THOMSON SURVEY LIMITED

SURVEYORS AND RESOURCE PLANNERS

Our Reference: 10772.1 (FNDC)

25 November 2025

Resource Consents Department
Far North District Council
JB Centre
KERIKERI

Dear Sir/Madam

RE: Proposed Subdivision of land at 79A and 79B State Highway 1, Ohaeawai – MyFarm KiwiFruit Fund Limited Partnership

I am pleased to submit application on behalf of MyFarm KiwiFruit Fund Limited Partnership, for a proposed subdivision around existing development, on land 79A and 79B, SH 1, Ohaeawai, zoned Rural Production. The application includes land use consent for breaches regarding the existing residential activity and site coverage to be within one of the lots being created. Overall, the application is a non complying activity.

The application fee of $5,143 has been paid separately via direct credit.

Regards

Lynley Newport
Senior Planner
THOMSON SURVEY LTD

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After Hours: Office Manager: Sam Lee 021 1370060

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

Office Use Only
Application Number:

Application for resource consent or fast-track resource consent

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

1. Pre-Lodgement Meeting

Have you met with a council Resource Covnsent 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? NZTA

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: MyFarm KiwiFruit Fund Limited Partnership

Email:

Phone number:

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

[redacted]

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

If yes, please provide details.

6. Address for correspondence

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

Name/s: Lynley Newport

Email:

Phone number:

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

[redacted]

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: As per Item 5

Property address/
location:

Postcode

8. Application site details

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

Name/s: As per Item 5

Site address/ location: 79A & 79B State Highway 1
OHAEAWAI
Postcode

Legal description: Lot 1 DP 208050 **Val Number:**

Certificate of title: NA134D/521

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.

This is a working orchard and the 2 houses on the property are rented. Please call Russell McDivitt on 027 5050 377 to a arrange a site visit.

9. Description of the proposal

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

Subdivision of land zoned Rural Production to create one additional title containing existing built development; land use consent for stormwater management and setback from boundary rule breaches resulting from new lot area around existing built development

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

10. Would you like to request public notification?

◯ **Yes** ☑ **No**

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

(more than one circle can be ticked):

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

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

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

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

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

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

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

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

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

13. Assessment of environmental effects:

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

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

14. Draft conditions:

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

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

15. Billing Details:

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

Name/s: (please write in full) MyFarm KiwiFruit Fund Limited Partnership

Email: [redacted]

Phone number:

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

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

15. Billing details continued...

Declaration concerning Payment of Fees

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

Name: (please write in full) Russell McDivitt

Signature: [redacted] Date 18-Nov-2025

(signature of bill payer) MANDATORY

16. Important Information:

Note to applicant

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

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

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

Fast-track application

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

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

Privacy Information:

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

17. Declaration

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

Name (please write in full) Russell McDivitt

Signature [redacted] Date 18-Nov-2025

ans

See overleaf for a checklist of your information...

Checklist

Please tick if information is provided

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

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

MyFarm Kiwifruit Fund LP

PROPOSED SUBDIVISION PURSUANT TO FNDC OPERATIVE DISTRICT PLAN

79 & 79B State Highway 1, Ohaeawai

PLANNER'S REPORT & ASSESSMENT OF ENVIRONMENTAL EFFECTS

Thomson Survey Ltd
Kerikeri

1.0 THE PROPOSAL

1.1 Subdivision

The applicants propose to subdivide property at State Highway 1, Ohaeawai, to create a total of two lots (one additional), with lot areas as follows:

Lot 1 4000m^2 (containing existing residential dwellings);
Lot 2 8.12ha (vacant of built environment, containing existing horticultural activity).

The Scheme Plan(s) are presented in Appendix 1:

The land is partly highly productive land by definition and is primarily in horticulture (kiwifruit), with the exception of two existing dwellings, to be within Lot 1. The intention is to separate the residential component from the horticultural component in its entirety. It is not intended to provide for any residential development on the Lot 2 horticultural block. It will be dedicated to ongoing horticultural production.

The property has existing access off State Highway 1, just north of Ohaeawai. Consultation has been undertaken with NZTA with the result that the existing vehicle crossing (CP156D) be upgraded to an NZTA Diagram C standard. This is agreeable to the applicant.

Internal to the site the one driveway will remain, owned by small Lot 1, with right of way in favour of the large Lot 2. This will be to the appropriate standard for the number of lots served, and type of uses on the site.

The proposed lots do not have access to any Council reticulated services. The site has a water boundary (eastern boundary) and a bore water supply. The existing development to be in Lot 1 has existing on-site water supply, on-site wastewater treatment and disposal; and on site stormwater management.

1.2 Land Use

The majority of the existing impermeable surfaces on the site (buildings and driveways/ turning areas/parking) will be in the smaller Lot 1. Post subdivision this will mean a 28% impermeable surface coverage, breaching both permitted and controlled activity thresholds for stormwater management. **Consent is therefore sought for a breach of Rules 8.6.5.1.3 and 8.6.5.2.1, to provide for the impermeable surface coverage to be within proposed Lot 1**.

The buildings within Lot 1, however, will not breach the 12.5% building coverage permitted for the zone. There are two 'buildings' that will be either entirely or mostly removed from Lot 1, leaving only two residential dwellings with minor ancillary sheds.

The site supports two residential units. Property file research shows the first, and larger dwelling was 're-erected' pursuant to building consent issued in 1983. The second and smaller dwelling got building consent in October 2001. The consent was for a 'new dwelling' with floor area of 93m^2. There was no indication in the property file that a resource consent was required, or requested, by Council. The 'site' was the same as it is now, i.e. 8.5ha in area. The building consent was assessed pursuant to both the Transitional BOI Plan and Proposed District Plan at the time (2001). Existing use rights prevail. However, this subdivision reduces the area of the property within which the two residential units are located, and as such **consent is required for a breach of Residential Intensity.** What is important to note is that the current residential intensity is two dwellings on 8.52ha (1:4.26ha), and following this subdivision there will still be two dwellings, on the same underlying area of land albeit in two titles, because no residential unit is to be permitted on the larger 8.12ha lot.

1.3 Scope of this Report

This assessment and report accompanies the Resource Consent Application made by the applicant, and is provided in accordance with Section 88 and Schedule 4 of the Resource Management Act 1991. The application seeks consent to subdivide an existing site to create a total of two lots (one additional) around existing development. The information provided in this assessment and report is considered commensurate with the scale and intensity of the activity for which consent is being sought. Applicant details are contained within the Application Form 9.

2.0 PROPERTY DETAILS

Location:	79& 79A State Highway 1, Ohaeawai (Location Map in Appendix 2)
Legal description:	Lot 1 DP 208050
Record of Title:	NA134D/521, 8.52ha in area. Copy attached in Appendix 3.

3.0 SITE DESCRIPTION

3.1 Site Characteristics

The site is zoned Rural Production in the Operative District Plan (ODP) and Proposed District Plan (PDP). No resource features apply in either the ODP or PDP. The site is almost entirely in horticulture (kiwi fruit), with the exception of the two dwellings and associated ancillary sheds. An existing plastic house is to be removed as is the majority of an existing implement shed.

There is an existing entrance off State Highway 1, with metal driveway running along the north western boundary to the houses and beyond.

The site has a water boundary as its eastern boundary, mostly to a small tributary stream, that then intersects with another, slightly larger stream. The riparian margins are vegetated with a setback established between the stream and any vines.

Road boundary, and northern and southern boundaries of the site feature mature screening plantings.

The site is highly productive land by definition. It is not subject to any natural hazards. It does not contain any heritage or cultural features or objects. The site is not currently identified as a HAIL site. The site is not mapped as being within either a kiwi present or high density kiwi area. The site does not contain any areas of indigenous vegetation of any note.

3.2 Legal Interests on Titles

The title is subject to a Crossing Notice registered by NZTA, indicating that there is an existing legal crossing to State Highway 1 – no new highway crossing proposed.

3.3 Consent History

Building Consents:

BP2036868	1983	Implement shed
BP2036832	1983	Re-erect dwelling
BC-1995-784	1994	Additions to existing dwelling
BC-1995-1160	1995	Garage
BC-2002-440	2001	New Dwelling
BC-2012-1312	2012	Poly Greenhouse

Resource Consents:

7617-TCPSC	1990	Subdivision – separating Lot 1 DP 141894 off from the balance Pt 2 DP 96242 (application site)

4.0 SCHEDULE 4 – INFORMATION REQUIRED IN AN APPLICATION

Clauses 2 & 3: Information required in all applications

(1) An application for a resource consent for an activity must include the following:	
(a) a description of the activity: .	Refer Sections 1 above and 5 of this Planning Report.
(b) an assessment of the actual or potential effect on the environment of the activity:	Refer to Section 6 of this Planning Report.
(b) a description of the site at which the activity is to occur:	Refer to Section 3 of this Planning Report.
(c) the full name and address of each owner or occupier of the site:	This information is contained in the Form 9 attached to the application.
(d) a description of any other activities that are part of the proposal to which the application relates:	Refer to Section 3 of this Planning Report for existing activities within the site. The application is for subdivision & land use pursuant to the FNDC's ODP.
(e) a description of any other resource consents required for the proposal to which the application relates:	See above.
(f) an assessment of the activity against the matters set out in Part 2:	Refer to Section 7 of this Planning Report.
(g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b), including matters in Clause (2): (*a) any relevant objectives, policies, or rules in a document; and* *(b) any relevant requirements, conditions, or permissions in any rules in a document; and* *(c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).*	Refer to Sections 5 and 7 of this Planning Report.
(3) *An application must also include any of the following that apply:*	
(a) if any permitted activity is part of the proposal to which the application relates, a description of the permitted activity that demonstrates that it	Refer to section 5.

complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1)):	
(b) if the application is affected by section 124 or 165ZH(1)(c) (which relate to existing resource consents), an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A)):	There is no existing resource consent. Not applicable.
(c) if the activity is to occur in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011, an assessment of the activity against any resource management matters set out in that planning document (for the purposes of section 104(2B)).	The site is not within an area subject to a customary marine title group. Not applicable.
(4) An application for a subdivision consent must also include information that adequately defines the following:	
(a) the position of all new boundaries: *(b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan:* *(c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips:* *(d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips:* *(e) the locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A:* *(f) the locations and areas of any land within the coastal marine area (which is to become part of the common marine and coastal area under section 237A):* *(g) the locations and areas of land to be set aside as new roads.*	Refer to Scheme Plans in Appendix 1.

