limited

90 Kerikeri Road - PO Box 211
Kerikeri 0245 - Northland - New Zealand

P 09 407 9182
F 09 407 7366
E info@donaldsons.net.nz
W www.donaldsons.net.nz

DONALDSONS
REGISTERED LAND SURVEYORS

8198
11 April 2025

Planning Division
Far North District Council
Private Bag 752
Kaikohe

Dear Sir/Madam

PROPOSED BOUNDARY ADJUSTMENT
J. & R. MURRAY

680 WAIMATE NORTH ROAD, KERIKERI

We submit herewith a Resource Consent application together with the following:

- Application form & deposit $2967
- Planning report
- Scheme plan
- Record of Title
- Top Energy Ltd comments
- Wastewater Assessment
- Geotechnical Assessment

Yours faithfully,

Micah Donaldson
MNZIS - Assoc.NZPl
DONALDSONS
Registered Land / Engineering Surveyors and Development Planners

NZIS REGISTERED PROFESSIONAL SURVEYOR

CSNZ THE CONSULTING SURVEYORS OF NEW ZEALAND
A DIVISION OF THE NEW ZEALAND INSTITUTE OF SURVEYORS

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

Office Use Only
Application Number:

Application for resource consent or fast-track resource consent

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Schedule 4). Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement? ◯ **Yes** ✔ **No**

2. Type of Consent being applied for

(more than one circle can be ticked):

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

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

3. Would you like to opt out of the Fast Track Process?

◯ **Yes** ✔ **No**

4. Consultation

Have you consulted with Iwi/Hapū? ◯ **Yes** ✔ **No**

If yes, which groups have you consulted with?	
Who else have you consulted with?	

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

5. Applicant Details

Name/s: Richard & Jemma Murray

Email: woodlandforestryltd@gmail.com

Phone number: Work Home 0210500033

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

Postcode

6. Address for Correspondence

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

Name/s: Donaldsons Surveyors

Email: micah@donaldsons.net.nz

Phone number: Work 094079182 Home

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

PO Box 211, Kerikeri

Postcode 0245

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

7. Details of Property Owner/s and Occupier/s

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

Name/s: Richard & Jemma Murray

Property Address/ Location: 680 WAIMATE NORTH ROAD, KERIKERI

Postcode

8. Application Site Details

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

Name/s: Richard & Jemma Murray

Site Address/ Location: 680 WAIMATE NORTH ROAD, KERIKERI

Postcode

Legal Description: Sec11 SO440211 **Val Number:**

Certificate of title: RT 583599, RT 1076086

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

Site visit requirements:

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

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

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

9. Description of the Proposal:

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

Proposed boundary Adjustment

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

10. Would you like to request Public Notification?

◯ **Yes** ✔ **No**

11. Other Consent required/being applied for under different legislation

(more than one circle can be ticked):

- ◯ **Building Consent** Enter BC ref # here (if known)
- ◯ **Regional Council Consent (ref # if known)** Ref # here (if known)
- ◯ **National Environmental Standard consent** Consent here (if known)
- ◯ **Other (please specify)** Specify 'other' here

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

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

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

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

- ✔ **Subdividing land**
- ◯ **Changing the use of a piece of land**
- ◯ **Disturbing, removing or sampling soil**
- ◯ **Removing or replacing a fuel storage system**

13. Assessment of Environmental Effects:

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

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

13. Draft Conditions:

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

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

14. Billing Details:

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

Name/s: (please write in full) Donaldsons Surveyors Ltd

Email: info@donaldsons.net.nz

Phone number: Work 094079182 Home

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

PO Box 211 Kerikeri

Postcode 0245

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) Micah Donaldson

Signature:
(signature of bill payer) MD

Date 11-Apr-2025

MANDATORY

15. Important Information:

Note to applicant
You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.
You may apply for 2 or more resource consents that are needed for the same activity on the same form.
You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

Fast-track application
Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement. A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

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

15. Important information continued...

Declaration

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

Name: (please write in full)	Micah Donaldson	
Signature:	MD	Date 11-Apr-2025

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

Checklist (please tick if information is provided)

- [x] Payment (cheques payable to Far North District Council)
- [x] 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
- [x] Applicant / Agent / Property Owner / Bill Payer details provided
- [x] Location of property and description of proposal
- [x] Assessment of Environmental Effects
- [ ] Written Approvals / correspondence from consulted parties
- [x] Reports from technical experts (if required)
- [ ] Copies of other relevant consents associated with this application
- [ ] Location and Site plans (land use) AND/OR
- [x] Location and Scheme Plan (subdivision)
- [ ] Elevations / Floor plans
- [x] 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.