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: P.C & M.L. Shaw

Email:

Phone number: Work | Home 0273342227

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: [redacted]

Phone number:

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

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

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

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

Name/s: P.C & M.L. Shaw

Property Address/ Location: 1349b State Highway 10
Kerikeri

Postcode

8. Application Site Details

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

Name/s: P.C & M.L. Shaw

Site Address/ Location: 1349b State Highway 10

Postcode

Legal Description: Lot 3 DP 26697 **Val Number:**

Certificate of title: RT NA827/294

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 subdivision to create two rural residential lots, and affiliated land use consent including the NES 2011.

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:

Phone number:

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

[redacted]

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) [redacted]

Date 25-Sep-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: [redacted]

Date 25-Sep-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
- [x] 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.

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

PLANNING REPORT

PROPOSED SUBDIVISION & MINOR LAND USE ACTIVITIES

C. SHAW, 1349B STATE HIGHWAY 10, KERIKERI

DATE: 25 SEPTEMBER 2025 REFERENCE: 8233

CONTENTS

INTRODUCTION

The applicants are seeking resource consent to subdivide their property at 1394B State Highway 10, Kerikeri. The proposal involves creating two additional allotments from the existing landholding, resulting in the following site areas:

- **Lot 1:** 7510m^2 (with existing dwelling)
- **Lot 2:** 8340m^2 (with existing dwelling)
- **Lot 3:** 4.6 hectares (with existing orchard)

The site is located within the *Rural Production Zone* under the Operative Far North District Plan. In accordance with the provisions of the operative plan, the subdivision is classified as a *restricted discretionary activity*, and this application has been prepared and assessed on that basis.

Land Use Consent is requested for affiliated breaches including:

1) Breach to district plan Building to Boundary setback (*building and pool*)
2) Breach to the NES 2011 (*Lot 3 to remain an active orchard*)

It is noted that the proposal is not subject to the rules of the Proposed District Plan. Although the site falls within the *Horticulture Zone* under the proposed framework, limited weight can be given to those provisions.

SITE DESCRIPTION

The property is located at 1394B State Highway 10, approximately 4 km south of Kerikeri Township. Access is gained directly from State Highway 10, which is classified as a Limited Access Road. As such, NZTA (Waka Kotahi NZ Transport Agency) is an affected party, and consultation has been undertaken.

Estate	Title	Appellation	Area	Owner
Fee Simple	RT NA827/294	Lot 3 DP 26697	6.2466 ha	J W Trustees Limited, M. L. Shaw and P. C. Shaw

The site contains a main dwelling with sleepout, an independent cottage, and implement shed, all served by metalled driveways, with the main shared access extending approximately 400 metres from State Highway 10.

Land cover is divided between mature bush (≈50%), kiwifruit orchard (≈25%), and the balance in open ground containing the existing residential uses. The proposal is to create two rural-residential / lifestyle lots, each containing an existing dwelling, with the balance lot retained as a larger landholding comprising orchard and bush areas.

The property straddles two soil types:

- Rangiora Clay (RA, LUC 6e9) – covering the bush and steeper terrain (the edge between the two soil types is approximately at the indicated building site on Lot 3).
- Kerikeri Friable Clay (KE, LUC 2s1) – covering the orchard area.

Lots 1 and 2 will each accommodate an existing dwelling along with bush areas that extend into the gully adjoining the southern boundary. Each lot is already served by existing access, parking, and services, subject to minor upgrades—particularly to ensure that wastewater systems are fully contained within their respective boundaries.

Lot 3 (the balance area) comprises approximately half bush and steep terrain falling toward gullies along the southern and western boundaries, and half kiwifruit orchard on easy terrain. A metalled access formation provides access to a possible building site, located at the fringe of the bush. An implement shed located to the east within this lot will continue to be used for orchard purposes. The following assessment includes the suitability of Lot 3 to occupy a future residence generally, however it is requested that Lot 3 be subdivided as an active orchard block (meaning that the NES 2011 8(c) is not applicable. In other words, the subdivision does not cause the piece of land to stop being productive land.

All existing bush is to be protected as defined by covenant areas 'X, Y & Z' pursuant to Section 221 RMA 1991.

RESOURCE MANAGEMENT ACT 1991

The subdivision of land is regulated under the Resource Management Act 1991 (RMA), which requires that all subdivision proposals demonstrate compliance with the relevant statutory and planning framework.
The RMA requires consideration of the actual and potential effects on the environment, together with the extent to which the proposal promotes the sustainable management of natural and physical resources. Accordingly, this application provides an assessment against the relevant plan provisions, supported by site-specific analysis, to confirm that the proposed subdivision is consistent with the intent and requirements of the planning framework.

SCHEDULE 4

An application for Resource Consent for an activity must include the following, outlining aspects of relevance to the proposed activity and zone expectations:

ASSESSMENT OF THE ACTIVITY AGAINST THE MATTERS UNDER PART 2 RMA

Part 2 Purpose and Principles

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 well-being 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.

The application demonstrates that the proposed subdivision will achieve the sustainable use of the land by diversifying land use opportunities while also providing long-term protection for significant bush habitat. This dual outcome balances the productive utilisation of the land with environmental stewardship, consistent with the purpose of the Resource Management Act 1991.
The subdivision design has been developed to sustain natural resources and to provide for the needs of future generations, while also enabling continued rural-residential use. The site has been modified for many years as an active orchard block and is no longer in its natural state. Existing land use patterns—comprising established dwellings, kiwifruit orchard, and bush areas—are clearly defined, and the subdivision formalises these patterns into distinct allotments.
The proposal will effectively separate two existing environments:

Lots 1 and 2 will provide for existing dwellings and associated residential activities.
Lot 3 will retain a combination of orchard and bush areas, supported by existing infrastructure including the implement shed and there is ample space for a future residence.

As these activities already operate independently, the effects of subdivision are largely consistent with the current environment. The proposal therefore represents an appropriate balance between productive land use, protection of natural values, and the provision of rural housing opportunities.

Matters of national importance
(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

The proposed subdivision can be undertaken without any direct disturbance of wetlands, lakes, rivers, or their margins, and the property is located in a position where there is no direct impact on the coastal environment. Accordingly, the subdivision does not compromise the natural character of these sensitive environments.
Importantly, all areas of significant vegetation within the site are to be formally protected by covenant (identified as areas X–Z). This ensures the long-term preservation of indigenous bush and ecological values, preventing clearance or degradation that might otherwise occur. The covenant mechanism provides certainty that these values will be safeguarded in perpetuity, consistent with the intent of section 6(a) of the RMA.
Through this approach, the subdivision achieves a positive outcome by enhancing the protection of natural character values, while enabling land to be utilised in a manner that aligns with zone expectations (upholding the restricted discretionary activity standards).

(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

There are no known outstanding natural features or landscapes on the site, as defined in the district plan.

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

As described above significant habitats are being protected.

(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

Not applicable.

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

The proposed subdivision has been designed in a manner that respects and upholds the cultural values of Māori, acknowledging the enduring relationship between tangata whenua and their ancestral lands, waterways, and taonga.
A key feature of the proposal is the establishment of bush protection covenants, which permanently safeguard areas of indigenous vegetation. This outcome directly supports the principles of kaitiakitanga, recognising the responsibility to act as guardians of the natural environment for present and future generations. Protection of native bush contributes to the mauri (life force) of the land and ensures that natural taonga are not further diminished.
The proposal avoids any activity that could adversely affect Māori cultural values:

There is no vegetation clearance or earthworks.
There is no discharge to, or modification of, waterbodies.
There are no effects on fisheries or other customary resources.

The subdivision design reflects manaakitanga by seeking to enhance and protect the environment while allowing continued rural-residential use in a manner consistent with the Rural Production Zone.

In terms of scale and land use, the proposal remains compatible with zone expectations, with all lots exceeding the 4,000 m^2 minimum lot size. This ensures that the land continues to support rural living in a low-intensity form that does not compromise environmental or cultural values.

(f) the protection of historic heritage from inappropriate subdivision, use, and development:

There are no known historic heritage sites.

(g) the protection of protected customary rights.

There are no known customary rights to consider.

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—

(a) kaitiakitanga:
(aa) the ethic of stewardship:
(b) the efficient use and development of natural and physical resources:
(ba) the efficiency of the end use of energy:
(c) the maintenance and enhancement of amenity values:

(d) intrinsic values of ecosystems:
(e) [Repealed]
(f) maintenance and enhancement of the quality of the environment:
(g) any finite characteristics of natural and physical resources:
(h) the protection of the habitat of trout and salmon:
(i) the effects of climate change:
(j) the benefits to be derived from the use and development of renewable energy.

The subdivision is designed not only to safeguard and manage sensitive environmental components for the benefit of future generations through bush protection, but also to support rural housing opportunities. By enabling diversified land use and creating lifestyle lots in locations where there is no loss of high-quality soils or adverse impact on ecological features, the proposal ensures that productive land is retained for appropriate uses while still meeting rural-residential demand. Smaller allotments also enable landowners to adopt a more effective and manageable stewardship role.

Lots 1 and 2, in particular, represent an as-built situation where the land has already been modified and established in its current form. Their development introduces no new or additional environmental effects, as existing access, building footprint, drainage, and landform remain unchanged. This provides certainty that no further impacts on productive soils, natural character, or amenity values will arise, while at the same time giving effect to efficient land use. The subdivision of three lots therefore introduces new effects to just the one lot.

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

The proposal is not considered to contradict the Treaty of Waitangi's interpretations.

ASSESSMENT OF THE ACTIVITY AGAINST SECTION 104(1)(B)

Section 104(1)(b)
any relevant provisions of—

(i) a national environmental standard:
(ii) other regulations:
(iii) a national policy statement:
(iv) a New Zealand coastal policy statement:
(v) a regional policy statement or proposed regional policy statement:
(vi) a plan or proposed plan;

The application addresses all relevant provisions, including those of the Far North District Plan, the National Policy Statement, the National Environmental Standards, and the Regional Policy Statement. No other provisions are considered applicable. Each is discussed under its respective heading following.

An application must also include an assessment of the activity's effects on the environment that –

(a) *includes the information required by clause 6*
(b) *address the matters specified in clause 7; and*
(c) *includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.*

CLAUSE 6

(1) An assessment of the activity's effects on the environment 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:*

The proposal is not expected to generate any significant adverse effects that would necessitate consideration of alternative locations or methods. The proposed lot boundaries have been configured to ensure that each site contains sufficient area to accommodate existing and proposed on-site services, particularly wastewater disposal, along with adequate space for parking and manoeuvring. The subdivision design also reflects and complements the surrounding rural environment, providing ample outdoor open space, approximately half of which comprises bush that will be subject to formal protection.

Lots 1 and 2 already contain established residences, meaning their ongoing use introduces no new or additional effects. Lot 3 contains only one practical location for a future dwelling, deliberately chosen to avoid both the productive orchard area and the steeper bush slopes. This ensures that the most appropriate part of the land is utilised for built development.

The sites are well connected to the legal road network and existing utilities, including electricity and telecommunications, thereby avoiding the need for new service corridors or infrastructure upgrades that could otherwise impact the wider environment. While the subdivision provides for three lots, it results in the potential for only one additional dwelling, meaning the majority of effects are already present and established on the site.

The applicant has volunteered to upgrade the entrance onto State Highway 10 to a modified Diagram D NZTA-standard design, providing a level of safety and functionality beyond what is typically required for a subdivision of this scale. This enhancement should be recognised as a point of merit when considering the proposal. This upgrade will include widening and the introduction of a central median strip to facilitate safer turning movements off the state highway, as well as safety barrier improvements around an existing power pole located close to the traffic lane. These are points of merit that further support the subdivision, delivering wider public safety benefits alongside the land use outcome.

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

As a restricted discretionary activity, the proposal is assessed against the specific matters of discretion identified in the district plan. An assessment of the permitted baseline is therefore not determinative, but is noted for context to provide clarity around the level of effects. The current title allows for a range of development opportunities that could occur as of right without the need for resource consent. When viewed against this permitted baseline, the subdivision does not introduce effects that are materially different or more intensive than those already anticipated.

The potential effects of the subdivision are accordingly limited. Existing services, access arrangements, and land use patterns remain largely unchanged, with only one additional dwelling possible as a result of the proposal.

Points of merit include:

- The applicant's contribution to increasing rural lifestyle opportunities, which supports local housing demand and provides economic stimulus to the community through ongoing investment and expenditure.
- The formal protection of substantial areas of bush, securing long-term biodiversity, habitat, and amenity values that would otherwise remain vulnerable.
- The voluntary upgrade of the State Highway 10 entrance to a modified Diagram D NZTA-standard design, delivering a safety and functionality improvement well beyond what would typically be required for a subdivision of this scale.
- The efficient use of land and existing infrastructure, avoiding the loss of high-quality soils and preventing unnecessary extensions of services.

On this basis, the actual and potential effects of the proposal are considered to be less than minor, with positive effects outweighing any potential adverse outcomes. The subdivision achieves an appropriate balance by safeguarding environmental values while also contributing to social and economic wellbeing, consistent with the purpose and principles of the Resource Management Act.

(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:

No concerns.

(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:*

No concerns the subdivision does not introduce any effects to require management other than those outlined under existing and proposed consent notices relating to site management requirements; firefighting, onsite effluent, bush protection and geotechnical matters.

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

Any adverse effects on the environment remain less than minor and given the proposal is generally compliant with the restricted discretionary provisions of the operative district plan, there is no need for 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 required

(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' following.

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 subject environment is characterised by established rural lifestyle activity, which the subdivision is consistent with and actively supports. Positive effects arise through the introduction of greater diversity in lifestyle lots to the residential market, contributing to local housing choice and affordability.
Additional benefits include the applicant's voluntary upgrade of the entrance onto State Highway 10 to a modified Diagram D NZTA-standard design, providing a higher level of safety and functionality for both residents and the wider travelling public.
Environmental and amenity outcomes are also strengthened through ongoing management techniques secured by consent notice conditions, covering wastewater disposal, geotechnical stability, bush protection, and firefighting water supply. These measures ensure that any future building development is appropriately managed, avoiding adverse effects and reinforcing the positive contribution of the subdivision.
In combination, the proposal delivers social, economic, and cultural benefits for the community while safeguarding environmental values and improving public safety.

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

The site is already well vegetated, with mature hedges, bush areas, and established landscaping providing effective visual containment. The building areas are set back from public vantage points and screened by

existing vegetation, ensuring that any change arising from subdivision or future development would not generate effects greater than those already permitted under the district plan baseline.
The surrounding locality forms a well-occupied rural setting where lifestyle blocks are now predominant, establishing a clear precedent for rural-residential development. Within this context, the site is well suited to absorb the effects of further subdivision, consistent with evident development patterns. The proposal represents gradual rural expansion, undertaken in a manner that avoids depletion of environmental values or the creation of adverse cumulative effects, particularly as most of the effects already exist. This is further supported by the fact that the land's productive potential is already at its limit, making the integration of lifestyle development a logical and efficient land use outcome.
Reverse sensitivity effects are considered to be low and readily manageable. To reinforce this, the applicant has offered to secure, by way of consent notice, a requirement that potable water supplies collected from roof surfaces include appropriate filtration, ensuring that future landowners manage on-site resources responsibly.

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

There is no physical damage to ecosystems, instead the goal is to promote protection.
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:

No concern.
The property has no recorded archaeological sites (Archsite NZ) or listed sites of cultural significance under the district plan.

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

No concerns.
The proposal does not introduce any contaminants of concern.

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

No known concerns.

In summary, the proposal supports both community and landowner wellbeing by diversifying land use and adding rural housing opportunities for independent ownership. This is achieved while protecting bush areas, keeping existing vegetation and screening, and managing future development through consent notices for wastewater, geotechnical stability, firefighting supply, and potable water.
The applicant has also offered to upgrade the State Highway 10 entrance, improving safety beyond what is normally required. Overall, the subdivision makes good use of land with limited productive potential and does not create significant adverse effects, aligning with the purpose of the Resource Management Act 1991.

CONSULTATION

95E Consent authority decides if person is affected person
(2)
The consent authority, in assessing an activity's adverse effects on a person for the purpose of this section,—
(a) may disregard an adverse effect of the activity on the person if a rule or a national environmental standard permits an activity with that effect;

The subdivision aligns closely with a restricted discretionary activity, ensuring that any effects remain consistent with those anticipated under alternative land uses. As it does not introduce out-of-character effects or exceed expected impact levels, consultation is not considered necessary for decision-making under Section 95 of the Resource Management Act 1991.

NORTHLAND REGIONAL POLICY STATEMENT

The Northland Regional Policy Statement presents development 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 adverse impact on ecosystems. The applicant has offered to better protect areas of significant ecology.

3.5 Enabling economic wellbeing
Northland's natural and physical resources are sustainably managed in a way that is attractive for business and investment that will improve the economic wellbeing of Northland and its communities.

Lifestyle allotments contribute to the community providing much needed housing opportunities.

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.

Regional and district plans are directed to provide a regulatory framework that is efficient, consistent, and effects-focused. In particular, they should only impose regulation where it is the most effective and efficient way of achieving resource management objectives, taking into account the balance of costs, benefits, and risks. Plans should also be as consistent and simple as possible, support recognised good management practices, and minimise compliance costs

by enabling self-management where this can be achieved effectively. Importantly, plans are also required to enable subdivision, use, and development that gives effect to the Regional Policy Statement, with a clear focus on managing environmental effects through appropriate performance standards.

This proposal is consistent with those directions. The subdivision has been designed to make efficient use of existing services and access, avoiding unnecessary costs or complexity. Good management practices are embedded through consent notices addressing relevant matters. These measures ensure that the subdivision is effects-based and readily managed by future landowners without requiring additional regulatory intervention.

By directing the subdivision to areas already modified and built on whilst securing long-term protection of bush-covered land, the activity achieves a low impact outcome with positive environmental safeguards. In this context, the requirement that regional and district plans, and by extension consent decisions, be kept **as simple as possible** is particularly relevant to the formulation of consent conditions.

REGIONAL DEVELOPMENT AND DESIGN GUIDELINES

Subdivision, use and development should be located, designed and built in a planned and coordinated manner which:

(a) *Is guided by the 'Regional Form and Development Guidelines' in Appendix 2;*

5.1.1 Policy – Planned and coordinated development

Part A) Regional form and development guidelines
New subdivision, use and development should:
(a) Demonstrate access to a secure supply of water;
Lifestyle blocks utilise roof surface collection and storage in water tanks for potable supplies. These are generally a reliable source of water that meet the guideline intent.

(b) Demonstrate presence or capacity or feasibility for effective wastewater treatment;
On-site effluent disposal presents no concern, with 100% backup capacity provided as required for subdivision activity. The site has good soil soakage characteristics, meaning systems can operate effectively at the level of primary treatment. Conditions of consent will require evidence that wastewater system upgrades on Lots 1 and 2 are completed in general accordance with the wastewater report submitted with this application prior to 224 RMA completion. Lot 3 has sufficient area and suitable ground conditions to accommodate a new system with the same backup provision, with the final design parameters to be secured and administered by way of consent notice pursuant to Section 221 RMA.

(c) If of an urban or residential nature connect well with existing development and make use of opportunities for urban intensification and redevelopment to minimise the need for urban development in greenfield (undeveloped) areas;
Not applicable.

(d) If of an urban or residential nature provide, where possible, opportunities to access a range of transport modes;
Not applicable.

(e) If of a community-scale, encourage flexible, affordable and adaptable social infrastructure that is well located and accessible in relation to residential development, public transport services and other development;
Not applicable.

(f) Recognise the importance of and provide for parks, in regards to medium and large-scale residential and residential / mixed use development.
Not applicable.

(g) If of a residential nature be, wherever possible, located close to or sited in a manner that is accessible to a broad range of social infrastructure;
Not applicable.

(h) Be directed away from regionally significant mineral resources and setback from their access routes to avoid reverse sensitivity effects;
There are no known nearby regionally significant mineral resources.

(i) Be designed, located and sited to avoid adverse effects on energy transmission corridors and consented or designated renewable energy generation sites (refer to 'Regional form and infrastructure' for more details and guidance);
There are no subject energy transmission corridors, or renewable energy sites. Top Energy Ltd has no concerns.

(j) Be designed, located and cited to avoid significant adverse effects on transportation corridors and consented or designated transport corridors;
No concerns.

(k) Be directed away from 10-year and 100-year flood areas and high-risk coastal hazard areas (refer to 'Natural hazards' for more details and guidance);
There are neither significant flooding concerns within the site nor any identified high-risk coastal hazards.

(l) Seek to maintain or improve outstanding landscape and natural character values and provide for the protection of significant historic and cultural heritage from inappropriate subdivision, use and development (refer to 'Land, Water and Common Resources' for more details and guidance);

The proposal will have no impact on outstanding landscapes, areas of natural character, historic heritage, or recoded cultural sites or values.

(m)Protect significant ecological areas and species, and where possible enhance indigenous biological diversity (refer to 'Maintaining and enhancing indigenous ecosystems and species' for more details and guidance);
Protection measures are proposed.

(n) Maintain and improve public access to and along the coastal marine area, lakes and rivers;
Not applicable.

(o) Avoid or mitigate adverse effects on natural hydrological characteristics and processes (including aquifer recharge), soil stability, water quality and aquatic ecosystems, including through low impact design methods where appropriate;
No concern.

(p) Adopt, where appropriate, sustainable design technologies such as the incorporation of energy-efficient (including passive solar) design, low-energy street lighting, rain gardens, renewable energy technologies, rainwater storage and grey water recycling techniques;
Typically, rural lifestyle lots provide sufficient land to lead a partially or fully sustainable lifestyle. The allotments are open to the north for good solar gain.

(q) Be designed to allow adaptation to the projected effects;
The effects from these sites are low impact and "exist". The allotments are suitably positioned and sufficiently isolated to be resilient and adaptable to wider environmental changes or projected effects that may arise over time.

(r) Consider effects on the unique tangata whenua relationships, values, aspirations, roles and responsibilities with respect to the site of development;
Tangata whenua are protective of ecosystems and waterway, however the proposal does not result in adverse effects to cause any concerns in that regard.

(s) Encourage waste minimisation and efficient use of resources (such as through resource-efficient design and construction methods);
No concerns.

(t) Take into account adopted regional / sub-regional growth strategies;
No concern.

(u) Where appropriate, encourage housing choice and business opportunities, particularly within urban areas.
Allotments of this size provide a place of residence and for work and home style business activity proving an important component of the rural community, particularly where lifestyle lots can be created without degradation to versatile soils.

(b) *Is guided by the 'Regional Urban Design Guidelines' in Appendix 2 when it is urban in nature;*
Not applicable.

(c) *Recognises and addresses potential cumulative effects of subdivision, use, and development, and is based on sufficient information to allow assessment of the potential long-term effects;*
Rural lifestyle lots in a rural environment are not seen to present cumulative adversity, as they provide diversity in their ability to undertake a semi or even fully sustainable lifestyle.

(d) Is integrated with the development, funding, implementation, and operation of transport, energy, water, waste, and other infrastructure;
The lots are designed with consideration to these components.

(e) Should not result in incompatible land uses in close proximity and avoids the potential for reverse sensitivity;
No concerns.

(f) Ensures that plan changes and subdivision to / in a primary production zone, do not materially reduce the potential for soil-based primary production on land with highly versatile soils, or if they do, the net public benefit exceeds the reduced potential for soil-based primary production activities; and
The subdivision does not materially diminish the land's potential for soil-based primary production, as the area of versatile soils is already established and utilised for this purpose.

(g) Maintains or enhances the sense of place and character of the surrounding environment except where changes are anticipated by approved regional or district council growth strategies and / or district or regional plan provisions.
The proposal will not adversely alter the established sense of place, as the locality already reflects a mix of rural and lifestyle activities and this is mostly an as-built situation. The zoning provides for land uses that could achieve a similar density to that proposed, ensuring consistency with anticipated development patterns.
The open rural character is further reinforced by large land parcels that, due to their physical attributes, are unsuitable for intensive development instead supporting agricultural production. At the same time, there is a clear and unmet demand for lifestyle properties, particularly among those employed on surrounding rural production farms who require smaller, more manageable, and affordable parcels of land.
Within this context, the subdivision not only maintains but also enhances the sense of place and character of the surrounding environment, by supporting the existing pattern of land use while responding to the demand for more diverse rural living opportunities.

(h) Is or will be serviced by necessary infrastructure.
The sites are adequately served by necessary infrastructure.

In summary, the proposal demonstrates strong alignment with the intent of the RPS by adopting a sustainable development approach that secures long-term benefits for future generations. It achieves this through the protection of natural habitats, the avoidance of adverse effects on versatile soils already utilised for primary production, and the reinforcement of the rural character and sense of place.

NATIONAL POLICY STATEMENTS

NATIONAL ENVIRONMENTAL STANDARDS FOR ASSESSING AND MANAGING CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH REGULATION 2011

The applicant seeks consent under the NES 2011 as a discretionary activity allowing Lot 3 to remain for production purposes, and that a Preliminary Site Investigation, instead, be actioned at the time of change in use.

The level of effects associated with this request are less than minor where, for all intents and purposes, it proves ineffective to conduct an investigation one day when, on the following day, the site may be contaminated as a result of ongoing production based use. Therefore, proving that it is imperative to leave any soil investigation until a defined change in use occurs. Furthermore, whilst the land continues as a production site it is exempt from the NES.

Under the subdivision assessment the applicant offers mitigation measures by way of consent notice on the titles of both lots, informing landowners of their responsibilities under NES 2011 and this is the only practical option, with effects adequately managed and therefore less than minor.

The Consent Notice wording, as described under easements and covenants, includes:

iv) The land is a known HAIL site and the subdivision resource consent did not remove the land from being a production based use and therefore any change of use to nonproduction, must be in accordance with the NES 2011 guidelines.

v) At the time of building consent for a dwelling, a Preliminary Site Investigation report (or if required a Detailed Site Investigation) shall be submitted for Council approval. The report shall confirm that the change in use from production to residential upholds the NES 2011 regulations and, depending on the report's conclusion, whether or not a resource consent will be required.

[LOT 3]

Pursuant to the discretionary standards of NES 2011 (11) the proposed subdivision activity is considered to uphold a less than minor level of effects respective to the lands intended use (production), supporting the deferral of any soil investigation until there is certainty on the lands actual change in use to residential.

FOR FRESHWATER MANAGEMENT 2020

Part 1
1.3 Fundamental concept – Te Mana o te Wai
(1) Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.

Objectives and Policies
2.1
The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that priorities:
(a) first, the health and wellbeing of water bodies and freshwater ecosystems
(b) second, the health needs of people (such as drinking water)
(c) third, the ability of people and communities to provide for their social, economic and cultural wellbeing, now and in the future.

2.2
Policy 3
Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 4
Freshwater is managed as part of New Zealand's integrated response to climate change.

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

Policy 9
The habitats of indigenous freshwater species are protected.

3.5 Integrated management

(1) Adopting an integrated approach ki uta ki tai, as required by Te Mana o te Wai, requires that local authorities must:

(a) recognise the interconnectedness of the whole environment, from the mountains and lakes, down the rivers to lagoons, estuaries and to the sea.

(b) recognise interactions between freshwater, land, water bodies, ecosystems, and receiving environments.

(c) manage freshwater, and land use and development, in catchments in an integrated and sustainable way to avoid, remedy, or mitigate adverse effects, including cumulative effect on the health and well-being of water bodies, freshwater ecosystems, and receiving environments.

(d) Encourage the co-ordination and sequencing of regional or urban growth.

The National Policy Statement places strong emphasis on managing land use and development in a way that upholds Te Mana o te Wai by prioritising the health and wellbeing of water bodies, freshwater ecosystems, and indigenous species. This establishes a clear expectation that subdivision design must avoid or mitigate adverse effects on wetlands, waterways, and their associated ecological processes.

In this case, the site contains no wetlands. The upper plateau is underlain by higher quality soils with good absorption capacity, which reduces wastewater inputs and minimises stormwater runoff. Roof and surface water are managed on-site, while the bush-clad slopes provide a stable landform that naturally regulates stormwater and prevents erosion.

The proposed bush protection covenant secures a significant area of indigenous vegetation, creating a permanent natural buffer that filters runoff, improves water quality, reinforces ecological integrity, enhances biodiversity, and contributes to climate change resilience. Collectively, these measures give practical effect to the objectives and policies of the NPS-Freshwater, safeguarding the mauri of the wai while enabling sustainable land use.

OPERATIVE DISTRICT PLAN

The property is located in the Rural Production zone and is not affected by any Resource Overlays under the Far North Operative District Plan.

TABLE 13.7.2.1: MINIMUM LOT SIZES	**Restricted Discretionary**
Rural Production	*3. A maximum of 3 lots in any subdivision, provided that the minimum lot size is 4,000m² and there is at least 1 lot in the subdivision with a minimum lot size of 4ha, and provided further that the subdivision is of sites which existed at or prior to 28 April 2000, or which are amalgamated from titles existing at or prior to **28 April 2000**; or*

Both Lots 1 and 2 meet the minimum area requirement of 4,000 m², while Lot 3 comprises an area exceeding 4.0 ha. The title was issued on 13 February 1945, well prior to 28 April 2000. Accordingly, the proposal is presented as a Restricted Discretionary Activity.

ALLOTMENT DIMENSIONS

(Buildable Area)

Zone	Minimum Dimension
Rural Production	30m x 30m

All proposed lots are able to achieve the 30 m x 30 m allotment shape parameter in accordance with the required 10-metre boundary setbacks.
However, two existing building-to-boundary infringements under *Rule 8.6.5.1.4* (Setback from Boundaries) are identified. On Lot 1, the dwelling is located approximately 7 metres from the boundary, and on Lot 2, a swimming pool (*defined as a building under the District Plan*) is located 1 metre from the boundary.
Land use consent is therefore sought for these infringements. The effects are considered to be less than minor, as the only affected party is the applicant with all effects contained within the application site.

Assessment

Allotment Sizes and Dimensions
The proposed allotments have sufficient size and appropriate dimensions to accommodate the key site functions, including building development, vehicle parking, outdoor living areas, effluent disposal, and stormwater management, in full compliance with permitted activity standards.

8.6.5.3.4 SETBACK FROM BOUNDARIES
In assessing an application resulting from a breach of Rule 8.6.5.1.4 Setback from Boundaries the matters to which the Council will restrict its discretion are:

(a) the extent to which the building(s) reduces outlook and privacy of adjacent properties;
No concern this is an as-built situation.

(b) the extent to which the buildings restrict visibility for access and egress of vehicles;
No concern.

(c) the ability to mitigate any adverse effects on the surrounding environment, for example by way of planting;
No concern.

(d) for sites having a frontage with Kerikeri Road
Not applicable.

(e) for residential buildings located within 100m of Minerals Zone:
Not applicable.

(f) the extent to which the buildings and their use will impact on the public use and enjoyment of adjoining esplanade reserves and strips and adjacent coastal marine areas.
Not applicable.

Hazards
There are no known natural hazards affecting the site, and the application area is not subject to lower catchment flooding.
A geotechnical investigation will be undertaken at the building consent stage, with requirements to be secured through consent notice provisions.
Lots 1 and 2 are not associated with any HAIL activities that would trigger the NES (2011).

Lot 3, being subdivided as an active production parcel, is exempt. A future dwelling site can be located outside the existing orchard, within an area currently occupied by exotic trees that may be cleared, where no known HAIL activity has occurred.
Lot 3 is intended to remain in use as an orchard block. Should a future change of use occur, it will be subject to compliance with the NES (2011).
To provide flexibility in the event that a future dwelling may need to occupy part of the existing orchard, it is recommended that a consent notice pursuant to Section 221 RMA be registered as follows:

> *At the time of building consent for a residential dwelling, either a Preliminary Site Investigation or a Detailed Site Investigation shall be submitted for Council approval. The report shall confirm that the change in use from production to residential activity is consistent with the NES (2011), and where necessary, any required resource consent shall be obtained.*

Water Supply
Potable water supply for Lots 1 and 2 is provided via on-site roof water collection and storage in tanks. The same method will be adopted for Lot 3, ensuring a reliable and sustainable water source.

Firefighting water supply requirements will be addressed by way of a consent notice applicable to Lot 3. Given the existing as-built situation on Lots 1 and 2, it is not practical to retrofit these requirements, and therefore they will not be applied retrospectively.

Due to horticultural activities taking place in the vicinity, any dwelling to be constructed on the lot which will utilise rainwater as a potable water supply will require a suitable water filtration system to be installed. ***[LOT 3]***

Note this condition is not being applied to titles with existing buildings, as they may not have such filtration systems in place. This is similarly the case for fire fighting water supplies, where it is not required to alter existing use situations.

Stormwater
All lots are below the permitted coverage allowance.
A stormwater assessment has been undertaken for Lots 1 and 2, both of which are less than 2 ha in area. Lot 3 exceeding 2ha does not qualify to require an assessment.
The assessment concludes that stormwater can be effectively managed on-site without the need for additional intervention. Accordingly, the potential effects are considered to be less than minor.

Sewage
On-site wastewater disposal systems are already established on Lots 1 and 2, with upgrades proposed in accordance with the submitted wastewater assessment. Lot 3 has been confirmed as suitable for on-site wastewater disposal, with no constraints identified.

Energy Supplies & Telecommunications
Comments from Top Energy are attached, confirming that no specific electricity requirements apply to this subdivision.

For telecommunications, Chorus NZ was not consulted, as they do not participate in developments where no new lead-ins are proposed.
Electricity supply is already established for Lots 1 and 2, each with independent meters branching off easement "I." Lot 3 will require the establishment of an independent electricity connection.

Given the rural location, it is recommended that Council include a consent notice confirming that provision of electricity and telecommunications is not a requirement of this consent.

Easements & Covenants

The existing and proposed easements are identified on the attached scheme plan. No existing consent notices are registered on the titles, and no easement cancellations are proposed.

Proposed Land Covenants (s221 RMA)

New land covenants are proposed under Section 221 of the RMA to secure site-specific development and environmental management requirements.

(i)

In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.

LOT 3

(ii)

In conjunction with the construction of any building which includes a wastewater treatment and effluent disposal system, the applicant shall submit for Council approval a TP58 Report prepared by a Chartered Professional Engineer or an approved TP58 Report Writer. The report shall identify a suitable method of wastewater treatment for the proposed development along with an identified effluent disposal area plus a 100% reserve disposal area. The report shall confirm that all of the treatment and disposal system can be fully contained within the lot boundary and comply with the Regional Water and Soil Plan Permitted Activity Standards.

LOT 3

(iii)

*The lot owner shall preserve the living indigenous vegetation within the area identified on the title plan DP_____ as areas **'X', 'Y' & 'Z'** and shall not without the prior written consent of the council, and in strict compliance with any conditions, cut down, damage or destroy that vegetation. Such consent shall be a resource consent. The owner shall not be in breach of this prohibition if any vegetation dies from natural causes or is cut for personal firewood supply purpose.*

LOT 1 - 3

(iv)

All buildings will require foundations specifically designed by a Chartered Professional Engineer in accordance with design parameters specified by a suitably qualified Geotechnical Engineer. The foundation design details shall be submitted in conjunction with the Building Consent application.

LOT 3

(v)

Provision of power and telecommunication services was not a requirement of this subdivision consent. Any future dwelling or development on the lots will be responsible for arranging connections at the landowner's cost, if required.

LOTS 1 - 3

(vi)

The Lot is presently in productive use. For the avoidance of doubt, no investigation under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (NES-2011 is required unless and until a change to a more sensitive use (e.g., residential) and/or earthworks is proposed.

Prior to any building consent or consent application for a change of use to a more sensitive activity on the lot, the consent holder shall submit to Council either a Preliminary Site Investigation (PSI) or a Detailed Site Investigation (DSI) prepared by a suitably qualified and experienced practitioner. The investigation shall confirm compliance with the NES-2011. Where the NES-2011 applies and resource consent is required, it must be obtained before works commence.

LOT 3

Amalgamation Conditions
There are no existing or proposed amalgamation conditions.

Property Access
TRANSPORTATION
15.1 TRAFFIC, PARKING AND ACCESS

15.1.6A.2 PERMITTED ACTIVITIES

15.1.6A.2.1 TRAFFIC INTENSITY
This rule only applies when establishing a new activity or changing an activity on a site.

The Traffic Intensity Factor for a site in this zone is 60 daily one way movements. The Traffic Intensity Factor shall be determined by reference to Appendix 3A in Part 4.
This rule only applies when establishing a new activity on a site. It does not apply to existing activities, however, the Traffic Intensity Factor for the existing uses (apart from those exempted below) on site need to be taken into account when assessing new activities in order to address cumulative effects.
Exemptions: The first residential unit on a site, farming, forestry and construction traffic (associated with the establishment of an activity) are exempt from this rule.

This rule applies when establishing a new activity or changing an activity on a site. The Traffic Intensity Factor for this zone is 60 daily one-way movements, determined in accordance with *Appendix 3A in Part 4*. While the rule does not apply to existing activities, the traffic intensity of existing uses must be considered when assessing new activities to address cumulative effects.

Exemptions include the first residential unit on a site, farming, forestry, and construction traffic associated with the establishment of an activity.

In this case, traffic generation will arise from single residential units and rural-based activities, which are specifically exempt under these provisions.

15.1.6B PARKING
15.1.6B.1 PERMITTED ACTIVITIES
15.1.6B.1.1 ON-SITE CAR PARKING SPACES
Where:
(i) an activity establishes; or
(ii) the nature of an activity changes; or
(ii) buildings are altered to increase the number of persons provided for on the site;

For rural lots intended for a single residential unit (dwelling), two on-site parking spaces are required. Each proposed lot is capable of accommodating this requirement, with sufficient space available to provide compliant tracking curves and manoeuvring areas.

15.1.6B.1.2 - 15.1.6B.1.4 (being access onto Williams Road, Kerikeri Road & Accessible car parks)
Not applicable.

15.1.6B.1.5 CAR PARKING SPACE STANDARDS
All lots are able to create onsite carparks and achieve safe manoeuvring compliant with dimension standards of Appendix 3D.

15.1.6B.1.6 LOADING SPACES
Not applicable.
15.1.6C ACCESS
15.1.6C.1 PERMITTED ACTIVITIES

15.1.6C.1.1 Private accessways in all zones
(a) The construction of private accessway, in addition to the specifics also covered within this rule, is to be undertaken in accordance with Appendix 3B-1 in Part 4 of this Plan.

Appendix 3B-1
Standards for private access

Lots 1 - 3 share a well-formed metalled driveway constructed 4m wide that is located half on Lot 3 and half on adjoining property Lot 2 DP 137921. The initial 300m is shared also with Lot 2 DP 32350. All access grades are easy, compliant with 1:4, and stormwater controls exist.

The legal width is just short of 7.5m providing 6.6m width. This is an existing breach and therefore upholds existing use rights. Consent Condition are to include a dispensation for this anomaly.
Note that the Engineering Standards 2023 conflict with this district plan rule, where it allows a minimum legal width of 6.0m.

Appendix 3B-2
Standards for Roads to vest.

Not applicable.

Appendix 3C
Parking spaces required.

As described the lots can readily comply.

Appendix 3D
Manoeuvring and parking space dimensions
(90° regular user = width 2.5m (total depth one row 11.6m)
No concern.

Appendix 3E
Tracking curves are compliant.

15.1.6C.1.1
(a)
The access complies with Appendix 3B1.

(b)
Applicable only to urban & commercial zones.

(c)
A private accessway may serve a maximum of 8 household equivalents.

On subdivision there would be a total of 5 legal users of the access.

(d) Where a subdivision serves 9 or more sites, access shall be by public road.

No applicable.

(e) Access shall not be permitted:
(i) onto a State Highway or a Limited Access Road;

Access is not permitted onto a State Highway as a Limited Access Road without approval.
The applicant has consulted with NZTA and agreed to conditions of consent to upgrade the entrance onto State Highway 10 to a modified 'Diagram D' standard. The modification is required due to existing electricity infrastructure, specifically a power pole and associated lead, which constrains the ability to achieve full widening.
To mitigate this constraint, it is proposed to install a protective safety barrier in front of the pole and lead, together with the inclusion of a flush median, as detailed on the attached engineering plans prepared by Donaldsons Surveyors and approved by NZTA.
With the mitigation measures in place the effects are deemed less than minor.