Clause 6: Information required in assessment of environmental effects

(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 effect on the environment, a description of any possible alternative locations or	Refer to Section 6 of this planning report. The activity will not result in any significant adverse effect on the environment.

methods for undertaking the activity:	
(b) an assessment of the actual or potential effect on the environment of the activity:	Refer to Section 6 of this planning report.
(c) if the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use:	Not applicable.
(d) if the activity includes the discharge of any contaminant, 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:*	The subdivision does not involve any discharge of contaminant.
(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 effect:	Refer to Section 6 of this planning report.
(f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted:	Refer to Section 8 of this planning report. No affected persons have been identified.
g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:	No monitoring is required as the scale and significance of the effects do not warrant it.
(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 protected customary right is affected.

Clause 7: Matters that must be addressed by assessment of environmental effects (RMA)

(1) An assessment of the activity's effects on the environment must address the following matters:	
(a) any effect on those in the neighbourhood and, where relevant,	Refer to Sections 6 and 8 of this planning report and also to the assessment of objectives and policies in Section 7.

the wider community, including any social, economic, or cultural effects:	
(b) any physical effect on the locality, including any landscape and visual effects:	Refer to Section 6. The site has no high or outstanding landscape or natural character values.
(c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:	Refer to Section 6. The subdivision has no effect on ecosystems or habitat.
(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:	Refer to Section 6. The site has no aesthetic, recreational, scientific, historical, spiritual or cultural values that I am aware of, that will be adversely affected by the proposal.
(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:	The subdivision will not result in the discharge of contaminants, nor any unreasonable emission of noise.
(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.	The site is not subject to hazard. The proposal does not involve hazardous installations.

5.0 ACTIVITY STATUS

5.1 Operative District Plan

The site is zoned Rural Production and has no resource features.

Table 13.7.2.1: Minimum Lot Sizes

(i) RURAL PRODUCTION ZONE

Controlled Activity Status (Refer also to 13.7.3)	**Restricted Discretionary Activity Status (Refer also to 13.8)**	**Discretionary Activity Status (Refer also to 13.9)**
The minimum lot size is 20ha.	1. The minimum lot size is 12ha; or 2. The minimum lot size is 12ha; or **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 4. A maximum of 5 lots in a subdivision (including the parent	**1. The minimum lot size is 4ha**; or 2. A maximum of 3 lots in any subdivision, provided that the minimum lot size is 2,000m² and there is at least 1 lot in the subdivision with a minimum 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 3. A subdivision in terms of a management plan as per Rule 13.9.2 may be approved. Option 4 N/A

	lot) where the minimum size of the lots is 2ha, and where the subdivision is created from a site that existed at or prior to 28 April 2000; Option 5. N/A as the proposal does not utilise remaining rights.	

I have highlighted Option 3 even though the Title is dated May 2001. This is because DP 208050 was a Plan of Lot 1 for CT Diagram Purposes, with an area of 8.52ha. Pt Lot 2 DP 96242 was the balance parcel created pursuant to 7617-TCPSC. The title for the other lot created by 7617-TCPSC is dated 1991. There has been no further subdivision of Pt Lot 2 DP 96242 since 1991 as far as I can ascertain.

The original Lot 2 DP 96242 was 11.91ha in area. 7617-TCPSC subdivided off what is now Lot 1 DP 141894, 3.39ha in area, leaving balance Pt Lot of 8.52ha – the same exact area as the current title (Plan of Lot 1 for CT Diagram Purposes). In short, the title was created in 1991, legally described as Pt Lot 2 DP 96242 – a residual balance, but for whatever reason a new Title for CT purposes only (no subdivision), was issued in 2001 (10 years later).

I believe, therefore, that the subdivision can be correctly assessed as a restricted discretionary activity subdivision, given that Lot 1 is over 4000m^2 in area, and the balance is larger than 4ha.

Should the Council choose to disregard my justification for restricted discretionary subdivision status, then it becomes non complying.

Other Rules:

Zone Rules:

The proposal places the existing built development, including driveway, parking and manoeuvring areas within proposed Lot 1. Consent is required for breaches of the permitted and controlled activity impermeable surface coverage thresholds applying to the zone. The application is supported by a civil site suitability report addressing stormwater management.

Whilst the property supports two legally established dwellings, the area that they are located in will reduce from the current overall title in excess of 8ha, down to a 4000m^2 lot. Consent is therefore required for breaches of the Zone's permitted residential intensity rule. Council will likely regard this breach as resulting in non complying activity status because there will be two residential units on only 4000m^2 of land. However, the overall residential intensity over both lots remains unchanged because no residential development is going to be allowed to occur on the balance horticultural lot.

New Lot 1 boundaries are closer than 10m from existing dwellings – 9.6m from proposed northern boundary of Lot 1, and 7.3m from proposed southern boundary.

No breaches of the Sunlight rule arise in regard to existing buildings and boundary.

District Wide Rules:

Chapter 12.1 Landscapes and Natural Features does not apply as there is no landscape or natural feature overlay applying to the site.

Chapter 12.2 Indigenous Flora and Fauna does not apply as no clearance of indigenous vegetation is proposed.

Chapter 12.3 Soils and Minerals does not apply/ is complied with. Subdivision earthworks will be minimal given the access is existing and there is no built development associated with the application.

Chapter 12.4 Natural Hazards does not apply as the site is not subject to any coastal hazard as currently mapped in the Operative District Plan (the only hazards with rules). There are no areas of bush from which a 20m buffer is required, nor any new residential unit proposed in any event.

Rules in Chapters 12.5, 5A and 5B Heritage do not apply as the site contains no heritage values or sites, no notable trees, no Sites of Cultural Significance to Maori and no registered archaeological sites. The site is not within any Heritage Precinct.

Chapter 12.7 Waterbodies. Whilst the site has water boundaries, there is no development existing, or proposed, within 30m of any stream bank. Nor is any part of any wastewater treatment or disposal system proposed within 30m of a river (noting that the streams that form boundaries are not likely to have an average width of 3m along the entire boundary of Lot 2).

Chapter 12.8 Hazardous Substances does not apply as the activity being applied for is not a hazardous substances facility.

Chapter 12.9 does not apply as the activity does not involve renewable energy.

Chapter 14 Financial Contributions (esplanade reserve) is not relevant as the only lot with a water boundary is over 4ha.

<u>Chapter 15.1 Traffic, Parking and Access</u>

Rules in Chapter 15.1.6A are not considered relevant to the proposal. This is because the traffic intensity rules apply to land use activities, not subdivisions. In any event both a single residential dwelling and 'farming' are exempt from traffic intensity rules. Similarly rules in Chapter 15.1.6B (parking requirements) also relate to proposed land use activities, not subdivisions. Notwithstanding this, no breaches of parking rules have been identified.

Chapter 15.1.6C (access) is the only part of Chapter 15.1 relevant to a subdivision. A brief assessment of the rules in 15.1.6C.1.1-11 follows.

Part (a) of Rule 15.1.6C.1.1 requires private accessway to be undertaken in accordance with Appendix 3B-1. Any access within ROW's A and B will serve two titles and will be formed to the required standard. The access is already in existence and it is anticipated that some localised widening will take place. The shared access has been drawn to the required legal width.

Part (b) of Rule 15.1.6C.1.1 only applies to urban zones. 15.1.6C.1.1(c) and (d) are both complied with. No section of the private access will serve more than 8 household equivalents or 9 or more titles. All parts of (e) are also complied with. The State Highway crossing is existing, so not 'new'. In addition, NZTA has provided its conditional approval and the crossing will be upgraded to a Diagram C.

15.1.6C.1.2 only applies to urban zones. Rule 15.1.6C.1.3 states that where passing bays are required, they be 15m long and 5.5m wide. Part (b) requires passing bays every 100m and on blind corners and brows. Appendix 3B-1 requires passing bays where 3 or more household equivalents are served. It is doubtful, therefore, that a passing bay is required in this case.

There is no footpath (15.1.6C.1.4).

Rule 15.1.6C.1.5 applies to rural and coastal zones. In regard to part (a), the crossings to public road is an NZTA matter. The 'crossing' into Lot 1 is therefore subject to NZTA's conditional approval. Technically because it has easement over Lot 1, so too is the crossing to Lot 2. Parts (b) and (c) are not applicable.

Rule 15.1.6C.1.6 only applies to urban zones.

Rule 15.1.6C.1.7 addresses various general access standards.

- There is no need for vehicles to reverse off a site (part (a));
- There are no 'bends' within existing access alignment (part (b));
- There is no excess legal width (part (c));
- Runoff is already / will be directed to swale drains (part (d)).

Rule 15.1 6C.1.8 addresses frontage to existing roads. In this instance, the existing road is State Highway 1, outside of the FNDC's jurisdiction. The new lots only have one frontage and there is no encroachment.

None of the rest of the rules in Chapter 15.1.6C are applicable and there are no other district wide rules in the Operative District Plan that are applicable.

5.2 Proposed District Plan

The FNDC publicly notified its PDP on 27th July 2022. Whilst the majority of rules in the PDP will not have legal effect until such time as the FNDC publicly notifies its decisions on submissions,

there are certain rules that have been identified in the PDP as having immediate legal effect and that may therefore need to be addressed in this application and may affect the category of activity under the Act. These include:

Rules HS-R2, R5, R6 and R9 in regard to hazardous substances on scheduled sites or areas of significance to Maori, significant natural areas or a scheduled heritage resource.

There are no scheduled sites or areas of significance to Maori, significant natural areas or any scheduled heritage resource on the site, therefore these rules are not relevant to the proposal.

Heritage Area Overlays – N/A as none apply to the application site.

Historic Heritage rules and Schedule 2 – N/A as the site does not have any identified (scheduled) historic heritage values.

Notable Trees – N/A – no notable trees on the site.

Sites and Areas of Significance to Maori – N/A – the site does not contain any site or area of significance to Maori.

Ecosystems and Indigenous Biodiversity – Rules IB-R1 to R5 inclusive.

No indigenous vegetation clearance is proposed.

Subdivision (specific parts) – only subdivision provisions relating to land containing Significant Natural Area or Heritage Resources have immediate legal effect. The site contains no scheduled or mapped Significant Natural Areas or Heritage Resources.

Activities on the surface of water – N/A as no such activities are proposed.

Earthworks – Only some rules and standards have legal effect. These are Rules EW-R12 and R13 and related standards EW-S3 and ES-S5 respectively. EW-R12 and associated EW-S3 relate to the requirement to abide by Accidental Discovery Protocol if carrying out earthworks and artefacts are discovered. EW-R13 and associated EW-S5 refer to operating under appropriate Erosion and Sediment Control measures. Only minimal earthworks will be required to give effect to the subdivision.

Signs – N/A – signage does not form part of this application.

Orongo Bay Zone – N/A as the site is not in Oronga Bay Zone.

There are no zone rules in the PDP with immediate legal effect that affect the proposal's activity status.

5.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS)

The application site has a land use history including kiwifruit orcharding, which remains current. Only a portion of the land to be in Lot 1 has been regarded as a 'piece of land' subject to the NES-CS – refer to PSI in Appendix 6.

The results of the PSI indicate that it is highly unlikely there will be a risk to human health if the proposed subdivision is carried out with continued residential land use on proposed new Lot 1. The PSI concludes that the activity is a permitted activity under the NES-CS.

6.0 ASSESSMENT OF ENVIRONMENTAL EFFECTS

The assessment of environmental effects below includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment, as required by Clause 2(3)(c) of Schedule 4 of the Act.

A restricted discretionary activity is described in s87A of the Act, clause (3).

If an activity is described in this Act, regulations (including any national environmental standard), a plan, or a proposed plan as a restricted discretionary activity, a resource consent is required for the activity and—

*(a)**the consent authority's power to decline a consent, or to grant a consent and to impose conditions on the consent, is restricted to the matters over which discretion is restricted** (whether in its plan or proposed plan, a national environmental standard, or otherwise); and*

(b)if granted, the activity must comply with the requirements, conditions, and permissions, if any, specified in the Act, regulations, plan, or proposed plan.

It is also subject to s104C of the Act:

*(1) When considering an application for a resource consent for a restricted discretionary activity, a consent authority must consider **only** those matters over which-*
(a) A discretion is restricted in national environmental standards or other regulations;
(b) It has restricted the exercise of its discretion in its plan or proposed plan; …..
*(3) ……. if it grants the application, the consent authority may impose conditions under section 108 **only** for those matters over which –*
(a) A discretion is restricted in national environmental standards or other regulations;
(b) It has restricted the exercise of its discretion in its plan or proposed plan.

The subdivision meets the restricted discretionary number/size of lots specified in Table 13.7.2.1. Far North District Plan lays out in 13.8.1, the matters to which it restricts its discretion in determining whether to grant consent to a restricted discretionary activity, and then lays out the matters to which it will restrict its discretion when considering whether to impose conditions.

13.8.1 SUBDIVISION WITHIN THE RURAL PRODUCTION ZONE

..... In considering ***whether or not to grant consent*** *on applications for restricted discretionary subdivision activities, the Council will restrict the exercise of its discretion to the following matters:*

(i) for applications under 13.8.1(a):

- *effects on the natural character of the coastal environment for proposed lots which are in the coastal environment.*

(ii) for applications under 13.8.1(b) or (c):

- *effects on the natural character of the coastal environment for proposed lots which are in the coastal environment;*
- *effects of the subdivision under (b) and (c) above within 500m of land administered by the Department of Conservation upon the ability of the Department to manage and administer its land;*
- *effects on areas of significant indigenous flora and significant habitats of indigenous fauna;*
- *the mitigation of fire hazards for health and safety of residents.*

In considering ***whether or not to impose conditions*** *on applications for restricted discretionary subdivision activities the Council will restrict the exercise of its discretion to the following matters:*
(1) the matters listed in 13.7.3;
(2) the matters listed in (i) and (ii) above

In the case of this application, the application is lodged pursuant to 13.8.1(b), and therefore clause (ii) applies:

- *effects on the natural character of the coastal environment for proposed lots which are in the coastal environment;*

The property is not within the coastal environment.

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

There is no DoC administered land within 500m. The subdivision does not impact on the ability of the Crown (through its agent, DoC) to manage and administer its land.

- *effects on areas of significant indigenous flora and significant habitats of indigenous fauna;*

There are no areas of significant indigenous flora or significant habitats of indigenous fauna on the application site.

- *the mitigation of fire hazards for health and safety of residents.*

There are no new or additional residential units proposed.

In summary, there are no grounds for the Council to refuse consent.

To assist in determining conditions of consent, the following AEE is offered.

6.1 Allotment Sizes and Dimensions

No new residential units (with associated on site services) are proposed. Lot 1 contains existing development. No residential development is to occur within Lot 2.

6.2 Natural and Other Hazards

The site is not subject to erosion, inundation, landslip, rockfall, alluvion, avulsion, unconsolidated fill, subsidence, fire hazard, or sea level rise. The only potential hazard is contaminated soils and the PSI supporting the application concludes that the proposal will not create a risk to human health.

In summary there is no reason pursuant to s106 of the Act as to why this application should not be granted.

6.3 Water Supply

There is no Council reticulated water supply to the site. The property has irrigation supply from a bore located within proposed Lot 1. Access to this supply is protected by easement in favour of Lot 2. Refer to the Civil Site Suitability Report in Appendix 5 for further commentary in regard to water supply.

6.4 Energy Supply & Telecommunications

Power and phone is not a requirement for rural subdivision. Notwithstanding that, existing facilities within the site have power and telecommunication connections. At time of survey, alignment of these services (to the houses) will be ascertained in order to identify if any additional easement is required.

6.5 Stormwater Disposal

The application includes a land use component to allow for the existing impermeable surfaces to be within new Lot 1's boundaries. Coverage is estimated at 28% site coverage post subdivision.

The Civil Site Suitability Report in Appendix 5 discusses stormwater management in its section 6. The report recommends management methods for both roof runoff and hardstand area runoff, and provides some attenuation design aspects. The report recommends attenuation for the 1% AEP storm event for any impermeable areas over the permitted activity threshold.

The report contains an assessment against the criteria in 13.10.4 of the ODP.

6.6 Sanitary Sewage Disposal

Both houses have existing (separate) systems. The Civil Site Suitability Report in Appendix 5 addresses on site wastewater in its Section 5. It concludes that the existing on-site wastewater treatment and disposal systems continue to service the existing residential dwellings given that Lot 1 is not re-developed. The existing septic tanks and disposal trenches are located

within the Lot 1's propose boundaries. Additionally, there was no evidence of malfunction or breakout observed around the disposal areas.

The report provides a summary of design parameters for wastewater design to show feasibility of on-site wastewater management within the proposed lot should there be further development. Secondary treatment is recommended in that instance.

6.7 Easements for any purpose

Easements are proposed to enable the orchard operations within Lot 2 to continue to access the water bore located within proposed Lot 1's boundaries.

Right of way and services easements are provided for over Lot 1 in favour of Lot 2 – refer to Scheme Plan in Appendix 1.

6.8 Property Access

All access will remain as is. There is no change to level of activity. Consultation has been undertaken with NZTA, with their Approval letter, dated 5th November 2025, is attached in Appendix 4). Approval is granted, subject to the following conditions, which have been accepted by the applicant:

The existing vehicle crossing does not meet the minimum standard requirements and as a result needs to be upgraded to a Diagram C standard. This involves sealing to the boundary and installation of traversables at each end of the existing culvert.