Conditions of consent are to include that NZTA provide approval of the final engineering plans prior to commencing works. This would additionally include standard processes and procedures for obtaining Corridor Access Request & Traffic control

(ii) onto an arterial or collector road within 90m of its intersection with an arterial road or a collector road;
Not applicable.

(iii) onto an arterial or collector road within 30m of its intersection with a local road;
Not applicable.

(iv) onto a local road within 30m of its intersection with an arterial or collector road;
Not applicable.

(v) onto Kerikeri Road (both sides of the road along the portion between Maraenui Drive and Cannon Drive). This rule does not apply to sites with lawfully established access points (as at 6 September 2001) onto Kerikeri Road.
Not applicable.

(vi) *onto Kerikeri Inlet Road from Lot 1 DP 404507 or Lot 1 DP 181291 (and any sites created as result of a subdivision of these lots), except from a single vehicle crossing or intersection at least 30m from the adjoining boundary with Lot 2 DP 103531 and with at least 115m visibility in each direction.*
Not applicable.

15.1.6C.1.2 Private Accessways in urban zones
Not applicable.

(b)
Commercial zones.
Not applicable.
(c) All private accessways in all urban zones which serve two or more activities are to be sealed or concreted
Not applicable.

15.1.6C.1.3 Passing bays on private accessways in all zones
No passing bays necessary.

15.1.6C.1.4 ACCESS OVER FOOTPATHS
Not applicable.

15.1.6C.1.5 VEHICLE CROSSING STANDARDS IN RURAL AND COASTAL ZONES
(a) Private access off roads in the rural and coastal zones the vehicle crossing is to be constructed in accordance with Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009).

These standards have since been superseded by the Engineering Standards (May 2023). Under Rule 3.2.28 private access, requires a legal width of 6.0 m, which is achieved in this case, and a formation width of 4.5 m, compared with the existing formation of 4.0 m.
Accordingly, conditions of consent may require the access to be upgraded to comply with the Engineering Standards (May 2023) Table 3-16 Minimum Width requirements – Private Accessways.

15.1.6C.1.6 Vehicle Crossing Standards in Urban zones
Not applicable.

15.1.6C.1.7 General Access Standards

(a) Provision shall be made such that there is no need for vehicles to reverse off a site except where there are less than 4 parking spaces gaining access from a local road.

The lots are able to safely manoeuvre vehicles onsite without having to revere onto legal road.

(b) All bends and corners on the private accessway are to be constructed to allow for the passage of a Heavy Rigid Vehicle.

No concerns.

(c) Any access where legal width exceeds formation requirements shall have surplus areas (where legal width is wider than the formation) grassed.

Berms would be grassed.

(*d) Runoff from impermeable surfaces shall, wherever practicable, be directed to grass swales and/or shall be managed in such a way as will reduce the volume and rate of stormwater runoff and contaminant loads.*

No concern, as an existing use.

15.1.6C.1.8 Frontage to existing roads
(a) Where any proposed subdivision has frontage to a road or roads that do not meet the legal road width standards specified by the Council in its "Engineering Standards and Guidelines" (June 2004 – Revised 2009), road widening shall be vested in the name of the Council.

Not applicable.

(b) Where any proposed subdivision has frontage to a road or roads that are not constructed to the standards specified by the Council in its "Engineering Standards and Guidelines" (June 2004 – Revised 2009), then the applicant shall complete the required improvements.

No concern.

(c) Where a site has more than one road frontage or frontage to a service lane or right-of-way (ROW) in addition to a road frontage, access to the site shall be in a place that:
(i) facilitates passing traffic, entering and exiting traffic, pedestrian traffic and the intended use of the site;

No concern.

(ii) is from the road or service lane or ROW that carries the lesser volume of traffic.

No concern.

(d) Where any proposed subdivision has frontage to a road on which the carriageway encroaches, or is close to the subject lot or lots, the encroachment or land shall vest in Council such that either the minimum berm width between the kerb or road edge and the boundary is 2m or the boundary is at least 6m from the centreline of the road whichever is the greater.

No concern.

15.1.6C.1.9 New Roads

Not applicable.

15.1.6C.1.10 Service lanes, cycle and pedestrian accessways

Not applicable.

15.1.6C.1.11 Road designations

Not applicable.

The proposal complies with all but one transportation standard, relating to the legal width of the access. This discrepancy reflects a misalignment between the District Plan provisions (Appendix 3B) and the updated Engineering Standards May 2023, for which a dispensation is therefore sought and considered justified.
The existing access is safe, well-formed, and sufficient to accommodate both existing and proposed users, with upgrades (including widening) proposed to further improve safety and functionality.

Standard conditions of consent may require that the access be upgraded and the entrance constructed in general accordance with the approved engineering plans.

Overall, when considered against the proposed improvements and offered consent conditions, the level of effects is assessed as less than minor. The dispensation is therefore reasonable and consistent with the intent of the transportation provisions, providing assurance that safe and efficient vehicle movements will be achieved.

EFFECT OF EARTHWORKS AND UTILITIES
The subdivision does not require any earthworks.

Soil
There is no adverse impact on the life supporting capacity of soils.

Access to water bodies
There are none to consider.

Land Use Incompatibility
The proposal is in keeping with the immediate environment and effectively represents an as built situation, not to require mitigation measures.

There are no other known land use incompatibles.

Proximity to Airports
No concern.

Natural Character of the coastal environment
The property does not have a coastal influence.

Energy Efficiency
The proposal is considered to adopt an acceptable level of energy efficiency with the lots orientated to the north achieving good solar gain.

NATURAL AND PHYSICAL RESOURCES

There are no apparent adverse effects on any vulnerable natural or physical resources. Earthworks are minimal and confined predominantly within the State Highway legal boundaries, with no vegetation clearance required.
The Department of Conservation has not been considered an affected party, as the proposal does not impact vulnerable vegetation or ecological values.

OBJECTIVES (*Subdivision*)

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 or indirectly from subdivision, including reverse sensitivity effects, are avoided, remedied or mitigated.*

The proposal does not compromise the life-supporting capacity of air, water, soil, or ecosystems. Relative to the Restricted Discretionary standards, the subdivision introduces no effects greater than those anticipated under the permitted baseline.

Earthworks are minimal and limited to existing disturbed areas, with no vegetation clearance required.

The subdivision maintains the existing rural–lifestyle pattern, avoids reverse sensitivity effects, and protects versatile soils already in productive use. These measures, secured through consent conditions and consent notices under Section 221 RMA, provide assurance that all environmental effects, both actual and potential, are adequately managed.

13.3.4 *To ensure that subdivision does not adversely affect scheduled heritage resources through alienation of the resource from its immediate setting/context.*

The property is not known to contain any scheduled heritage resources.

13.3.5 *To ensure that all new subdivisions provide a reticulated water supply and/or on-site water storage sufficient to meet the needs of the activities that will establish all year round.*

The proposal satisfies these requirements without concern.

13.3.6 *To encourage innovative development and integrated management of effects between subdivision and land use which results in superior outcomes to more traditional forms of subdivision, use and development, for example the protection, enhancement and restoration of areas and features which have particular value or may have been compromised by past land management practices.*

The proposal achieves integrated management of effects by ensuring that the subdivision action itself secures long-term land use controls through consent notices. The bush protection covenant maintains ecological integrity and protects water quality. On-site wastewater disposal is confirmed as suitable for each lot, with Lot 3 subject to a consent notice requiring a PSI/DSI at the time of any change to a sensitive use under the NES 2011. The existing access will be improved to comply with the Engineering Standards (May 2023), ensuring safe and efficient vehicle movements. In addition, consent notices require adequate water storage for firefighting purposes and filtration systems for potable water supply to be provided for any new dwelling.
Collectively, these measures integrate subdivision and land use in a manner that secures long-term environmental protection, community safety, and infrastructure resilience. This represents a more sustainable and robust outcome compared with permitted activities, which could otherwise proceed without such safeguards.

In outline of the Rural Production zone Environmental Provisions the following provides emphasis on the zones capacity to support a variety of land use activities.

Rural Environment

8.6.2 ENVIRONMENTAL OUTCOMES EXPECTED

8.6.2.1 *A Rural Production Zone where a wide variety of activities take place in a manner that is consistent with the sustainable management of natural and physical resources.*

8.6.2.2 *A Rural Production Zone which enables the social, economic and cultural well-being of people and communities, and their health and safety, while safeguarding the life supporting capacity of the environment and avoiding, remedying or mitigating adverse effects on it.*

The zone provides for a range of land use activities, particularly those that sustain natural and physical resources. At present, Lot 3 functions as an orchard block, maintaining its productive use and contributing to the rural production character of the area. The applicants propose to establish rural lifestyle / residential allotments within land that otherwise has limited productive capacity, while allowing Lot 3 to continue in orchard use until such time as a change in activity is proposed.
In this way, the subdivision supports rural lifestyle opportunities while retaining ongoing productive use of Lot 3, resulting in a sustainable outcome that does not compromise the life-supporting capacity of the environment.

8.6.3 OBJECTIVES

8.6.3.1 To promote the sustainable management of natural and physical resources in the Rural Production Zone.

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

8.6.3.4 To promote the protection of significant natural values of the Rural Production Zone.

8.6.4 POLICIES

8.6.4.1 That a wide range of activities be allowed in the Rural Production Zone, subject to the need to ensure that any adverse effects, including any reverse sensitivity effects, on the environment resulting from these activities are avoided, remedied or mitigated.

8.6.4.2 That standards be imposed to ensure that the off site effects of activities in the Rural Production Zone are avoided, remedied or mitigated.

8.6.4.3 That land management practices that avoid, remedy or mitigate adverse effects on natural and physical resources be encouraged.

The proposal achieves an appropriate balance by enabling people and communities to provide for their social, economic, and cultural well-being, while safeguarding the life-supporting capacity of the environment.
The subdivision is assessed as a restricted discretionary activity, meaning that less weight is placed on the broader objectives and policies. The layout is generally consistent with the established rural pattern, and the rural environment by its nature accommodates a wide range of activities.
Importantly, the subdivision does not give rise to any measurable adverse effects on significant natural values.

Accordingly, the proposal is consistent with the policies of the Rural Production Zone, as it avoids, remedies, or mitigates off-site effects, prevents reverse sensitivity conflicts, and promotes land management practices that support the long-term health of natural and physical resources.

PROPOSED DISTRICT PLAN

Zone Context

The site is identified as Horticultural Zone under the Proposed Far North District Plan (PDP). The intent of the zone is to safeguard versatile soils and highly productive land for horticultural production, recognising the significant contribution that horticulture makes to the social, cultural, and economic wellbeing of the Far North. The provisions are designed to avoid land fragmentation and to protect productive land from incompatible land uses or reverse sensitivity effects.

Subdivision Standards

The PDP sets out specific activity thresholds for subdivision within the Horticultural Zone:

- **Controlled Activity**: Minimum allotment size of **10 hectares**.
- **Discretionary Activity**: Minimum allotment size of **4 hectares**.

The proposal creates allotments smaller than 10 hectares and 4 hectares. Accordingly, under the PDP framework the subdivision would be classified Non-Complying.

Relevant Objectives and Policies

Horticultural Zone

- **HZ-P2** *directs that land use which is incompatible with the zone's purpose, results in the loss of productive capacity, or compromises the use of highly productive land should be avoided. The proposed subdivision maintains allotments that retain functionality for horticultural or rural activities and does not sterilise versatile soils.*
- **HZ-P3** *enables horticulture and ancillary activities that support the function of the zone, provided adverse effects are contained on site and servicing can be provided. The subdivision is designed with on-site servicing and avoids adverse effects beyond the site.*

Subdivision Chapter

- **SUB-O1** *requires subdivision to result in the efficient use of land that contributes to local character, avoids reverse sensitivity, and manages adverse effects.*
  The proposal achieves these outcomes by aligning with the established rural pattern and ensuring productive land use can continue.

- **SUB-O2** *seeks the protection of highly productive land and significant natural values.*
  The subdivision does not reduce productive potential or adversely affect ecological or cultural values.

- **SUB-O3** *requires infrastructure to be planned in an integrated and future-proofed manner.*
  The subdivision relies on existing infrastructure, with only minor access widening required.

- **SUB-P3** *provides for subdivision where allotments are consistent with the purpose of the zone, meet minimum size thresholds, and maintain adequate size, shape, and access.*
  The proposed allotments satisfy these criteria.

Assessment

When considered against the PDP provisions, the proposal achieves a suitable balance between enabling subdivision and protecting productive potential. Lot 3 remains capable of supporting horticultural activities, overall, avoiding fragmentation that would sterilise versatile soils, and does not introduce incompatible uses that could generate unreasonable reverse sensitivity issues. The design also ensures legal and physical access and avoids measurable adverse effects on natural or cultural values.

Legal Weight

It is emphasised that the Proposed District Plan is still subject to the Schedule 1 process, including submissions, hearings, and appeals. As such, the PDP currently carries limited legal weight. The Operative District Plan remains the primary statutory framework for assessing this subdivision.

CONCLUSION

The proposed subdivision creates three allotments of 7,510 m², 8,340 m², and 4.6 ha, supported by legal access and appropriate on-site servicing. The design has been carefully considered to maintain productive potential, avoid reverse sensitivity conflicts, and ensure compatibility with the surrounding rural environment.

Under the Operative District Plan, the activity is a Restricted Discretionary Activity, and the assessment confirms that all matters of discretion—lot size and shape, access, servicing, rural character, and natural hazards, are appropriately addressed. Land Use consent is required for the rule infringements (building setback from boundary & Access legal width). Additionally, Resource Consent is required to breach the NES 2011. Overall, adverse effects are assessed as less than minor.

Although the Proposed District Plan identifies the activity as Non-Complying, that plan currently has limited legal weight. Nevertheless, the proposal remains broadly consistent with the direction of the PDP, as it avoids sterilising productive land, provides functional allotments, and integrates safely with infrastructure, including the extensive upgrade to the State Highway 10 entrance in consultation with NZTA (Waka Kotahi).

Overall, the subdivision represents a balanced outcome that gives effect to the purpose of the Resource Management Act 1991 by enabling people and communities to provide for their wellbeing while safeguarding the productive and environmental values of the land.

On this basis, the proposal has clear planning merit, is consistent with the relevant objectives and policies, and should be supported by Council as the adverse effects are less than minor.

Micah Donaldson
MNZIS - Assoc.NZPI

NZIS
REGISTERED PROFESSIONAL SURVEYOR

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA827/294**
Land Registration District	**North Auckland**
Date Issued	13 February 1945

Prior References
NA697/116

Estate	Fee Simple
Area	6.2466 hectares more or less
Legal Description	Lot 3 Deposited Plan 26697
Registered Owners	

Peter Cameron Shaw, Margaret Leigh Shaw and J W Trustees Limited

---

Interests

Fencing Agreement in Transfer 144098

Fencing Agreement in Transfer 236226

Fencing Agreement in Transfer 294431

Subject to a water pipe line right over part created by Transfer 348516

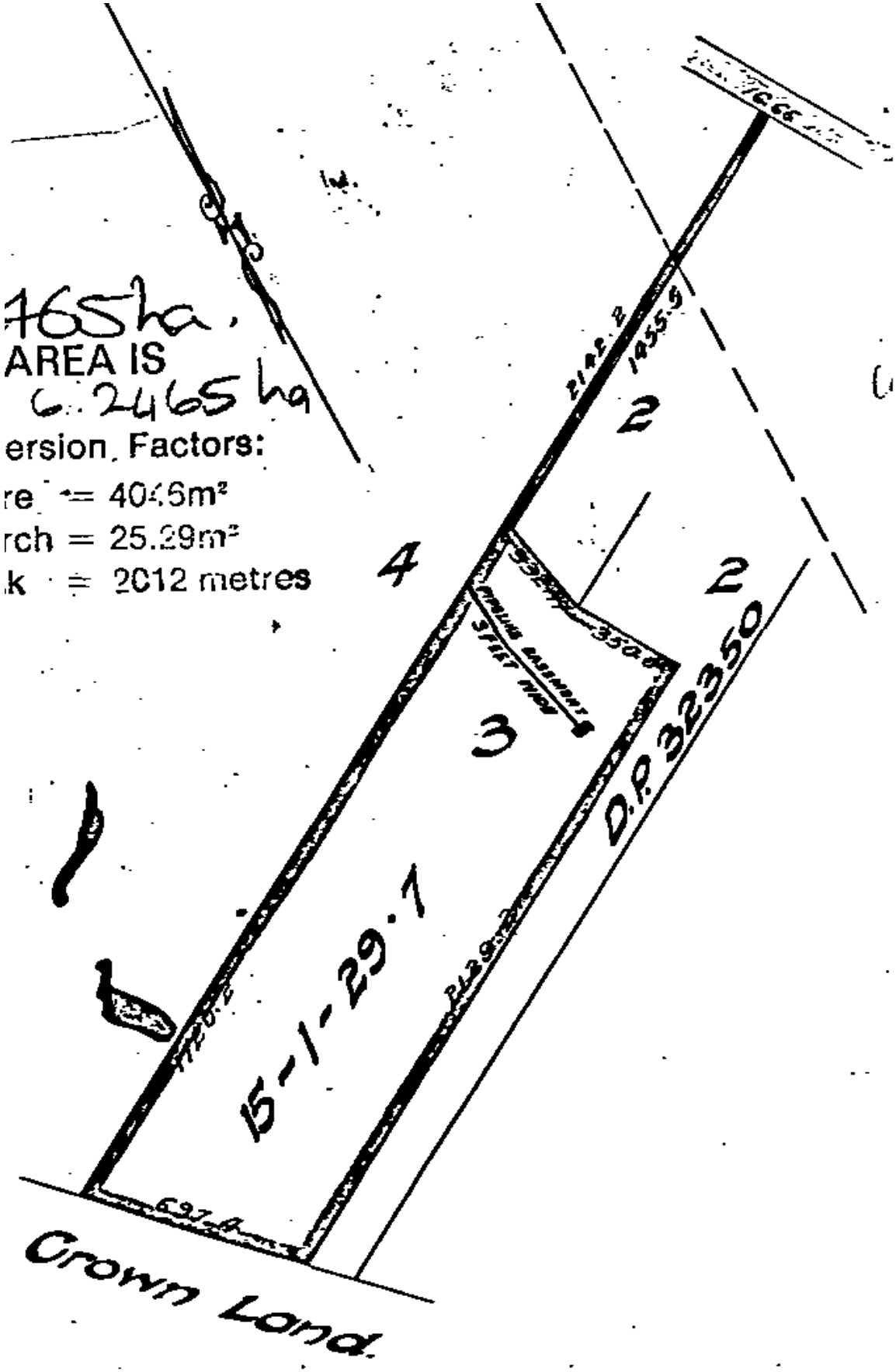
Subject to a right of way over part marked A on Plan 71497 created by Transfer 165499.3 - 9.8.1974 at 2.03 pm

573901.1 Gazette Notice declaring adjoining State Highway as limited access road - 31.1.1979 at 10.51 am

Appurtenant hereto is a right of way created by Transfer D246279.1

Subject to a right of way over part marked C on DP 186929 created by Transfer D246279.1

12410601.3 Mortgage to Westpac New Zealand Limited - 31.3.2022 at 2:17 pm


765ha.
AREA IS
6.2465 ha
ersion Factors:
re = 4046m²
rch = 25.29m²
k = 2012 metres
4
2
3
2
15-1-29.1
D.P. 32350
Crown Land

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

8233
25 September 2025

Planning Division
Far North District Council
Private Bag 752
Kaikohe

Dear Sir/Madam

PROPOSED SUBDIVISION & LAND USE
C. SHAW, 1349B STATE HIGHWAY 10, KERIKERI

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

- Application Form & Deposit $5143
- Planning Report
- Record of Title
- Top Energy Ltd & NZTA comments
- Wastewater Assessment
- Stormwater Assessment
- Scheme Plan – Subdivision
- Development Engineering Plans

Yours faithfully

Micah Donaldson
Assoc.NZPI - RPSURV

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

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

3 June 2025

Micah Donaldson
Donaldsons Surveyors Limited
PO Box 211
KERIKERI

Email: micah@donaldsons.net.nz

To Whom It May Concern:

RE: PROPOSED SUBDIVISION
M & P Shaw – 1349b State Highway 10, Kerikeri. Lot 3 DP 26697.

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 lots 1 and 2 have an existing power supply. Design and costs to provide a power supply to proposed lot 3 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

Level 5, AON Centre
29 Customs Street West
Private Bag 106602
Auckland City
Auckland 1143
New Zealand
T 0800 699 000
www.nzta.govt.nz

Waka Kotahi New Zealand Transport Agency Reference: 2023-0223

5th September 2025

Margaret Shaw, Peter Shaw and Peter Cameron
C/- Micah Donaldson
1349B State Highway 10, Kerikeri
Kerikeri, 0293

Sent via: Micah@Donaldson.net.nz

Dear Micah

Proposed Three-Lot Subdivision – 1349B State Highway 10 Kerikeri – Margaret Shaw, Peter Shaw & Peter Cameron

Thank you for your request for written approval from Waka Kotahi New Zealand Transport Agency (NZTA) under section 95E of the Resource Management Act 1991. Your proposal has been considered as follows:

Proposal

Resource consent is sought for the following activities:

- The proposal is to undertake a three-Lot subdivision of Lot 3 DP 26697, located along State Highway 10 (SH10).
- The subdivision will result in the following Lots;
    - Lot 1 Heron 7510m2 (Rural Lifestyle, one dwelling)
    - Lot 2 Heron 8340m2 (Rural Lifestyle, one dwelling, one minor dwelling)
    - Lot 3 Heron 4.6600 ha (Rural Lifestyle, one dwelling)

Limited Access Road (LAR)

Your client's site adjoins State Highway 10 which is identified as a limited access road. Per Section 91 of the Government Roading Powers Act 1989, to access your client's site your client requires a crossing place authorised by NZTA. In this instance the site is currently accessed via CP 39A. Following the proposed subdivision, it is understood that CP 39A will service five rural lifestyle lots. On the basis that vehicle movements at the access are increasing, NZTA considers that the access is required to be upgraded to accommodate the proposed vehicle movements. See Condition 1.

Assessment

In assessing the proposed activity, NZTA notes the following:

- Our primary concern is to ensure that State Highway 10 in the vicinity of the proposal operates in an integrated, safe and sustainable manner.
- SH10 within the vicinity of the proposal is an LAR with a posted speed limit of 100km/h.
- NZTA understands that the proposed subdivision is a Restricted Discretionary Activity under the Far North District Council Plan.
- As addressed above, the applicant has provided information that states that CP 39A will service 5 lots each generating 10 vehicles per day (vpd) each for a total of 50 vpd (Using values obtained from the Far North District Plan). In addition, NZTA understands that the access will service 1 standard truck movement every 6 months or so related to orchard activities.
- In order to accommodate the increase in vehicles, it is considered that a modified Diagram D standard as per the Planning Policy Manual (2007) will be required at the access.

- NZTA have addressed that there is an existing double pole structure located on the eastern side of the state highway, and opposite the access at CP 39A. Upon review, it has been considered that the applicant will need to address the existing structures in order to appropriately mitigate any potential safety affects at the accessway.
- NZTA have reviewed plans supplied by the applicant and consider that the access shall be upgraded in general accordance with 'PROPOSED MODIFIED 'DIAGRAM D' ENTRANCE UPGRADE 2' May 2025, REF: 82333, however, further detail is required and subsequently construction drawings are needed to be reviewed and approved.
- To address the existing structures, NZTA confirms that the applicant shall submit to NZTA any detailed designs of the proposed access upgrade for review and approval prior to the commencement of any construction at the access.
- On the basis of the above assessment, and the inclusion of the conditions below, NZTA do not have any adverse concerns with the proposed subdivision.

Conditions

In discussion with Waka Kotahi your client has agreed to include the following conditions as part of their resource consent application. The legal name of NZTA is the New Zealand Transport Agency; therefore, our full legal name is referred to in the conditions and approval.

1. Crossing Place 39A shall be upgraded in general accordance with 'PROPOSED MODIFIED 'DIAGRAM D' ENTRANCE UPGRADE 2' May 2025, REF: 82333 with a 375mm minimum diameter culvert and to the satisfaction of the New Zealand Transport Agency Network Manager. The consent holder shall provide the New Zealand Transport Agency with a detailed design plan for review and approval prior to construction.

2. Prior to the issuing of a certificate pursuant to Section 224(c) of the Resource Management Act 1991, the consent holder shall provide to Council, correspondence from the New Zealand Transport Agency confirming that works in the State Highway, including the upgrading vehicle crossings, have been constructed to the New Zealand Transport Agency standards.

3. Prior to the issuing of a certificate pursuant to Section 224(c) of the Resource Management Act 1991, the consent holder shall provide to Council confirmation that the New Zealand Transport Agency has been advised of relevant documentation (such as proposed title references, draft LT (Land Transfer) plan, ML plan (for Maori Land) or SO (Survey Office) plan) to facilitate the registration of any new Crossing Place (CP) Notices against those new titles, under Section 91 of the Government Roading Powers Act 1989.

Determination

On the basis of the above assessment of the proposed activity, and the conditions volunteered by the applicant, the New Zealand Transport Agency provides written approval under section 95E of the Resource Management Act 1991.

Limited Access Road

As the site fronts a Limited Access Road, the New Zealand Transport Agency provides approval under Section 93 of the Government Roading Powers Act 1989 for the site to gain direct access from the State Highway as described in this written approval.

Advice Notes

Before you undertake any physical work on the state highway, including the formation of any vehicle crossing, you are legally required to apply to the New Zealand Transport Agency for a Corridor Access Request and for that request to be approved.

Please submit your CAR to the New Zealand Transport Agency CAR Manager via www.submitica.com a minimum of fourteen working days prior to the commencement of any works on the state highway; longer is advised for complex works.

As the properties have access to a limited access road, once the works have been completed to the satisfaction of the New Zealand Transport Agency Network Manager, a crossing place notice/s per Section 91 of the Government Roading Powers Act 1989 will be registered on the titles confirming the legal establishment of the crossing place.

Expiry of this approval

Unless resource consent has been obtained this approval will expire two years from the date of this approval letter. This approval will lapse at that date unless prior agreement has been obtained from the New Zealand Transport Agency.

If you have any queries regarding the above or wish to discuss matters further, please feel free to contact Tayla Cowper via email at tayla.cowper@nzta.govt.nz or you can contact the environmental planning team at environmentalplanning@nzta.govt.nz.

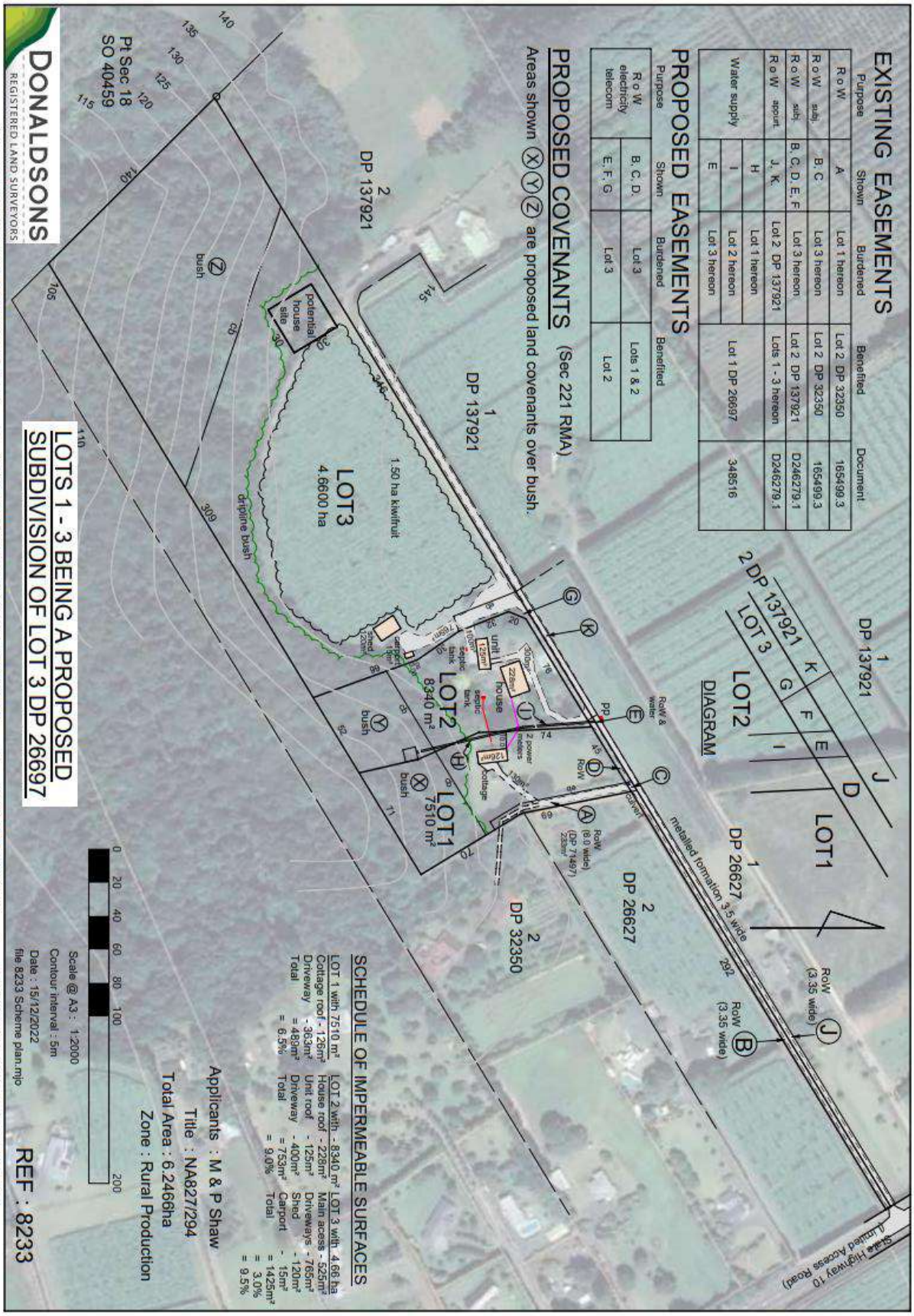
Yours sincerely,

Tayla Cowper
Intermediate Planner
Poutiaki Taiao / Environmental Planning, System Design, on behalf of NZTA New Zealand Transport Agency.

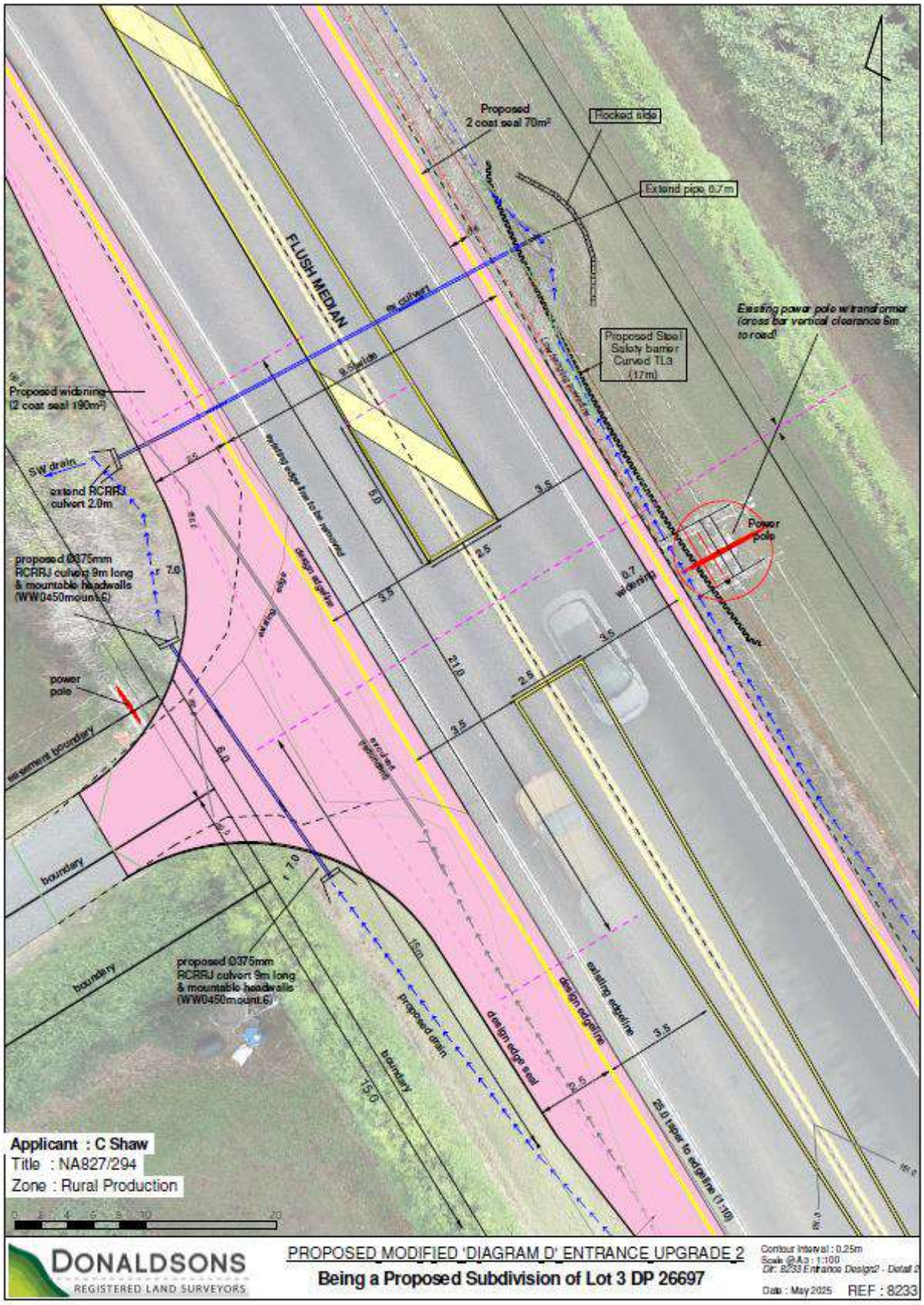
Enclosed:

- Attachment 1: Proposed Scheme Plan
- Attachment 2: Draft Proposed Entrance Upgrade

Attachment One: Proposed Scheme Plan



Attachment Two: Draft Proposed Entrance Upgrade



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

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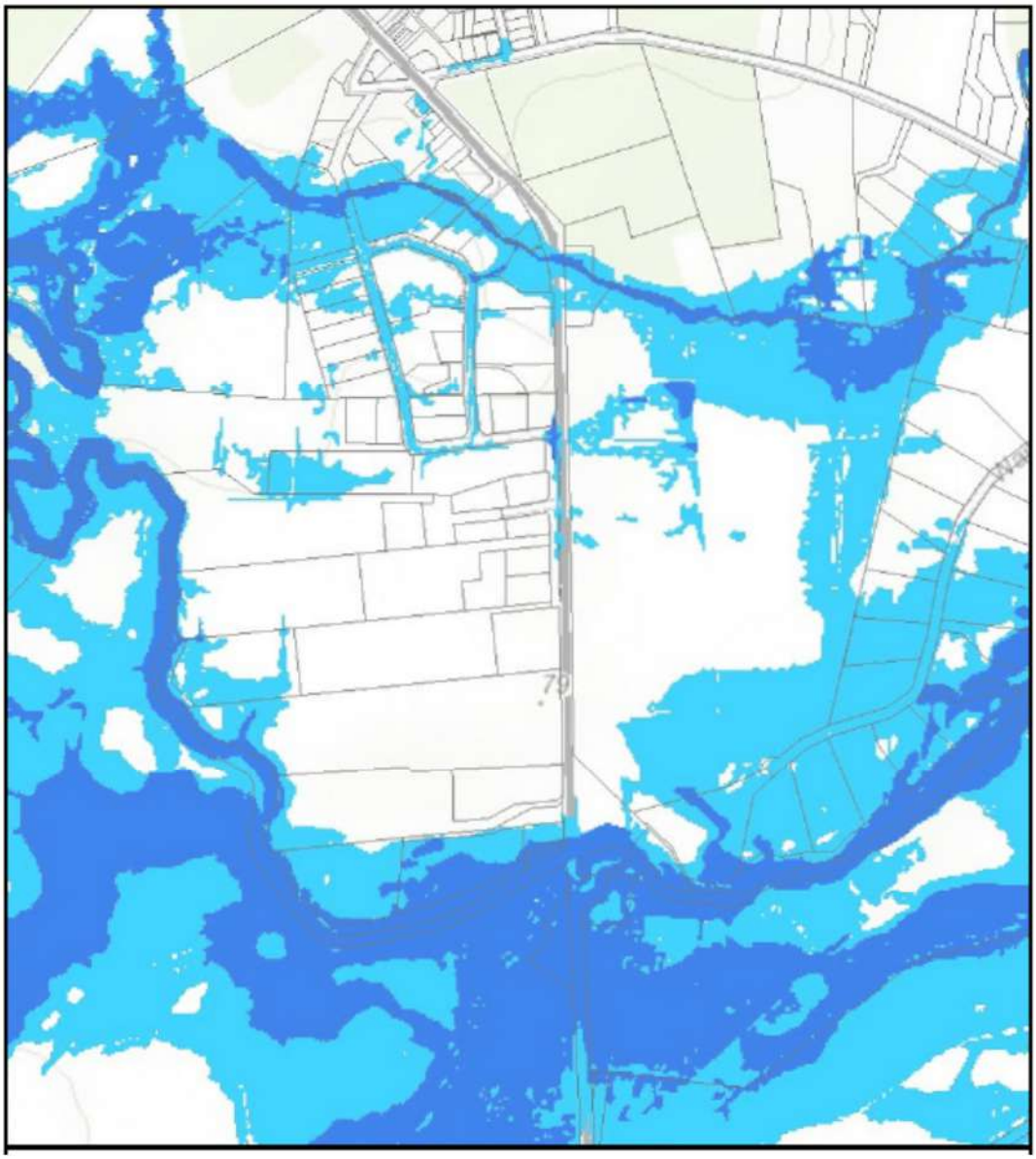


8233
10 September 2025

STORMWATER MANAGEMENT ASSESSMENT

M. & P. SHAW, 1349B STATE HIGHWAY 10, KERIKERI

Introduction

It is proposed to subdivide RT NA827/294 to create two additional allotments, as shown on the subdivision scheme plan referenced 8233, dated September 2025, prepared by Donaldson's Surveyors Ltd.

The property is zoned **Rural Production** under the provisions of the Far North District Plan.

Proposed Lots 1 and 2 are each less than 2.0 ha in area and therefore require a stormwater management assessment. The balance area, Lot 3, comprises 4.6 ha and does not trigger this requirement.

All proposed lots comply with the permitted activity standards for stormwater management, including impermeable surface cover allowances.

Site, Soil & Situation Evaluation

The property is located at **1349b State Highway 10**, approximately 4 km from Kerikeri Township.

The site currently contains two established residences:

- **Lot 1** accommodates a dwelling of approximately 120 m².

- **Lot 2** contains the larger residence, comprising a main dwelling of approximately 180m², a sleepout of 125m², and a swimming pool of 50m².

Additional impermeable surfaces on Lots 1 and 2 include formed driveways and parking areas.

- **Lot 3** contains an existing implement shed but no dwelling. The intended building platform is located on the western side of the site adjacent to the existing orchard.

The landform is gently contoured across the developed areas before falling more steeply, at an approximate grade of 1:3, toward the southern boundary where a gully system is located.

All on-site services exist on Lots 1 and 2, including wastewater disposal systems and rainwater storage tanks. It is understood that some of these systems will be upgraded in accordance with resource consent conditions.

<u>Impermeable surface coverage (approximate):</u>

- Lot 1: 480m² (6.4%)
- Lot 2: 755m² (9.0%)
- Lot 3: 1,425m² (3.0%) – not being further assessed.

There is no shared stormwater infrastructure. Roof and surface runoff is managed through overland flow (sheetflow) across pasture and mature bush, discharging into the natural gully. The FND flood maps show no major-source flooding affecting this property.

Land cover on Lots 1 & 2 is divided between mature bush (50%), landscaped grounds (50%) occupying the established residential activity. The proposal is to create two small rural-residential lots, each containing an existing dwelling, with the balance lot retained as a larger landholding comprising orchard and bush areas with a vacant building site.

The property straddles two soil types:

- Rangiora Clay (RA, LUC 6e9) – covering the bush and steeper terrain (the edge between the two soil types is approximately at the indicated building site on Lot 3).
- Kerikeri Friable Clay (KE, LUC 2s1) – covering the orchard area.

Stormwater Management

Approach

The subdivision retains the existing low-impact drainage regime. No new reticulated stormwater network is proposed; flows continue to be managed at source and conveyed as shallow overland flow (sheetflow) across vegetated ground to the natural gully.

Roof runoff
Roof areas discharge to on-site water storage tanks, with overflows released at grade to vegetated ground.

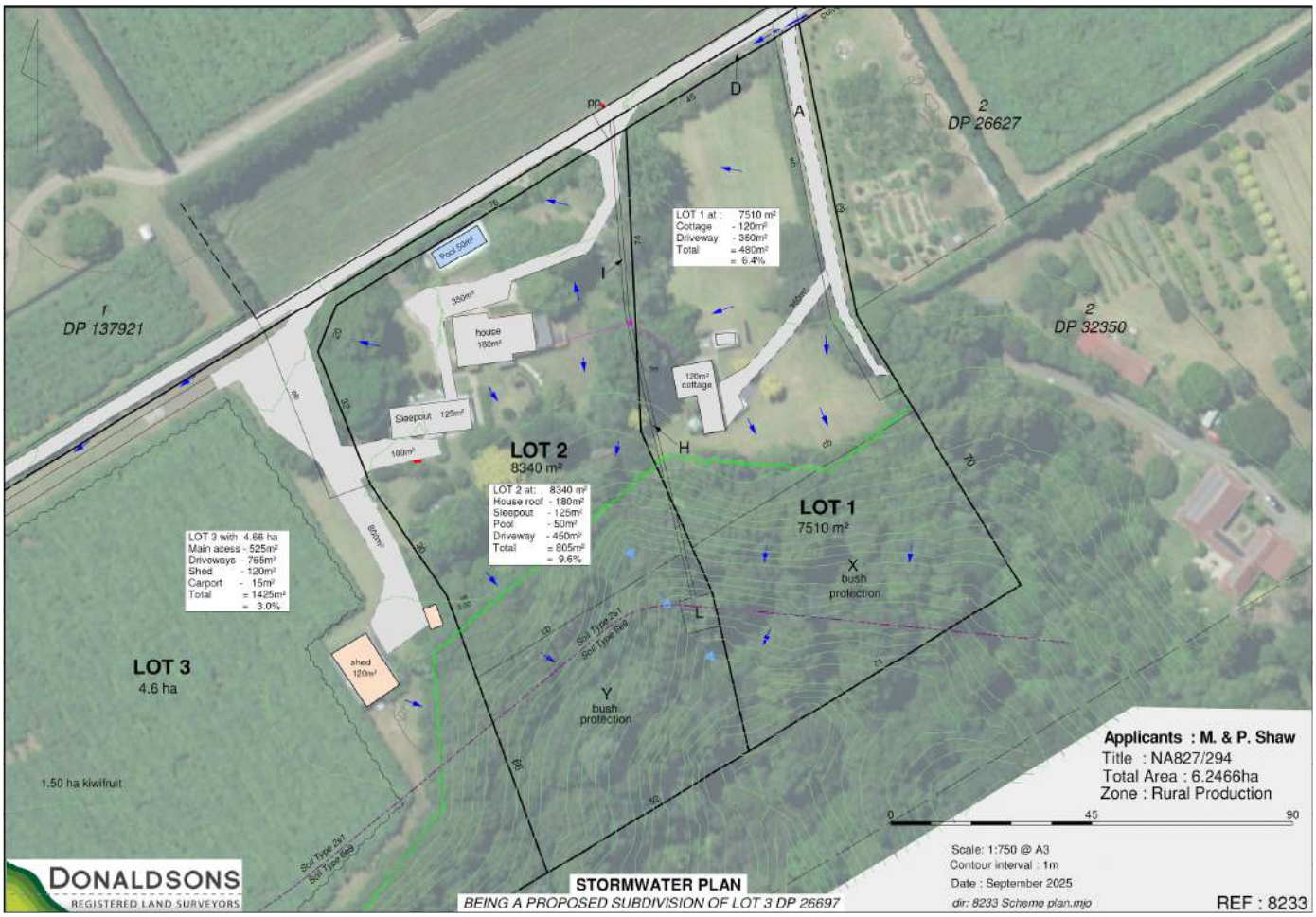
Access and hardstand areas
Lots 1 and 2 sit on a local plateau with no significant upslope contributing catchment; in effect, overland flow sheds laterally before reaching these lots.

No defined overland flow paths occur within the developed areas; all such paths are confined to the bush-clad gully. Overflow paths are dispersed over grassed and bush-covered surfaces, reducing peak flow rates and conveying flow toward the mature bush and natural gully without concentrating discharge at boundaries.
The shared access formation (owned by Lot 3) drains to existing open table drains/grassed swales.
Driveways and parking areas are graded to promote sheetflow to vegetated verges rather than pipe collection, reducing velocity and encouraging infiltration.

Filtration, infiltration, and conveyance
The lawn and mature bush, providing filtration of sediment and gross pollutants prior to entering the gully system natural watercourses.
Infiltration occurs primarily across the orchard and open-ground areas and is improved by the bush surface having a high surface roughness from root structure and leaf litter layer.
Wider catchment analysis has not been undertaken and does not appear necessary based on the subdivision activity status.

Effects and receiving environment
Catchment boundaries and existing overland flow paths are maintained; no diversions toward adjoining properties are introduced.
There is no concentration of runoff onto boundaries and no increase in peak discharge.

Compliance and activity status
Total impermeable surface cover on each lot remains within the permitted activity thresholds for stormwater management under the Far North District Plan.
The development configuration also meets the criteria for existing use rights pursuant to section 10 of the RMA for established impermeable areas and drainage patterns.



DISTRICT PLAN

Under the Far North District Plan all lots comply with the stormwater management standard.

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

Subdivision Assessment Criteria

While the existing land use meets the permitted activity standards, the subdivision requires consent as a Restricted Discretionary Activity because Proposed Lots 1 and 2 are each less than 2.0 ha within the Rural Production Zone. The assessment that follows addresses the relevant matters of discretion and associated assessment criteria.

13.10.4 STORMWATER DISPOSAL

(a) Whether the application complies with any regional rules relating to any water or discharge permits required under the Act, and with any resource consent issued to the District Council in relation to any urban drainage area stormwater management plan or similar plan.

The proposal complies with applicable regional rules. Stormwater is discharged to land at grade within each lot in a manner consistent with the operative regional plan's permitted activity conditions; accordingly, no water or discharge permit is required under the RMA.
The site is not connected to any District Council stormwater network and is outside any urban drainage area reliance. Therefore, no Council resource consent or urban stormwater management plan applies to this application.

*(b) Whether the application complies with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009 (**Replaced by May 2023**) (to be used in conjunction with NZS 4404:2004).*

The subdivision and on-site stormwater arrangements meet the relevant performance outcomes of the May 2023 Council Standards, read with NZS 4404:2004, because:

- Runoff is managed at source via roof catchment in tanks, with overflows discharged within each lot without cause to adverse effects on adjoining properties.
- Surface water is conveyed as shallow sheetflow across vegetated ground to the existing bush-clad gully (secondary flow path), maintaining established drainage patterns and catchment boundaries.
- Discharges are contained within site boundaries with no concentration onto adjoining land and no observed scour or erosion at discharge points.

On this basis, the application satisfies the stormwater performance requirements of the Council's May 2023 Engineering Standards in conjunction with NZS 4404:2004.

(c) Whether the application complies with the Far North District Council Strategic Plan - Drainage.

Not applicable.

(d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas.

Low Impact Design principles are achieved through site layout and reliance on natural drainage rather than proprietary devices. The two existing dwellings are confined to gentler grades, while the remainder of the land is steep and bush-clad and therefore unsuitable for further development. This configuration reduces effective imperviousness and retains natural permeability across Lots 1 and 2, consistent with LID objectives.

(e) The adequacy of the proposed means of disposing of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces.

Roof surfaces are all controlled in onsite water tanks with outflow discharge to ground. There is no evidence of erosion or scouring.
The parking area although considered in the district plan as 'impermeable', the actual absorption factor is 0.5 (runoff coefficient) being nearly half that of an impermeable surface (factor 0.95). Stormwater from the driveways are adequately controlled.

No further control measures appear necessary.

(f) The adequacy of any proposed means for screening out litter, the capture of chemical spillages, the containment of contamination from roads and paved areas, and of siltation.

Not applicable.

(g) The practicality of retaining open natural waterway systems for stormwater disposal in preference to piped or canal systems and adverse effects on existing waterways.

Under the current environmental conditions, with no lower catchment dwellings to be adversely affected by stormwater discharge, it is considered appropriate to leave the stormwater drainage in its current form likened to natural servitude.

(h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments.

Not applicable, and there is no increase in outflow rates.

(i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off.

Not applicable, and there is no increase in outflow rates.

(j) The necessity to provide on-site retention basins to contain surface run-off where the capacity of the outfall is incapable of accepting flows, and where the outfall has limited capacity, any need to restrict the rate of discharge from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place.

There are no outfall capacity issues, therefore no need for stormwater attenuation. This rural environment discharges by way of gravity in a controlled manner without adversely influencing lower property catchments or any reticulated system.
On this basis, restrictions on the rate water discharges from site is not an issue.

(k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects.

There are no signs of erosion and discharge is able to occur during a 10%AEP event without concern.

(l) In accordance with sustainable management practices, the importance of disposing of stormwater by way of gravity pipe lines. However, where topography dictates that this is not possible, the adequacy of proposed pumping stations put forward as a satisfactory alternative.

Not applicable.

(m) The extent to which it is proposed to fill contrary to the natural fall of the country to obtain gravity outfall; the practicality of obtaining easements through adjoining owners' land to other outfall systems; and whether filling or pumping may constitute a satisfactory alternative.

Not applicable.

(n) For stormwater pipes and open waterway systems, the provision of appropriate easements in favour of either the registered user or in the case of the Council, easements in gross, to be shown on the survey plan for the subdivision, including private connections passing over other land protected by easements in favour of the user.

Not applicable.

(o) Where an easement is defined as a line, being the centre line of a pipe already laid, the effect of any alteration of its size and the need to create a new easement.

Not applicable.

(p) For any stormwater outfall pipeline through a reserve, the prior consent of the Council, and the need for an appropriate easement.

Not applicable.

(q) The need for and extent of any financial contributions to achieve the above matters.

Not applicable.

(r) The need for a local purpose reserve to be set aside and vested in the Council as a site for any public utility required to be provided.

Not applicable.

In outline of the principle stormwater management guidelines, Technical Paper 10 (TP10) and GD 01 the following are outlined in support of the current situation.

TP-10
Chapter 1
1.1 Objectives of these guidelines
The primary objective of these guidelines is to outline and demonstrate the ARC's preferred design approach for structural stormwater management devices. Specifically, this includes design guidance for water quality and water quantity ponds, wetlands, filtration practices, infiltration practices, biofiltration practices and other practices that may be used.

1.3 Managing stormwater
Stormwater management aims to protect human and ecological values by preventing or mitigating the adverse effects of stormwater quality and quantity on the human and aquatic environment.

Chapter 8
8.3.2 Pre-treatment
The use of vegetative filters as a pre-treatment BMP to improve long term performance of infiltration practices cannot be stressed enough.

Stormwater Management Devices GD01
A1.2
The scope of this guideline document is confined to the management of stormwater, which is defined as: "Rainfall runoff from land, including constructed impervious areas such as roads, pavement, roofs and urban areas which may contain dissolved or entrained contaminants, and which is diverted and discharged to land and water."

A4.2 Designing to reflect mana whenua values (GD01)
Mauri is a concept recognised by mana whenua as the connection between spiritual, physical and temporal realms. Loosely translated as the life force or life essence which exists within all matter, mauri sits at the very core of sustainable design for mana whenua and Te Ao Māori – the Māori worldview.
A key concern to mana whenua is the effect on the mauri of water caused by pollution of a stream, river, estuary, catchment or harbour. This can be due to sediment entering waterways, loss of riparian margins and the loss of native habitat to support native flora and fauna.

B1.0 Design process for stormwater management devices
Stormwater management must be considered early in the overall design process to ensure the site meets the hydrologic needs of the post-development catchment. It is important that a comprehensive land planning assessment is done, taking into consideration the proposed development land use and the effects on the wider catchment, both upstream and downstream. This will ensure stormwater management is designed for, alongside all other aspects of the development.

In summary, the sites impermeable surface area is well within permitted activity standards, and the lay of the land has available various natural stormwater control mechanism that mimic natural process satisfying the guideline intent without need for further intervention.

CONCLUSION

Stormwater is managed at source and via natural drainage across vegetated ground, achieving low-impact outcomes without need for reticulation or modification to existing drainage. Established overland flow paths are maintained within individual lots, discharges remain within the site, and there is no evidence of scour or concentration points. No reliance is placed on adjoining properties, nor are effects imposed that would necessitate easements.

Impervious coverage across all lots remains within the permitted activity thresholds of the Far North District Plan and qualifies for existing use rights under section 10 of the RMA. On this basis, the subdivision is hydrologically neutral and is not expected to give rise to adverse environmental effects.

Micah Donaldson (***MNZIS***)
Registered Professional Surveyor

DONALDSONS
Land engineering surveyors & development planners

State Highway 10
centreline
edge line
edge line
power pole
existing drain
-1.8%
151.0
151.0
Proposed widening
(2 coat seal 15m²)
boundary
130m sight visibility
Proposed new
2 coat seal 70m²
3
DP 137921
existing entrance
edge metal
3.5m
3.5m
SEE CROSS SECTION
A'
1
DP 321263
1
DP 137921
31.0
1
DP 26697
Proposed widening
(2 coat seal 190m²)
A
50.0
FLUSH MEDIAN
ex culvert
Rocked side
Extend pipe 0.7m
Proposed Steel
Safety barrier
Curved TL3
Existing power pole w/transformer
(cross bar vertical clearance 6m
to road)
extend RCRRJ
culvert 1.5m
150.0
r 7.0
proposed Ø375mm
RCRRJ culvert 9m long
& mountable headwalls
(WW0450mount.6)
existing edge
0.7
widening
Power
pole
21.0
power
pole
ex culvert
(redundant)
6.0
easement boundary
boundary
r 7.0
proposed drain
2.5
15.0
2
DP 321263
OH power
2
DP 137921
boundary
Bamboo
hedging
3
DP 26697
2
DP 26697
R.o.W.
R.o.W.
Proposed widening
(2 coat seal 65m²)
25.0 taper to edgeline (1:10)
-2.2%
ex sign
ex edgeline
ex edgeline
top of bank
boundary
OH power
boundary
151.0
200m sight visibility
existing drain

Applicant : C Shaw
Title : NA827/294
Zone : Rural Production

0 2 4 6 8 10 20

DONALDSONS
REGISTERED LAND SURVEYORS

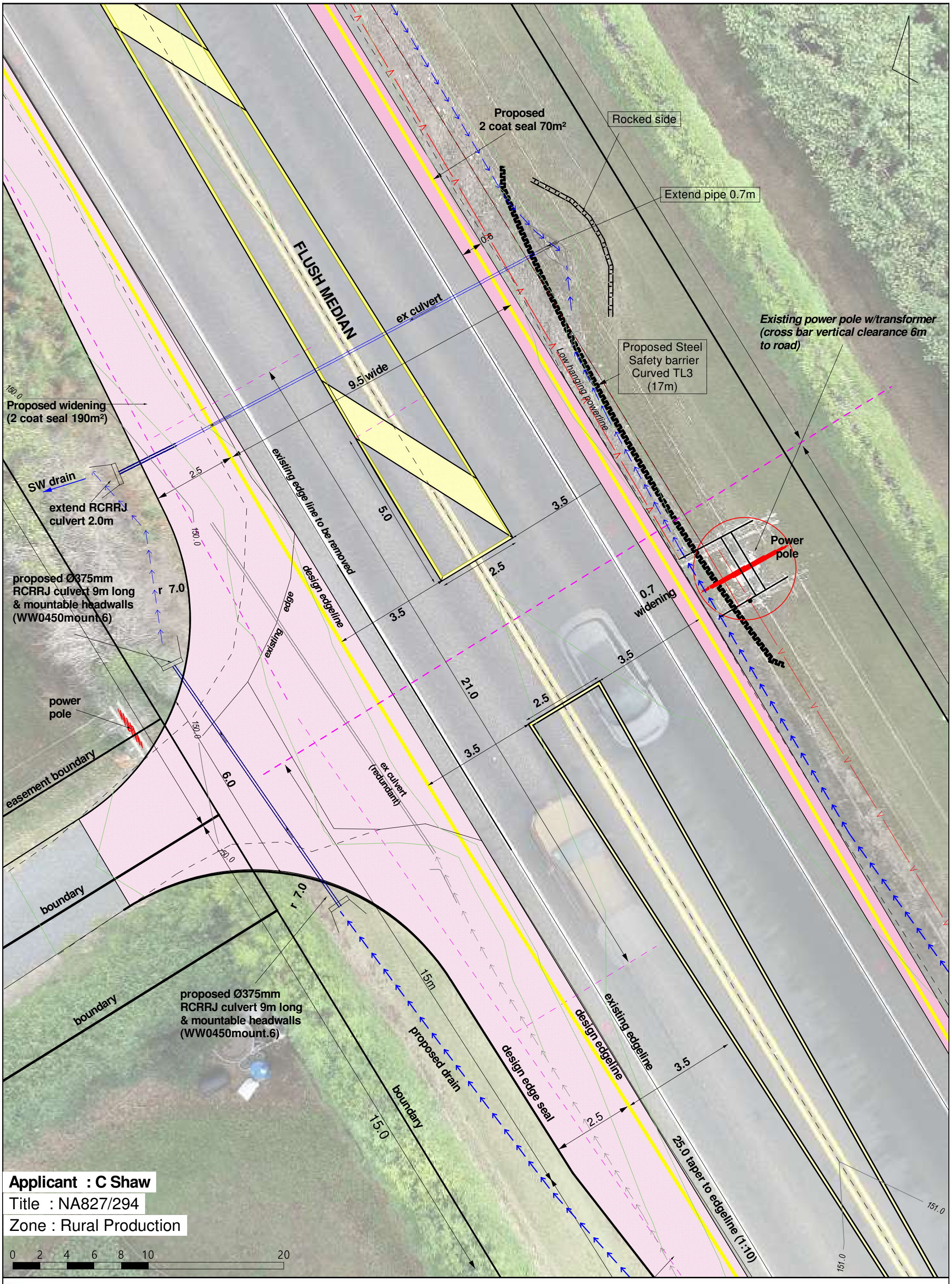
PROPOSED MODIFIED 'DIAGRAM D' ENTRANCE UPGRADE 2

Being a Proposed Subdivision of Lot 3 DP 26697

Note: Not for construction - For resource consent purposes only

Contour interval : 0.25m
Scale @ A3 : 1:250
Dir: 8233 Entrance Design2 - Detail

Date : August 2025 REF : 8233



DONALDSONS
REGISTERED LAND SURVEYORS

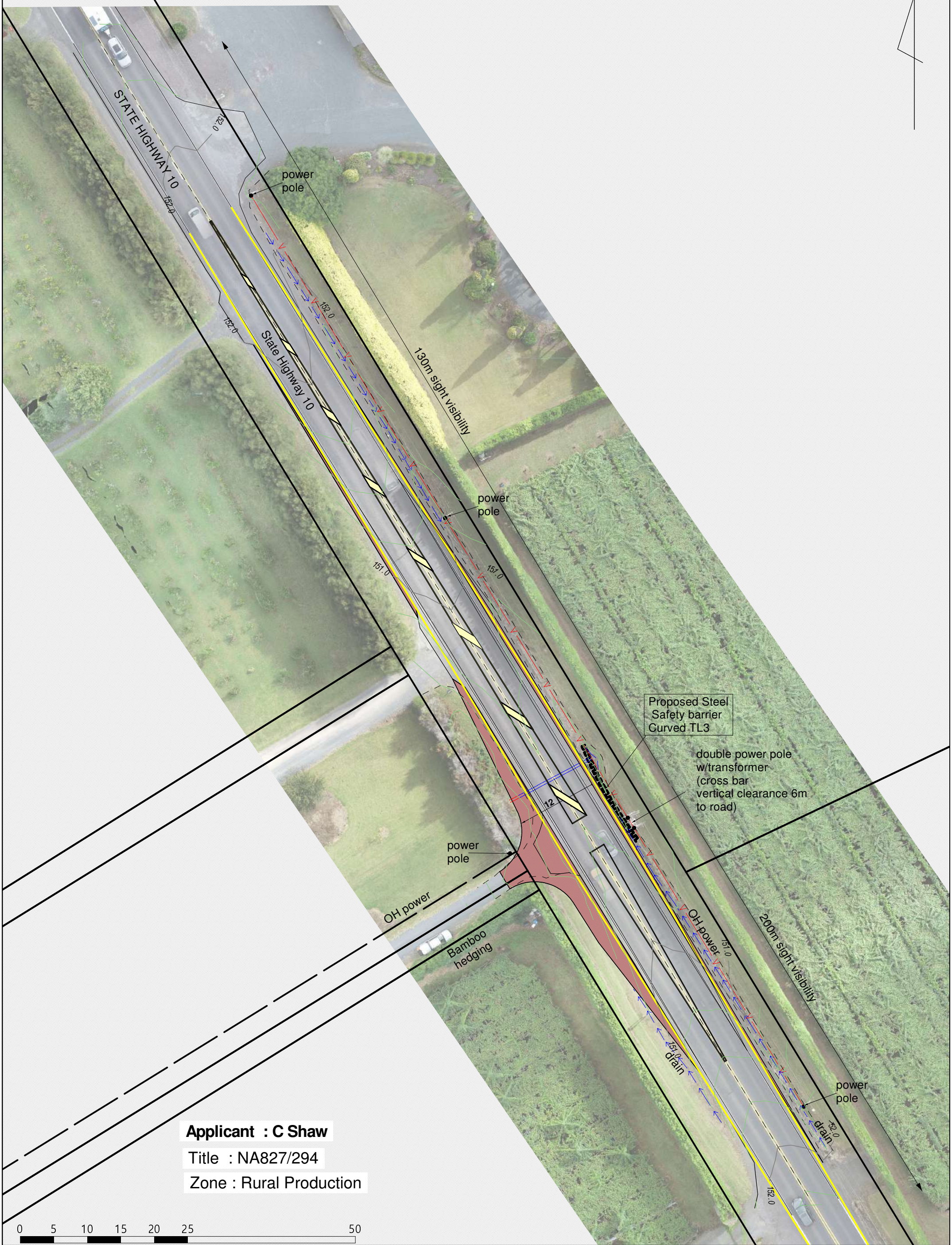
PROPOSED MODIFIED 'DIAGRAM D' ENTRANCE UPGRADE 2

Being a Proposed Subdivision of Lot 3 DP 26697

Note: This is not a construction plan - For Resource Consent Purposes

Contour interval : 0.25m
Scale @ A3 : 1:100
Dir: 8233 Entrance Design2 - Detail 2

Date : August 2025 REF : 8233



DONALDSONS
REGISTERED LAND SURVEYORS

PROPOSED MODIFIED 'DIAGRAM D' ENTRANCE UPGRADE 2

Being a Proposed Subdivision of Lot 3 DP 26697

Note: This is not a construction plan - For resource consent purposes only

Contour interval : 0.25m
Scale @ A3 : 1:500
Dir: 8233 Entrance Design2 - Overall
Date : May 2025 REF : 8233

EXISTING EASEMENTS

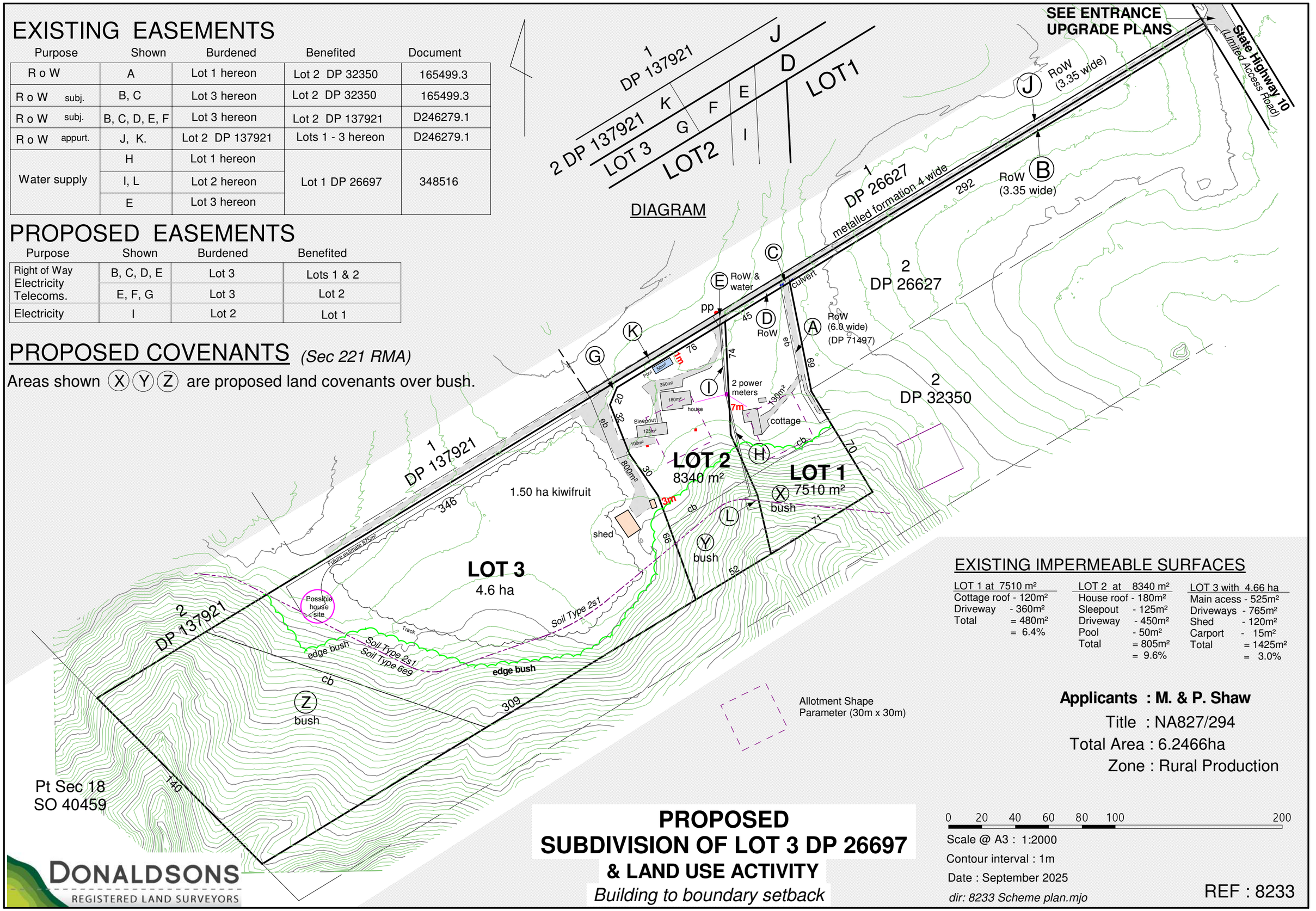
Purpose	Shown	Burdened	Benefited	Document
R o W	A	Lot 1 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C	Lot 3 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C, D, E, F	Lot 3 hereon	Lot 2 DP 137921	D246279.1
R o W appurt.	J, K.	Lot 2 DP 137921	Lots 1 - 3 hereon	D246279.1
Water supply	H	Lot 1 hereon	Lot 1 DP 26697	348516
	I, L	Lot 2 hereon		
	E	Lot 3 hereon		

PROPOSED EASEMENTS

Purpose	Shown	Burdened	Benefited
Right of Way Electricity Telecoms.	B, C, D, E	Lot 3	Lots 1 & 2
	E, F, G	Lot 3	Lot 2
Electricity	I	Lot 2	Lot 1

PROPOSED COVENANTS *(Sec 221 RMA)*

Areas shown (X) (Y) (Z) are proposed land covenants over bush.



EXISTING IMPERMEABLE SURFACES

LOT 1 at 7510 m²		LOT 2 at 8340 m²		LOT 3 with 4.66 ha	
Cottage roof	- 120m²	House roof	- 180m²	Main acess	- 525m²
Driveway	- 360m²	Sleepout	- 125m²	Driveways	- 765m²
Total	= 480m²	Driveway	- 450m²	Shed	- 120m²
	= 6.4%	Pool	- 50m²	Carport	- 15m²
		Total	= 805m²	Total	= 1425m²
			= 9.6%		= 3.0%

Applicants : M. & P. Shaw

Title : NA827/294

Total Area : 6.2466ha

Zone : Rural Production

PROPOSED SUBDIVISION OF LOT 3 DP 26697 & LAND USE ACTIVITY

Building to boundary setback

0 20 40 60 80 100 200

Scale @ A3 : 1:2000

Contour interval : 1m

Date : September 2025

dir: 8233 Scheme plan.mjo

REF : 8233

DONALDSONS
REGISTERED LAND SURVEYORS

Land / engineering Surveyors & development planners - 90 Kerikeri Road, Kerikeri, Northland, New Zealand - www.donaldsons.net.nz - em: info@donaldsons.net.nz - p:09 4079182

EXISTING EASEMENTS

Purpose	Shown	Burdened	Benefited	Document
R o W	A	Lot 1 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C	Lot 3 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C, D, E, F	Lot 3 hereon	Lot 2 DP 137921	D246279.1
R o W appurt.	J, K.	Lot 2 DP 137921	Lots 1 - 3 hereon	D246279.1
Water supply	H	Lot 1 hereon	Lot 1 DP 26697	348516
	I, L	Lot 2 hereon		
	E	Lot 3 hereon		

PROPOSED EASEMENTS

Purpose	Shown	Burdened	Benefited
Right of Way Electricity Telecoms.	B, C, D, E	Lot 3	Lots 1 & 2
	E, F, G	Lot 3	Lot 2
Electricity	I	Lot 2	Lot 1

PROPOSED COVENANTS *(Sec 221 RMA)*

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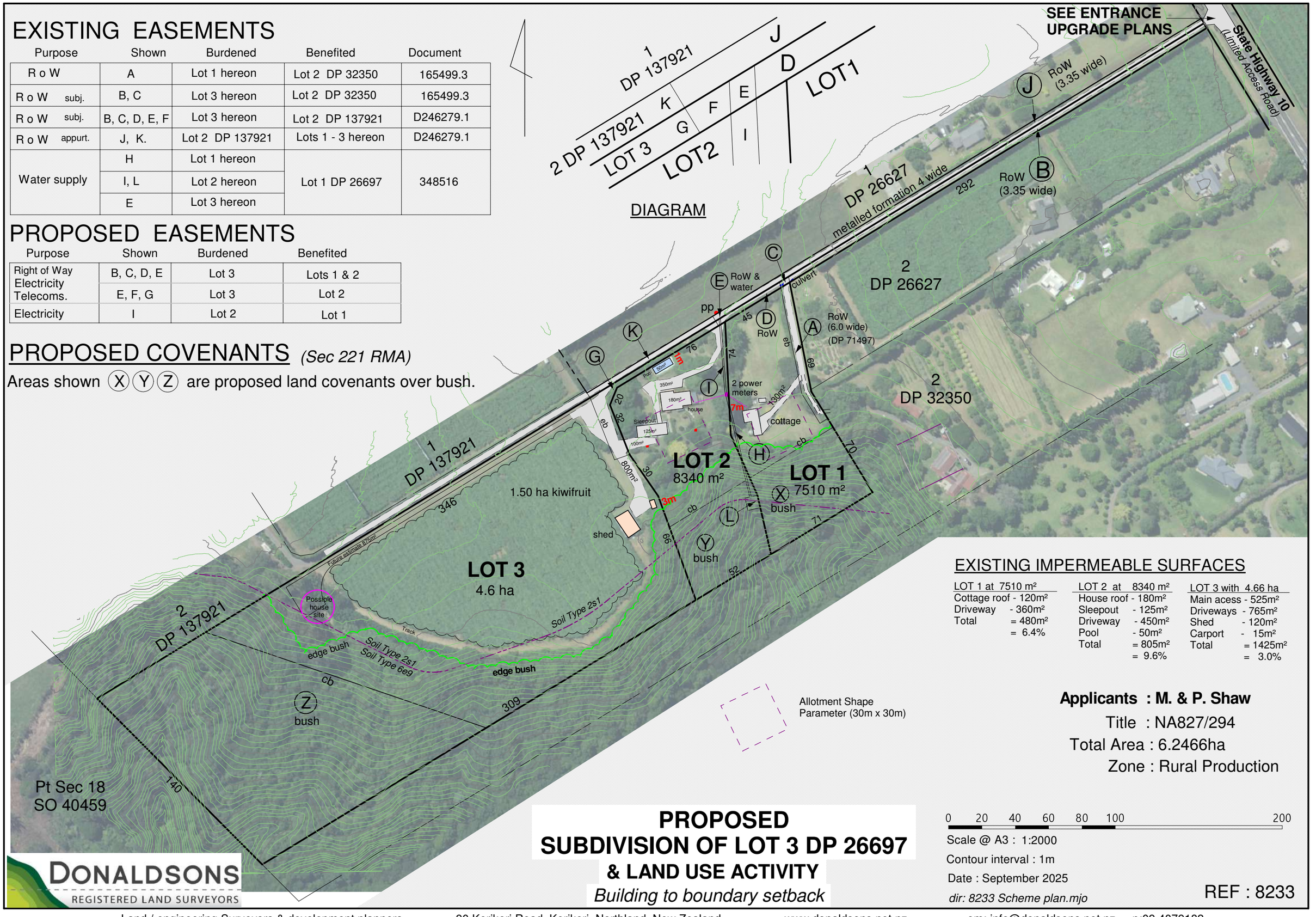

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Total	= 480m²	Driveway	- 450m²	Shed	- 120m²
	= 6.4%	Pool	- 50m²	Carport	- 15m²
		Total	= 805m²	Total	= 1425m²
			= 9.6%		= 3.0%

Applicants : M. & P. Shaw

Title : NA827/294

Total Area : 6.2466ha

Zone : Rural Production

PROPOSED SUBDIVISION OF LOT 3 DP 26697 & LAND USE ACTIVITY

Building to boundary setback

0 20 40 60 80 100 200

Scale @ A3 : 1:2000

Contour interval : 1m

Date : September 2025

dir: 8233 Scheme plan.mjo

REF : 8233

DONALDSONS
REGISTERED LAND SURVEYORS

Land / engineering Surveyors & development planners - 90 Kerikeri Road, Kerikeri, Northland, New Zealand - www.donaldsons.net.nz - em: info@donaldsons.net.nz - p:09 4079182

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

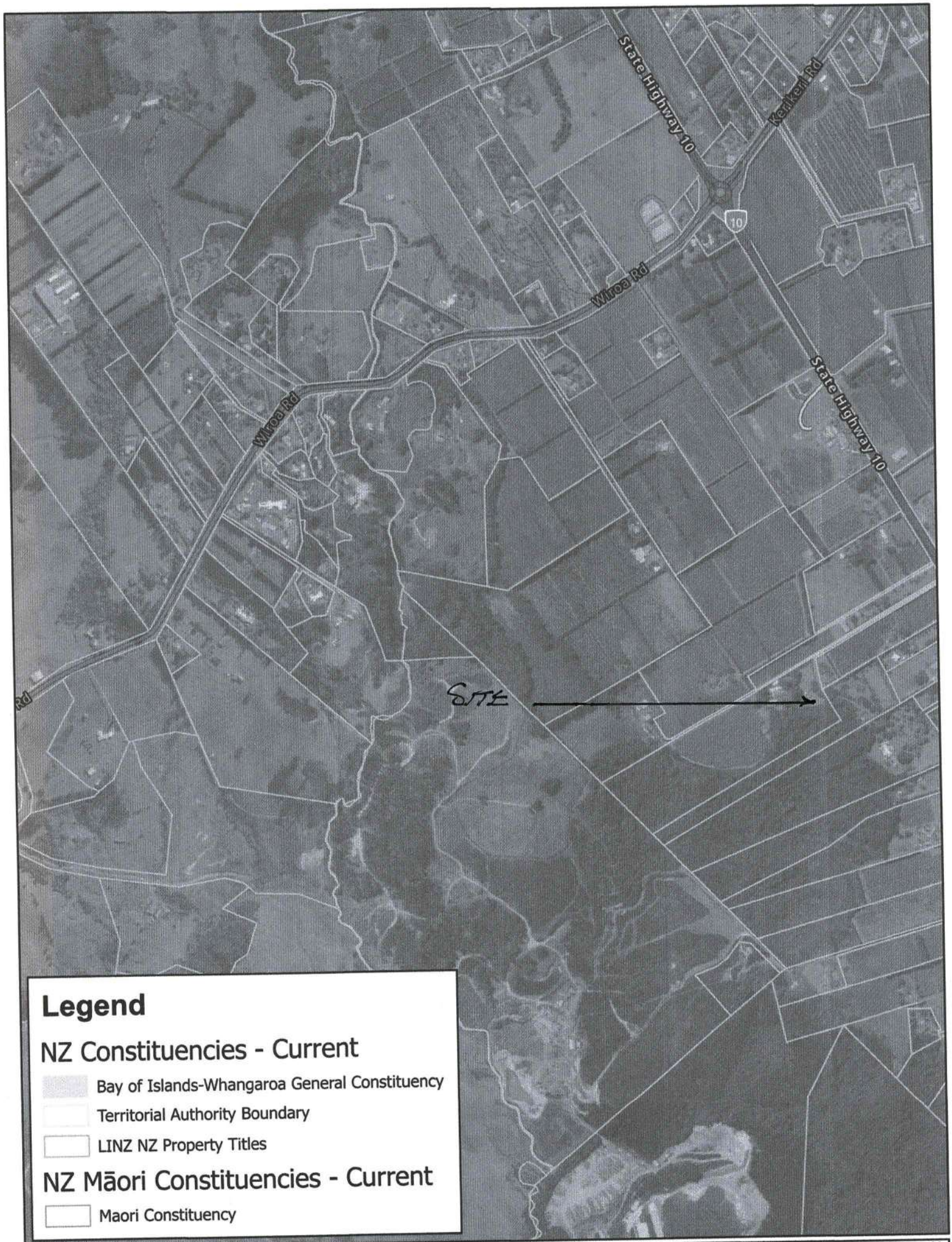
ON-SITE WASTE WATER DISPOSAL REPORT

CLIENT

PETER SHAW

SITE LOCATION

LOT 1, 1349B STATE HIGHWAY 10, KERIKERI



Legend

NZ Constituencies - Current

- Bay of Islands-Whangaroa General Constituency
- Territorial Authority Boundary
- LINZ NZ Property Titles

NZ Māori Constituencies - Current

- Maori Constituency

Northland REGIONAL COUNCIL

NRC Maps

Projection NZTM. Datum NZTM2000.
DISCLAIMER:
The Northland Regional Council cannot guarantee that the information shown is accurate and should not be reused in any manner without proper consultation with its owner.