Based on the advice above please update your consent application to include the following conditions:

1. *The existing vehicle crossing, Crossing Place 156D, shall be upgraded in accordance with the NZ Transport Agency Diagram C Standard as agreed with the Network Management Team and as outlined in the Planning Policy Manual (2007) and to the satisfaction of the NZ Transport Agency Network Manager.*
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 confirmation that NZ 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*.

Works within the State Highway boundaries will require the approval of the NZ Transport Agency pursuant to Section 51 of the Government Roading Powers Act 1989 via a Corridor Access Request (CAR). Design and then construction details will need to be submitted by your contractor to the NZ Transport Agency for approval.

Internal to the site, the shared accessway will be of sufficient width to provide for the occasional larger vehicle associated with the orchard operation to pass along Easements A and B without difficulty. There is existing metal driveway – refer to site photos in the PSI provided with the application in Appendix 6.

There is adequate parking and manouevring for both dwellings, internal to Lot 1.

6.9 Earthworks & Utilities

Subdivision works will be restricted to minor access works, on level ground. No new utilities are required to be installed as part of subdivision works.

6.10 Building Locations

There are no restrictions in regard to natural hazard as to where dwellings/buildings can be located, therefore no need to impose minimum floor levels in terms of any new or redeveloped dwellings. Lot 1's development is existing. Residential development on Lot 2 will be excluded from occurring without the further consent of the Council.

6.11 Preservation and enhancement of heritage resources (including cultural), vegetation, fauna and landscape, and land set aside for conservation purposes

Vegetation, fauna and landscape

The site has no resource feature overlays. It contains no features mapped in the Regional Policy Statement as having any high or outstanding landscape or natural values and no mapped biodiversity wetlands. The site does not contain any areas of significant indigenous vegetation.

The subdivision will not have any adverse effect on indigenous flora and fauna, habitat, or landscape values. I do not believe it necessary, or justified to impose any restriction on the keeping of dogs or cats, bearing in mind that no additional residential development will occur as a result of the creation of additional lots in any event.

Heritage/Cultural

The site itself does not contain any mapped or recorded historic sites, nor any archaeological sites. Neither does the site contain any Sites of Cultural Significance to Maori (as scheduled in the ODP or PDP). The NZAA database shows an historic house site (non Maori) on the other side of the stream, not within the property boundaries, and not affected by the proposal.

6.12 Soil

The proposal does not remove any soils from productive use that haven't already been removed from such use. I do not consider the proposal to adversely affect the life supporting capacity of soils.

6.13 Access to, and protection of, waterbodies

There is no lot of less than 4ha adjacent to any water body. The dwellings have existing on-site wastewater systems that will remain in place, all parts of which are within Lot 1's boundaries (not adjacent to the stream).

6.14 Land use compatibility (reverse sensitivity)

The proposal is to separate an operating kiwifruit orchard from land containing two residential units, currently in the same title. No new residential development will be allowed to occur on the orchard block (Lot 2). To ensure this, a consent notice along the lines of the following, is proposed:

"No residential units / dwellings or residential outbuildings (including a minor dwelling) shall be constructed or located onsite unless in accordance with Council's approval which may be by way of obtaining a Resource Consent."

The ability to seek further consent of the Council at some point in the future is included in the event that the orchard ceases to operate. This can occur on blocks of this size, evidenced by the fact that this particular block has shut down operations in the past for a number of years, before re-establishing.

The existing houses are tenanted. The subdivision is unlikely to change that. The houses will continue to support residential living, but the title will be in separate ownership to the kiwifruit block. As a mitigation against potential reverse sensitivity issues arising, because of that change in ownership, the applicants will likely impose a reverse sensitivity 'no complaints' land covenant on Lot 1 such that the legally established horticultural activity can continue. It would be prudent to establish dense hedge type vegetation around three of the four boundaries of new Lot 1 in order to provide shelter screening between the houses and orchard. The fourth boundary (north western) is with an adjacent property and there is already screening in place, and no horticultural activity occurring on that adjacent property.

6.15 Proximity to Airports

The site is outside of any identified buffer area associated with any airport.

6.16 Natural Character of the Coastal Environment

The site is not within the coastal environment.

6.17 Energy Efficiency and renewable Energy Development/Use

The proposal has not considered energy efficiency. This is an option for future lot owners

6.18 National Grid Corridor

The National Grid does not run through the application site.

6.19 Effects on Rural Character and Amenity

With no new built environment proposed, the subdivision simply puts lines on a land transfer plan. There is no additional visual effect as a result of the proposal. Effects on rural character are nil.

6.20 Cumulative and Precedent Effects

The proposal will create separate titles, however, no change of use. I do not foresee any adverse cumulative effects resulting.

Precedent effects are a matter for consideration when a consent authority is considering whether or not to grant consent and are generally reserved for the consideration of non complying activities. The situation is not unique, in that I have successfully obtained consent to subdivide residential use from a horticultural operation elsewhere in the District. However, it is unusual in that no increase in intensity of use if proposed. This comes about because of the restriction on any residential use on the horticultural block. There will be no increase in traffic and no change in the type of traffic. There will be no change in physical appearance of the site. It is my strong opinion that the size of the lots meet the zone's restricted discretionary activity standard, as discussed earlier in this report. I believe that the granting of this consent will not threaten the integrity of the ODP and does not set a negative precedent.

7.0 STATUTORY ASSESSMENT

7.1 Operative District Plan Objectives and Policies

Objectives and policies relevant to this proposal are considered to be primarily those listed in Chapter 8.6 (Rural Production Zone); and 13 (Subdivision), of the District Plan. These are listed and discussed below where relevant to this proposal.

Subdivision Objectives & Policies

Objectives

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

This is an enabling objective. The Rural Production Zone is predominantly, but not exclusively, a working productive rural zone. The site is currently used as a kiwifruit unit and will continue to be so. The site supports residential unit living and will continue to do so. The proposal is considered a sustainable use of the land.

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

The Assessment of Environmental Effects and supporting report conclude that the proposed subdivision is appropriate for the site and that the subdivision can avoid, remedy or mitigate any potential adverse effects.

Objectives 13.3.3 and 13.3.4 refer to outstanding landscapes or natural features; and scheduled heritage resources; and to land in the coastal environment. The site exhibits none of these features.

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

The existing development within the site is / will be self sufficient in terms of on-site water storage and appropriate stormwater management. No additional development is proposed in this subdivision.

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.

This objective is likely intended to encourage Management Plan applications, and does not have a lot of relevance to this proposal.

13.3.7 To ensure the relationship between Maori and their ancestral lands, water, sites, wahi tapu and other taonga is recognised and provided for.

And related Policy

13.4.11 That subdivision recognises and provides for the relationship of Maori and their culture and traditions, with their ancestral lands, water, sites, waahi tapu and other taonga and shall take into account the principles of the Treaty of Waitangi.

The site is not known to contain any sites of cultural significance to Maori, or wahi tapu. The subdivision will have minimal, if any, impact on water quality. I do not believe that the proposal adversely impacts on the ability of Maori to maintain their relationship with ancestral lands, water, sites, wahi tapu and other taonga.

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

The provision of power is not a requirement for rural allotments. Notwithstanding this, the site has existing power connection(s).

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

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

The subdivision has not considered energy efficiency.

Objective 13.3.11 is not discussed further as there is no National Grid on or near the subject site.

Policies

13.4.1 That the sizes, dimensions and distribution of allotments created through the subdivision process be determined with regard to the potential effects including cumulative effects, of the use of those allotments on:
(a) natural character, particularly of the coastal environment;
(b) ecological values;
(c) landscape values;
(d) amenity values;
(e) cultural values;
(f) heritage values; and
(g) existing land uses.

The values outlined above, where relevant to the proposal, have been discussed earlier in this report. I believe regard has been had to items (a) through (g) (where relevant) in the design of the subdivision.

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

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

Access to the property is off State Highway (where NZTA has provided approval), and then internal to the site, via existing internal accessway/ driveway. I believe access already is, or can be upgraded, to an appropriate standard for the level of development being proposed, without adversely affecting natural and physical resources.

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

The site is not mapped as containing any natural hazards.

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

Power and telecommunications are not a requirement for rural allotments. Site already serviced with no new service connections required.

13.4.6 That any subdivision proposal provides for the protection, restoration and enhancement of heritage resources, areas of significant indigenous vegetation and significant habitats of indigenous fauna, threatened species, the natural character of the coastal environment and riparian margins, and outstanding landscapes and natural features where appropriate.

The site does not contain any heritage resources as scheduled in the Operative or Proposed District Plan's or in the NZAA Database. Nor does it contain any significant areas of indigenous vegetation or habitat. The site is not in the coastal environment. There are riparian margins within the site insofar as the larger balance lot has a boundary with a stream(s), however, the land within that lot is in productive kiwifruit and will remain so. Should the future

lot owner consider building on the balance lot then setback from the stream bank will be a consideration at that time.

Policy 13.4.7 is not relevant as there is no qualifying water body to which esplanade requirements apply.

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

This is discussed earlier.

Policies 13.4.9 and 13.4.10 are not discussed further. The former relates to bonus development donor and recipient areas, which are not contemplated in this proposal; whilst the latter only applies to subdivision in the Conservation Zone.

13.4.12 That more intensive, innovative development and subdivision which recognises specific site characteristics is provided for through the management plan rule where this will result in superior environmental outcomes.

The application is not lodged as a Management Plan application.

13.4.13 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the applicable zone in regards to ***s6 matters****. In addition subdivision, use and development shall avoid adverse effects as far as practicable by using techniques including:*
(a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;
(b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;
(c) providing for, through siting of buildings and development and design of subdivisions, legal public right of access to and use of the foreshore and any esplanade areas;
(d) through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the District (refer Chapter 2 and in particular Section 2.5 and Council's "Tangata Whenua Values and Perspectives" (2004);
(e) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;
(f) protecting historic heritage through the siting of buildings and development and design of subdivisions.
(g) achieving hydraulic neutrality and ensuring that natural hazards will not be exacerbated or induced through the siting and design of buildings and development.

S6 matters (National Importance) are addressed later in this report.

In addition:

(a) The proposal subdivides off two existing residential units, within one title, leaving a vacant horticultural block, to continue to support horticultural activity;
(b) The proposal provides for an appropriate type and scale of activity for the zone;
(c) The proposal is in an area not displaying high or outstanding natural values;

(d) The site contains no significant indigenous vegetation;
(e) The site is not within the coastal environment;
(f) Development is existing, with no additional development proposed as part of this subdivision. The proposal does not adversely affect amenity and rural character values;
(g) The proposal is not believed to negatively impact on the relationship of Maori with their culture;
(h) There are no identified heritage values within the site; and
(i) The site is not subject to any significant natural hazards.

I consider the proposal to be consistent with Policy 13.4.13.

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

The subdivision has had regard to the underlying zone's objectives and policies – see below.

13.4.15 That conditions be imposed upon the design of subdivision of land to require that the layout and orientation of all new lots and building platforms created include, as appropriate, provisions for achieving the following: (a) development of energy efficient buildings and structures; (b) reduced travel distances and private car usage; (c) encouragement of pedestrian and cycle use; (d) access to alternative transport facilities; (e) domestic or community renewable electricity generation and renewable energy use

Given the absence of any change resulting from this proposal, in terms of land use, it has not taken into account any of the matters of 13.4.15. Policy 13.4.16 is not considered relevant as it only relates to the National Grid.

In summary, I believe the proposal to be consistent with the above Objectives and Policies.

<u>Rural Production Zone Objectives and Policies</u>

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.

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

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

8.6.3.6 To avoid, remedy or mitigate the actual and potential conflicts between new land use activities and existing lawfully established activities (reverse sensitivity) within the Rural Production Zone and on land use activities in neighbouring zones.

8.6.3.7 To avoid remedy or mitigate the adverse effects of incompatible use or development on natural and physical resources.

8.6.3.8 To enable the efficient establishment and operation of activities and services that have a functional need to be located in rural environments.

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

And 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 on the environment, including any reverse sensitivity effects, on the environment resulting from these activities are avoided, remedied or mitigated and are not to the detriment of rural productivity.

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.

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

8.6.4.5 That the efficient use and development of physical and natural resources be taken into account in the implementation of the Plan.

8.6.4.7 That although a wide range of activities that promote rural productivity are appropriate in the Rural Production Zone, an underlying goal is to avoid the actual and potential adverse effects of conflicting land use activities.

8.6.4.8 That activities whose adverse effects, including reverse sensitivity effects cannot be avoided remedied or mitigated are given separation from other activities

8.6.4.9 That activities be discouraged from locating where they are sensitive to the effects of or may compromise the continued operation of lawfully established existing activities in the Rural production zone and in neighbouring zones.

Objective 8.6.3.5 and Policy 8.6.4.6 are not considered relevant as they are solely related to Kerikeri Road.

The proposed subdivision promotes an efficient use and development of the land (Objective 8.6.3.2). Amenity values can be maintained (8.6.3.3). Reverse sensitivity effects are not considered to be a significant risk given that the proposal does not create any additional opportunity for sensitive activities adjacent to horticulture (Objectives 8.6.3.6-8.6.3.9 inclusive and Policies 8.6.4.8 and 8.6.4.9).

Policy 8.6.4.7 anticipates a wide range of activities that promote rural productivity, and that the underlying goal is to avoid any actual and potential adverse effects of conflicting land use activities. I believe in the case of this proposal, additional adverse reverse sensitivity effects are unlikely.

The proposal provides for sustainable management of natural and physical resources (8.2.4.1). Off site effects can be avoided, remedied or mitigated (8.6.4.2 and 8.6.4.3). Amenity values can be maintained and enhanced (8.6.4.4). The proposal enables the efficient use and development of natural and physical resources (8.6.4.5).

In summary, I believe the proposal to be consistent with the objectives and policies as cited above.

7.2 Proposed District Plan Objectives and Policies

An assessment against the relevant objectives and policies in the Subdivision section of the Proposed District Plan (PDP) follows:

SUB-O1
Subdivision results in the efficient use of land, which:
a. achieves the objectives of each relevant zone, overlays and district wide provisions;
b. contributes to the local character and sense of place;
c. avoids reverse sensitivity issues that would prevent or adversely affect activities already established on land from continuing to operate;
d. avoids land use patterns which would prevent land from achieving the objectives and policies of the zone in which it is located;
e. does not increase risk from natural hazards or risks are mitigates and existing risks reduced; and
f. manages adverse effects on the environment.

SUB-O2
Subdivision provides for the:
a. Protection of highly productive land; and
b. Protection, restoration or enhancement of Outstanding Natural Features, Outstanding Natural Landscapes, Natural Character of the Coastal Environment, Areas of High Natural Character, Outstanding Natural Character, wetland, lake and river margins, Significant Natural Areas, Sites and Areas of Significance to Māori, and Historic Heritage.

SUB-O3 *Infrastructure is planned to service the proposed subdivision and development where:*
a. there is existing infrastructure connection, infrastructure should provided in an integrated, efficient, coordinated and future-proofed manner at the time of subdivision; and
b.where no existing connection is available infrastructure should be planned and consideration be give n to connections with the wider infrastructure network.

SUB-O4
Subdivision is accessible, connected, and integrated with the surrounding environment and provides for:
a. public open spaces;
b. esplanade where land adjoins the coastal marine area; and
c. esplanade where land adjoins other qualifying water bodies

I consider the subdivision achieves the objectives of the relevant zone, and district wide provisions. Local character is not affected; additional reverse sensitivity issues will not result; and risk from natural hazards will not be increased. Adverse effects on the environment are considered to be less than minor and not requiring mitigation, especially given there will be no change of land use and no additional development (SUB-O1).

The site contains land that meets the definition of 'highly productive land', but all land currently available for horticultural use will remain in horticultural use. The site contains no ONF's or ONL's, nor any areas of high or outstanding natural character. There are no 'natural

inland wetlands'. There are no lakes or rivers (tributary stream boundary with large horticultural lot only), no Sites and Areas of Significance to Maori and no Historic Heritage. There are no areas of indigenous vegetation (SUB-O2).

The proposal is consistent with SUB-O3 and SUB-O4 does not apply.

SUB-P1
Enable boundary adjustments that:

Not relevant – application is not a boundary adjustment.

SUB-P2
Enable subdivision for the purpose of public works, infrastructure, reserves or access.

Not relevant – application does not involve public works, infrastructure, reserves or access lots.

SUB-P3
Provide for subdivision where it results in allotments that:
a. are consistent with the purpose, characteristics and qualities of the zone;
b. comply with the minimum allotment sizes for each zone;
c. have an adequate size and appropriate shape to contain a building platform; and
d. have legal and physical access.

The subdivision does not result in allotments that meet the proposed zone's minimum lot size. However, the proposal does not create any vacant additional lot and residential development will be precluded from being established on the horticultural block. This results in a subdivision that is consistent with the purpose, characteristics and qualities of the zone. The lots are of an adequate and appropriate size to continue to support the existing land uses, and the lots have legal and physical access.

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

The subdivision has had regard to all the matters listed, where relevant.

SUB-P5
Manage subdivision design and layout in the General Residential, Mixed Use and Settlement zone...

Not applicable.

SUB-P6 *Require infrastructure to be provided in an integrated and comprehensive manner by:*
a. demonstrating that the subdivision will be appropriately serviced and integrated with existing and planned infrastructure if available; and
b. ensuring that the infrastructure is provided is in accordance the purpose, characteristics and qualities of the zone.

The subdivision is rural with no nearby Council administered or operated infrastructure. Development within the site is existing.

SUB- P7
Require the vesting of esplanade reserves when subdividing land adjoining the coast or other qualifying water bodies.

No qualifying water body and Lot 2 is larger than 4ha in any event.

SUB-P8 *Avoid rural lifestyle subdivision in the Rural Production zone unless the subdivision:*

a. *will protect a qualifying SNA in perpetuity and result in the SNA being added to the District Plan SNA schedule; and*
b. *will not result in the loss of versatile soils for primary production activities.*

The subdivision is not for rural lifestyle, and will not result in the loss of versatile soils, so is more consistent than not with this policy.

SUB-P9
Avoid subdivision [sic] rural lifestyle subdivision in the Rural Production zone and Rural residential subdivision in the Rural Lifestyle zone unless the development achieves the environmental outcomes required in the management plan subdivision rule.

The subdivision is not Rural Lifestyle and is not a Management Plan subdivision.

SUB-P10
To protect amenity and character by avoiding the subdivision of minor residential units from Principalresidential units where resultant allotments do not comply with minimum allotment size and resi dential density.

Not relevant. No minor residential units, as defined in the PDP, exist.