N

0 0.04 0.09 0.17 0.26 Kilometers

September 16

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **NA827/294**

Land Registration District **North Auckland**

Date Issued 13 February 1945

Prior References
NA697/116

Estate Fee Simple

Area 6.2466 hectares more or less

Legal Description Lot 3 Deposited Plan 26697

Registered Owners
Peter Cameron Shaw, Margaret Leigh Shaw and J W Trustees Limited

---

Interests

Fencing Agreement in Transfer 144098

Fencing Agreement in Transfer 236226

Fencing Agreement in Transfer 294431

Subject to a water pipe line right over part created by Transfer 348516

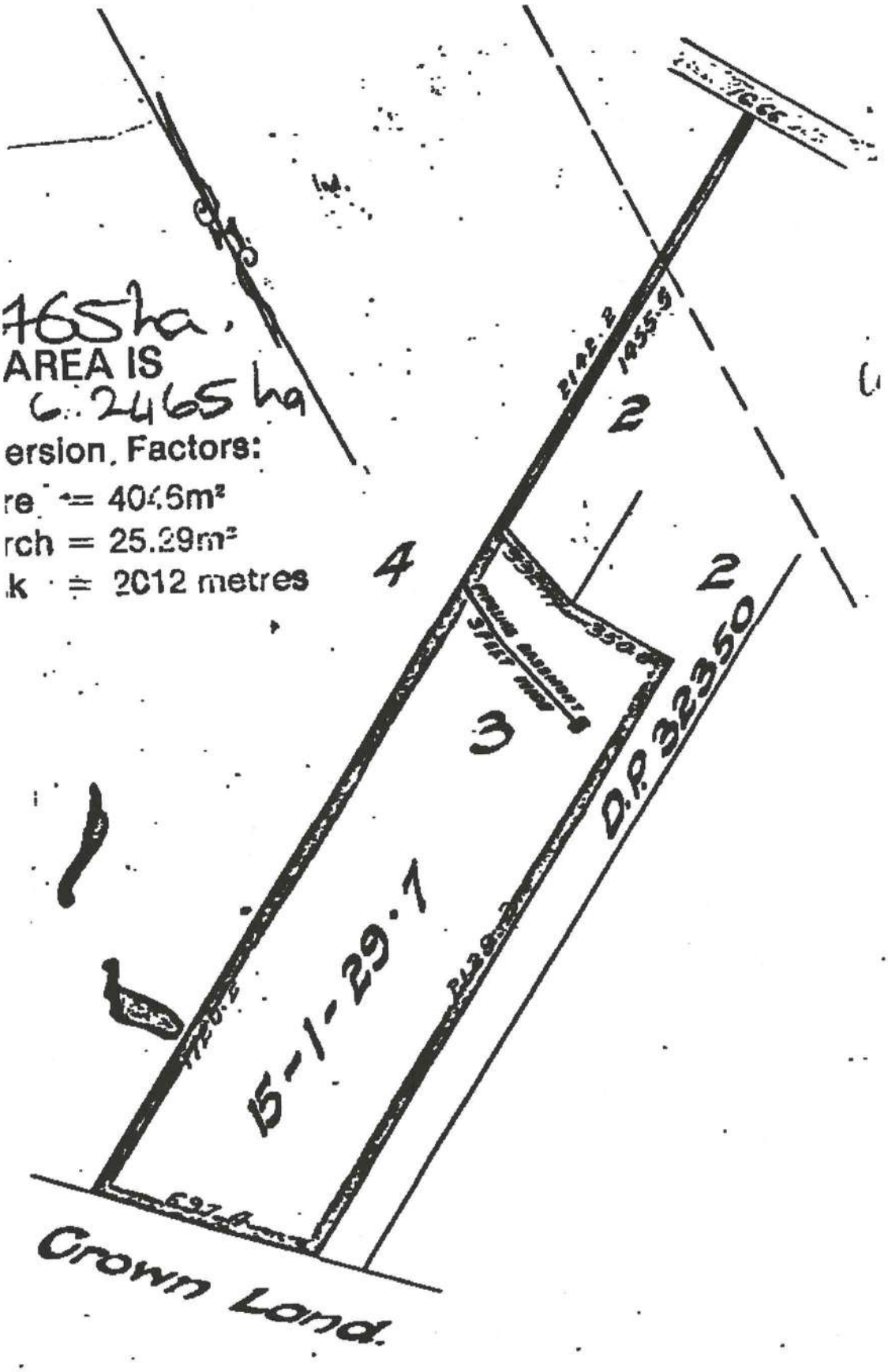
Subject to a right of way over part marked A on Plan 71497 created by Transfer 165499.3 - 9.8.1974 at 2.03 pm

573901.1 Gazette Notice declaring adjoining State Highway as limited access road - 31.1.1979 at 10.51 am

Appurtenant hereto is a right of way created by Transfer D246279.1

Subject to a right of way over part marked C on DP 186929 created by Transfer D246279.1

12410601.3 Mortgage to Westpac New Zealand Limited - 31.3.2022 at 2:17 pm


765ha.
AREA IS
6.2465 ha
ersion Factors:
re = 4046m²
rch = 25.29m²
k = 2012 metres
4
2
2
3
15-1-29.1
D.P 32350
Crown Land

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

22/09/25
The Senior Building Inspector
Far North District Council
Private Bag 752
Kaikohe

RE : ON-SITE WASTE WATER TREATMENT SYSTEM FOR LOT 1, 1349B SHW 10, KERIKERI

On the 16th of September an inspection of the above address was undertaken to assess the option for on-site waste water treatment and effluent disposal for a four bedroom house.
The existing sewer drain is going to a septic tank on proposed lot 2 therefore lot 1 will need a waste water system constructed inside its new proposed boundaries.
This Lot is 7510 sq M and generally faces south east.
A hole was drilled to determine soil profile and any ground water.
The soil was found to be topsoil of 0.25 M then a brown granular clay.
No ground water was encountered.
The soil is classed as Kerikeri friable Clay that is well drained.
The best waste water system for this site will be a secondary treatment waste water system with effluent disposal by dripperlines laid in the bush.
The contour of the site where the effluent field is to be constructed is 5-23 degrees to the south.
I have based the design for 6 people generating 180 L/P/D per person with a total of 1080 L per day.
Soil category 4 AS/NZS 1547 can expect to sustain a loading rate of 3.57mm per day per sq M therefore this design will require 303M of RAAM irrigation tubing with 3.5 litres per hour drippers at 1M spacing.
A shallow swale cut off drain is required to divert stormwater away from the effluent field.
The effluent field can be laid in the bush and must be pinned to the ground with a covering of mulch forming over time from the vegetation.
There is adequate area for the irrigation field and more than 100 percent reserve area.
All council setbacks can be achieved.
To provide long term satisfactory treatment and disposal of domestic waste water it is required that;
A) The secondary waste water treatment system be sized to cater for a minimum daily waste water flow of 1080L producing effluent having less than 30 mg/1 cubic of BOD5 and 45 mg/1 cubic TSS.
B) Effluent disposal is by RAAM trickle irrigation tubing or equivalent and 303 M length installed to the manufactures specifications.
C) The secondary treatment plant to be maintained to the manufacturers specifications.
D) Sink waste disposal units not be installed in the dwelling.
E) Kerikeri Drainage Ltd will not be liable for any drainage work done by others and all work must be done to the best professional and trade practises.

Yours Faithfully Steve Wood.

PRODUCER STATEMENT

DESIGN: ON-SITE EFFLUENT DISPOSAL SYSTEMS (T.P.58)

ISSUED BY: Steve Wood (approved qualified design professional)

TO: Peter Shaw (owner)

TO BE SUPPLIED TO: Far North District Council

PROPERTY LOCATION: 1349B SHW 10, Kerikeri

LOT 1 DP 26697 VALUATION NUMBER 00219/66600

TO PROVIDE : Design an on-site effluent disposal system in accordance with Technical paper 58 and provide a schedule to the owner for the systems maintenance.

THE DESIGN: Has been in accordance with G13 (Foul Water) G14 (Industrial Liquid Waste) B2 (durability 15 years) of the Building Regulations 1992.

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of $200,000.00, I BELIEVE ON REASONABLE GROUNDS that subject to:

(1) The site verification of the soil types.

(2) All proprietary products met the performance requirements.

The proposed design will met the relevant provisions of the Building Code and 8.15 of The Far North District Council Engineering Standards.

.....(Signature of approved design professional)

Certifying Drainlayer (Professional qualifications)

08189 (Licence Number or professional Registration number)

Address 51C Orangewood Lane

Kerikeri

Phone Number 094078062
Fax Number 094078062
Cell Phone 0274931597
Date 22/09/25

Note: This form is to accompany every application for a Building Consent incorporating a T.P.58. Approval as a design professional is at Councils discretion.

FAR NORTH DISTRICT COUNCIL

Appendix E

TP58

On-site Wastewater Disposal Site Evaluation Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	Peter Shaw			
Company Name				
	First Name(s)		Surname	
Property Owner Name(s)	Peter Cameron Margaret Leigh J W Trustees Ltd		Shaw Shaw	

Nature of Applicant*	Owner

*(*i.e. Owner, Leasee, Prospective Purchaser, Developer)*

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	Kerikeri Drainage			
Site Evaluator Name	Steve Wood			
Postal Address	51C Orangewood Lane			
	Kerikeri			
Phone Number	Business	094078062	Private	094078062
	Mobile	0274931597	Fax	094078062
Name of Contact Person	Steve Wood			
E-mail Address	wood123@xtra.co.nz			

3. Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes		No	tick	(Please tick)
If yes, give Reference Numbers and Description				
New secondary waste water system for existing cottage				

4. List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent No.

(eg. LandUse, Water Take, Subdivision, Earthworks Stormwater Consent)

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	1349B SHW 10, Kerikeri
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: Controlled: Discretionary:
Relevant Regional Rule(s) (Note 1)	
Total Property Area (m^2)	7510 sq M
Map Grid Reference of Property If Known	

2. Legal description of land (as shown on Certificate of Title)

Lot No.		DP No.		CT No.	
	Proposed lot 1		26697		NA827/294
Other (specify)					

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)

Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

Yes		No	tick	(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

Gently sloping site with plenty of top soil

1. **Has a Slope Stability Assessment been carried out on the property?**

Yes		No	tick	Please tick

If No, why not?

No sign of instability in adjacent properties.

If Yes, please give details of report (and if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:-	

2. Site Characteristics (See Table 1 attached):

Provide descriptive details below:
Performance of Adjacent Systems:
No known problems.
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
1600mm per year. 900mm winter / 700mm summer
Vegetation / Tree Cover:
Bush where the effluent field is to be constructed
Slope Shape: (Please provide diagrams)
Constant grade
Slope Angle:
Approximately 5-23 degrees.
Surface Water Drainage Characteristics:
Sheet flow
Flooding Potential: YES/NO
NO
If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
Surface Water Separation:
Surface water separation can be kept to council requirements.
Site Characteristics: or any other limitation influencing factors
Good topsoil depth

3. Site Geology — Check Rock Maps

Kerikeri Friable Clay. Well to moderately well drained.

Geological Map Reference Number	NZMS 290 SHEET P04/05

4. What Aspect(s) does the proposed disposal system face? (please tick)

North		West	
North-West		South-West	
North-East		South-East	
East	tick	South	

5. Site clearances,(Indicate on site plan where relevant)

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	Greater than 1.5 M	Check Council requirements
Surface water, rivers Creeks drains etc	Greater than 15 M	Greater than 15 M
Groundwater	Greater than 0.6 M	Greater than 0.6 M
Stands of Trees/Shrubs	NA	
Wells, water bores	None known	
Embankments/retaining walls	NA	
Buildings	Greater than 3 M	Greater than 3 M
Other (specify):		

PART D: Site Assessment - Subsoil Investigation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation, and Sn 5.2.2(a) Site Surface Evaluation and Sn 5.3 Subsurface Investigations)
Note: Underlined terms defined in Table 2, attached

1. Please identify the soil profile determination method:

Test Pit		(Depth_____m	No of Test Pits	
Bore Hole		(Depth 1.3 M m	No of Bore Holes	one
Other (specify):				

Soil Report attached?

Yes	tick	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	tick	Please tick

If yes, please specify the effect of the fill on wastewater disposal

3. percolation testing (mandatory and site specific for trenches in soil type 4 to 7)

Please specify the method
Constant Head Permeameter

Test Report Attached?	Yes	tick	No		Please tick

4. Are surface water interception/diversion drains required?

Yes	tick	No		Please tick

If yes, please show on site plan

4a Are subsurface drains required

If yes enter details

5. Please state the depth of the seasonal water table:

Winter	2	m	Measured		Estimated	tick
Summer	Greater than 2 M	m	Measured		Estimated	tick

6. Are there any potential storm water short circuit paths?

Yes		No	tick	Please tick

If the answer is yes, please explain how these have been addressed

7. Based on results of subsoil investigation above, please indicate the disposal field soil category *(Refer TP58 Table 5.1)*

Is Topsoil Present?	Yes	If so, Topsoil Depth?	0.25M	(m)

Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	tick
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Assessment of soil texture.
Observation of soakage test.
Checking soil maps.

PART E: Discharge Details

1. Water supply source for the property (please tick):

Rainwater (roof collection)	tick
Bore/well	
Public supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms	~~2 - 3 - 4~~			Four
Design Occupancy	Six			(Number of People)
Per capita Wastewater Production	~~140~~	~~160~~	180	(tick) (Litres per person per day)
Other - specify	~~200~~	~~220~~		
Total Daily Wastewater Production	1080			(litres per day)

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?	Yes		No	tick	(Please tick)
b) Water Recycling - what %?	%			tick	(Please tick)

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage

Dual flush toilet.
No garbage disposal unit

4. Is Daily Wastewater Discharge Volume more than 2000 litres:

Yes		(Please tick)
No	tick	(Please tick)

Note if answer to the above is yes, an N.R.C wastewater discharge permit may be required

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	7510	M
Total Daily Wastewater Production	1080	(Litres per day)(from above)
Lot Area to Discharge Ratio	6.95	

7. Does this proposal comply with the Northland Regional Council Gross Lot Area to Discharge Ratio of greater than 3?

Yes	tick	No		Please tick

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	tick	(Please tick)

PART F: Primary Treatment *(Refer TP58 Section 7.2)*

1. Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre, duel chamber explain why not

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
	Total Capacity	

2. Type of Septic Tank Outlet Filter to be installed?

PART G: Secondary and Tertiary Treatment

(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

1. Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment			
Home aeration plant	tick		
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other		Specify	

PART H: Land Disposal Method

(Refer TP58 Section 8)

1. Please indicate the proposed loading method: (please tick)

Gravity	
Dosing Siphon	
Pump	tick

2.High water level alarm to be installed in pump chambers

Yes	~~no~~

If not to be installed, explain why

3. If a pump is being used, please provide the following information:

Total Design Head	To manufacturers recommendation	(m)
Pump Chamber Volume	160	(Litres)
Emergency Storage Volume	1000	(Litres)

4. Please identify the type(s) of land disposal method proposed for this site: (please tick)
(Refer TP58 Sections 9 and 10)

Surface Dripper Irrigation	tick		
Sub-surface Dripper irrigation			
Standard Trench			
Deep Trench			
Mound			
Evapo-transpiration Beds			
Other		Specify	

5. Please identify the loading rate you propose for the option selected in Part H, Section 4 above, stating the reasons for selecting this loading rate:

Loading Rate	3.57		(Litres/m2/day)
Disposal Area	Design	303	(m2)
	reserve	303	(m2)

Explanation *(Refer TP58 Sections 9 and 10)*

Loading rate adopted for secondary treated effluent for category 4 soil

6. What is the available reserve wastewater disposal area *(Refer TP58 Table 5.3)*

Reserve Disposal Area (m²)	303 sq M
Percentage of Primary Disposal Area (%)	100 percent

7. Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:

Description and Dimensions of Disposal Field:

A minimum of 303 M of RAMM dripperline with 3.5 L/HR emitters at 1 M spacing and 1 M line separation spacing.
Dripperline to be laid in the bush and pinned with a mulch covering over time by the vegetation

Plan Attached?	Yes	tick	No		(Please tick)

If not, explain why not

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

1. Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes		No	tick	(Please tick)

Name of Suppliers

Econo Treat Waste Water System or similar

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?

(Refer TP58 section 5. Ensure all issues concerning potential effects addressed)

Yes	tick	No		(Please tick)

If Yes, list and explain possible effects

PART K: Is Your Application Complete?

1. In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	YES
Include a *Location Plan* and *Site Plan* (with Scale Bars)	YES
Attach an Assessment of Environmental Effects (AEE)	YES

1. Declaration

I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	Steve Wood	Signature	
Position	TP58 writer	Date	22/09/25

Note
Any alteration to the site plan or design after approval will result in non compliance.

Job No.

ON-SITE EFFLUENT DISPOSAL
SSESSMENT OF ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

Assessment of Environmental Effects

Impact on Surface Water (incl. flood times) VERY MINOR

Impact on Ground Water VERY MINOR

Impact on Soils MINOR

Impact on Amenity Values MINOR

Public Health Issues:

Should access to the disposal area be discouraged? YES

Will odour effects be greater than usual? NO

Will noise effects be greater than usual? NO

Mitigation Measures

Has conservative approach been taken in choosing system design capacity? YES

Is system design robust (cope with fluctuations of load, climate)? YES

Is level of treatment high? SECONDARY WASTE WATER TREATENT

Protection against failure storage, alarms? YES

Is hydraulic loading rate conservative? YES

Is distribution area protected from hydraulic overload (interception drains)? YES

Will soil type enhance treatment? YES

Are desired separation distances attainable? (to surface water, groundwater, bores) YES

Is the reserve area adequate? YES.100 PERCENT

LOT 1

Client:
Job:
Location:
Augerhole No.:
Drilling Method:

REF:
Logger:
Date:
Page:
Checked:

PERCOLATION TEST -GRAPH SHEET

Client: P Shaw
Job:
Location: 1349B SHW10, Kerikeri, lot 1

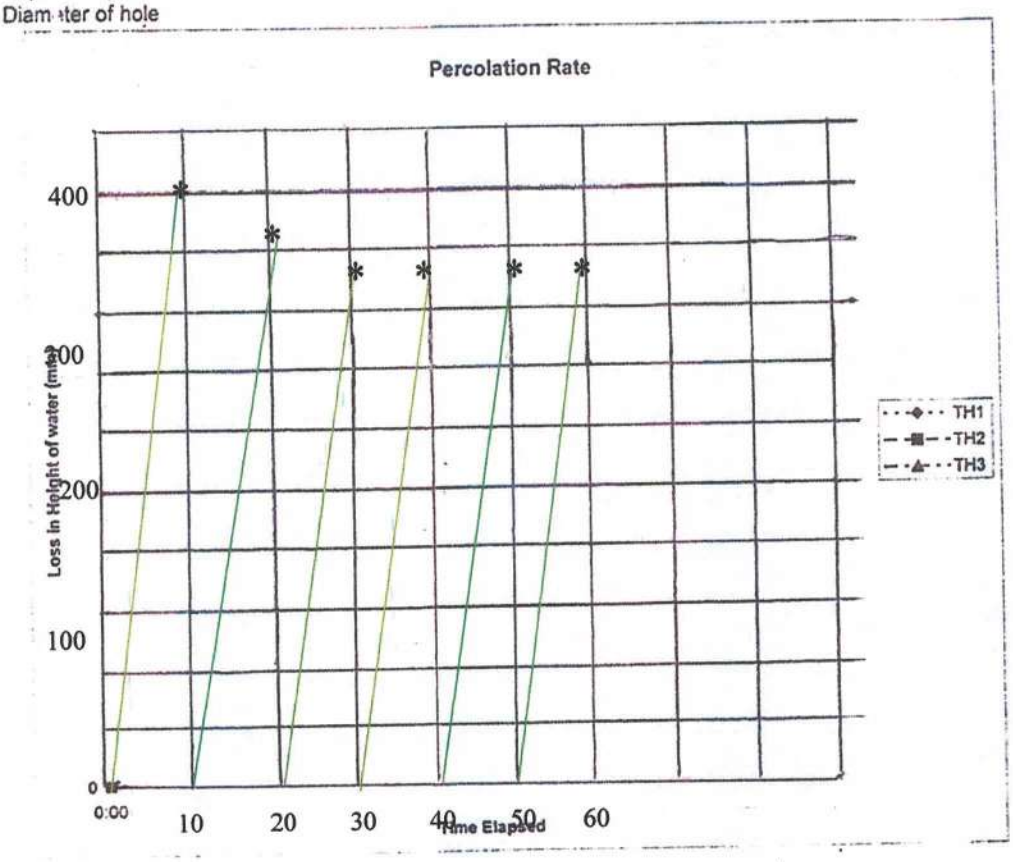
Ref.:
Report No.:
Page:

Tested by: STEVE WOOD
Date:

Presoaking conditions: 30 MIN
Weather conditions prior: Wet

Time	Time elapsed	Loss in height of water TH1	TH2	TH3	TH4		Percolation Rate (mm/hr) TH1	TH2	TH3	TH4
	10 MIN	400					2400			
	10 MIN	375					2250			
	10MIN	350					2100			
	10 MIN	350					2100			
	10 MIN	350					2100			
	10 MIN	350					2100			

Depth of hole
Depth of topsoil
Diameter of hole



LOT 1

Depth (m)	Legend	Soil Symbol	Soil Description	Water Level	Vane Shear Strength maximum/residual corrected kPa	Soil Sensitivity	Sample Number	Other Tests
0 - -0.2			0.25M TOPSOIL					
-0.5			BROWN GRANULAR CLAY					
-1 - -1.2								
-1.5 - -1.8								
-2 - -2.5								
-3 - -3.3								

Remarks:

No ground water encountered.

Topsoil		Sand	
Fill		Gravel	
Clay		Peat	
Silt		Rock	

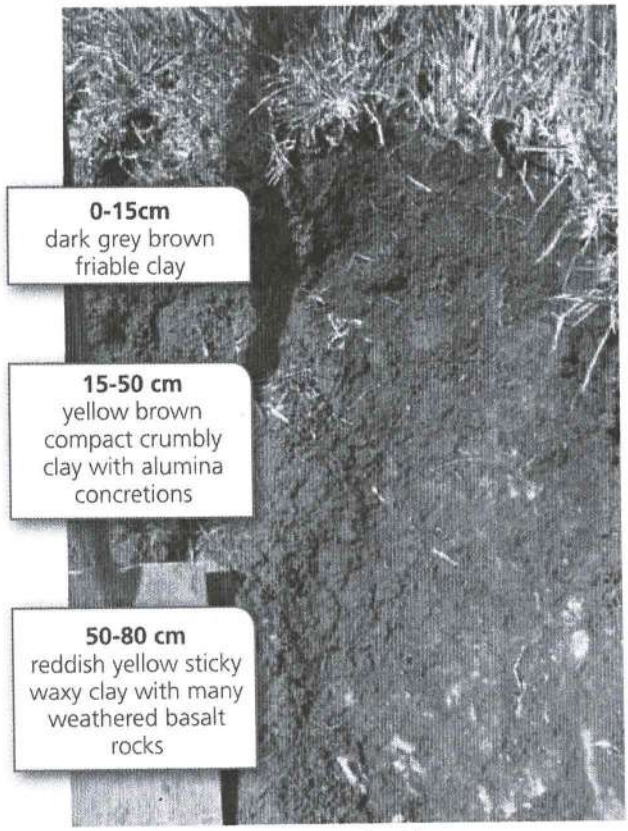
Mature basalt volcanic soils

Soil types in this group

- Kerikeri friable clay – (KE)
- Kerikeri friable clay with large boulders – (KEb)
- Matarau friable clay – (MC, MCH*)
- Matarau friable clay with large boulders - (MCb)
- Ruatangata friable clay - (RT)
- Ruatangata friable clay with large boulders – (RTb)
- Tikipunga friable clay – (TG)
- Waiotu friable clay - (YO,YOH*)
- Waiotu friable clay with large boulders – (YOb)

This fact sheet uses NZ Soil Bureau map series soil type names and abbreviations.

The H* denotes the hill variant of this soil type, which occurs on slopes over 20° and has a shallower profile.



Waiotu friable clay (YO, YOH) soil profile

Features of mature basalt volcanic soils

- These soils formed on basalt lava low in silica and rich in iron and aluminium
- They are part of the Kiripaka soil suite
- Also known as brown loams they appear around the edges of the older lava flows and on steeper slopes
- They are classic volcanic soils suitable to both orchards and market gardening
- All mature basalt volcanic soils are generally free draining, requiring few drainage structure improvements
- Some soils have boulders created as a result of long periods of erosion on the edges of old basalt flows, causing them to fracture and become rounded due to weathering processes
- These soils are moderately to strongly weathered and are moderately to strongly leached

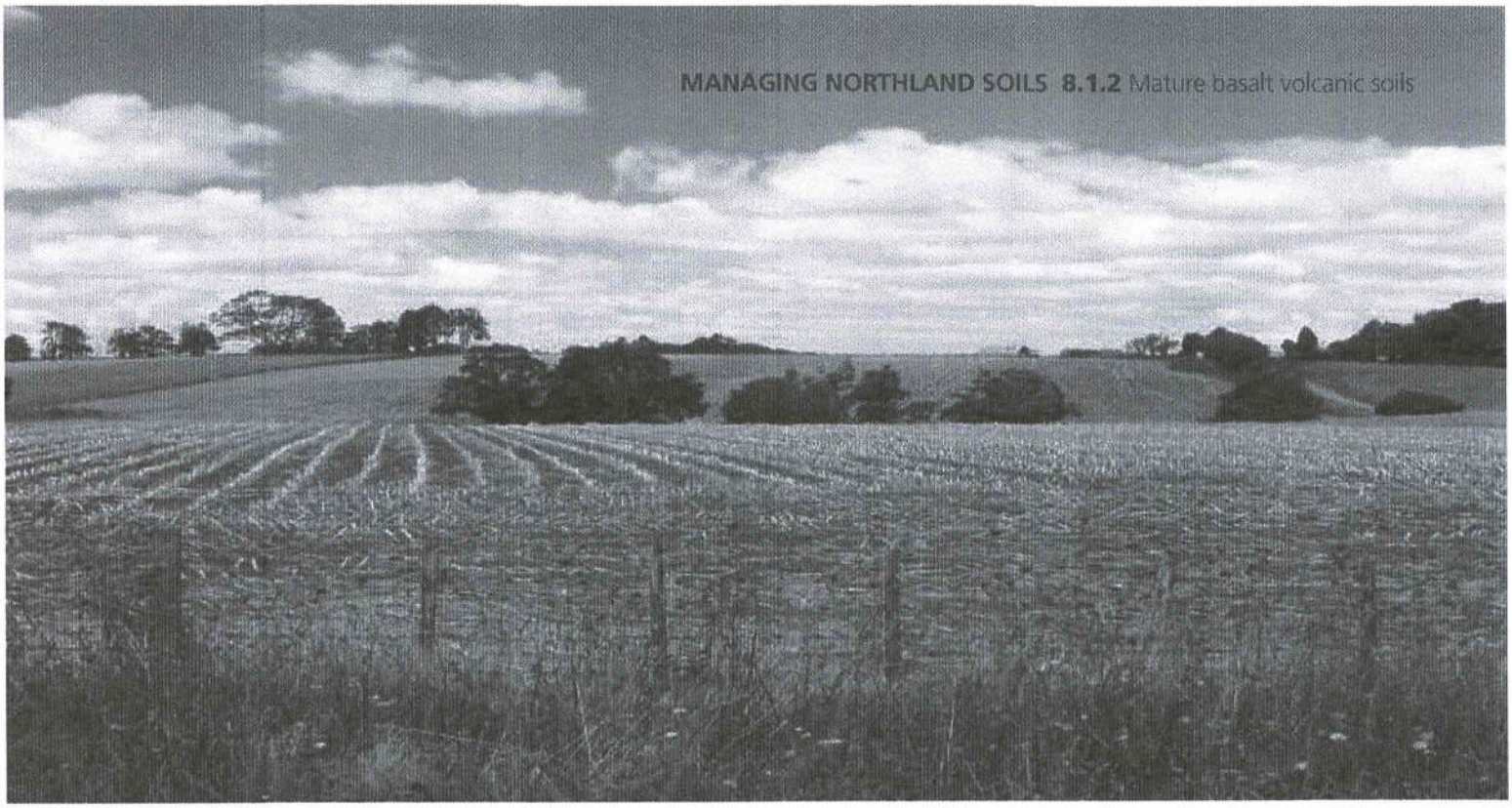
Northland REGIONAL COUNCIL

Structure and drainage management

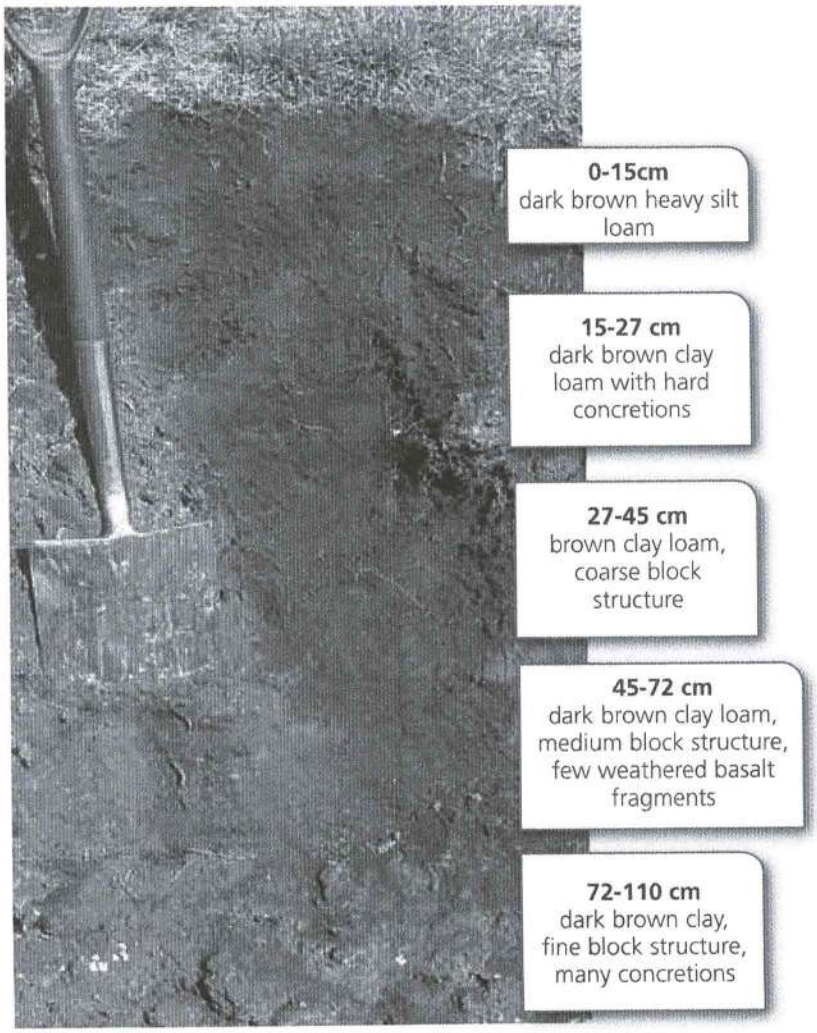
Issues	Management tips
These soils are friable and granular (nutty) on top (horizon A) with an accumulation of clay at depth They have a clay texture, but have only low plasticity, making them 'brittle' and easily destroyed by over-cultivation or compaction when dry	Year-round cultivation is possible where soils are free draining To avoid compaction, soils should be allowed to dry after rain for a few days before running heavy equipment over them
Cultivation pans and surface compaction are common problems	Shallow ripping shatters cultivation pans/surface compaction and aerates soils, maintaining structure and reducing fungal root diseases
Topsoils can become a fine powdery surface layer known as a 'dust mulch' that seals the surface, repelling water and increasing runoff	Careful crop-pasture-crop rotations retain topsoil structure
Because they are generally free draining, they are drought prone Subsoil conditions restrict plant root depth which increases drought susceptibility However, in some places drying of the topsoils is so marked in summer that high intensity summer rainstorms can remove large amounts of sediment-bound phosphate into the waterways	Well managed grazing will protect soil surfaces from drying and consequently improve soil permeability of water Retaining good crop or pasture cover is important

Nutrient management

Soil type	Nutrient status	Management strategies
All mature basalt volcanic soils	Friable, but infertile topsoils sit over subsoils containing ironstone, aluminium and manganese nodules; at low pH, free iron and aluminium fix phosphate and other elements and create a hostile environment for plant roots	Cropping and grazing rotations should be aimed at building organic matter High concentrations of aluminium and iron can be managed with adequate applications of lime and phosphate
All mature basalt volcanic soils	Applied nitrogen, potassium and sulphur leach out of soils rapidly	Effluent and/or fertiliser should be applied little and often to reduce risk of leaching losses



Waiotu (YO) and Ruatangata (RT) soils near Ōkaihau



Kerikeri friable clay (KE) soil profile

Northland REGIONAL COUNCIL

Erosion control

Erosion risks	Soil type	Specific problems	Possible solutions
Shallow slipping	Rolling hill country soil variants	Slipping is often associated with seepage areas at the heads of gullies Exposed subsoils are difficult to revegetate because of toxic levels of free iron, manganese and aluminium Slips occur because of more pronounced leaching and extremely friable granular topsoil	Manage water discharge and flow from higher elevations Plant and cultivate on the contour For longer slopes use shallow grassed water diversion channels at intervals down the slope
Sheet erosion	All mature basalt volcanic soils	Friable or granular topsoil can be washed away in sheets, losing organic matter and damaging crops Runoff from higher ground increases the problem, as does the formation of water-repellent 'dust mulch' surface sealing from compaction or over-cultivation	Using sediment traps in frequently or continuously cropped areas is recommended Exclusion of stock from revegetated areas is essential for recovery Open plant poplars where groundwater is surfacing to control slipping
Rill erosion	All mature basalt volcanic soils	Water runoff from compacted land above runs downslope, gouging channels or rills into topsoils Rills become deeper over time Bare, cropped soils are especially susceptible to rill erosion Exposed subsoils are very hard to revegetate and will continue to erode from rills to gullies	Fence bush enclaves in gully heads to allow ground cover to regenerate and hold soils in place Mulching exposed subsoils with organic material and applying lime prior to planting will assist revegetation where erosion has occurred

Drainage classes

Soil symbol	Full name	Drainage class
KIRIPAKA SUITE Basement rock: volcanic basalt lava flows		
MCb	Matarau friable clay with large boulders	5⇌4 - Somewhat excessively to well drained
TG	Tikipunga friable clay	5⇌1 - Somewhat excessively to poorly drained
YOb	Waiotu friable clay with large boulders	4 - Well drained
MC, MCH	Matarau friable clay	4 - Well drained
KE	Kerikeri friable clay	4 - Well drained
KEb	Kerikeri friable clay with large boulders	4 - Well drained
YO, YOH	Waiotu friable clay	4⇌3 - Well to moderately drained
RT	Ruatangata friable clay	4⇌3 - Well to moderately drained
RTb	Ruatangata friable clay with large boulders	4⇌3 - Well to moderately drained

Northland soil factsheet series

- Northland's climate, topography, historic vegetation and mixed geology have combined to form a complex pattern of soils across the region. There are over 320 soil types in Northland. Other regions in New Zealand average only 20 soil types per region.
- The information in this fact sheet is based on a 1:50,000 mapping scale. Therefore, it is not specific to individual farms or properties. However, it may help you to understand general features and management options for recent alluvial soils.
- Knowing your soils' capabilities and limitations is the key to sustainable production in Northland. Northland Regional Council (NRC) land management advisors are available to work with landowners to provide free soil conservation advice, plans and maps specific to your property.
- Regular soil tests are recommended. If you are concerned about your soil structure or health, the Visual Soil Assessment test could be useful. Contact the land management advisors at Northland Regional Council for more information.
- Further background information about the processes that have formed these soils can be found here: **www.nrc.govt.nz/soilfactsheets**

EXISTING EASEMENTS

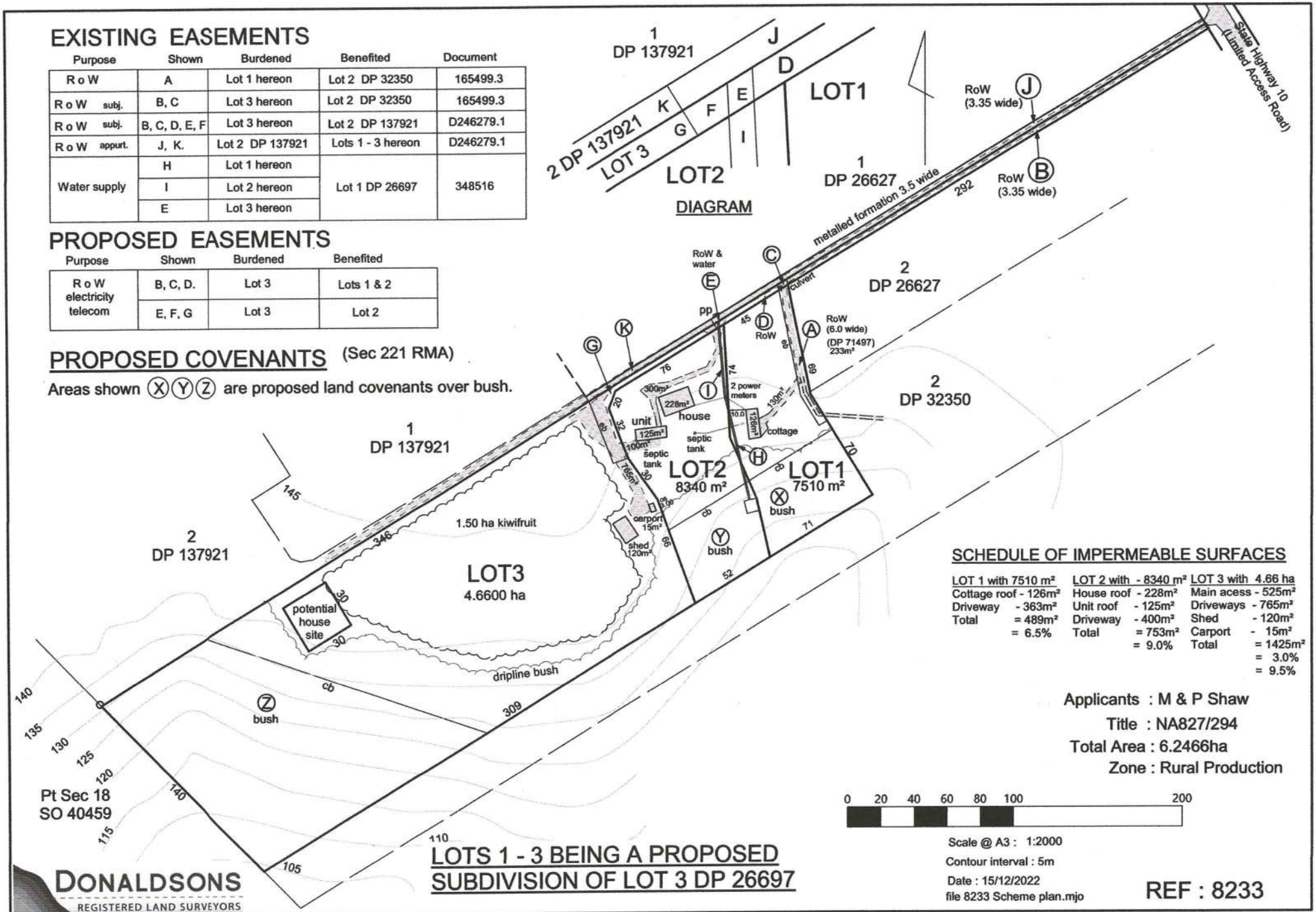
Purpose	Shown	Burdened	Benefited	Document
R o W	A	Lot 1 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C	Lot 3 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C, D, E, F	Lot 3 hereon	Lot 2 DP 137921	D246279.1
R o W appurt.	J, K.	Lot 2 DP 137921	Lots 1 - 3 hereon	D246279.1
Water supply	H	Lot 1 hereon	Lot 1 DP 26697	348516
	I	Lot 2 hereon		
	E	Lot 3 hereon		

PROPOSED EASEMENTS

Purpose	Shown	Burdened	Benefited
R o W electricity telecom	B, C, D.	Lot 3	Lots 1 & 2
	E, F, G	Lot 3	Lot 2

PROPOSED COVENANTS (Sec 221 RMA)

Areas shown (X)(Y)(Z) are proposed land covenants over bush.