SUB-P11
Manage subdivision to address the effects of the activity requiring resource consent including (but not limited to) consideration of the following matters where relevant to the application:
a.consistency with the scale, density, design and character of the environment and purpose of the zone;
b. the location, scale and design of buildings and structures;
c.the adequacy and capacity of available or programmed development infrastructure to accommodate the proposed activity; or the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
d. managing natural hazards;
e. Any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and
f. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

All of the above have been considered in the layout and number of lots being proposed, albeit the policy is not overly relevant given the subdivision does not require resource consent under the PDP.

In summary I believe the proposed subdivision to be consistent with the PDP's objectives and policies in regard to subdivision.

The site is zoned Rural Production in the Proposed District Plan.

Objectives

RPROZ-O1
The Rural Production zone is managed to ensure its availability for primary production activities and its long-term protection for current and future generations.

RPROZ-O2
The Rural Production zone is used for primary production activities, ancillary activities that support primary production and other compatible activities that have a functional need to be in a rural environment.

RPROZ-O3
Land use and subdivision in the Rural Production zone:
a.protects highly productive land from sterilisation and enables it to be used for more productive forms of primary production;
b.protects primary production activities from reverse sensitivity effects that may constrain their effective and efficient operation;
c.does not compromise the use of land for farming activities, particularly on highly productive land;
d.does not exacerbate any natural hazards; and
e. is able to be serviced by on-site infrastructure.

RPROZ-O4
The rural character and amenity associated with a rural working environment is maintained.

The subdivision separates residential use from horticultural use such the two existing land uses will be on separate titles. The proposal does not affect rural character or amenity because it does not propose or provide for additional development. The site will, for the most part, remain a rural working site. The land available for horticultural use remains available. In this regard, highly productive land is protected. Reverse sensitivity risk is not increased given that the residential uses are existing. The proposal does not exacerbate natural hazards. The lots are serviced by on-site infrastructure.

Policies

RPROZP2
Ensure the Rural Production zone provides for activities that require a rural location by:
a. enabling primary production activities as the predominant land use;
b. enabling a range of compatible activities that support primary production activities, including ancillary activities, rural produce manufacturing, rural produce retail, visitor accommodation and home businesses.

The application is not for a primary production activity. Notwithstanding this, the proposal does not impact on the existing primary production activity.

RPROZP3
Manage the establishment, design and location of new sensitive activities and other non-productive activities in the Rural Production Zone to avoid where possible, or otherwise mitigate, reverse sensitivity effects on primary production activities.

The proposal will not worsen / increase reverse sensitivity effects on existing primary production activities either on the site or on adjacent land, given that the residential development on the property already exists. Additionally all boundaries have, or can have (internal to property) shelter plantings.

RPROZP4
Land use and subdivision activities are undertaken in a manner that maintains or enhances the rural character and amenity of the Rural Production zone, which includes:
a. a predominance of primary production activities;
b. low density development with generally low site coverage of buildings or structures;
c. typical adverse effects such as odour, noise and dust associated with a rural working environment; and
d. a diverse range of rural environments, rural character and amenity values throughout the District.

The proposal maintains rural character and amenity. The subdivision is overall of low density. No new dwellings are proposed. Primary production will continue.

RPROZP5
Avoid land use that:
.....

Application is not a land use. N/A.

RPROZP6
Avoid subdivision that:
a. results in the loss of highly productive land for use by farming activities;
b. fragments land into parcel sizes that are no longer able to support farming activities,taking into account:
1. *the type of farming proposed; and*
2. *whether smaller land parcels can support more productive forms of farming due to the presence of highly productive land.*

c. provides for rural lifestyle living unless there is an environmental benefit.

No highly productive land is lost. The subdivision does not fragment any highly productive land available for productive use. The built development within the proposed additional small lot is existing. That development is residential in nature rather than 'rural lifestyle', and in any event is existing, so the proposal is not providing for additional rural lifestyle living.

RPROZP7
Manage land use and subdivision to address the effects of the activity ***requiring resource consent****, including (but not limited to) consideration of the following matters where relevant to the application:*
a. whether the proposal will increase production potential in the zone;
b. whether the activity relies on the productive nature of the soil;
c. consistency with the scale and character of the rural environment;
d. location, scale and design of buildings or structures;
e. for subdivision or non-primary production activities:
- *i. scale and compatibility with rural activities;*
- *ii. potential reverse sensitivity effects on primary production activities and existing infrastructure;*
- *iii. the potential for loss of highly productive land, land sterilisation or fragmentation*

f. at zone interfaces:
i. any setbacks, fencing, screening or landscaping required to address potential conflicts;
ii.the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;
g.the capacity of the site to cater for on-
site infrastructure associated with the proposed activity, including
whether the site has access to a water source such as an irrigation network supply, dam or aquifer;
h. the adequacy of roading infrastructure to service the proposed activity;
i.Any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity;
j.Any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

No consent is required under the PDP and the above policy is therefore of limited relevance.

7.3 Part 2 Matters

5 Purpose

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural 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 proposal provides for peoples' social and economic well being, and for their health and safety, while sustaining the potential of natural and physical resources, safeguarding the life-supporting capacity of air, water, soil and the ecosystems; and avoiding, remedying or mitigating adverse effects on the environment.

6 Matters of national importance

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

(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:

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

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

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

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
(f) the protection of historic heritage from inappropriate subdivision, use, and development:
(g) the protection of protected customary rights:
(h) the management of significant risks from natural hazards.

The site does not contain any of the features listed in (a)-(c) inclusive. There is no adjacent qualifying water body, nor any within the site (part (d)). The proposal results in the status quo in terms of current land use and does not adversely impact the relationship of Maori and their culture and traditions and there are no protected customary rights (parts (e) & (g)). There are no historic heritage values associated with the site (part (f)). The site is not subject to hazard (h).

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

Regard has been had to any relevant parts of Section 7 of the RMA, "Other Matters". These include 7(b), (c) and (g). The subdivision represents an efficient use and development of natural and physical resources and takes into account the finite characteristics of those resources. The proposed layout and lot size will not adversely impact on amenity values.

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

The principles of the Treaty of Waitangi have been considered and it is believed that this proposed subdivision does not offend any of those principles.

In summary, it is considered that all matters under s5-8 inclusive have been adequately taken into account.

7.4 National Policy Statements and National Environmental Standards

NPS Highly Productive Land

The application site consists of highly productive land and is subject to consideration of the National Policy Statement – Highly Productive Land (NPS-HPL).

Objective: *Highly productive land is protected for use in land-based primary production, both now and for future generations.*

The proposal sees the subdivision of existing residential land use within a larger horticultural unit (kiwifruit) onto their own separate lot (Lot 1 on the scheme plan). No residential use will occur on the horticultural block. The proposal protects highly productive land for continued land-based primary production both now and for the future. The proposal is entirely consistent with the above objective.

Policy 1*: Highly productive land is recognised as a resource with finite characteristics and long term values for land-based primary production.*

Policy 2: *The identification and management of highly productive land is undertaken in an integrated way that considers the interactions with freshwater management and urban development.*

Policy 3: *Highly productive land is mapped and included in regional policy statements and district plans.*

Policy 4: *The use of highly productive land for land-based primary production is prioritised and supported.*

Policy 5: *The urban rezoning of highly productive land is avoided, except as provided in this National Policy Statement.*

Policy 6: *The rezoning and development of highly productive land as rural lifestyle is avoided, except as provided in this National Policy Statement.*

The above policies are all high level over-arching policies, aimed at territorial authorities and how they address highly productive land in their planning instruments. The application does not dispute the productive capacity of the site and proposes to ensure this is retained. This is consistent with the intent of Policy 4 above.

Policy 7: *The subdivision of highly productive land is avoided, except as provided in this National Policy Statement.*

Policy 8: *Highly productive land is protected from inappropriate use and development.*

Policy 9: *Reverse sensitivity effects are managed so as not to constrain land-based primary production activities on highly productive land.*

Whilst highly productive land is being subdivided, that subdivision is provided for by the NPS HPL – refer below.

The proposal subdivides off non productive uses. It is consistent with Policy 8 in that there will be no inappropriate use or development of the highly productive land.

In offering a 'no residential unit' restriction on the vacant lot, the proposal is consistent with Policy 9 above. All residential activity is existing.

The provisions within the NPS are not rules (legislation makes that clear). National Policy Statements are, by design, intended to provide guidance to territorial authorities, and a consent authority must make decisions consistent with an NPS.

Section 3.8 Avoiding Subdivision of highly productive land reads:

(1) Territorial authorities must avoid the subdivision of highly productive land unless one of the following applies to the subdivision, and the measures in subclause (2) are applied:
(a) the applicant demonstrates that the proposed lots will retain the overall productive capacity of the subject land over the long term:
(b) the subdivision is on specified Māori land:
(c) the subdivision is for specified infrastructure, or for defence facilities operated by the New Zealand Defence Force to meet its obligations under the Defence Act 1990, and there is a functional or operational need for the subdivision.

(2) Territorial authorities must take measures to ensure that any subdivision of highly productive land:
(a) avoids if possible, or otherwise mitigates, any potential cumulative loss of the availability and productive capacity of highly productive land in their district; and
(b) avoids if possible, or otherwise mitigates, any actual or potential reverse sensitivity effects on surrounding land-based primary production activities.

It is evident that the proposal readily meets (1)(a). The proposed lots will retain the overall productive capacity of the subject land over the long term. The residential lot has no productive capacity now, and this will remain the case. The land in the balance Lot 2 is not affected in any way in terms of its overall productive capacity, as no residential development is provided for.

The Council can also be confident that this proposal avoids any potential cumulative loss of the availability and productive capacity of highly productive land. Residential uses already exist in proximity to horticultural activity and as such reverse sensitivity effects are not increased. Potential further mitigation measures could include a volunteer reverse sensitivity (no complaints) land covenant on the residential title, and to require shelter screening on the boundaries of Lot 1 where none presently exists. In summary (2)(a) & (b) can also be satisfied.

In overall summary, the proposal can meet the requirements of the NPS HPL to the extent that subdivision can be granted.

NES Assessing and Management Contaminants in Soil to Protect Human Health

Refer to PSI in Appendix 6. This concludes that it is highly unlikely there will be a risk to human health if the proposed subdivision is carried out with continued residential use on the proposed new Lot 1. No consent under the NES-CS is required (permitted activity).

7.5 Regional Policy Statement

The Regional Policy Statement for Northland contains objectives and policies related to infrastructure and regional form and economic development. These are enabling in promoting sustainable management in a way that is attractive for business and investment. The proposal is consistent with these objectives and policies.

Objective 3.6 Economic activities – reverse sensitivity and sterilisation

The viability of land and activities important for Northland's economy is protected from the negative impacts of new subdivision, use and development, with particular emphasis on either:

(a) Reverse sensitivity for existing:

(i) Primary production activities; .....

The associated Policy to the above Objective is ***Policy 5.1.1 – Planned and coordinated development***.

Subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which: ....

(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; ...

(e) Should not result in incompatible land uses in close proximity and avoids the potential for reverse sensitivity;

(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 ...

Policy 5.1.1 seeks to ensure that subdivision in a primary production zone does 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*".

This has been discussed at length elsewhere in this planning report. The subdivision does not "*materially reduce the potential for soil-based primary production on land with highly versatile soils*".

5.1.3 Policy – Avoiding the adverse effects of new use(s) and development

Avoid the adverse effects, including reverse sensitivity effects of new subdivision, use and development, particularly residential development on the following:

(a) Primary production activities in primary production zones (including within the coastal marine area);.....

In regard to this subdivision, it is considered that no significant additional reverse sensitivity issues arise as a result.

8.0 s95A-E ASSESSMENT & CONSULTATION

8.1 S95A Public Notification Assessment

A consent authority must follow the steps set out in s95A to determine whether to publicly notify an application for a resource consent. Step 1 specifies when public notification is mandatory in certain circumstances. No such circumstances exist. Step 2 of s95A specifies the circumstances that preclude public notification. No such circumstance exists and Step 3 of s95A must be considered. This specifies that public notification is required in certain circumstances, neither of which exists. There are no special circumstances. In summary public notification is not required pursuant to Step 3 of s95A.

8.2 S95B Limited Notification Assessment

A consent authority must follow the steps set out in s95B to determine whether to give limited notification of an application for a resource consent, if the application is not publicly notified pursuant to s95A. Step 1 identifies certain affected groups and affected persons that must be notified. None exist in this instance. Step 2 of s95B specifies the circumstances that preclude limited notification. No such circumstance exists and Step 3 of s95B must be considered. This specifies that certain other affected persons must be notified, specifically:

(7) In the case of a boundary activity, determine in accordance with section 95E whether an owner of an allotment with an infringed boundary is an affected person.

(8) In the case of any other activity, determine whether a person is an affected person in accordance with section 95E.

The application is not for a boundary activity. The s95E assessment below concludes that there are no affected persons to be notified. There are no special circumstances.

8.3 S95D Level of Adverse Effects

The AEE in this report assesses effects on the environment and concludes that these will be no more than minor.

8.4 S95E Affected Persons

A person is an 'affected person' if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor). A person is not an affected person if they have provided written approval for the proposed activity.

Whilst the activity is potentially going to be regarded by the Council as a non complying activity, the fact remains that the proposal represents a 'no change' scenario. There are currently two houses and a kiwi fruit orchard, and the proposal will result in two houses and kiwifruit orchard. There is no impact on adjacent properties; and nil effect on infrastructure. I have not identified any affected persons.

The site does not contain any heritage or cultural sites or values nor any areas of indigenous vegetation. The site is accessed directly off state highway and approval has been obtained form NZTA. No pre lodgement consultation has been considered necessary with tangata whenua, Heritage NZ, or Department of Conservation.

9.0 s104D GATEWAY TEST FOR NON COMPLYING ACTIVITIES

Whilst I maintain the application meets the restricted discretionary subdivision activity requirements, there is potential that the Council disagrees with that conclusion. In addition, the residential unit density (even though no new additional residential units are proposed) technically result in non complying activity status because of the reduction in area of Lot 1.

S104D of the Act requires a consent authority to be satisfied of one or other, or both, of the following thresholds to be met, before it can consider granting consent.

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of—

- *(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or*
- *(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or*
- *(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.*

The application will not create adverse effects on the environment of a more than minor nature. I do not believe the application is contrary to the objectives and policies of the Operative District Plan and Proposed District Plans in their entirety or to the extent that the

proposal should not proceed. I consider the proposal to meet at least one of the gateway tests, if not both.

10.0 CONCLUSION

The site is considered suitable for the proposed subdivision. Effects on the wider environment are no more than minor. The proposal is not considered contrary to the relevant objectives and policies of the Operative and Proposed District Plans, and is considered to be consistent with relevant objectives and policies of National and Regional Policy Statements. Part 2 of the Resource Management Act has been had regard to.

There is no District Plan rule or national environmental standard that requires the proposal to be publicly notified. No affected persons have been identified.

It is requested that the Council give favourable consideration to this application and grant consent under delegated authority.

Signed Dated 25th November 2025
Lynley Newport,
Senior Planner
Thomson Survey Ltd

11.0 LIST OF APPENDICES

Appendix 1 Scheme Plan(s)

Appendix 2 Location Plan

Appendix 3 Record of Title & Relevant Instruments

Appendix 4 NZTA Approval

Appendix 5 Civil Site Suitability Report

Appendix 6 PSI Report

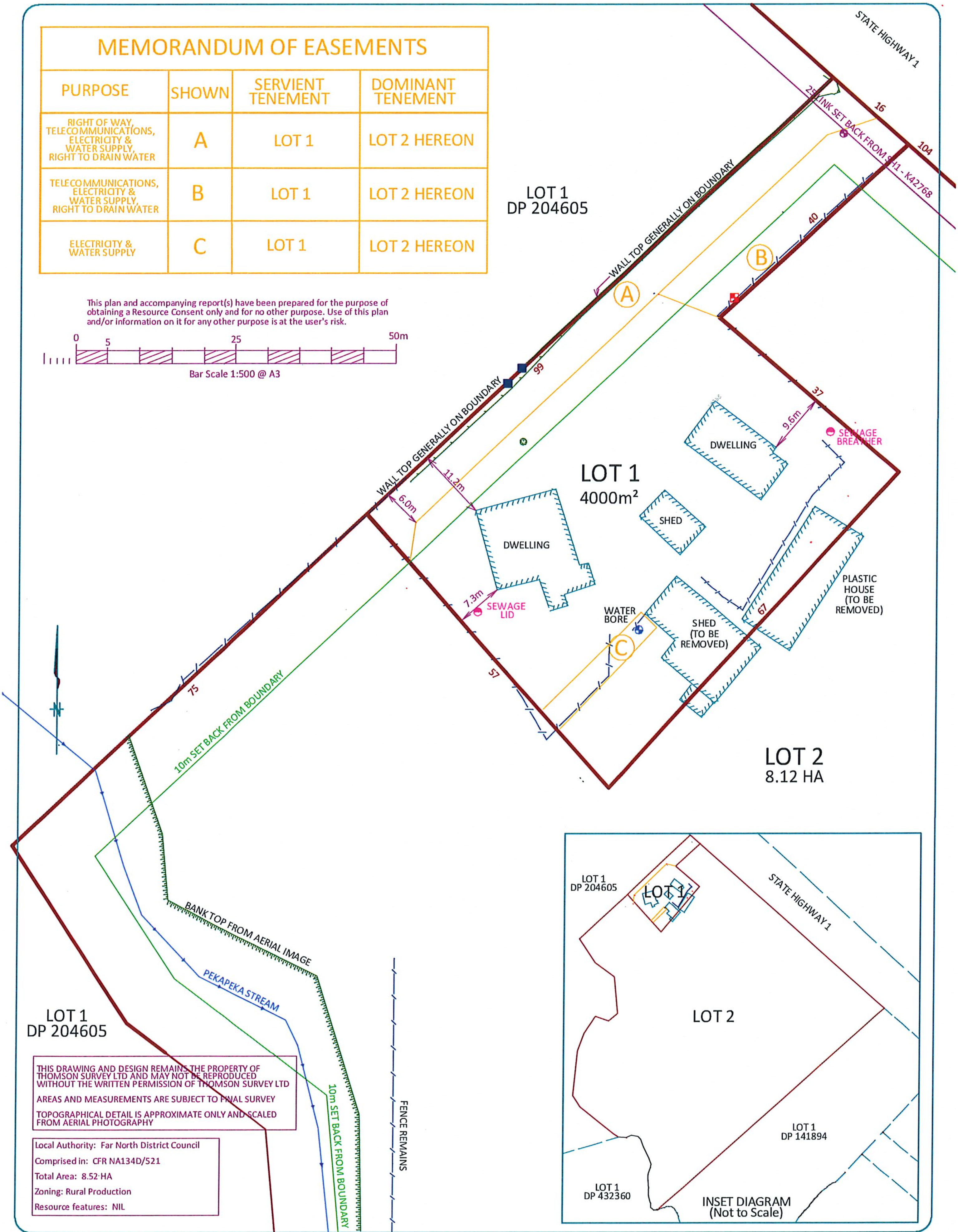
Appendix 1

Scheme Plan(s)

MEMORANDUM OF EASEMENTS

PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
RIGHT OF WAY, TELECOMMUNICATIONS, ELECTRICITY & WATER SUPPLY, RIGHT TO DRAIN WATER	A	LOT 1	LOT 2 HEREON
TELECOMMUNICATIONS, ELECTRICITY & WATER SUPPLY, RIGHT TO DRAIN WATER	B	LOT 1	LOT 2 HEREON
ELECTRICITY & WATER SUPPLY	C	LOT 1	LOT 2 HEREON

This plan and accompanying report(s) have been prepared for the purpose of obtaining a Resource Consent only and for no other purpose. Use of this plan and/or information on it for any other purpose is at the user's risk.