SCHEDULE OF IMPERMEABLE SURFACES

LOT 1 with 7510 m²		LOT 2 with - 8340 m²		LOT 3 with 4.66 ha	
Cottage roof	- 126m²	House roof	- 228m²	Main acess	- 525m²
Driveway	- 363m²	Unit roof	- 125m²	Driveways	- 765m²
Total	= 489m²	Driveway	- 400m²	Shed	- 120m²
	= 6.5%	Total	= 753m²	Carport	- 15m²
			= 9.0%	Total	= 1425m²
					= 3.0%
					= 9.5%

Applicants : M & P Shaw

Title : NA827/294

Total Area : 6.2466ha

Zone : Rural Production

0 20 40 60 80 100 200

Scale @ A3 : 1:2000

Contour interval : 5m

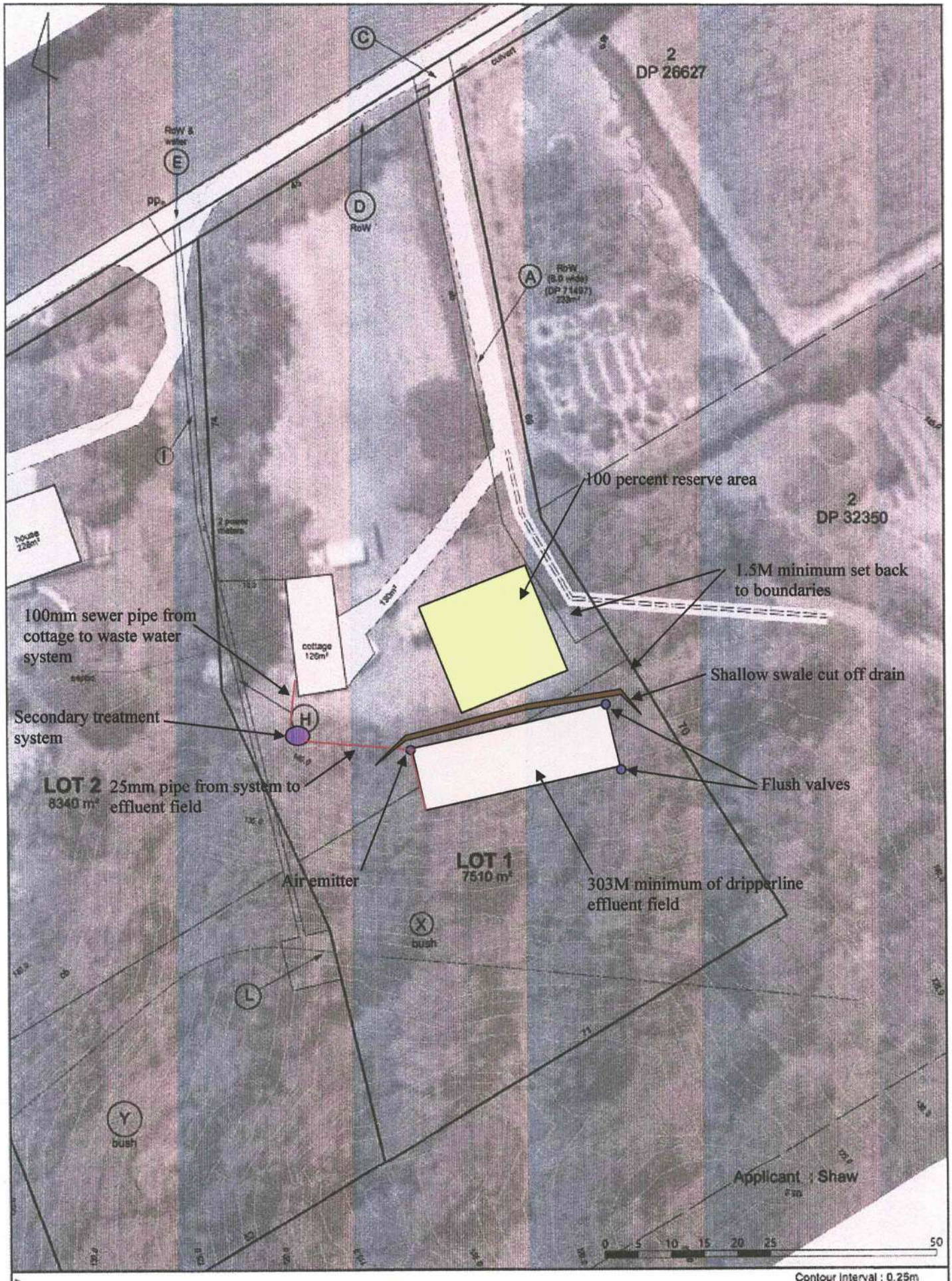
Date : 15/12/2022

file 8233 Scheme plan.mjo

REF : 8233

DONALDSONS
REGISTERED LAND SURVEYORS

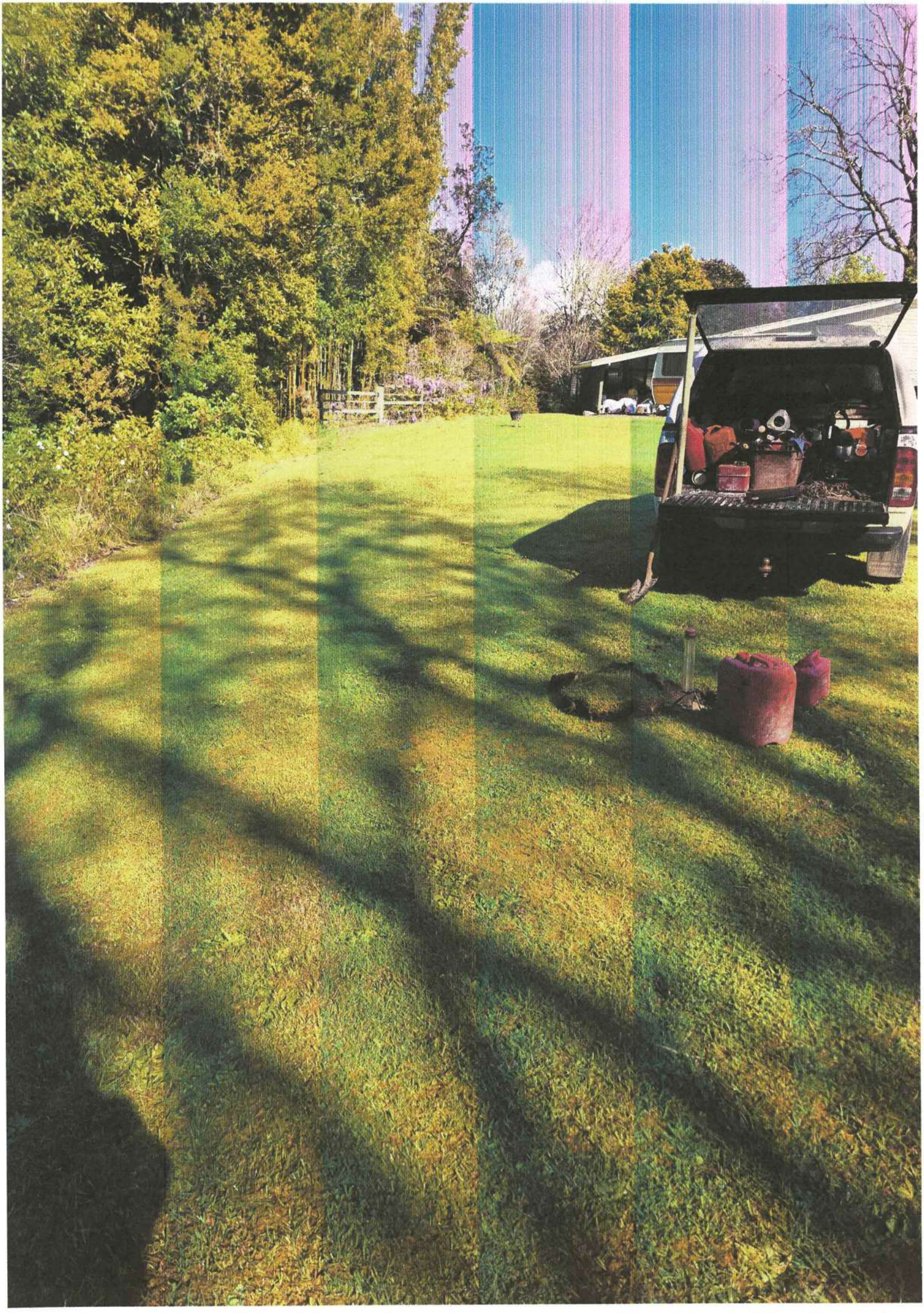
Land / engineering Surveyors & development planners - 90 Kerikeri Road, Kerikeri, Northland, New Zealand - www.donaldsons.net.nz - em: info@donaldsons.net.nz - p:09 4079182

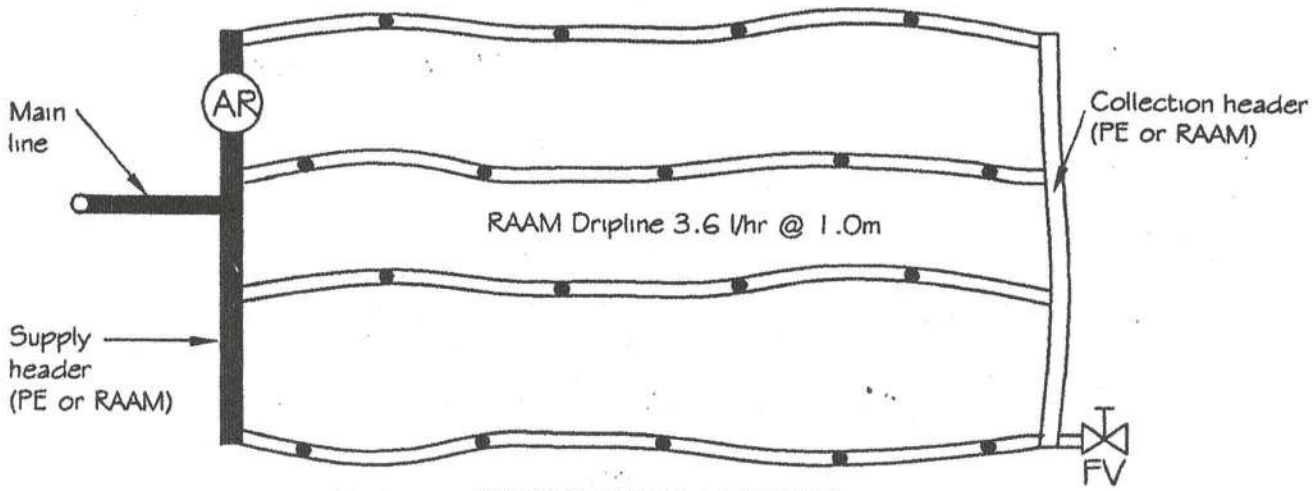


DONALDSONS
REGISTERED LAND SURVEYORS

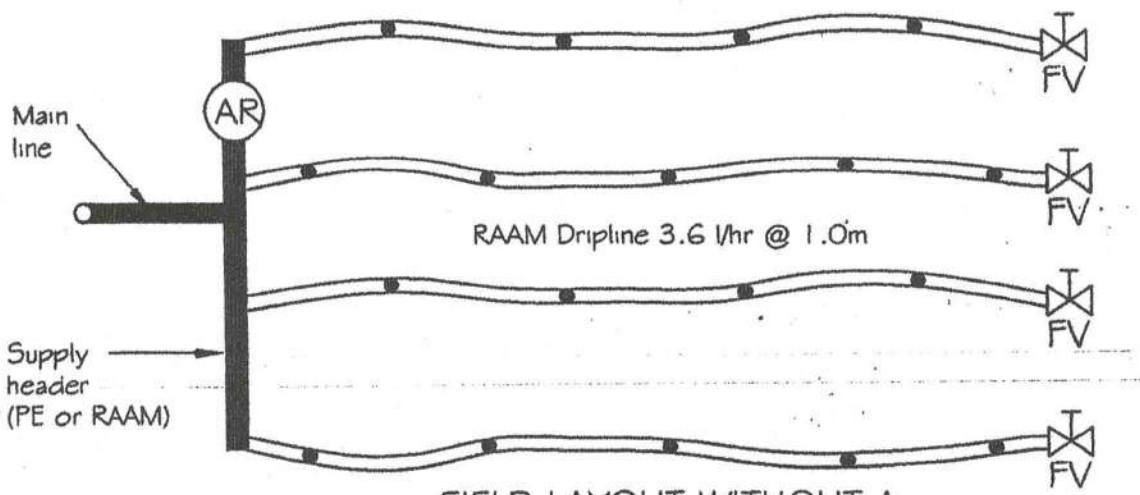
LOT 1 DETAIL

Contour Interval : 0.25m
Scale @ A3 : 1:500
Date : 17/09/2025
REF : 8233





BASIC GRID LAYOUT



FIELD LAYOUT WITHOUT A COLLECTION HEADER PIPE

AR — Air / Vacuum Release Valve

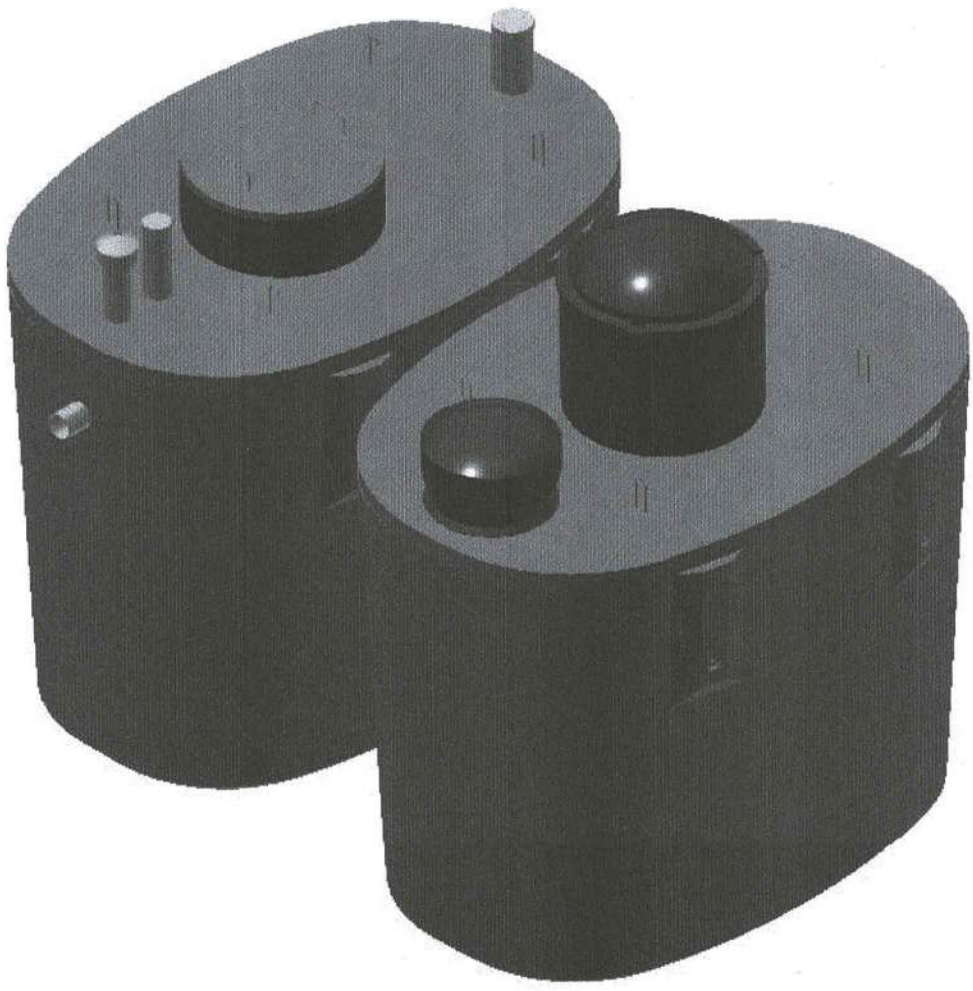
FV — Flushing Valve

	ON-SITE EFFLUENT DISPOSAL TYPICAL FIELD LAYOUTS Trickle Irrigation	Ref:	Sheet:
		Scale: NTS	Draw
		Date	Check

econo-treat

Econotreat VBB-C-2200 Treatment System

System Specifications & Installation Instructions



The Treatment Process

Primary Chamber / Tank

Influent enters the chamber via the source whereby scum and solids capable of settling are separated from the raw influent. Primary treated effluent flows through a transfer port to the aeration tank. This primary tank will also act as a storage chamber for sludge returned from the Clarification Chamber.

After primary settling, the sewage passes through a Reln outlet filter.

Aeration Chamber

Water enters from the Primary Chamber. Air is introduced into this chamber via an air blower to create an environment for aerobic bacteria and other helpful organisms to consume the organic matter present. The aeration tank is designed in a manner to help prevent short circuiting of the wastewater to ensure extended aeration. Media is present in the tank to support the growth of bacteria.

Clarification Chamber

The Clarification chamber is essentially a quiescent zone where suspended particles/solids are settled out of the water. These particles are returned to the Primary chambers via a sludge return which aids in further biological reduction, denitrification and providing a constant food supply rich in microbes supporting the system through periods of limited flows.

System Performance

The Econotreat VBB-C-2200 system is capable of treating up to 2200L per day peak flow to an advanced secondary standard. The effluent is suitable for UV disinfection where required.

Benchmark Ratings
The **Waipapa Tanks Econo-Treat® VBB C-2200-2** system **achieved** the following effluent quality ratings:

Indicator Parameters	Median	Std Dev.	Rating	Rating System				
				A+	A	B	C	D
BOD (g/m^3)	3.4	1.5	A+	<5	<10	<20	<30	≥30
TSS (g/m^3)	4.98	3.49	A+	<5	<10	<20	<30	≥30
Total nitrogen TN (g/m^3)	13.6	1.3	A	<5	<15	<25	<30	≥30
Ammonia Nitrogen NH4-N (g/m^3)	1.1	1.8	A	<1	<5	<10	<20	≥20
Total phosphorus TP (g/m^3)	4.2	0.5	B	<1	<2	<5	<7	≥7
Faecal Coliforms FC (cfu/100mL)	11,200	50,196	B-	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	1.8	-	B	0	<1	<2	<5	≥5

ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

New Zealand's Leaders in Advanced Secondary Treatment Systems

Compliance Requirements

All Econotreat Treatment Systems meet the requirements of the NZ Building Code G13-VM4.

Section 9 of AS/NZS 1546.1:2008 state that tanks constructed to these Standards will meet the requirements of the Code for Clauses B1 and B2, structure and durability.

Compliance with Section 9 of AS/NZS 1546.1:2008 and also Clauses G13.3.4 relating to on-site treatment and disposal systems and G14.3.1 and 14.3.2 relating to the control of foul water as an industrial waste.

Tank Specifications

Tanks are made of 50mpa Fiber Reinforced Concrete, which is suitable material for wastewater treatment containment meeting all the requirements of Section 4.3.3 of AS/NZS 1547:2012. These tanks have an expected lifespan of 50 years.

Dual Chamber Septic Tank
5200L Nominal Capacity
2500mm Long
1700mm Wide
1975mm High
- 3100kg

Aeration Tank
5200L Nominal Capacity
2500mm Long
1700mm Wide
1975mm High
- 2900kg

System Information
500L Pump Chamber
2120L Emergency Storage

Installation Location and Certification

These tanks are not designed for vehicle loads and shall be located no closer than 2m to a driveway, road frontage or a building. If for any reason the tank is located where vehicle traffic may drive over the tank or approach closer than 2m, or where it may be trampled on by farm stock then the tank should be protected by a concrete slab designed to support these loads. Surface water must also be diverted from flowing into the installation.

Installation must be certified to AS/NZS 1547:2012, the certificate to be issued and held by the regulatory authority.

High Water Table Installations

All tanks have been engineered and designed for maximum strength, in accordance with the NZC 3604. Clauses B1 and B2 for structure and durability, to withstand any hydraulic pressures, both lateral and uplift, created by high water table conditions.

In high water table installations, it is important to fill the tanks with water. This removes the hydraulic uplift and simplifies the installation. In extremely high-water tables, a concrete foot can be added to the tank during manufacture. Waterflow must be made aware of this early on in vies of supplying a tank that is fit for purpose.

Plumbing Pipes and Fittings

All internal plumbing is done with PVC pipes with appropriate connections according to AS/NZS 1260 and AS/NZS 4130.

Backfill and Bedding

Place and bed to NZBC G13/AS2, using compacted granular metal, in layers not exceeding 100mm.

Electrical

Where a pump is required on a flat site electrical connection must be installed according to AS/NZS 3000 and the control and alarm system must be in a weatherproof housing located in a readily visible position.

Warranty

WATERFLOW NZ LTD warrants that the Econotreat System will be free from defects in material and workmanship for the following periods of time from the date of installation as set out in the following conditions:

1. Concrete Tank 15yrs
2. Roto-Molded Tanks 15yrs
3. Nitto Blower 3yrs
4. Irrigation Pumps 2yrs
5. Warranty of Operation covers the performance of the Econotreat System as connected to the effluent inflow for which they are designed, and has been installed to the criteria as set out in the relative installation instructions and procedures, and has an assigned Service/Maintenance contract in place with Waterflow NZ Ltd or it's appointed agent/s.

Warranty excludes defects due to:

A) Failure to use the system in accordance with owner's manual.

B) A force majeure event outside the reasonable control of WATERFLOW NZ LTD such as (but not limited to) earthquake, fire, flood, soil subsidence, ground water table variations or plumbing fault.

C) Modifications to surrounding landscape contour after installation

D) The actions of a third party

E) The system required to bear loads (either hydraulic or biological) greater than that for which it was designed

F) Any modifications or repairs undertaken without the consent of WATERFLOW NZ LTD

G) Failure, where applicable, to fence and plant disposal field.

1st June 2014
Dean Hoyle
Managing Director

ECONOTREAT VBB-C-2200

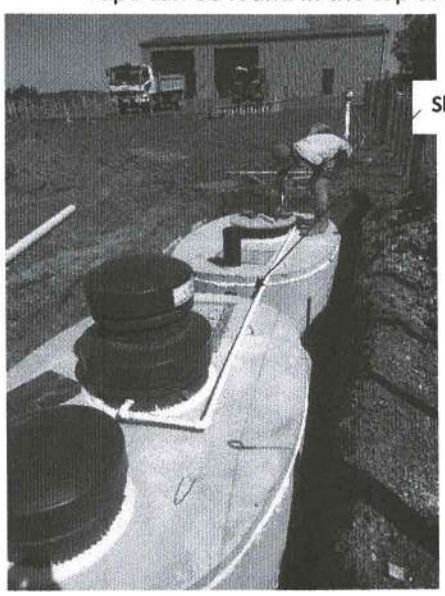
System Specification & Installation Instructions

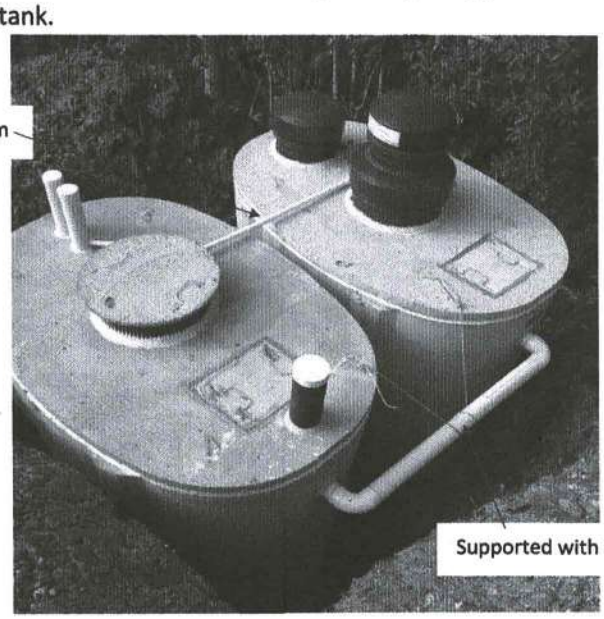
Econotreat VBB-C-2200 Installation Instructions

The Econotreat system is to be installed or signed off by a registered Drain layer to the design specified by Waterflow NZ Ltd.

The following installation instructions and procedures followed correctly will ensure System performance is not compromised in any way.

1. Excavate two 3m x 2m level platforms at an appropriate depth to ensure adequate fall for inlet pipe from the source. This has to be installed on virgin ground. The two platforms are ideally on the same level and next to each other, either side-by-side or end-on-end.
2. Lay 100mm of bedding metal on platform and place the Septic and Aeration tanks next to each other. As close as practically possible to minimize the connection distance between the tanks.
3. Connect the two tanks with 100mm PVC. If the tanks are side-by-side the connection will need supporting. This is done by tying it back to the wire on the lids with a length of rope supplied. The rope can be found in the top of the treatment tank.





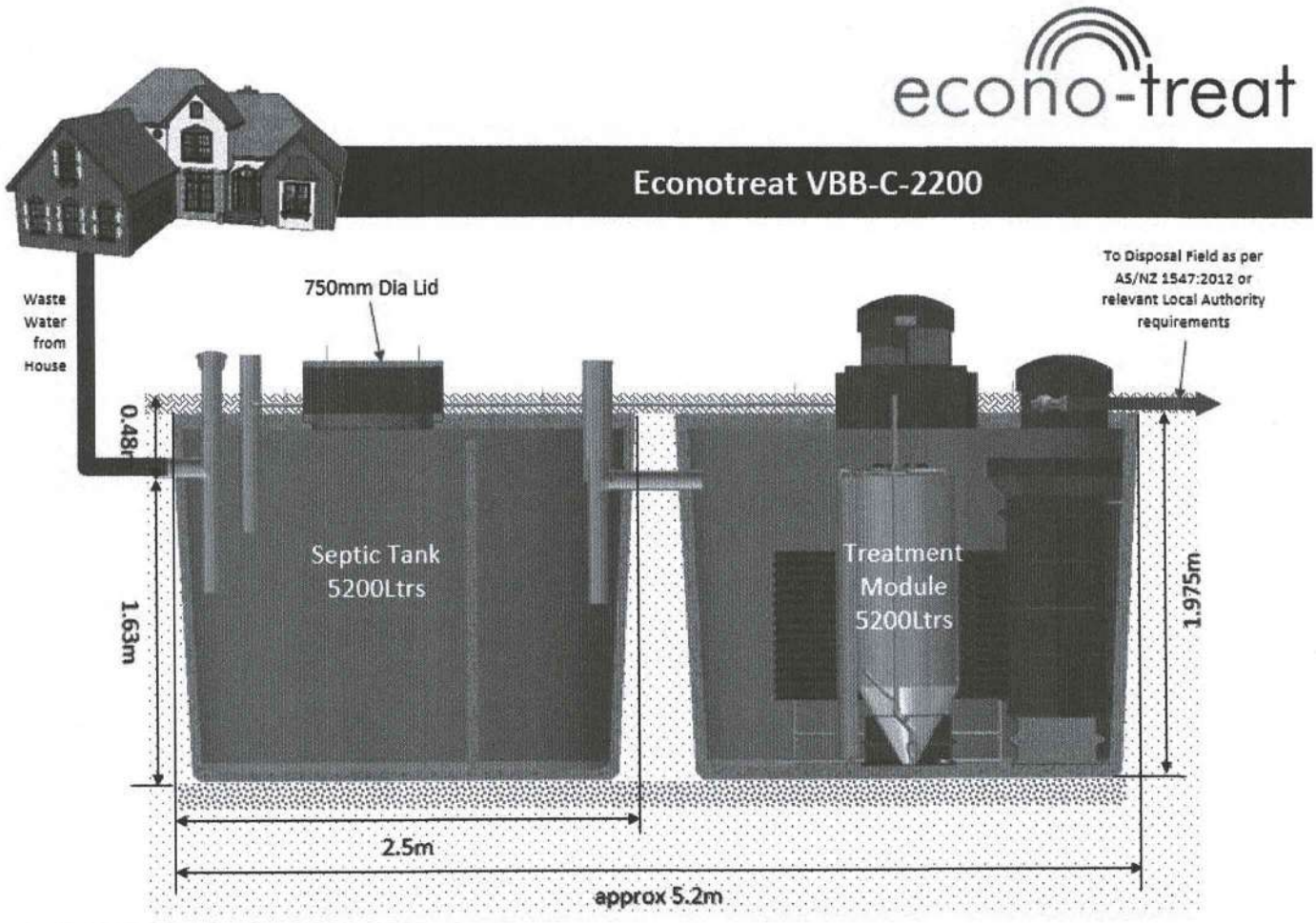
4. Next connect the sludge return. This is a 25mm PVC pipe that come out of the central riser on the treatment tank. This must be plumbed back to the second 100mm PVC at the start of the septic tank. It is important that this pipe is falling slightly or at minimum flat.
5. Trench from Dose Chamber outlet to disposal field and lay the 25mm alkathene feed line.
6. Take a minimum of 3 photos at this point to showing connections and back fill, to ensure correct installation for sign off.
7. Back fill around tanks. Using spoil from the excavation is fine, be aware that this will settle over time though.

Caution: System must be protected from excessive super imposed loads both lateral and top loads. E.g. loads from vehicular traffic. There needs to be at least 2m of clearance maintained around system.

ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

Econotreat VBB-C-2200 Schematic Drawings

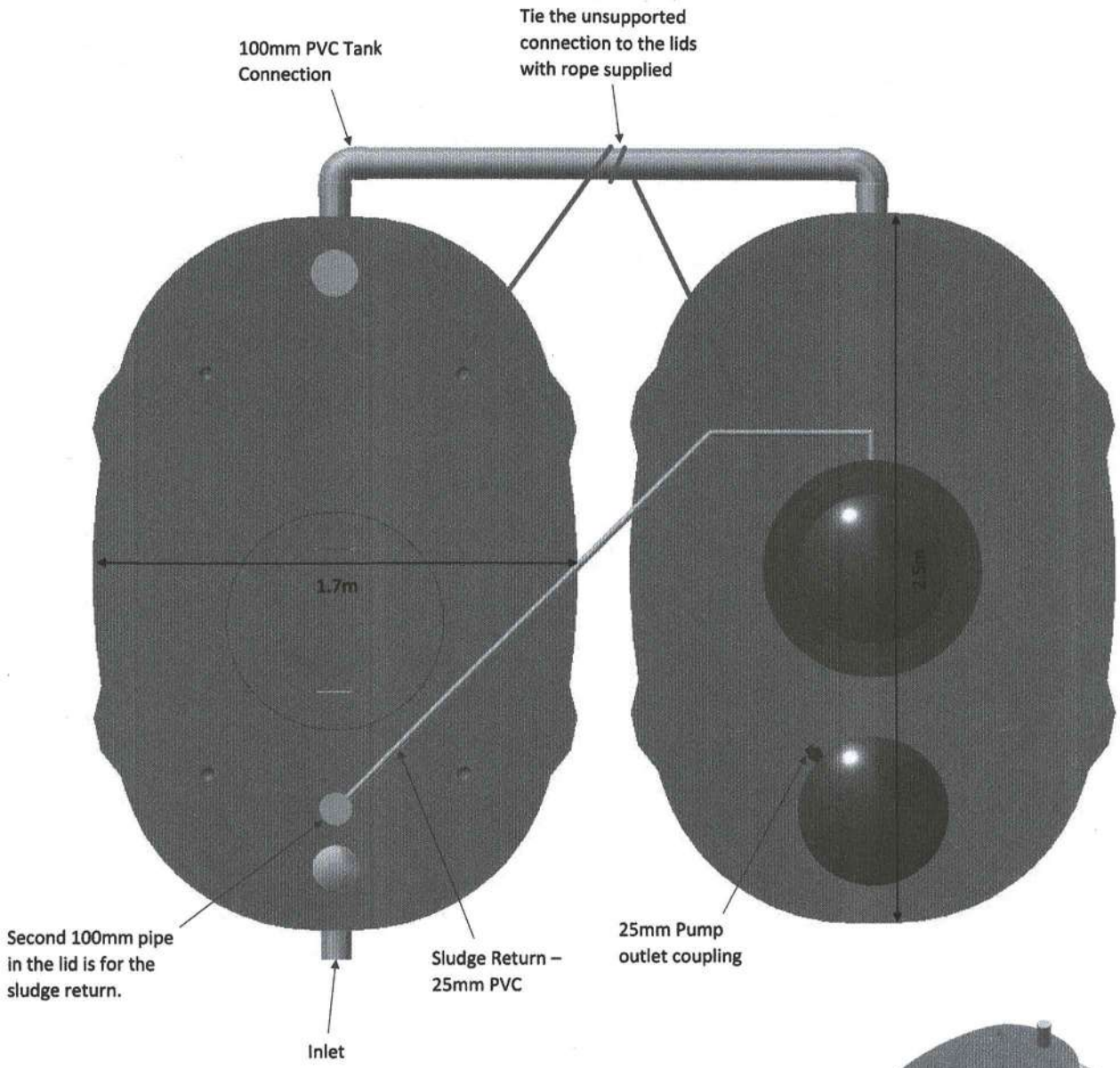


ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

Econotreat VBB-C-2200 Schematic Drawings

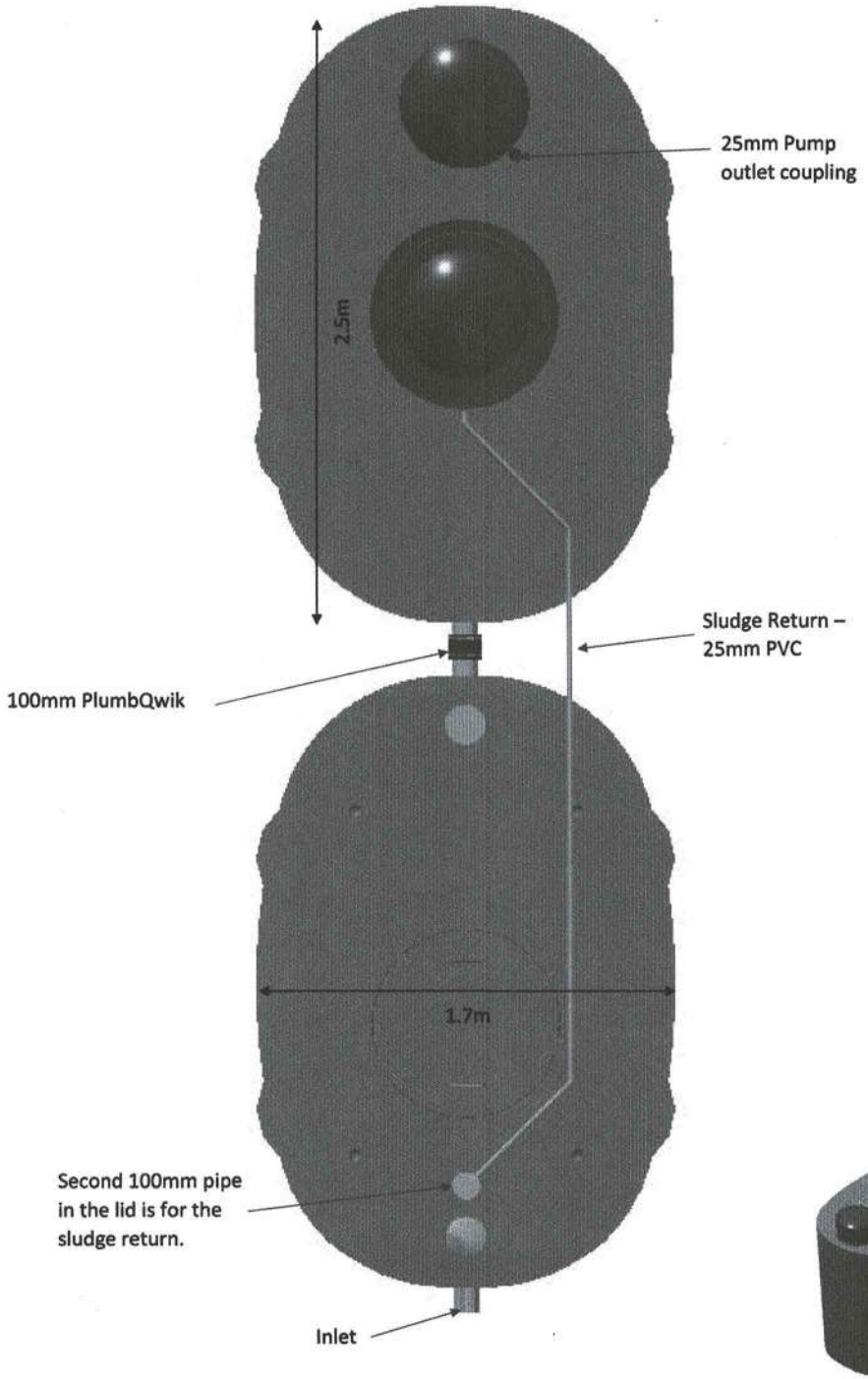
Side by Side Installation



If in doubt contact the experts on 0800 SEWAGE or sales@waterflow.co.nz

Econotreat VBB-C-2200 Schematic Drawings

End on End Installation



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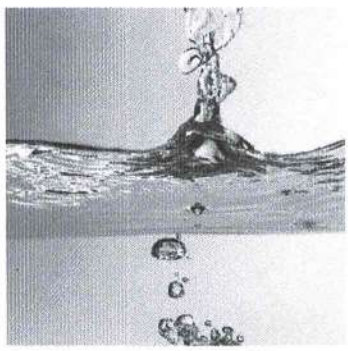


Head Office
Waterflow NZ Ltd
1160 State Highway 12,
Maungaturoto
P. 09 431 0042

Waipapa Branch
Waterflow NZ Ltd
166 Waipapa Road,
Kerikeri
P. 09 407 8323

FF. 0800 SEWAGE
E. sales@waterflow.co.nz
www.waterflow.co.nz

ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Advice to Home Owner/Occupier

Homeowners and occupiers are legally responsible to keep their on-site wastewater system in good working order. The following schedule gives advice on the use and maintenance of the system.

1. Use of the System

For the on-site wastewater system to work well there are some good habits to encourage and some bad habits to avoid:

1.1 In order to reduce sludge building up in the tank:

(i) Scrape all dishes to remove fats, grease etc, before washing.
(ii) Keep all possible solids out of the system.
(iii) Don't use a garbage grinder unless the system has been specifically designed to carry the extra load.
(iv) Don't put sanitary napkins, other hygiene products or disposable nappies into the system.

1.2 In order to keep the bacteria working in the tank and in the land-application area:

(i) Use biodegradable soaps.
(ii) Use a low-phosphorus detergent.
(iii) Use a low-sodium detergent in dispersive soil areas.
(iv) Use detergents in the recommended quantities.
(v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants.
(vi) Don't put chemicals or paint down the drain.

1.3 Conservation of water will reduce the volume of effluent disposed to the land-application area, make it last longer and improving its performance. Conservation measures could include:

(i) Installation of water-conservation fittings.
(ii) Taking showers instead of baths.
(iii) Only washing clothes when there is a full load.
(iv) Only using the dishwasher when there is a full load.

1.4 Avoid overloading the system by spacing out water use evenly. For example not doing all the washing on one day and by not running the washing machine and dishwasher at the same time.

Maintenance

2.1 The primary wastewater-treatment unit (septic tank) will need to:

(i) Be desludged regularly i.e. every 3 to 5 years, or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
(ii) Be protected from vehicles.
(iii) Have any grease trap cleaned our regularly.
(iv) Have the vent and/or access cover of the septic tank kept exposed.
(v) Have any outlet filter inspected and cleaned.

2.2 The land-application area needs protection as follows:-

(i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
(ii) No vehicles or stock should be allowed on trenches or beds.
(vi) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.

(viii) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
(ix) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.

2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.

2.4 For aeration treatment systems. Check equipment and:

(i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons and septic tank filters.
(ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
(iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

Auckland Regional Council Technical Sheet G-1
LIST OF WATER TOLERANT PLANTS SUITABLE FOR ON-SITE WASTEWATER DISPOSAL SYSTEMS

GENERAL MATTERS TO CONSIDER WHEN PLANTING A LAND DISPOSAL AREA:

Plants that are suitable for planting in moist conditions, such as those associated with wastewater land disposal fields need to be selected on the basis of both their tolerance for such moist conditions and for their potential for high level of growth/high transpiration of moisture in such conditions.

Standard lawn grass is a proven effective high transpiration plant species in such conditions, as are a large number of other plant species seen in typical domestic gardens.

Consideration needs to be given to effects of roots from plants and from trees in particular on wastewater distribution pipe networks/emitter lines in land application systems. Potential for root intrusion/disruption to the pipe system must be considered prior to selection and planting of a plant or tree species.

Advise on such matters for particular plant species can be obtained from garden centre specialists and landscaping consultants.

NATIVE PLANTS SUITABLE FOR MOIST CONDITIONS IN THE AUCKLAND REGION:

The following list covers native plant species are considered to be suitable for planting in moist conditions, such as those associated with wastewater disposal fields in Auckland situations. They are all tolerant or fond of moist conditions and all are native to the Auckland region. Much of this information has been adapted from one of the ARC Botanic Gardens advisory leaflets; "14 – New Zealand plants for wet places" and the list edited and reviewed by Dr. Rhys Gardner Consulting Botanist, Auckland War Memorial Museum (August 2004).

Grasses, ground covers, and other plants

***Astelia grandis* (swamp astelia)**
Large clump forming plant with bright green, flax-like foliage. Female plants produce upright panicles of orange berries in the centre of the plant. This endemic species will not tolerate eutrophic conditions and prefers peat soils.

***Blechnum novaezealandiae* (kiokio)**
Large, robust fern growing to 1 or even 2m. Hardy species that tolerates most conditions, but does best in well drained, shady areas.

Carex
There are many members of this genus which grow naturally in damp to wet areas. They all have quite fine drooping foliage and are vigorous in moist conditions. Most prefer very light shade. The following species have been identified for their suitability:

Carex dissita
Endemic species with dull green to reddish tufts often 0.5m tall (although this can vary). Tolerates a range of swampy habitats, but is also noted to grow on drier soils under forest cover.

Carex flagellifera
Endemic species with dense spreading reddish-brown tuffs to 0.5m tall. Prefers damp soil and full sun, but is noted to thrive in a variety of habitats including boggy pasture.

Carex geminata
Robust and vigorous endemic species that grows to 1.5m tall. Thrives in a range of wet habitats. Suitable for a larger area.

Carex lessoniana
Robust and vigorous endemic species that grows to 1.5m tall. Similar to *C.geminata* in that the species is spreading and suitable for a larger wet area.

***Carex secta* (purei, makura)**
Endemic species that exhibits tall spreading tussocks. Has been noted to grow to 3m tall, widespread in swampy areas. Useful in the creation of bird habitat.

Carex virgata

Endemic species that forms dense, light green tussocks up to 1m tall. Thrives in a variety of habitats including swamps, drain margins, seepages and wet pastures. Useful in the creation bird habitat.

Cortaderia fulvida (toetoe)

Branching from the base and forming a clump to 4m high. Long strap-shaped leaves with re orange coloured veins, flower heads cream yellow. New shoots exhibit pale waxy cover on l parts (unlike pampas grass) Prefers good drainage and semi-shade. Will struggle to compete dried out in summer.

***Cyperus ustulatus* (toetoe upoko-tangata, giant umbrella sedge)**

Vigorous leafy sedge growing to 1m in open damp places. Tolerates immersion in standing water within a range of habitats from seepages to wetlands.

Dicksonia squarrosa (wheki, tree fern)

Tree fern up to 7m tall that exhibits tolerance of wet open ground, and floods. Found to shelte and accumulate with other native plants. The base of the fern attracts biodiversity. Useful application to streambank and seepage habitats.

Elatostema rugosum (parataniwha)

Herbaceous plant up to 0.5m tall that spreads by rhizomes. Bronze coloured foliage with serra edge. Grows on moist sites in light to heavy shade. Intolerant of dry habitats.

Hypolepis dicksonioides

Large fern that prefers fertile moist, but well-drained ground, grows vigorously and spores into planted areas with abundance. Does however, die back during winter.

Phormium tenax (harakeke, flax)

Fast growing clump-forming flax with large stiff leaves, to 3m. Full exposure and sun. Moist tc wet conditions. Does not have deep or wide roots. Easily propagated from split fans or grown from seed. Attracts birds, especially Tui.

Trees and shrubs

Consideration needs to be given to the effects of roots land application on wastewater distribution pipe networks. This problem can be more significant for large tree species.

***Carpodetus serratus* (putaputaweta, marbleleaf)**

Lowland forest tree up to 7m tall. Large bunches of cream coloured flowers appear in spring followed by black berries.

Coprosma areolata

Species that grows to 4m tall. Low tolerance to drought, with medium to high fertility.

Coprosma robusta (karamu, shining karamu)

Shrubs or small trees growing to 3m+, with glossy green leaves. Masses of orange-red fruit in autumn are attractive to birds. Hardy plant.

***Coprosma tenuicaulis* (swamp coprosma)**

Endemic species that grows to 3m tall. Leaves pale green with slender branches. Will tolerate a range of swampy to boggy habitats including standing water.

Cordyline australis (ti kouka, cabbage tree)

Palm-like in appearance with large heads of linear leaves and panicles of scented flowers. Sun to semi-shade. Prefers damp to moist soil. Grows eventually to 12m+ height.

Dacrycarpus dacrydioides (kahikatea, white pine)

Tree that grows to 40m. Moderately growing species, which prefers wetland and boggy environments. Application of this species must consider the possible impact of its root systems on the wastewater disposal field.

Geniostoma rupestre (hangehange)

Common forest shrub with pale green glossy foliage, growing to 2-3m. Tiny flowers give off strong scent in spring. Looks best in sunny position where it retains a bushy habit, and prefers well-drained soil.

Hebe stricta (koromiko)

Shrub or small tree growing to 2-5m in height. Natural forms have white to bluish flowers. Plant in full sun. Tolerates exposure. (NB Many cultivars and hybrids are available commercially, but these are all unsuitable for use near existing natural vegetation.)

Laurelia novae-zelandiae (pukatea)

Large upright tree (to 30m) with attractive bright green foliage and distinctive whitish bark . Fast growing and able to handle a wide variety of soils. It will tolerate periodic flooding, breathing roots develop in water logged soils. Can be grown from seed. Tolerant of some sun and frost. Not tolerant of wind.

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

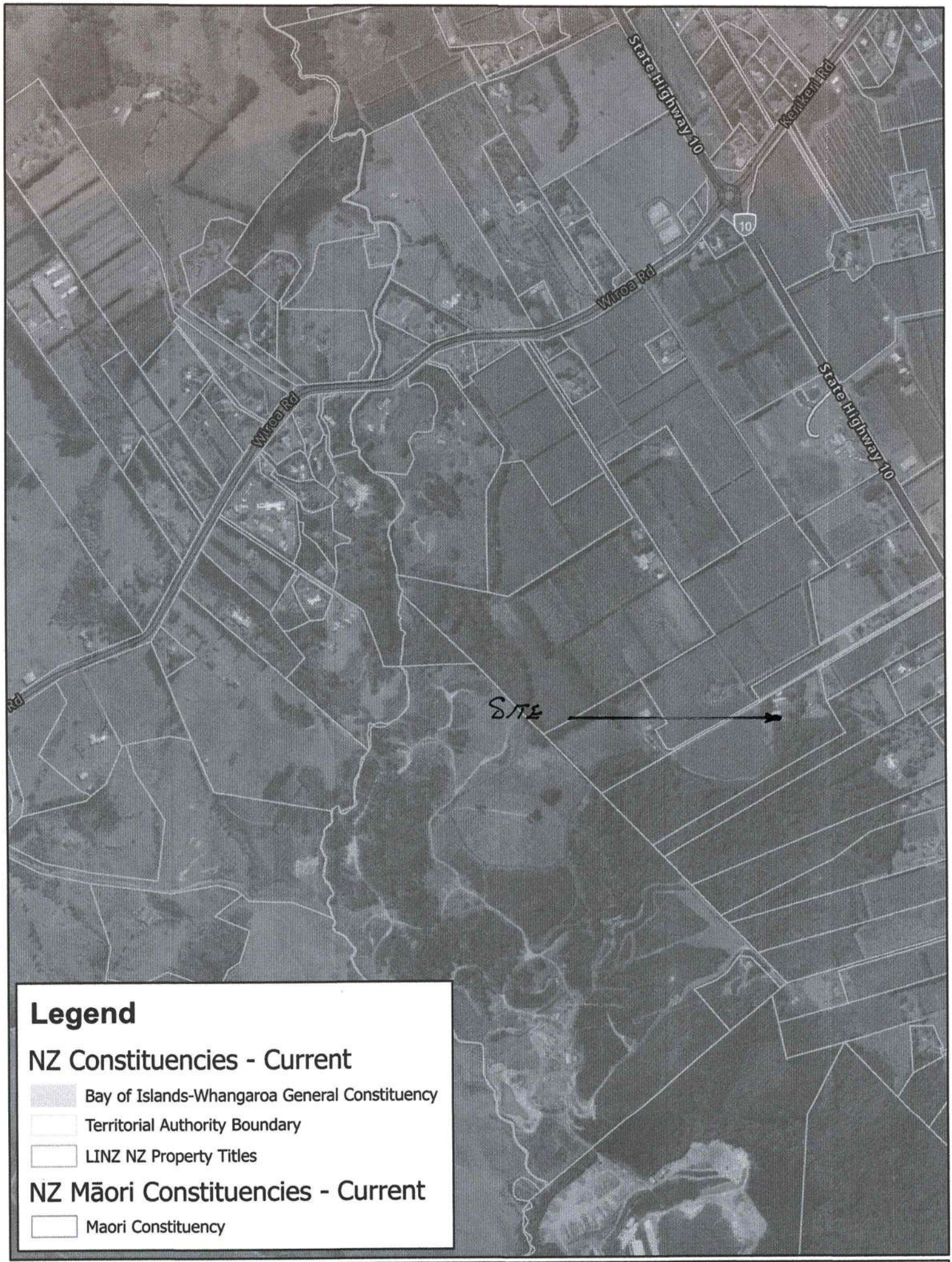
ON-SITE WASTE WATER DISPOSAL REPORT

CLIENT

PETER SHAW

SITE LOCATION

LOT 2, 1349B STATE HIGHWAY 10, KERIKERI



Legend

NZ Constituencies - Current

- Bay of Islands-Whangaroa General Constituency
- Territorial Authority Boundary
- LINZ NZ Property Titles

NZ Māori Constituencies - Current

- Maori Constituency

Northland REGIONAL COUNCIL

NRC Maps

Projection NZTM. Datum NZTM2000.
DISCLAIMER:
The Northland Regional Council cannot guarantee that the information shown is accurate and should not be reused in any manner without proper consultation with its owner.

N

0 0.04 0.09 0.17 0.26 Kilometers

September 16 2

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA827/294**
Land Registration District	**North Auckland**
Date Issued	13 February 1945

Prior References
NA697/116

Estate	Fee Simple
Area	6.2466 hectares more or less
Legal Description	Lot 3 Deposited Plan 26697
Registered Owners	

Peter Cameron Shaw, Margaret Leigh Shaw and J W Trustees Limited

Interests

Fencing Agreement in Transfer 144098

Fencing Agreement in Transfer 236226

Fencing Agreement in Transfer 294431

Subject to a water pipe line right over part created by Transfer 348516

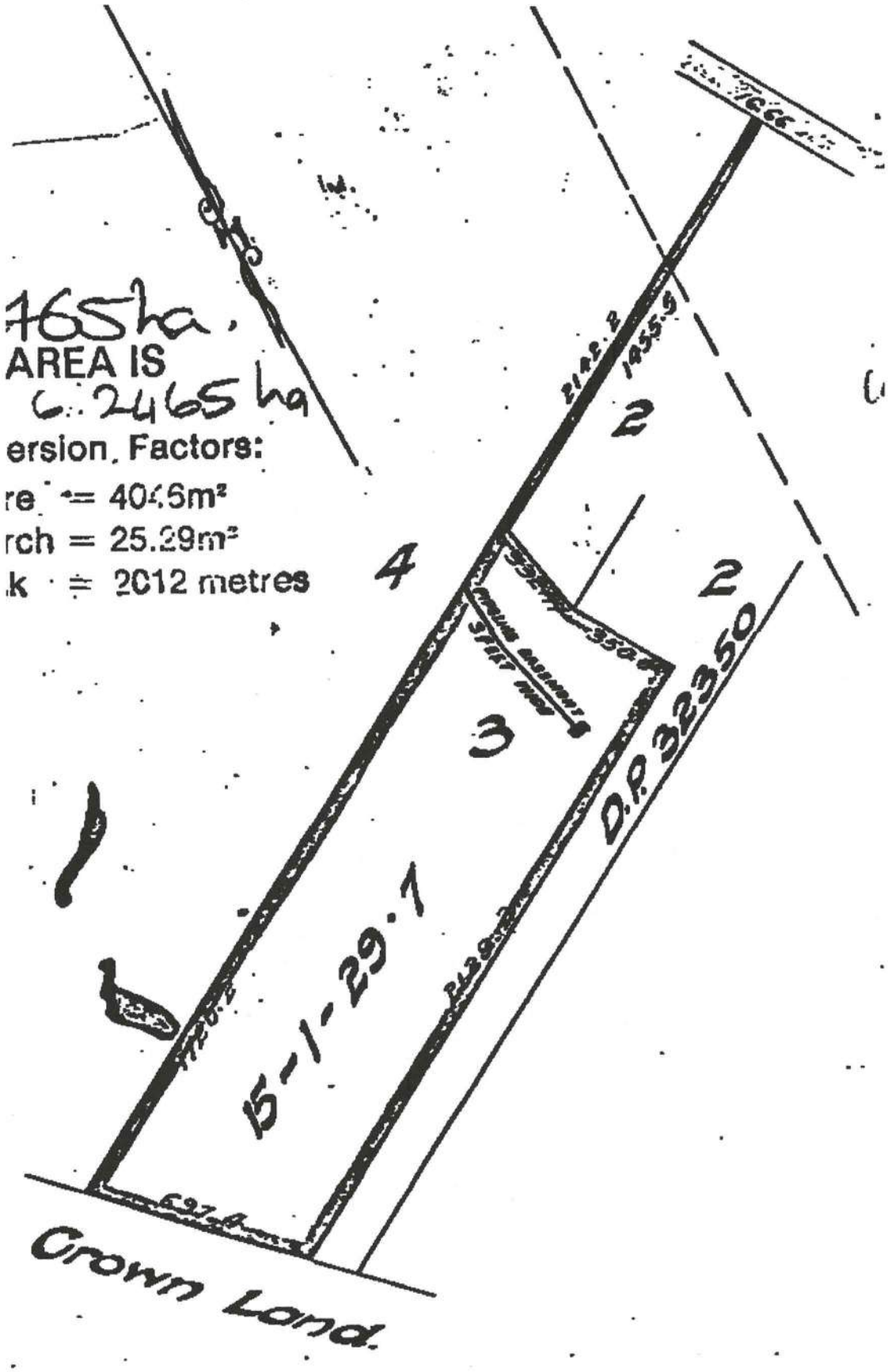
Subject to a right of way over part marked A on Plan 71497 created by Transfer 165499.3 - 9.8.1974 at 2.03 pm

573901.1 Gazette Notice declaring adjoining State Highway as limited access road - 31.1.1979 at 10.51 am

Appurtenant hereto is a right of way created by Transfer D246279.1

Subject to a right of way over part marked C on DP 186929 created by Transfer D246279.1

12410601.3 Mortgage to Westpac New Zealand Limited - 31.3.2022 at 2:17 pm


765ha.
AREA IS
6.2465 ha
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rch = 25.29m²
k = 2012 metres
4
2
3
2
15-1-29.1
D.P 32350
Crown Land

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

23/09/25
The Senior Building Inspector
Far North District Council
Private Bag 752
Kaikohe

RE : ON-SITE WASTE WATER TREATMENT SYSTEM FOR LOT 2, 1349B SHW 10, KERIKERI

On the 16th of September an inspection of the above address was undertaken to assess the option for on-site waste water treatment and effluent disposal for an existing three bedroom house and two units. The units are a one bedroom and a two bedroom.
The existing two septic tanks on this site will need pumping out and backfilling. The drains to the house and units will have to be replaced as they are old mortar joint ceramic pipes that will have stormwater intrusion.
This Lot is 8340 sq M and generally faces south east.
A hole was drilled to determine soil profile and any ground water.
The soil was found to be topsoil of 0.25 M then a brown granular clay.
No ground water was encountered.
The soil is classed as Kerikeri friable Clay that is well drained.
The best waste water system for this site will be a secondary treatment waste water system with effluent disposal by dripperlines laid in the bush.
The contour of the site where the effluent field is to be constructed is 5-23 degrees to the south east.
I have based the design for 11 people generating 160 L/P/D per person with a total of 1760 L per day.
Soil category 4 AS/NZS 1547 can expect to sustain a loading rate of 3.57mm per day per sq M therefore this design will require 493M of RAAM irrigation tubing with 3.5 litres per hour drippers at 1M spacing.
A shallow swale cut off drain is required to divert stormwater away from the effluent field.
The effluent field can be laid in the bush and must be pinned to the ground with a covering of mulch forming over time from the vegetation.
There is adequate area for the irrigation field and more than 100 percent reserve area.
All council setbacks can be achieved.
To provide long term satisfactory treatment and disposal of domestic waste water it is required that;
A) The secondary waste water treatment system be sized to cater for a minimum daily waste water flow of 1760L producing effluent having less than 30 mg/1 cubic of BOD5 and 45 mg/1 cubic TSS.
B) Effluent disposal is by RAAM trickle irrigation tubing or equivalent and 493 M length installed to the manufactures specifications.
C) The secondary treatment plant to be maintained to the manufacturers specifications.
D) Sink waste disposal units not be installed in the dwelling.
E) Kerikeri Drainage Ltd will not be liable for any drainage work done by others and all work must be done to the best professional and trade practises.

Yours Faithfully Steve Wood.

PRODUCER STATEMENT

DESIGN: ON-SITE EFFLUENT DISPOSAL SYSTEMS (T.P.58)

ISSUED BY: Steve Wood (approved qualified design professional)

TO: Peter Shaw (owner)

TO BE SUPPLIED TO: .....Far North District Council.....

PROPERTY LOCATION: 1349B SHW 10, Kerikeri

LOT 2 DP 26697 VALUATION NUMBER 00219/66600

TO PROVIDE : Design an on-site effluent disposal system in accordance with Technical paper 58 and provide a schedule to the owner for the systems maintenance.

THE DESIGN: Has been in accordance with G13 (Foul Water) G14 (Industrial Liquid Waste) B2 (durability 15 years) of the Building Regulations 1992.

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of $200,000.00, I BELIEVE ON REASONABLE GROUNDS that subject to:

(1) The site verification of the soil types.

(2) All proprietary products met the performance requirements.

The proposed design will met the relevant provisions of the Building Code and 8.15 of The Far North District Council Engineering Standards.

.....(Signature of approved design professional)

Certifying Drainlayer (Professional qualifications)

08189 (Licence Number or professional Registration number)

Address 51C Orangewood Lane

Kerikeri

Phone Number 094078062
Fax Number 094078062
Cell Phone 027493 1597
Date 22/09/25

Note: This form is to accompany every application for a Building Consent incorporating a T.P.58. Approval as a design professional is at Councils discretion.

FAR NORTH DISTRICT COUNCIL

Appendix E

TP58

On-site Wastewater Disposal Site Evaluation Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	Peter Shaw	
Company Name		
	First Name(s)	Surname
Property Owner Name(s)	Peter Cameron Margaret Leigh J W Trustees Ltd	Shaw Shaw

Nature of Applicant*	Owner

*(*i.e. Owner, Leasee, Prospective Purchaser, Developer)*

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	Kerikeri Drainage			
Site Evaluator Name	Steve Wood			
Postal Address	51C Orangewood Lane			
	Kerikeri			
Phone Number	Business	094078062	Private	094078062
	Mobile	0274931597	Fax	094078062
Name of Contact Person	Steve Wood			
E-mail Address	wood123@xtra.co.nz			

3. Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes	tick	No		(Please tick)

If yes, give Reference Numbers and Description
Replacing existing 2 septic tanks with a secondary waste water system

4. List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent No.

(eg. LandUse, Water Take, Subdivision, Earthworks Stormwater Consent)

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	1349B SHW 10, Kerikeri
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: Controlled: Discretionary:
Relevant Regional Rule(s) (Note 1)	
Total Property Area (m²)	8340 sq M
Map Grid Reference of Property If Known	

2. Legal description of land (as shown on Certificate of Title)

Lot No.		DP No.		CT No.	
	Proposed lot 2		26697		NA827/294
Other (specify)					

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)

Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

Yes		No	tick	(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

Gently sloping site with plenty of top soil

1. **Has a Slope Stability Assessment been carried out on the property?**

Yes		No	tick	Please tick

If No, why not?

No sign of instability in adjacent properties.

If Yes, please give details of report (and if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:-	

2. Site Characteristics (See Table 1 attached):

Provide descriptive details below:
Performance of Adjacent Systems:
No known problems.
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
1600mm per year. 900mm winter / 700mm summer
Vegetation / Tree Cover:
Bush where the effluent field is to be constructed
Slope Shape: (Please provide diagrams)
Constant grade
Slope Angle:
Approximately 8-22 degrees.
Surface Water Drainage Characteristics:
Sheet flow
Flooding Potential: YES/NO
NO
If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
Surface Water Separation:
Surface water separation can be kept to council requirements.
Site Characteristics: or any other limitation influencing factors
Good topsoil depth

3. Site Geology — Check Rock Maps

Kerikeri Friable Clay. Well to moderately well drained.

Geological Map Reference Number	NZMS 290 SHEET P04/05

4. What Aspect(s) does the proposed disposal system face? (please tick)

North		West	
North-West		South-West	
North-East		South-East	
East	tick	South	

5. Site clearances,(Indicate on site plan where relevant)

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	Greater than 1.5 M	Check Council requirements
Surface water, rivers Creeks drains etc	Greater than 15 M	Greater than 15 M
Groundwater	Greater than 0.6 M	Greater than 0.6 M
Stands of Trees/Shrubs	NA	
Wells, water bores	None known	
Embankments/retaining walls	NA	
Buildings	Greater than 3 M	Greater than 3 M
Other (specify):		

PART D: Site Assessment - Subsoil Investigation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation, and Sn 5.2.2(a) Site Surface Evaluation and Sn 5.3 Subsurface Investigations)
Note: Underlined terms defined in Table 2, attached

1. Please identify the soil profile determination method:

Test Pit		(Depth_____m	No of Test Pits	
Bore Hole		(Depth 1.3 M m	No of Bore Holes	one
Other (specify):				

Soil Report attached?

Yes	tick	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	tick	Please tick

If yes, please specify the effect of the fill on wastewater disposal

3. percolation testing (mandatory and site specific for trenches in soil type 4 to 7)

Please specify the method
Constant Head Permeameter

Test Report Attached?	Yes	tick	No		Please tick

4. Are surface water interception/diversion drains required?

Yes	tick	No		Please tick

If yes, please show on site plan

4a Are subsurface drains required

If yes enter details

5. Please state the depth of the seasonal water table:

Winter	2 m	Measured		Estimated	tick
Summer	Greater than 2 M m	Measured		Estimated	tick

6. Are there any potential storm water short circuit paths?

Yes		No	tick	Please tick

If the answer is yes, please explain how these have been addressed

7. Based on results of subsoil investigation above, please indicate the disposal field soil category *(Refer TP58 Table 5.1)*

Is Topsoil Present?	Yes	If so, Topsoil Depth?	0.25M	(m)

Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	tick
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Assessment of soil texture.
Observation of soakage test.
Checking soil maps.

PART E: Discharge Details

1. Water supply source for the property (please tick):

Rainwater (roof collection)	tick
Bore/well	
Public supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms	~~2~~ - 3 - ~~4~~ plus one bedroom unit and one two bedroom unit			
Design Occupancy	11			(Number of People)
Per capita Wastewater Production	~~140~~	160	~~180~~	(tick) (Litres per person per day)
Other - specify	~~200~~	~~220~~		
Total Daily Wastewater Production	1760			(litres per day)

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?	Yes		No	tick	(Please tick)
b) Water Recycling - what %?	%			tick	(Please tick)

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage

Dual flush toilet.
No garbage disposal unit

4. Is Daily Wastewater Discharge Volume more than 2000 litres:

Yes		(Please tick)
No	tick	(Please tick)

Note if answer to the above is yes, an N.R.C wastewater discharge permit may be required

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	8340	M
Total Daily Wastewater Production	1760	(Litres per day)(from above)
Lot Area to Discharge Ratio	4.73	

7. Does this proposal comply with the Northland Regional Council Gross Lot Area to Discharge Ratio of greater than 3?

Yes	tick	No		Please tick

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	tick	(Please tick)

PART F: Primary Treatment *(Refer TP58 Section 7.2)*

1. Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre, duel chamber explain why not

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
	Total Capacity	

2. Type of Septic Tank Outlet Filter to be installed?

PART G: Secondary and Tertiary Treatment

(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

1. Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment			
Home aeration plant	tick		
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other		Specify	

PART H: Land Disposal Method

(Refer TP58 Section 8)

1. Please indicate the proposed loading method: (please tick)

Gravity	
Dosing Siphon	
Pump	tick

2.High water level alarm to be installed in pump chambers

Yes	~~no~~

If not to be installed, explain why

3. If a pump is being used, please provide the following information:

Total Design Head	To manufacturers recommendation	(m)
Pump Chamber Volume	160	(Litres)
Emergency Storage Volume	1000	(Litres)

4. Please identify the type(s) of land disposal method proposed for this site: (please tick)
(Refer TP58 Sections 9 and 10)

Surface Dripper Irrigation	tick		
Sub-surface Dripper irrigation			
Standard Trench			
Deep Trench			
Mound			
Evapo-transpiration Beds			
Other		Specify	

5. Please identify the loading rate you propose for the option selected in Part H, Section 4 above, stating the reasons for selecting this loading rate:

Loading Rate	3.57		(Litres/m2/day)
Disposal Area	Design	493	(m2)
	reserve	493	(m2)

Explanation *(Refer TP58 Sections 9 and 10)*

Loading rate adopted for secondary treated effluent for category 4 soil

6. What is the available reserve wastewater disposal area *(Refer TP58 Table 5.3)*

Reserve Disposal Area (m^2)	493 sq M
Percentage of Primary Disposal Area (%)	100 percent

7. Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:

Description and Dimensions of Disposal Field:

A minimum of 493 M of RAMM dripperline with 3.5 L/HR emitters at 1 M spacing and 1 M line separation spacing.
Dripperline to be laid in the bush and pinned with a mulch covering over time by the vegetation

Plan Attached?	Yes	tick	No		(Please tick)

If not, explain why not

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

1. Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes		No	tick	(Please tick)

Name of Suppliers

Econo Treat Waste Water System or similar

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?

(Refer TP58 section 5. Ensure all issues concerning potential effects addressed)

Yes	tick	No		(Please tick)

If Yes, list and explain possible effects

PART K: Is Your Application Complete?

1. In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	YES
Include a *Location Plan* and *Site Plan* (with Scale Bars)	YES
Attach an Assessment of Environmental Effects (AEE)	YES

1. Declaration

I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	Steve Wood	Signature	
Position	TP58 writer	Date	22/09/25

Note

Any alteration to the site plan or design after approval will result in non compliance.

Job No.

ON-SITE EFFLUENT DISPOSAL
SSESSMENT OF ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

Assessment of Environmental Effects

Impact on Surface Water (incl. flood times) VERY MINOR

Impact on Ground Water VERY MINOR

Impact on Soils MINOR

Impact on Amenity Values MINOR

Public Health Issues:

Should access to the disposal area be discouraged? YES

Will odour effects be greater than usual? NO

Will noise effects be greater than usual? NO

Mitigation Measures

Has conservative approach been taken in choosing system design capacity? YES

Is system design robust (cope with fluctuations of load, climate)? YES

Is level of treatment high? SECONDARY WASTE WATER TREATENT

Protection against failure storage, alarms? YES

Is hydraulic loading rate conservative? YES

Is distribution area protected from hydraulic overload (interception drains)? YES

Will soil type enhance treatment? YES

Are desired separation distances attainable? (to surface water, groundwater, bores) YES

Is the reserve area adequate? YES.100 PERCENT

LOT 2

Client:
Job:
Location:
Augerhole No.:
Drilling Method:

REF:
Logger:
Date:
Page:
Checked:

PERCOLATION TEST -GRAPH SHEET

Client: P Shaw
Job:
Location: 1349B SHW10, Kerikeri, lot 2

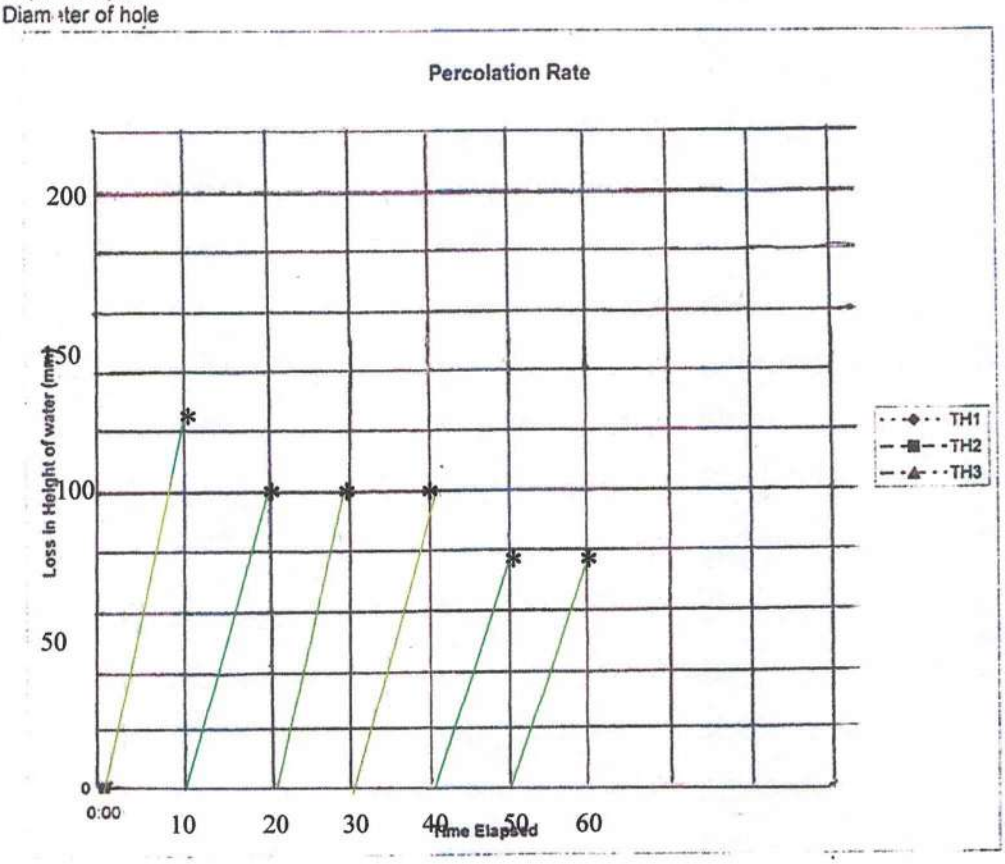
Ref.:
Report No.:
Page:

Tested by: STEVE WOOD
Date:

Presoaking conditions: 30 MIN
Weather conditions prior: Wet

Time	Time elapsed	Loss in height of water TH1	TH2	TH3	TH4		Percolation Rate (mm/hr) TH1	TH2	TH3	TH4
	10 MIN	125					750			
	10 MIN	100					600			
	10MIN	100					600			
	10 MIN	100					600			
	10 MIN	75					450			
	10 MIN	75					450			

Depth of hole
Depth of topsoil
Diameter of hole



LOT 2

Depth (m)	Legend	Soil Symbol	Soil Description	Water Level	Vane Shear Strength maximum/residual corrected kPa	Soil Sensitivity	Sample Number	Other Tests
0 - -0.2			0.25M TOPSOIL					
- - -0.5 - - - -1 - -1.2			BROWN GRANULAR CLAY					
- -1.5 - - -1.8 - -2 - - - -2.5 - - - -3 - - -3.3								

Remarks:

No ground water encountered.

Topsoil		Sand	
Fill		Gravel	
Clay		Peat	
Silt		Rock	

MANAGING NORTHLAND SOILS

8.1.2

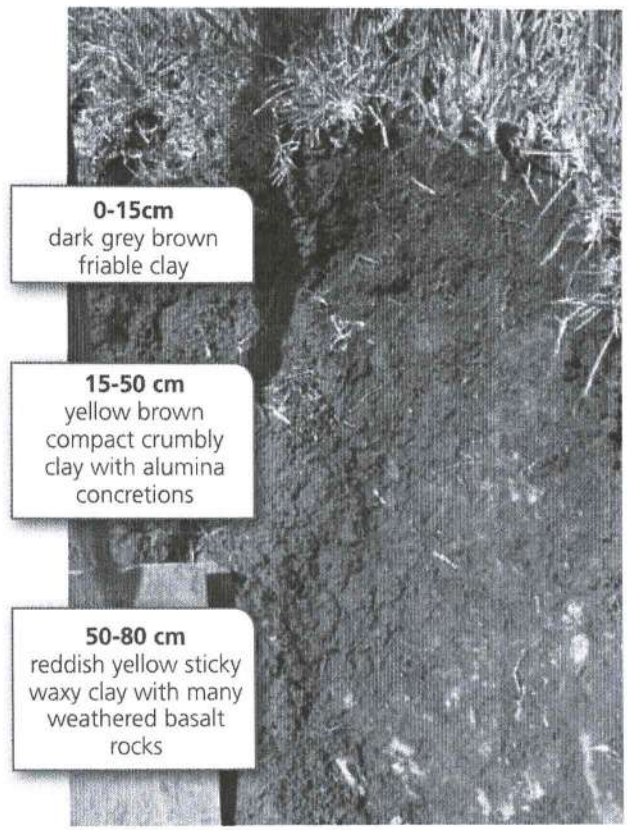
Mature basalt volcanic soils

Soil types in this group

- Kerikeri friable clay – (KE)
- Kerikeri friable clay with large boulders – (KEb)
- Matarau friable clay – (MC, MCH*)
- Matarau friable clay with large boulders - (MCb)
- Ruatangata friable clay - (RT)
- Ruatangata friable clay with large boulders – (RTb)
- Tikipunga friable clay – (TG)
- Waiotu friable clay - (YO,YOH*)
- Waiotu friable clay with large boulders – (YOb)

This fact sheet uses NZ Soil Bureau map series soil type names and abbreviations.

The H* denotes the hill variant of this soil type, which occurs on slopes over 20° and has a shallower profile.



Waiotu friable clay (YO, YOH) soil profile

Features of mature basalt volcanic soils

- These soils formed on basalt lava low in silica and rich in iron and aluminium
- They are part of the Kiripaka soil suite
- Also known as brown loams they appear around the edges of the older lava flows and on steeper slopes
- They are classic volcanic soils suitable to both orchards and market gardening
- All mature basalt volcanic soils are generally free draining, requiring few drainage structure improvements
- Some soils have boulders created as a result of long periods of erosion on the edges of old basalt flows, causing them to fracture and become rounded due to weathering processes
- These soils are moderately to strongly weathered and are moderately to strongly leached

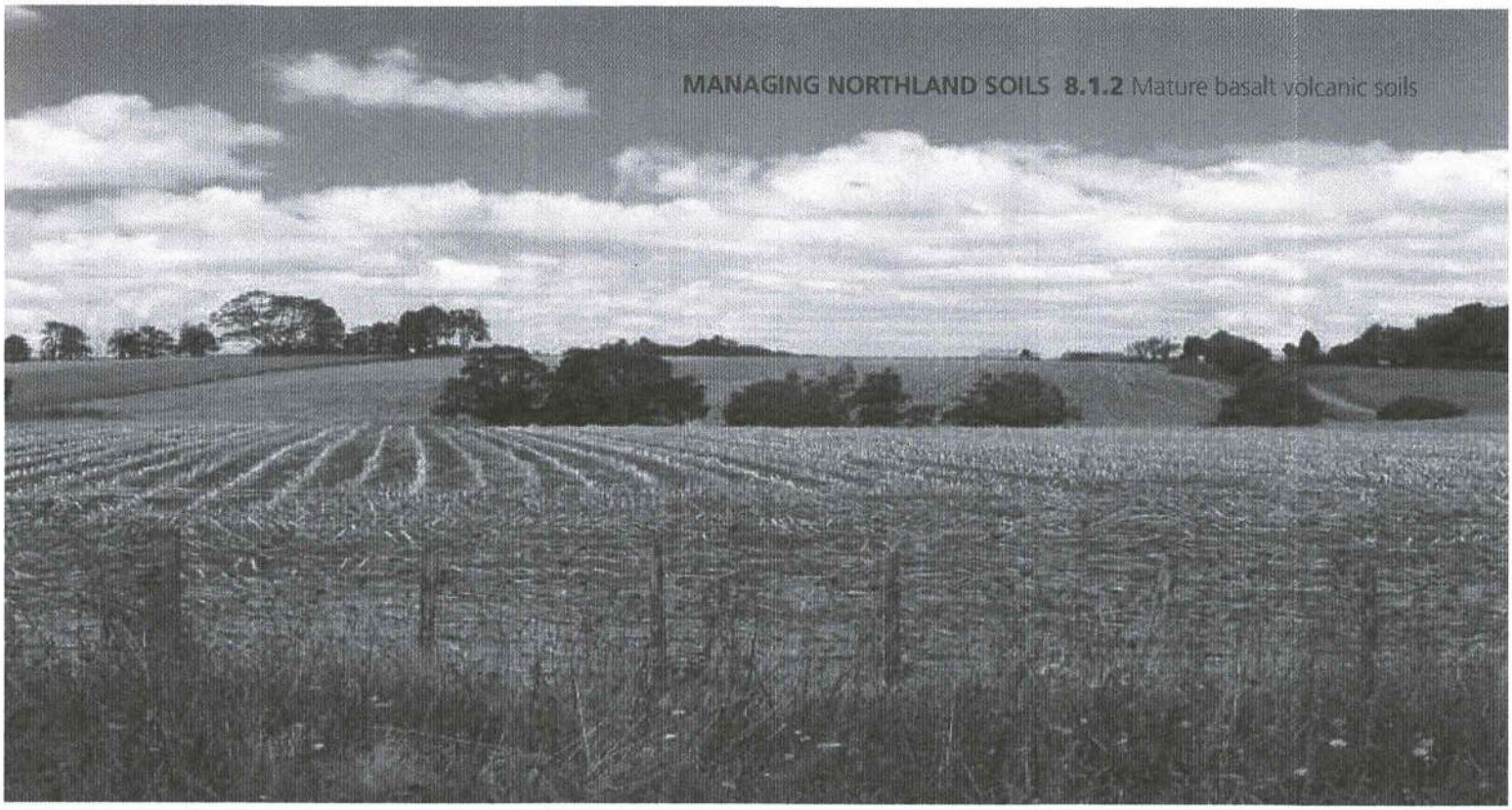
Northland REGIONAL COUNCIL

Structure and drainage management

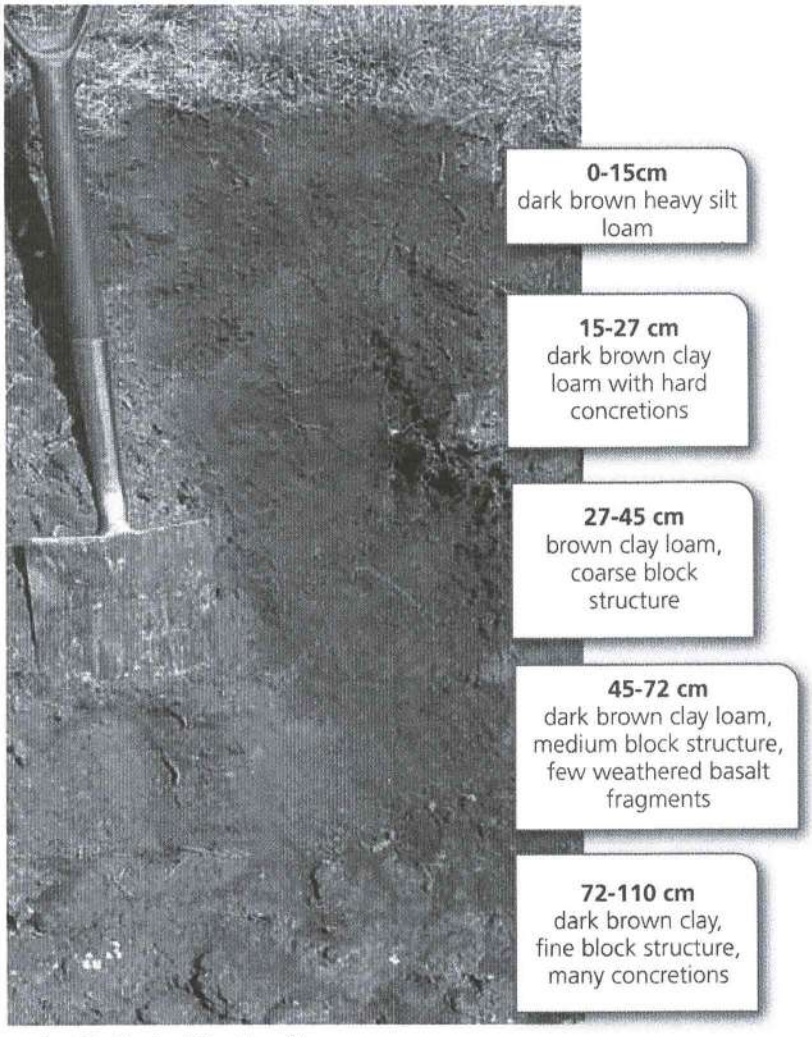
Issues	Management tips
These soils are friable and granular (nutty) on top (horizon A) with an accumulation of clay at depth They have a clay texture, but have only low plasticity, making them 'brittle' and easily destroyed by over-cultivation or compaction when dry	Year-round cultivation is possible where soils are free draining To avoid compaction, soils should be allowed to dry after rain for a few days before running heavy equipment over them
Cultivation pans and surface compaction are common problems	Shallow ripping shatters cultivation pans/surface compaction and aerates soils, maintaining structure and reducing fungal root diseases
Topsoils can become a fine powdery surface layer known as a 'dust mulch' that seals the surface, repelling water and increasing runoff	Careful crop-pasture-crop rotations retain topsoil structure
Because they are generally free draining, they are drought prone Subsoil conditions restrict plant root depth which increases drought susceptibility However, in some places drying of the topsoils is so marked in summer that high intensity summer rainstorms can remove large amounts of sediment-bound phosphate into the waterways	Well managed grazing will protect soil surfaces from drying and consequently improve soil permeability of water Retaining good crop or pasture cover is important

Nutrient management

Soil type	Nutrient status	Management strategies
All mature basalt volcanic soils	Friable, but infertile topsoils sit over subsoils containing ironstone, aluminium and manganese nodules; at low pH, free iron and aluminium fix phosphate and other elements and create a hostile environment for plant roots	Cropping and grazing rotations should be aimed at building organic matter High concentrations of aluminium and iron can be managed with adequate applications of lime and phosphate
All mature basalt volcanic soils	Applied nitrogen, potassium and sulphur leach out of soils rapidly	Effluent and/or fertiliser should be applied little and often to reduce risk of leaching losses



Waiotu (YO) and Ruatangata (RT) soils near Ōkaihau



Kerikeri friable clay (KE) soil profile

Northland REGIONAL COUNCIL

Erosion control

Erosion risks	Soil type	Specific problems	Possible solutions
Shallow slipping	Rolling hill country soil variants	Slipping is often associated with seepage areas at the heads of gullies Exposed subsoils are difficult to revegetate because of toxic levels of free iron, manganese and aluminium Slips occur because of more pronounced leaching and extremely friable granular topsoil	Manage water discharge and flow from higher elevations Plant and cultivate on the contour For longer slopes use shallow grassed water diversion channels at intervals down the slope
Sheet erosion	All mature basalt volcanic soils	Friable or granular topsoil can be washed away in sheets, losing organic matter and damaging crops Runoff from higher ground increases the problem, as does the formation of water-repellent 'dust mulch' surface sealing from compaction or over-cultivation	Using sediment traps in frequently or continuously cropped areas is recommended Exclusion of stock from revegetated areas is essential for recovery Open plant poplars where groundwater is surfacing to control slipping
Rill erosion	All mature basalt volcanic soils	Water runoff from compacted land above runs downslope, gouging channels or rills into topsoils Rills become deeper over time Bare, cropped soils are especially susceptible to rill erosion Exposed subsoils are very hard to revegetate and will continue to erode from rills to gullies	Fence bush enclaves in gully heads to allow ground cover to regenerate and hold soils in place Mulching exposed subsoils with organic material and applying lime prior to planting will assist revegetation where erosion has occurred

Drainage classes

Soil symbol	Full name	Drainage class
KIRIPAKA SUITE Basement rock: volcanic basalt lava flows		
MCb	Matarau friable clay with large boulders	5⇌4 - Somewhat excessively to well drained
TG	Tikipunga friable clay	5⇌1 - Somewhat excessively to poorly drained
YOb	Waiotu friable clay with large boulders	4 - Well drained
MC, MCH	Matarau friable clay	4 - Well drained
KE	Kerikeri friable clay	4 - Well drained
KEb	Kerikeri friable clay with large boulders	4 - Well drained
YO, YOH	Waiotu friable clay	4⇌3 - Well to moderately drained
RT	Ruatangata friable clay	4⇌3 - Well to moderately drained
RTb	Ruatangata friable clay with large boulders	4⇌3 - Well to moderately drained

Northland soil factsheet series

- Northland's climate, topography, historic vegetation and mixed geology have combined to form a complex pattern of soils across the region. There are over 320 soil types in Northland. Other regions in New Zealand average only 20 soil types per region.
- The information in this fact sheet is based on a 1:50,000 mapping scale. Therefore, it is not specific to individual farms or properties. However, it may help you to understand general features and management options for recent alluvial soils.
- Knowing your soils' capabilities and limitations is the key to sustainable production in Northland. Northland Regional Council (NRC) land management advisors are available to work with landowners to provide free soil conservation advice, plans and maps specific to your property.
- Regular soil tests are recommended. If you are concerned about your soil structure or health, the Visual Soil Assessment test could be useful. Contact the land management advisors at Northland Regional Council for more information.
- Further background information about the processes that have formed these soils can be found here: **www.nrc.govt.nz/soilfactsheets**

EXISTING EASEMENTS

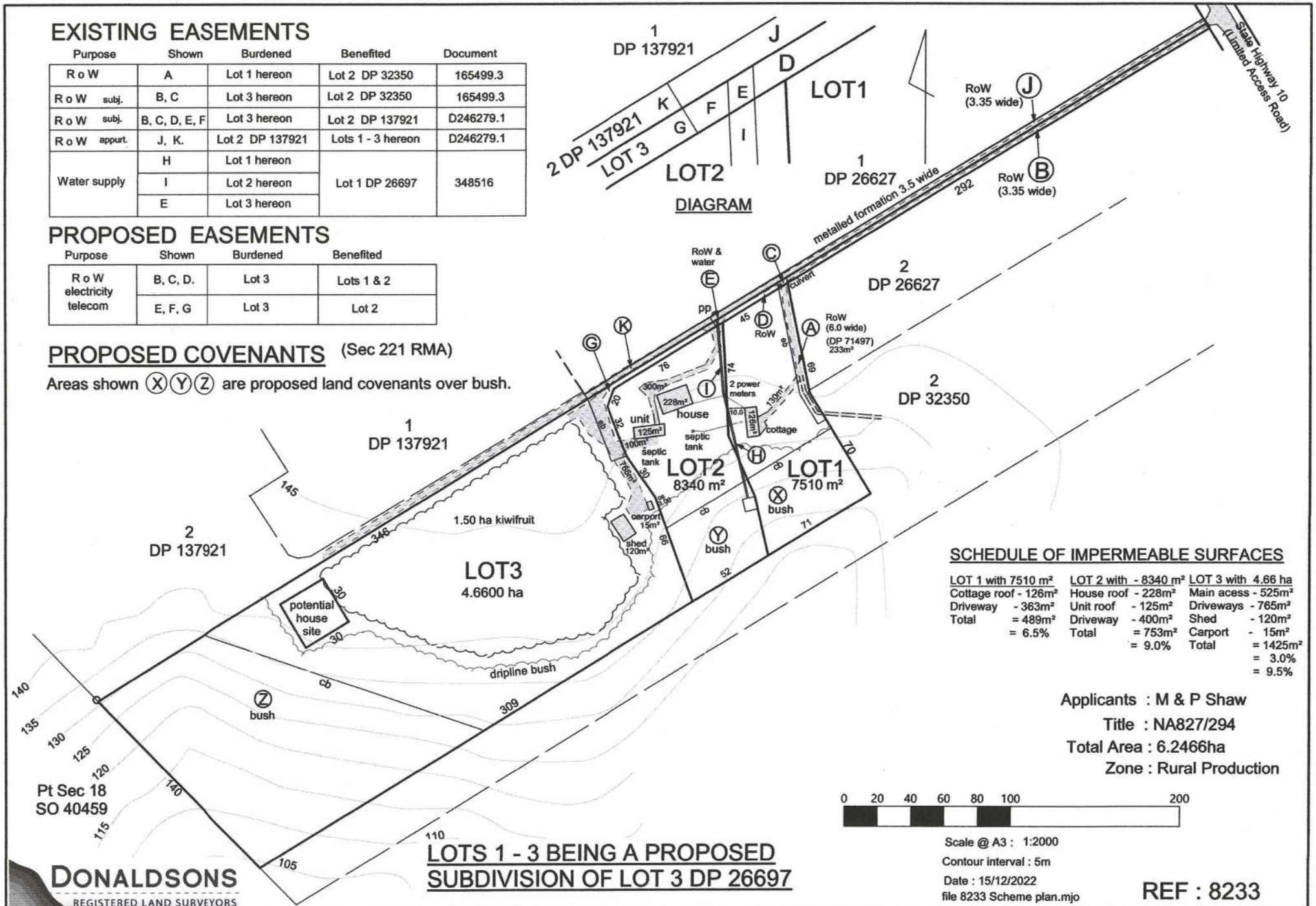
Purpose	Shown	Burdened	Benefited	Document
R o W	A	Lot 1 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C	Lot 3 hereon	Lot 2 DP 32350	165499.3
R o W subj.	B, C, D, E, F	Lot 3 hereon	Lot 2 DP 137921	D246279.1
R o W appurt.	J, K.	Lot 2 DP 137921	Lots 1 - 3 hereon	D246279.1
Water supply	H	Lot 1 hereon	Lot 1 DP 26697	348516
	I	Lot 2 hereon		
	E	Lot 3 hereon		

PROPOSED EASEMENTS

Purpose	Shown	Burdened	Benefited
R o W electricity telecom	B, C, D.	Lot 3	Lots 1 & 2
	E, F, G	Lot 3	Lot 2

PROPOSED COVENANTS (Sec 221 RMA)

Areas shown (X)(Y)(Z) are proposed land covenants over bush.



SCHEDULE OF IMPERMEABLE SURFACES

LOT 1 with 7510 m²		LOT 2 with - 8340 m²		LOT 3 with 4.66 ha	
Cottage roof	- 126m²	House roof	- 228m²	Main acess	- 525m²
Driveway	- 363m²	Unit roof	- 125m²	Driveways	- 765m²
Total	= 489m²	Driveway	- 400m²	Shed	- 120m²
	= 6.5%	Total	= 753m²	Carport	- 15m²
			= 9.0%	Total	= 1425m²
					= 3.0%
					= 9.5%

Applicants : M & P Shaw
Title : NA827/294
Total Area : 6.2466ha
Zone : Rural Production

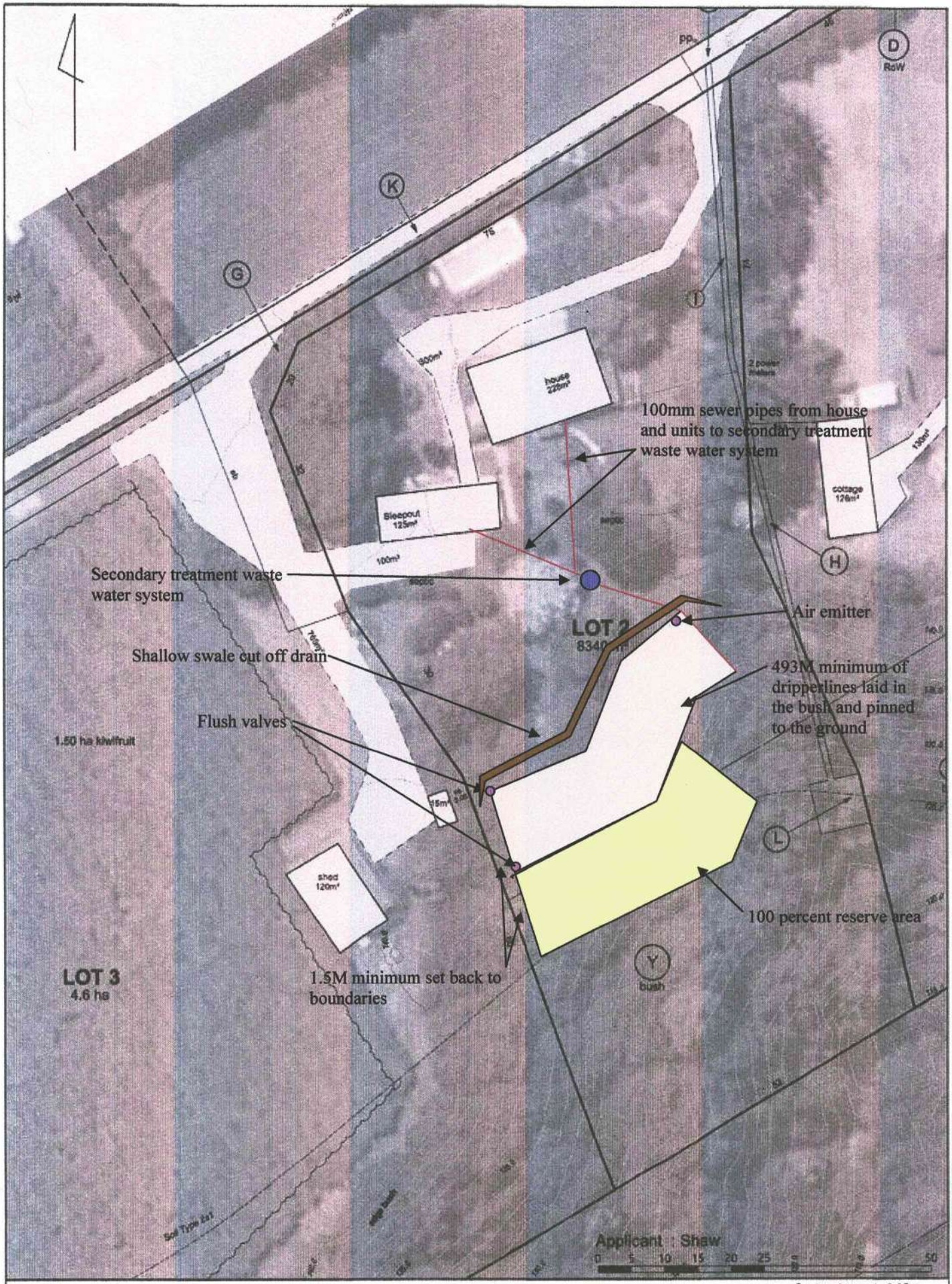
0 20 40 60 80 100 200

Scale @ A3 : 1:2000
Contour interval : 5m
Date : 15/12/2022
file 8233 Scheme plan.mjo

REF : 8233

DONALDSONS
REGISTERED LAND SURVEYORS

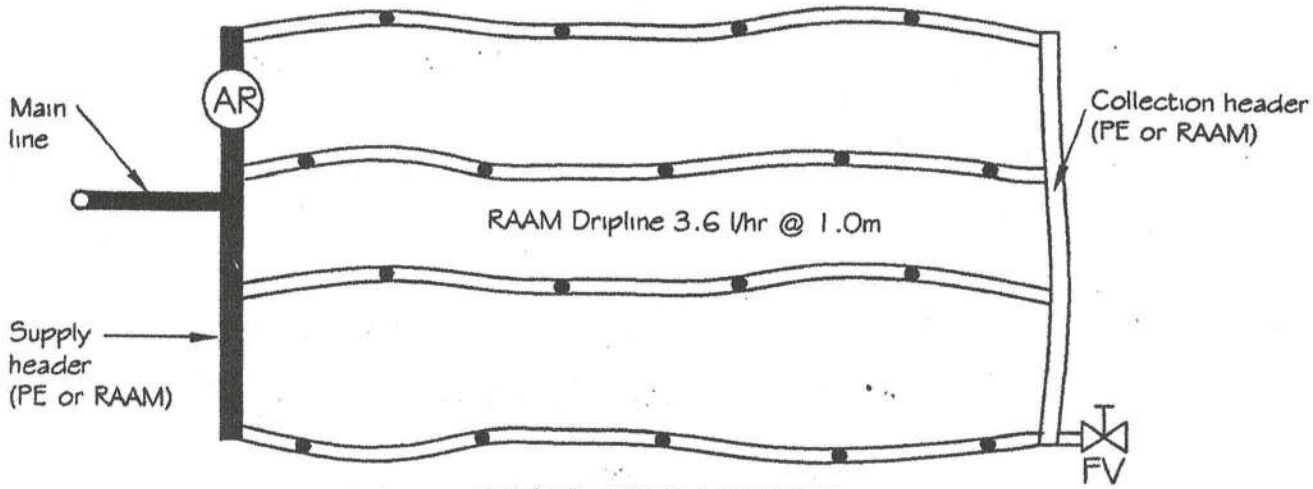
Land / engineering Surveyors & development planners - 90 Kerikeri Road, Kerikeri, Northland, New Zealand - www.donaldsons.net.nz - em: info@donaldsons.net.nz - p:09 4079182



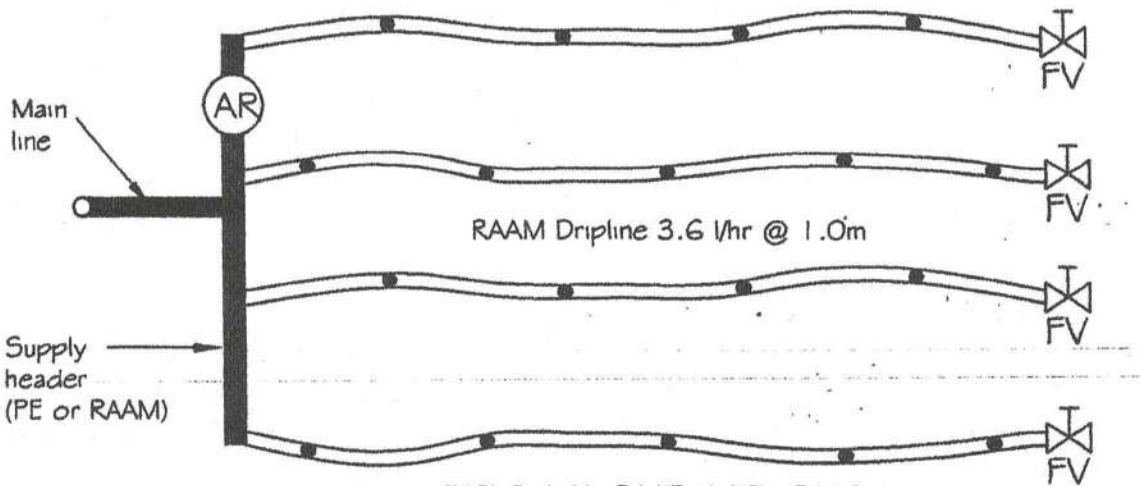
DONALDSONS
REGISTERED LAND SURVEYORS

LOT 2 & 3 DETAIL

Contour interval : 0.25m
Scale @ A3 : 1:500
Date : 17/09/2025
REF : 8233



BASIC GRID LAYOUT



FIELD LAYOUT WITHOUT A COLLECTION HEADER PIPE

AR — Air / Vacuum Release Valve

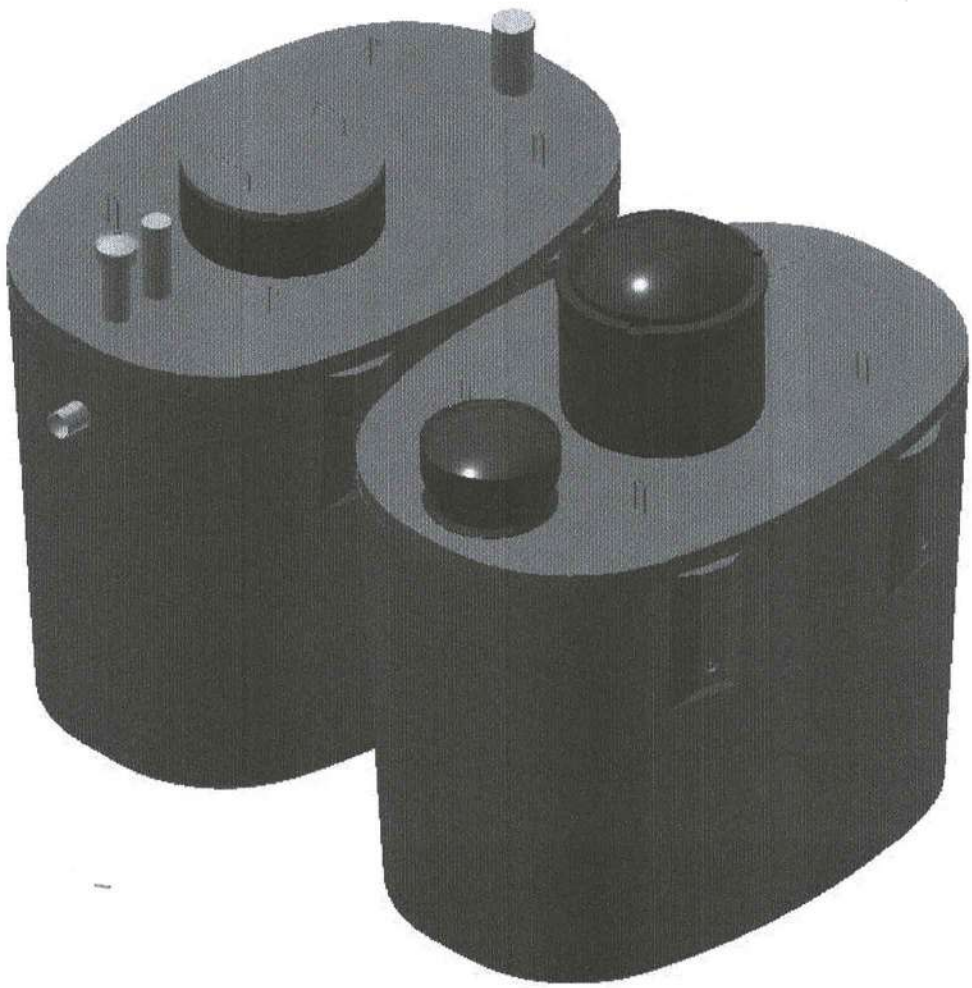
FV — Flushing Valve

	ON-SITE EFFLUENT DISPOSAL TYPICAL FIELD LAYOUTS Trickle Irrigation	Ref:	Sheet:
		Scale: NTS	Draw
		Date	Check

econo-treat

Econotreat VBB-C-2200 Treatment System

System Specifications & Installation Instructions



The Treatment Process

Primary Chamber / Tank

Influent enters the chamber via the source whereby scum and solids capable of settling are separated from the raw influent. Primary treated effluent flows through a transfer port to the aeration tank. This primary tank will also act as a storage chamber for sludge returned from the Clarification Chamber.

After primary settling, the sewage passes through a Reln outlet filter.

Aeration Chamber

Water enters from the Primary Chamber. Air is introduced into this chamber via an air blower to create an environment for aerobic bacteria and other helpful organisms to consume the organic matter present. The aeration tank is designed in a manner to help prevent short circuiting of the wastewater to ensure extended aeration. Media is present in the tank to support the growth of bacteria.

Clarification Chamber

The Clarification chamber is essentially a quiescent zone where suspended particles/solids are settled out of the water. These particles are returned to the Primary chambers via a sludge return which aids in further biological reduction, denitrification and providing a constant food supply rich in microbes supporting the system through periods of limited flows.

System Performance

The Econotreat VBB-C-2200 system is capable of treating up to 2200L per day peak flow to an advanced secondary standard. The effluent is suitable for UV disinfection where required.

Benchmark Ratings
The **Waipapa Tanks Econo-Treat® VBB C-2200-2** system **achieved** the following effluent quality ratings:

Indicator Parameters	Median	Std Dev.	Rating	Rating System				
				A+	A	B	C	D
BOD (g/m^3)	3.4	1.5	A+	<5	<10	<20	<30	≥30
TSS (g/m^3)	4.98	3.49	A+	<5	<10	<20	<30	≥30
Total nitrogen TN (g/m^3)	13.6	1.3	A	<5	<15	<25	<30	≥30
Ammonia Nitrogen NH4-N (g/m^3)	1.1	1.8	A	<1	<5	<10	<20	≥20
Total phosphorus TP (g/m^3)	4.2	0.5	B	<1	<2	<5	<7	≥7
Faecal Coliforms FC (cfu/100mL)	11,200	50,196	B-	<10	<200	<10,000	<100,000	≥100,000
Energy (kWh/d) (mean)	1.8	-	B	0	<1	<2	<5	≥5

ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

New Zealand's Leaders in Advanced Secondary Treatment Systems

Compliance Requirements

All Econotreat Treatment Systems meet the requirements of the NZ Building Code G13-VM4.

Section 9 of AS/NZS 1546.1:2008 state that tanks constructed to these Standards will meet the requirements of the Code for Clauses B1 and B2, structure and durability.

Compliance with Section 9 of AS/NZS 1546.1:2008 and also Clauses G13.3.4 relating to on-site treatment and disposal systems and G14.3.1 and 14.3.2 relating to the control of foul water as an industrial waste.

Tank Specifications

Tanks are made of 50mpa Fiber Reinforced Concrete, which is suitable material for wastewater treatment containment meeting all the requirements of Section 4.3.3 of AS/NZS 1547:2012. These tanks have an expected lifespan of 50 years.

Dual Chamber Septic Tank
5200L Nominal Capacity
2500mm Long
1700mm Wide
1975mm High
- 3100kg

Aeration Tank
5200L Nominal Capacity
2500mm Long
1700mm Wide
1975mm High
- 2900kg

System Information
500L Pump Chamber
2120L Emergency Storage

Installation Location and Certification

These tanks are not designed for vehicle loads and shall be located no closer than 2m to a driveway, road frontage or a building. If for any reason the tank is located where vehicle traffic may drive over the tank or approach closer than 2m, or where it may be trampled on by farm stock then the tank should be protected by a concrete slab designed to support these loads. Surface water must also be diverted from flowing into the installation.

Installation must be certified to AS/NZS 1547:2012, the certificate to be issued and held by the regulatory authority.

High Water Table Installations

All tanks have been engineered and designed for maximum strength, in accordance with the NZC 3604. Clauses B1 and B2 for structure and durability, to withstand any hydraulic pressures, both lateral and uplift, created by high water table conditions.

In high water table installations, it is important to fill the tanks with water. This removes the hydraulic uplift and simplifies the installation. In extremely high-water tables, a concrete foot can be added to the tank during manufacture. Waterflow must be made aware of this early on in vies of supplying a tank that is fit for purpose.

Plumbing Pipes and Fittings

All internal plumbing is done with PVC pipes with appropriate connections according to AS/NZS 1260 and AS/NZS 4130.

Backfill and Bedding

Place and bed to NZBC G13/AS2, using compacted granular metal, in layers not exceeding 100mm.

Electrical

Where a pump is required on a flat site electrical connection must be installed according to AS/NZS 3000 and the control and alarm system must be in a weatherproof housing located in a readily visible position.

Warranty

WATERFLOW NZ LTD warrants that the Econotreat System will be free from defects in material and workmanship for the following periods of time from the date of installation as set out in the following conditions:

1. Concrete Tank 15yrs
2. Roto-Molded Tanks 15yrs
3. Nitto Blower 3yrs
4. Irrigation Pumps 2yrs
5. Warranty of Operation covers the performance of the Econotreat System as connected to the effluent inflow for which they are designed, and has been installed to the criteria as set out in the relative installation instructions and procedures, and has an assigned Service/Maintenance contract in place with Waterflow NZ Ltd or it's appointed agent/s.

Warranty excludes defects due to:

A) Failure to use the system in accordance with owner's manual.

B) A force majeure event outside the reasonable control of WATERFLOW NZ LTD such as (but not limited to) earthquake, fire, flood, soil subsidence, ground water table variations or plumbing fault.

C) Modifications to surrounding landscape contour after installation

D) The actions of a third party

E) The system required to bear loads (either hydraulic or biological) greater than that for which it was designed

F) Any modifications or repairs undertaken without the consent of WATERFLOW NZ LTD

G) Failure, where applicable, to fence and plant disposal field.

1st June 2014
Dean Hoyle
Managing Director

ECONOTREAT VBB-C-2200

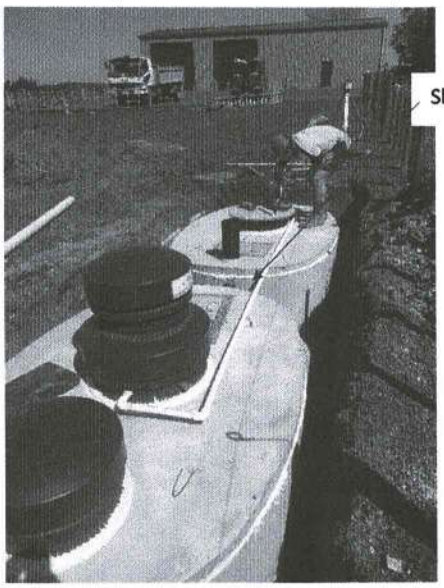
System Specification & Installation Instructions

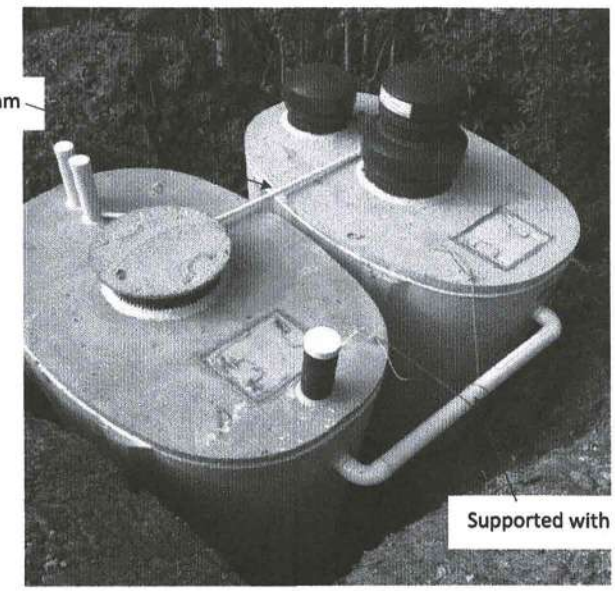
Econotreat VBB-C-2200 Installation Instructions

The Econotreat system is to be installed or signed off by a registered Drain layer to the design specified by Waterflow NZ Ltd.

The following installation instructions and procedures followed correctly will ensure System performance is not compromised in any way.

1. Excavate two 3m x 2m level platforms at an appropriate depth to ensure adequate fall for inlet pipe from the source. This has to be installed on virgin ground. The two platforms are ideally on the same level and next to each other, either side-by-side or end-on-end.
2. Lay 100mm of bedding metal on platform and place the Septic and Aeration tanks next to each other. As close as practically possible to minimize the connection distance between the tanks.
3. Connect the two tanks with 100mm PVC. If the tanks are side-by-side the connection will need supporting. This is done by tying it back to the wire on the lids with a length of rope supplied. The rope can be found in the top of the treatment tank.





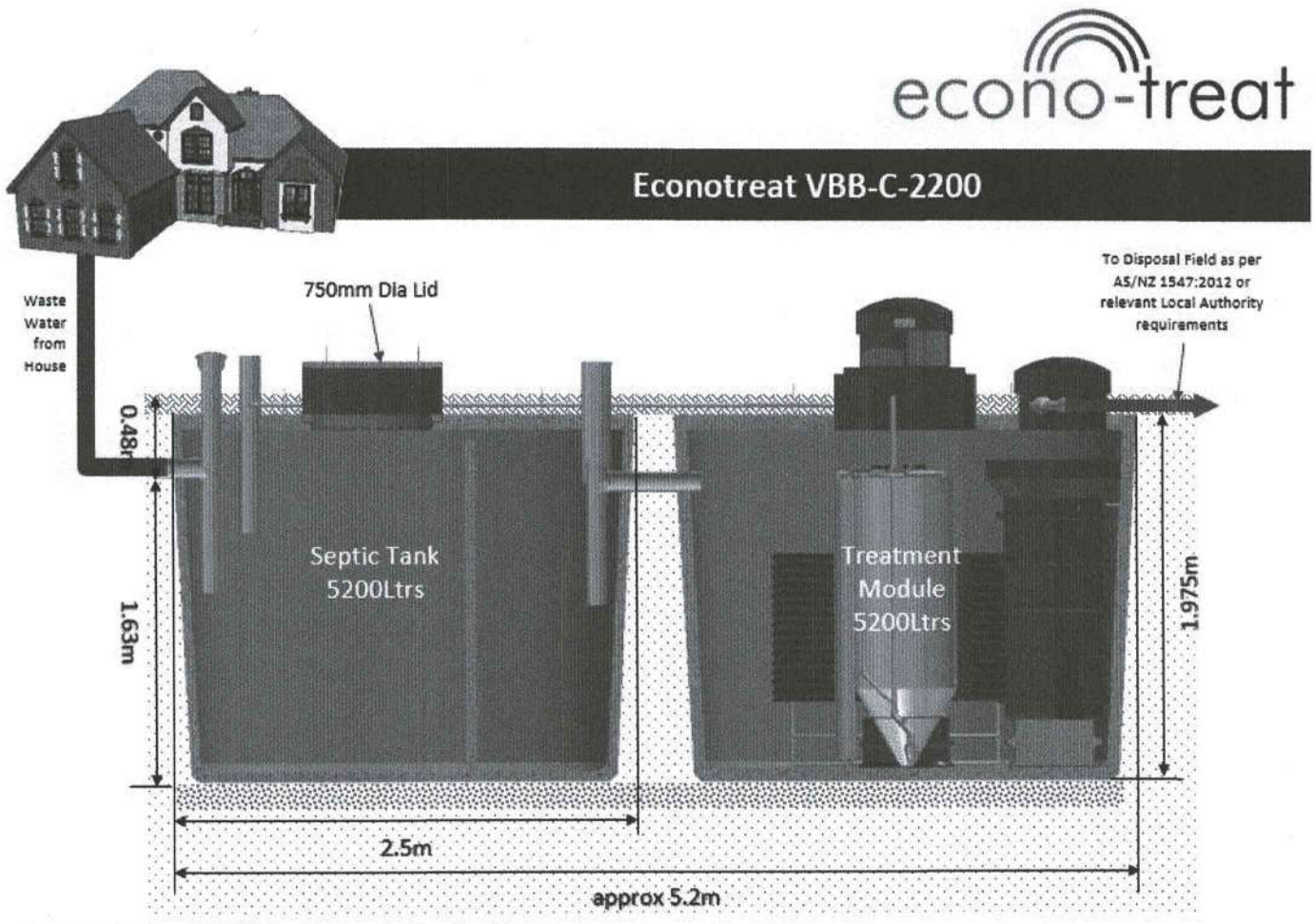
4. Next connect the sludge return. This is a 25mm PVC pipe that come out of the central riser on the treatment tank. This must be plumbed back to the second 100mm PVC at the start of the septic tank. It is important that this pipe is falling slightly or at minimum flat.
5. Trench from Dose Chamber outlet to disposal field and lay the 25mm alkathene feed line.
6. Take a minimum of 3 photos at this point to showing connections and back fill, to ensure correct installation for sign off.
7. Back fill around tanks. Using spoil from the excavation is fine, be aware that this will settle over time though.

Caution: System must be protected from excessive super imposed loads both lateral and top loads. E.g. loads from vehicular traffic. There needs to be at least 2m of clearance maintained around system.

ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

Econotreat VBB-C-2200 Schematic Drawings

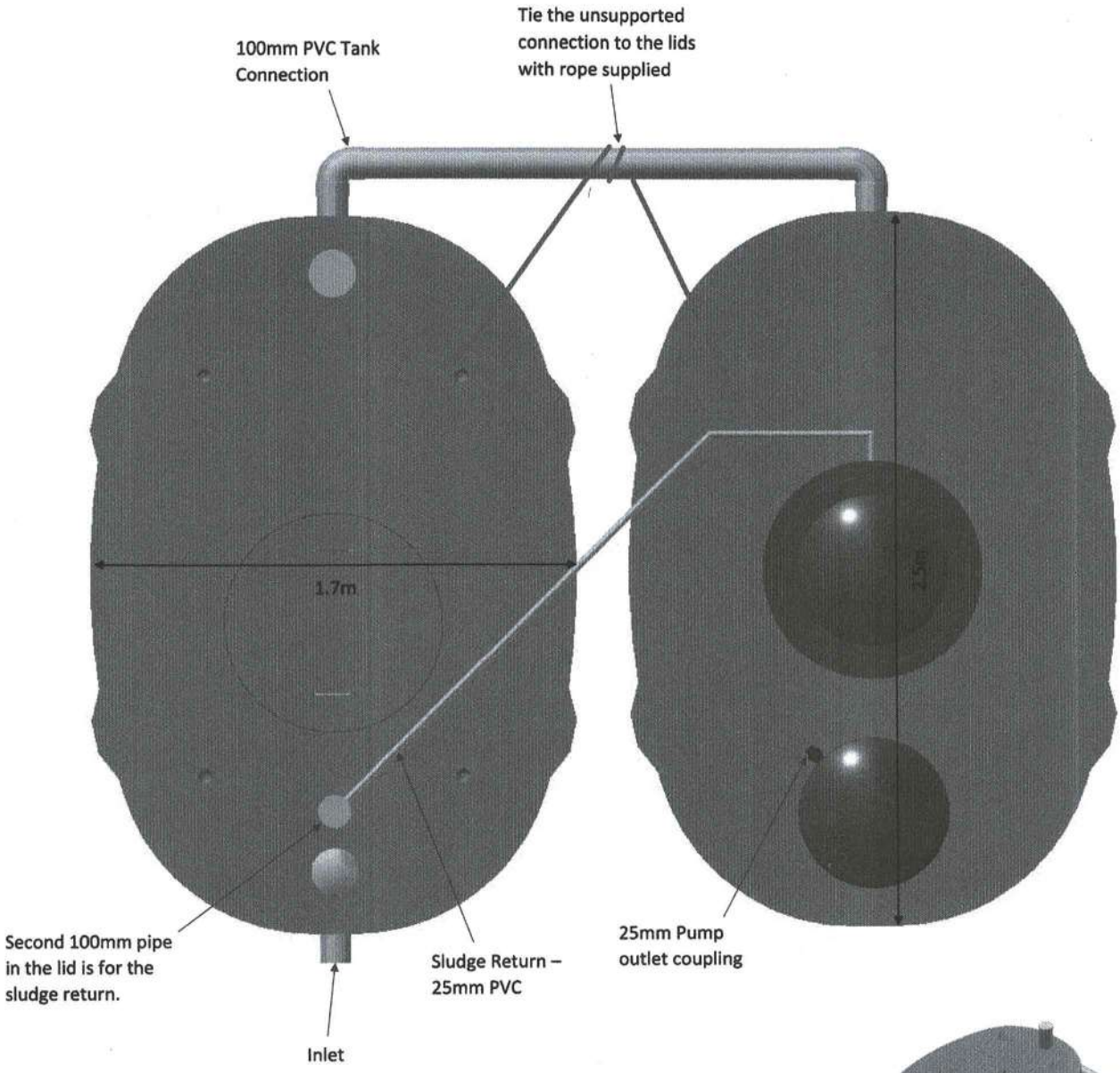


ECONOTREAT VBB-C-2200

System Specification & Installation Instructions

Econotreat VBB-C-2200 Schematic Drawings

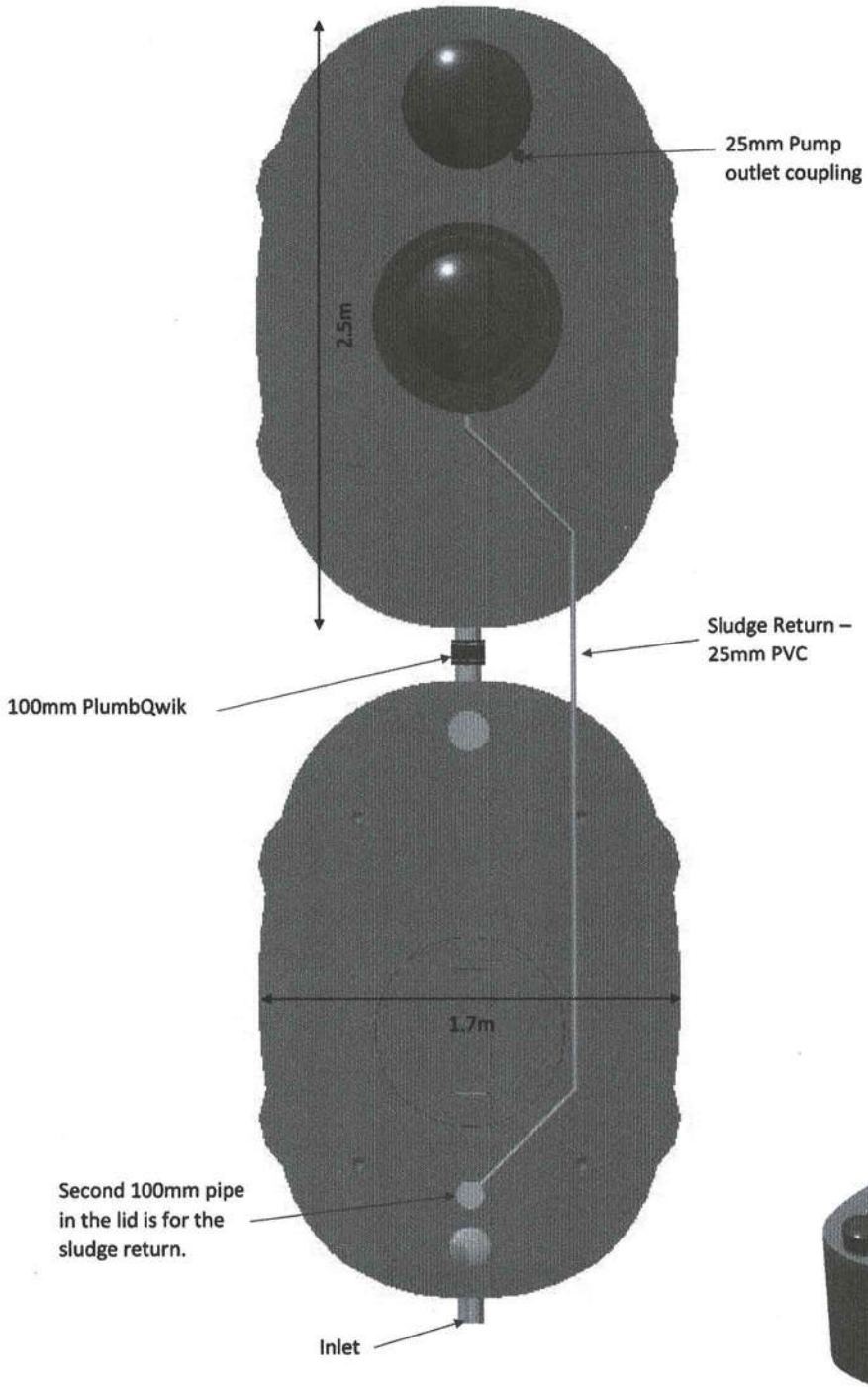
Side by Side Installation



If in doubt contact the experts on 0800 SEWAGE or sales@waterflow.co.nz

Econotreat VBB-C-2200 Schematic Drawings

End on End Installation



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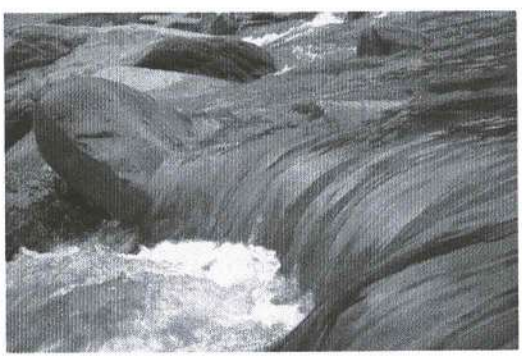
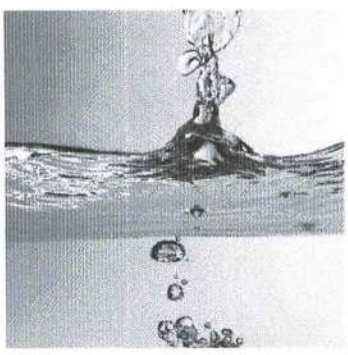



Head Office
Waterflow NZ Ltd
1160 State Highway 12,
Maungaturoto
P. 09 431 0042

Waipapa Branch
Waterflow NZ Ltd
166 Waipapa Road,
Kerikeri
P. 09 407 8323

FF. 0800 SEWAGE
E. sales@waterflow.co.nz
www.waterflow.co.nz

ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Advice to Home Owner/Occupier

Homeowners and occupiers are legally responsible to keep their on-site wastewater system in good working order. The following schedule gives advice on the use and maintenance of the system.

1. **Use of the System**

For the on-site wastewater system to work well there are some good habits to encourage and some bad habits to avoid:

1.1 In order to reduce sludge building up in the tank:

(i) Scrape all dishes to remove fats, grease etc, before washing.
(ii) Keep all possible solids out of the system.
(iii) Don't use a garbage grinder unless the system has been specifically designed to carry the extra load.
(iv) Don't put sanitary napkins, other hygiene products or disposable nappies into the system.

1.2 In order to keep the bacteria working in the tank and in the land-application area:

(i) Use biodegradable soaps.
(ii) Use a low-phosphorus detergent.
(iii) Use a low-sodium detergent in dispersive soil areas.
(iv) Use detergents in the recommended quantities.
(v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants.
(vi) Don't put chemicals or paint down the drain.

1.3 Conservation of water will reduce the volume of effluent disposed to the land-application area, make it last longer and improving its performance. Conservation measures could include:

(i) Installation of water-conservation fittings.
(ii) Taking showers instead of baths.
(iii) Only washing clothes when there is a full load.
(iv) Only using the dishwasher when there is a full load.

1.4 Avoid overloading the system by spacing out water use evenly. For example not doing all the washing on one day and by not running the washing machine and dishwasher at the same time.

Maintenance

2.1 The primary wastewater-treatment unit (septic tank) will need to:

(i) Be desludged regularly i.e. every 3 to 5 years, or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
(ii) Be protected from vehicles.
(iii) Have any grease trap cleaned our regularly.
(iv) Have the vent and/or access cover of the septic tank kept exposed.
(v) Have any outlet filter inspected and cleaned.

2.2 The land-application area needs protection as follows:-

(i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
(ii) No vehicles or stock should be allowed on trenches or beds.
(vi) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.

(viii) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
(ix) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.

2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.

2.4 For aeration treatment systems. Check equipment and:

(i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons and septic tank filters.
(ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
(iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

Auckland Regional Council Technical Sheet G-1
LIST OF WATER TOLERANT PLANTS SUITABLE FOR ON-SITE WASTEWATER DISPOSAL SYSTEMS

GENERAL MATTERS TO CONSIDER WHEN PLANTING A LAND DISPOSAL AREA:

Plants that are suitable for planting in moist conditions, such as those associated with wastewater land disposal fields need to be selected on the basis of both their tolerance for such moist conditions and for their potential for high level of growth/high transpiration of moisture in such conditions.

Standard lawn grass is a proven effective high transpiration plant species in such conditions, as are a large number of other plant species seen in typical domestic gardens.

Consideration needs to be given to effects of roots from plants and from trees in particular on wastewater distribution pipe networks/emitter lines in land application systems. Potential for root intrusion/disruption to the pipe system must be considered prior to selection and planting of a plant or tree species.

Advise on such matters for particular plant species can be obtained from garden centre specialists and landscaping consultants.

NATIVE PLANTS SUITABLE FOR MOIST CONDITIONS IN THE AUCKLAND REGION:

The following list covers native plant species are considered to be suitable for planting in moist conditions, such as those associated with wastewater disposal fields in Auckland situations. They are all tolerant or fond of moist conditions and all are native to the Auckland region. Much of this information has been adapted from one of the ARC Botanic Gardens advisory leaflets; "14 – New Zealand plants for wet places" and the list edited and reviewed by Dr. Rhys Gardner Consulting Botanist, Auckland War Memorial Museum (August 2004).

Grasses, ground covers, and other plants

Astelia grandis **(swamp astelia)**
Large clump forming plant with bright green, flax-like foliage. Female plants produce upright panicles of orange berries in the centre of the plant. This endemic species will not tolerate eutrophic conditions and prefers peat soils.

Blechnum novaezealandiae **(kiokio)**
Large, robust fern growing to 1 or even 2m. Hardy species that tolerates most conditions, but does best in well drained, shady areas.

Carex
There are many members of this genus which grow naturally in damp to wet areas. They all have quite fine drooping foliage and are vigorous in moist conditions. Most prefer very light shade. The following species have been identified for their suitability:

Carex dissita
Endemic species with dull green to reddish tufts often 0.5m tall (although this can vary). Tolerates a range of swampy habitats, but is also noted to grow on drier soils under forest cover.

Carex flagellifera
Endemic species with dense spreading reddish-brown tuffs to 0.5m tall. Prefers damp soil and full sun, but is noted to thrive in a variety of habitats including boggy pasture.

Carex geminata
Robust and vigorous endemic species that grows to 1.5m tall. Thrives in a range of wet habitats. Suitable for a larger area.

Carex lessoniana
Robust and vigorous endemic species that grows to 1.5m tall. Similar to *C.geminata* in that the species is spreading and suitable for a larger wet area.

Carex secta **(purei, makura)**
Endemic species that exhibits tall spreading tussocks. Has been noted to grow to 3m tall, widespread in swampy areas. Useful in the creation of bird habitat.

Carex virgata

Endemic species that forms dense, light green tussocks up to 1m tall. Thrives in a variety of habitats including swamps, drain margins, seepages and wet pastures. Useful in the creation bird habitat.

Cortaderia fulvida (toetoe)

Branching from the base and forming a clump to 4m high. Long strap-shaped leaves with re orange coloured veins, flower heads cream yellow. New shoots exhibit pale waxy cover on l parts (unlike pampas grass) Prefers good drainage and semi-shade. Will struggle to compete dried out in summer.

***Cyperus ustulatus* (toetoe upoko-tangata, giant umbrella sedge)**

Vigorous leafy sedge growing to 1m in open damp places. Tolerates immersion in standing water within a range of habitats from seepages to wetlands.

Dicksonia squarrosa (whekī, tree fern)

Tree fern up to 7m tall that exhibits tolerance of wet open ground, and floods. Found to shelte and accumulate with other native plants. The base of the fern attracts biodiversity. Useful application to streambank and seepage habitats.

Elatostema rugosum (parataniwha)

Herbaceous plant up to 0.5m tall that spreads by rhizomes. Bronze coloured foliage with serra edge. Grows on moist sites in light to heavy shade. Intolerant of dry habitats.

Hypolepis dicksonioides

Large fern that prefers fertile moist, but well-drained ground, grows vigorously and spores into planted areas with abundance. Does however, die back during winter.

Phormium tenax (harakeke, flax)

Fast growing clump-forming flax with large stiff leaves, to 3m. Full exposure and sun. Moist tc wet conditions. Does not have deep or wide roots. Easily propagated from split fans or grown from seed. Attracts birds, especially Tui.

Trees and shrubs

Consideration needs to be given to the effects of roots land application on wastewater distribution pipe networks. This problem can be more significant for large tree species.

***Carpodetus serratus* (putaputaweta, marbleleaf)**

Lowland forest tree up to 7m tall. Large bunches of cream coloured flowers appear in spring followed by black berries.

Coprosma areolata

Species that grows to 4m tall. Low tolerance to drought, with medium to high fertility.

Coprosma robusta (karamu, shining karamu)

Shrubs or small trees growing to 3m+, with glossy green leaves. Masses of orange-red fruit in autumn are attractive to birds. Hardy plant.

***Coprosma tenuicaulis* (swamp coprosma)**

Endemic species that grows to 3m tall. Leaves pale green with slender branches. Will tolerate a range of swampy to boggy habitats including standing water.

Cordyline australis (tī kouka, cabbage tree)

Palm-like in appearance with large heads of linear leaves and panicles of scented flowers. Sun to semi-shade. Prefers damp to moist soil. Grows eventually to 12m+ height.

Dacrycarpus dacrydioides (kahikatea, white pine)

Tree that grows to 40m. Moderately growing species, which prefers wetland and boggy environments. Application of this species must consider the possible impact of its root systems on the wastewater disposal field.

Geniostoma rupestre (hangehange)

Common forest shrub with pale green glossy foliage, growing to 2-3m. Tiny flowers give off strong scent in spring. Looks best in sunny position where it retains a bushy habit, and prefers well-drained soil.

Hebe stricta (koromiko)

Shrub or small tree growing to 2-5m in height. Natural forms have white to bluish flowers. Plant in full sun. Tolerates exposure. (NB Many cultivars and hybrids are available commercially, but these are all unsuitable for use near existing natural vegetation.)

Laurelia novae-zelandiae (pukatea)

Large upright tree (to 30m) with attractive bright green foliage and distinctive whitish bark . Fast growing and able to handle a wide variety of soils. It will tolerate periodic flooding, breathing roots develop in water logged soils. Can be grown from seed. Tolerant of some sun and frost. Not tolerant of wind.

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

SITE SUITABILITY WASTE WATER REPORT

CLIENT

PETER SHAW

SITE LOCATION

1349B STATE HIGHWAY 10, KERIKERI

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

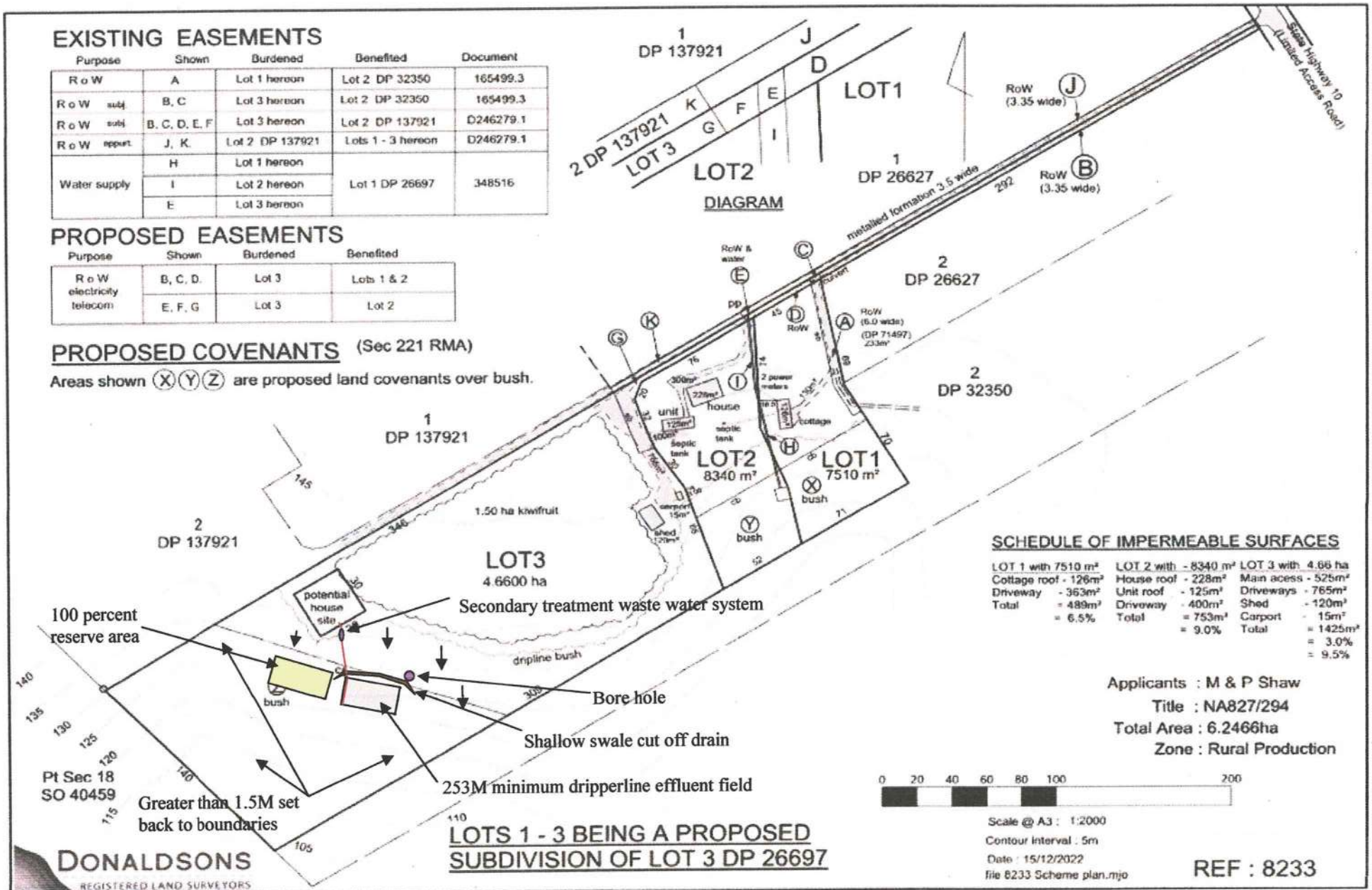
23/09/25
The Senior Building Inspector
Far North District Council
Private Bag 752
Kaikohe

RE : SITE SUITABILITY REPORT FOR WASTE WATER FOR PROPOSED LOT 1, LOT 2 AND LOT 3 AT 1349B STATE HIGHWAY 10, KERIKERI

On the 16th of September a site inspection was carried out to assess the soil types and soakage for proposed new lots 1,2 and 3.
LOT 1. The soil is categorised as Kerikeri friable clay that is well drained.
There is an existing cottage on this lot though the sewer drain goes to a septic tank on proposed lot 2 so therefore a new waste water system has been designed as in the attached Lot 1, TP58.
The stormwater on the site is sheet flow towards the bush area on the southern boundary.
LOT 2. This soil is categorised also as Kerikeri friable clay that is well drained.
There is an existing three bedroom house and two units on this site that go into two separate septic tank systems with very old ceramic drains that have root intrusion and small septic tanks, therefore they should be updated with a secondary treatment waste water system to service all the dwellings.
A TP58 for lot 2 is attached catering for eleven people a with total daily waste water flow of 1760L per day to be treated and disposed of by the secondary treatment waste water system.
The stormwater on the site is sheet flow towards the bush area on the southern boundary.
LOT 3. This lot is also classed as Kerikeri friable clay with good soakage.
There is a Kiwi fruit orchard on this site but has a good area for building at the south west end of the section as shown on the plan.
An example of a three bedroom house is included with a layout plan.
A shallow swale cut off drain is required on all sites to divert stormwater away from the effluent fields.
Stormwater on this site is sheet flow towards the south western boundary.

Yours sincerely Steve Wood

LOT 3 EXAMPLE OF A THREE BEDROOM HOUSE WASTE WATER LAYOUT



Land / engineering Surveyors & development planners - 90 Kerikeri Road, Kerikeri, Northland, New Zealand - www.donaldsons.net.nz - em: info@donaldsons.net.nz - p:09 4079182

1. **Has a Slope Stability Assessment been carried out on the property?**

Yes		No	tick	Please tick

If No, why not?

No sign of instability in adjacent properties.

If Yes, please give details of report (and if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:-	

2. **Site Characteristics (See Table 1 attached):**

Provide descriptive details below:
Performance of Adjacent Systems:
No known problems.
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
1600mm per year. 900mm winter / 700mm summer
Vegetation / Tree Cover:
Bush where the effluent field is to be constructed
Slope Shape: (Please provide diagrams)
Constant grade
Slope Angle:
Approximately 6-22 degrees.
Surface Water Drainage Characteristics:
Sheet flow
Flooding Potential: YES/NO
NO
If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
Surface Water Separation:
Surface water separation can be kept to council requirements.
Site Characteristics: or any other limitation influencing factors
Good topsoil depth

3. Site Geology **Check Rock Maps**

Kerikeri Friable Clay. Well to moderately well drained.

Geological Map Reference Number	NZMS 290 SHEET P04/05

4. What Aspect(s) does the proposed disposal system face? (please tick)

North		**West**	
North-West		**South-West**	
North-East		**South-East**	
East	tick	**South**	

5. Site clearances,(Indicate on site plan where relevant)

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	Greater than 1.5 M	Check Council requirements
Surface water, rivers Creeks drains etc	Greater than 15 M	Greater than 15 M
Groundwater	Greater than 0.6 M	Greater than 0.6 M
Stands of Trees/Shrubs	NA	
Wells, water bores	None known	
Embankments/retaining walls	NA	
Buildings	Greater than 3 M	Greater than 3 M
Other (specify):		

PART D: Site Assessment - Subsoil Investigation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation, and Sn 5.2.2(a) Site Surface Evaluation and Sn 5.3 Subsurface Investigations)
Note: Underlined terms defined in Table 2, attached

1. Please identify the soil profile determination method:

Test Pit		(Depth_____m	No of Test Pits	
Bore Hole		(Depth 1.3 M ___m	No of Bore Holes	one
Other (specify):				

Soil Report attached?

Yes	tick	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	tick	Please tick

If yes, please specify the effect of the fill on wastewater disposal

3. percolation testing (mandatory and site specific for trenches in soil type 4 to 7)

Please specify the method
Constant Head Permeameter

Test Report Attached?	Yes	tick	No		Please tick

4. Are surface water interception/diversion drains required?

Yes	tick	No		Please tick

If yes, please show on site plan

4a Are subsurface drains required

If yes enter details

5. Please state the depth of the seasonal water table:

Winter	2	m	Measured		Estimated	tick
Summer	Greater than 2 M	m	Measured		Estimated	tick

6. Are there any potential storm water short circuit paths?

Yes		No	tick	Please tick

If the answer is yes, please explain how these have been addressed

7. Based on results of subsoil investigation above, please indicate the disposal field soil category *(Refer TP58 Table 5.1)*

Is Topsoil Present? Yes	If so, Topsoil Depth? 0.25M (m)

Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	tick
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Assessment of soil texture.
Observation of soakage test.
Checking soil maps.

PART E: Discharge Details

1. Water supply source for the property (please tick):

Rainwater (roof collection)	tick
Bore/well	
Public supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms	~~2 - 3 - 4~~			three
Design Occupancy	Five			(Number of People)
Per capita Wastewater Production	~~140~~	~~160~~	180	(tick) (Litres per person per day)
Other - specify	~~200~~	~~220~~		
Total Daily Wastewater Production	900			(litres per day)

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?	Yes		No	tick	(Please tick)
b) Water Recycling - what %?	%			tick	(Please tick)

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage

Dual flush toilet.
No garbage disposal unit

4. Is Daily Wastewater Discharge Volume more than 2000 litres:

Yes		(Please tick)
No	tick	(Please tick)

Note if answer to the above is yes, an N.R.C wastewater discharge permit may be required

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	46600	M
Total Daily Wastewater Production	900	(Litres per day)(from above)
Lot Area to Discharge Ratio	51.7	

7. Does this proposal comply with the Northland Regional Council Gross Lot Area to Discharge Ratio of greater than 3?

Yes	tick	No		Please tick

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	tick	(Please tick)

PART F: Primary Treatment *(Refer TP58 Section 7.2)*

1. Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre, duel chamber explain why not

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
	Total Capacity	

2. Type of Septic Tank Outlet Filter to be installed?

PART G: Secondary and Tertiary Treatment

(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

1. Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment			
Home aeration plant	tick		
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other		Specify	

PART H: Land Disposal Method

(Refer TP58 Section 8)

1. Please indicate the proposed loading method: (please tick)

Gravity	
Dosing Siphon	
Pump	tick

2.High water level alarm to be installed in pump chambers

Yes	~~no~~

If not to be installed, explain why

3. If a pump is being used, please provide the following information:

Total Design Head	To manufacturers recommendation	(m)
Pump Chamber Volume	160	(Litres)
Emergency Storage Volume	1000	(Litres)

4. Please identify the type(s) of land disposal method proposed for this site: (please tick)
(Refer TP58 Sections 9 and 10)

Surface Dripper Irrigation	tick		
Sub-surface Dripper irrigation			
Standard Trench			
Deep Trench			
Mound			
Evapo-transpiration Beds			
Other		Specify	

5. Please identify the loading rate you propose for the option selected in Part H, Section 4 above, stating the reasons for selecting this loading rate:

Loading Rate	3.57		(Litres/m2/day)
Disposal Area	Design	253	(m2)
	reserve	253	(m2)

Explanation *(Refer TP58 Sections 9 and 10)*

Loading rate adopted for secondary treated effluent for category 4 soil

6. What is the available reserve wastewater disposal area *(Refer TP58 Table 5.3)*

Reserve Disposal Area (m²)	253 sq M
Percentage of Primary Disposal Area (%)	100 percent

7. Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:

Description and Dimensions of Disposal Field:

A minimum of 253 M of RAMM dripperline with 3.5 L/HR emitters at 1 M spacing and 1 M line separation spacing.
Dripperline to be laid in the bush and pinned with a mulch covering over time by the vegetation

Plan Attached?	Yes	tick	No		(Please tick)

If not, explain why not

Job No.

ON-SITE EFFLUENT DISPOSAL
SSESSMENT OF ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

Assessment of Environmental Effects

Impact on Surface Water (incl. flood times) VERY MINOR

Impact on Ground Water VERY MINOR

Impact on Soils MINOR

Impact on Amenity Values MINOR

Public Health Issues:

Should access to the disposal area be discouraged? YES

Will odour effects be greater than usual? NO

Will noise effects be greater than usual? NO

Mitigation Measures

Has conservative approach been taken in choosing system design capacity? YES

Is system design robust (cope with fluctuations of load, climate)? YES

Is level of treatment high? SECONDARY WASTE WATER TREATENT

Protection against failure storage, alarms? YES

Is hydraulic loading rate conservative? YES

Is distribution area protected from hydraulic overload (interception drains)? YES

Will soil type enhance treatment? YES

Are desired separation distances attainable? (to surface water, groundwater, bores) YES

Is the reserve area adequate? YES.100 PERCENT

LOT 3

Client:
Job:
Location:
Augerhole No.:
Drilling Method:

REF:
Logger:
Date:
Page:
Checked:

PERCOLATION TEST -GRAPH SHEET

Client: P Shaw
Job:
Location: 1349B SHW10, Kerikeri, lot 3

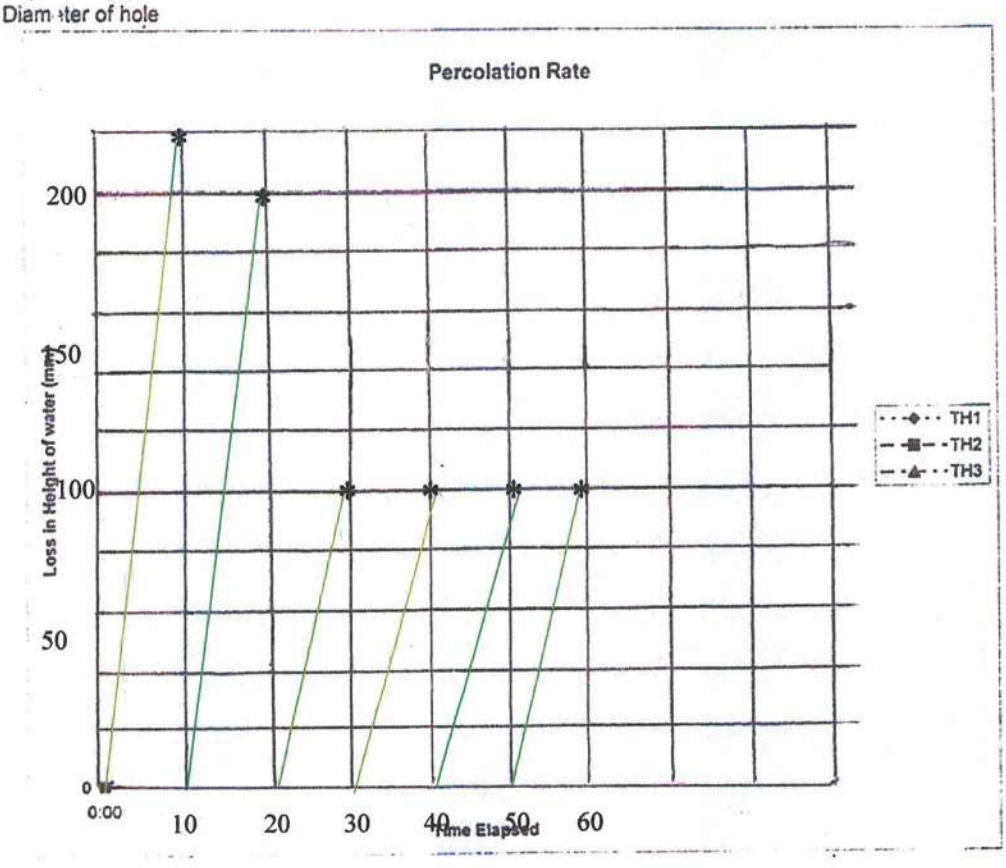
Ref.:
Report No.:
Page:

Tested by: STEVE WOOD
Date:

Presoaking conditions: 30 MIN
Weather conditions prior: Wet

		Loss in height of water					Percolation Rate (mm/hr)			
Time	Time elapsed	TH1	TH2	TH3	TH4		TH1	TH2	TH3	TH4
	10 MIN	250					1500			
	10 MIN	200					1200			
	10MIN	100					600			
	10 MIN	100					600			
	10 MIN	100					600			
	10 MIN	100					600			

Depth of hole
Depth of topsoil
Diameter of hole



LOT 3

Depth (m)	Legend	Soil Symbol	Soil Description	Water Level	Vane Shear Strength maximum/residual corrected kPa	Soil Sensitivity	Sample Number	Other Tests
0 - -0.2			0.25M TOPSOIL					
- - -0.5 - - - -1 - -1.2			BROWN GRANULAR CLAY					
- -1.5 - - -1.8 - -2 - - - -2.5 - - - -3 - - -3.3								

Remarks:

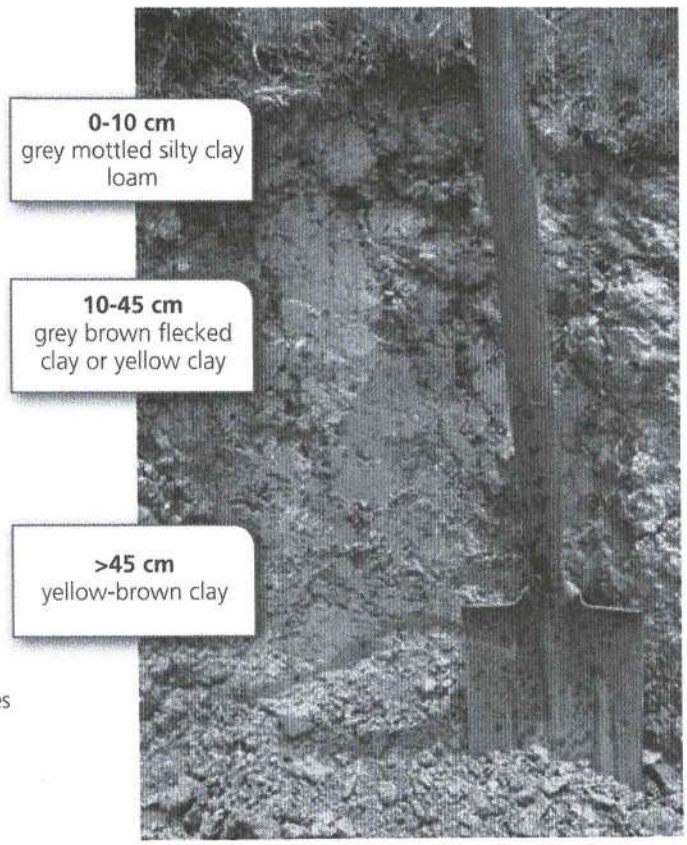
No ground water encountered.

Topsoil		Sand	
Fill		Gravel	
Clay		Peat	
Silt		Rock	

Mature greywacke soils

Soil types in this group

- Rangiora clay, clay loam and silty clay loam - RA, RAH*
- Rangiora silty clay loam - RAI, RAIH*



Rangiora clay, clay loam & silty clay loam (RA, RAH) soil profile

*The H denotes the hill variant of this soil type, which occurs on slopes over 20° and has a shallower profile.

This fact sheet uses NZ Soil Bureau map series soil type names and abbreviations.

Features of mature greywacke soils

- These soils are found on rolling to steep hill country along Northland's eastern edge, from Mangonui south to Bream Tail
- They are part of the Marua soil suite, which is prone to large scale slipping
- Slip scars on Rangiora soils can be difficult to revegetate because of poor natural fertility
- Greywacke basement rock is a hard, compacted mix of sandstone and siltstone that provides a majority of roading and building aggregates
- Because it is hard, greywacke supports some steep slopes. On the adjacent rolling hill country it has weathered up to 30m deep to produce mature Rangiora soils
- These mature soils are strongly leached to weakly podzolised

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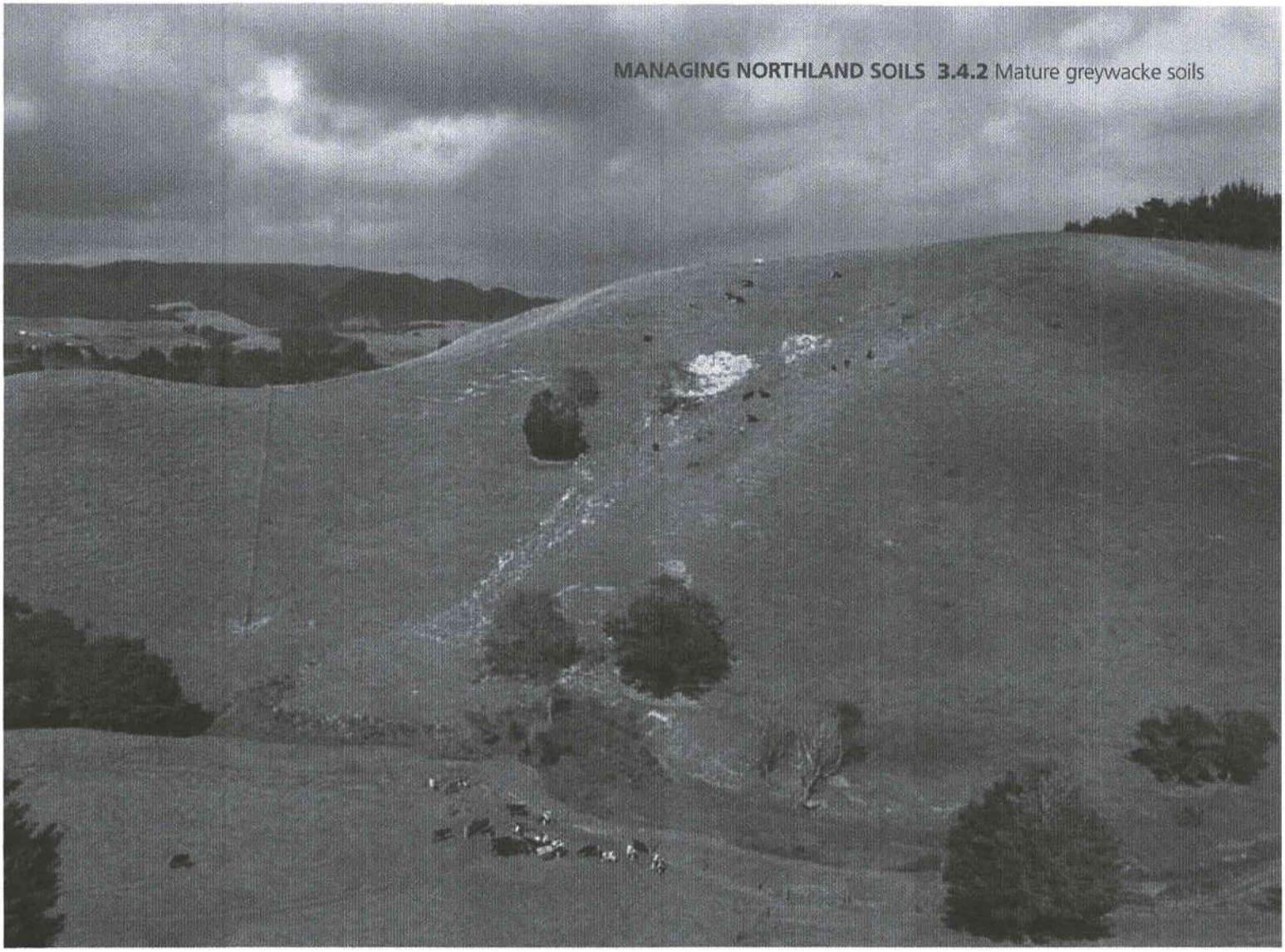
Structure and drainage management

Issues	Management tips
Due to the degree of leaching, clay has moved down through the soil profile and accumulated in subsoil which cracks as it dries to form a distinct columnar subsoil structure	Consider draining wet pasture or creating / or protecting wetlands
Podzolisation has broken down topsoil structure, reducing friability	Consider retiring very steep or marginal pastoral land from grazing if pastoral returns are poor and/or weed invasion is a problem
Loss of soil structure leads to pugging and soil surface sealing in wet conditions	Careful winter grazing management can minimise pugging and compaction and protect soil structure

Erosion control

Erosion risks	Soil type	Specific problems	Possible solutions
Slipping (severe)	All mature greywacke soils, especially on steeper slopes and during heavy rain after drought	Clay washed through the soil profile creates a slip plane During high intensity rain storms following dry weather, water flows down the cracks between the columns in the soil and lubricates the slip plane, triggering slips	Open plant poplars across slopes at 5 -10m spacing with the closer spacing at the toe and wider spacing towards the top and sides of the slip Reduce stock pressure to prevent pugging and overgrazing, which can lead to slipping
Slump erosion and soil cracking	All mature greywacke soils, especially steep areas	Where water flows across the regolith, a tunnel can form underground, which removes support from adjoining slopes During extended wet periods, tunnels cause slow slip movement defined by slump terraces and cracking	Open plant poplars to stabilise slump terraces Concentrate tree plantings in hollows and the heads of gullies as a preventative measure to reduce slipping



Rangiora soils on greywacke hill country, Ruakaka

Nutrient management

Soil type	Nutrient status	Management strategies
All mature greywacke soils	These soils are heavily leached and generally acidic. They are low in natural fertility and trace elements	Raise pH with lime Little and often applications of fertiliser are recommended on these low fertility soils because whatever is applied will be available to plants, as it is not fixed.
All mature greywacke soils	Previous trial work found that the micronutrient molybdenum creates a significant response in Rangiora soils	Seek expert advice for soil testing and fertiliser recommendations

Drainage classes

Soil symbol	Full name	Drainage class
MARUA SUITE Basement rock: greywacke and argillite		
RA, RAH	Rangiora clay, clay loam and silty clay loam	2⇌1 - Imperfectly to (very) poorly drained
RAI, RAIH	Rangiora silty clay loam	2⇌1 - Imperfectly to (very) poorly drained

Northland soil factsheet series

- Northland's climate, topography, historic vegetation and mixed geology have combined to form a complex pattern of soils across the region. There are over 320 soil types in Northland. Other regions in New Zealand average only 20 soil types per region.
- The information in this fact sheet is based on a 1:50,000 mapping scale. Therefore, it is not specific to individual farms or properties. However, it may help you to understand general features and management options for recent alluvial soils.
- Knowing your soils' capabilities and limitations is the key to sustainable production in Northland. Northland Regional Council (NRC) land management advisors are available to work with landowners to provide free soil conservation advice, plans and maps specific to your property.
- Regular soil tests are recommended. If you are concerned about your soil structure or health, the Visual Soil Assessment test could be useful. Contact the land management advisors at Northland Regional Council for more information.
- Further background information about the processes that have formed these soils can be found here: **www.nrc.govt.nz/soilfactsheets**