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AREAS AND MEASUREMENTS ARE SUBJECT TO FINAL SURVEY

TOPOGRAPHICAL DETAIL IS APPROXIMATE ONLY AND SCALED FROM AERIAL PHOTOGRAPHY

Local Authority: Far North District Council
Comprised in: CFR NA134D/521
Total Area: 8.52 HA
Zoning: Rural Production
Resource features: NIL

THOMSON SURVEY LIMITED
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Ph: (09) 4077360
www.tsurvey.co.nz
Registered Land Surveyors, Planners & Land Development Consultants

PROPOSED SUBDIVISION OF LOT 1 DP 208050

PREPARED FOR: MYFARMS KIWIFRUIT FUND

	Name	Date
Survey		
Design		
Drawn	TS	23.06.25
Approved		
Rev	TS	17.11.25

10772 Scheme 20251117

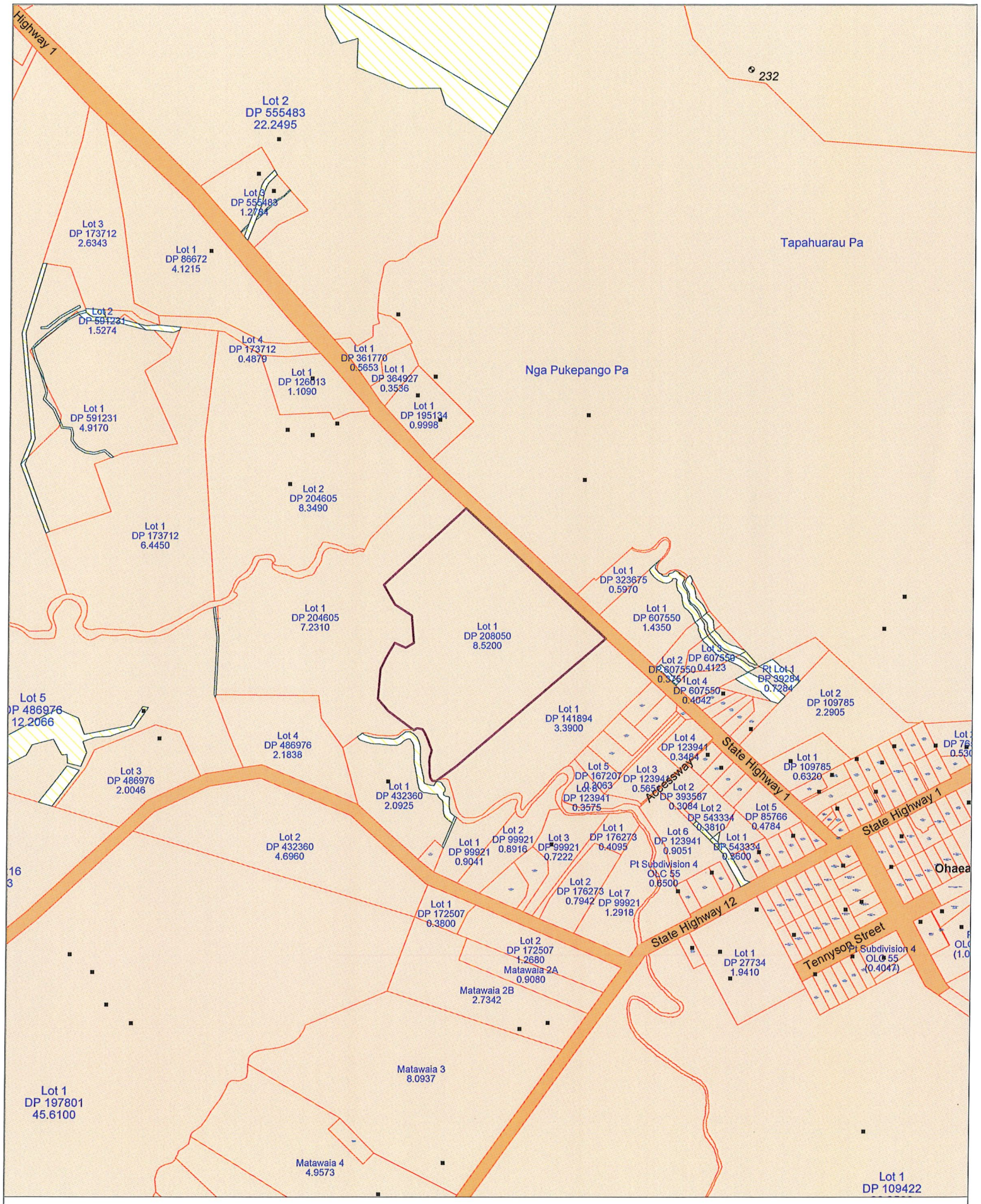
ORIGINAL SCALE: 1:500 — SHEET SIZE: A3

Surveyors Ref. No: 10772

Sheet 1 of 1

Appendix 2

Location Plan



QuickMap
Custom Software Ltd

Any person wishing to rely on the information shown on this map must independently verify the information

Scale 1:7500 Topographical and Cadastral map derived from LINZ data. Printed: 17-Nov-2025 01:31.

Appendix 3

Record of Title & Relevant Instruments

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA134D/521**
Land Registration District	**North Auckland**
Date Issued	14 May 2001

Prior References
NA52A/1001

Estate	Fee Simple
Area	8.5200 hectares more or less
Legal Description	Lot 1 Deposited Plan 208050

Registered Owners
MyFarm KiwiFruit Fund Limited Partnership

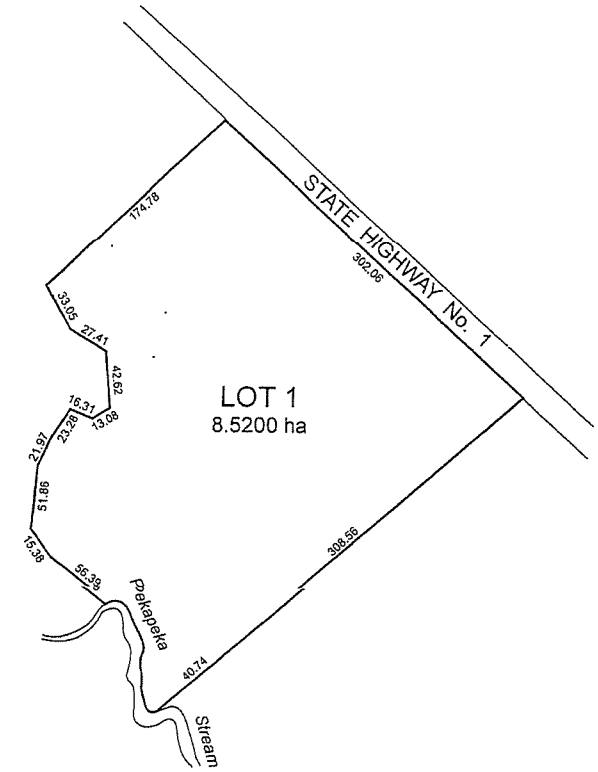
Interests

K42768 Building Line Restriction

922970.1 Gazette Notice declaring adjoining State Highway No 1 (Awanui to Bluff) a limited access road - 8.9.1980 at 10.53 am

5886709.5 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 4.2.2004 at 9:00 am

13040923.4 Mortgage to ASB Bank Limited - 27.6.2024 at 6:05 pm



New Cs'T Allocated:

Lot 1:

- 134D/521

Parcel	Formerly	CT Ref
LOT 1	Part Lot 2 DP 96242	52A/1001

Total Area: (Lot 1)

8.5200 ha

Approved for CT Diagram Purposes

24/5/2001 Chief Surveyor

Deposited for CT Diagram Purposes

24/5/2001 Registrar General of Land

N2355

22 MAY 2001

DP 208050

Land District: NORTH AUCKLAND

Survey District: XII OMAPERE

PLAN OF LOT 1
FOR CT DIAGRAM PURPOSES

Local Authority: FAR NORTH DISTRICT

Prepared by: Nick's Draughting Service

Scale: Proportional

File 5/284

Chief Surveyor's Office,
Box 2206, AUCKLAND. C1.

31. 10. 52.

MEMORANDUM for:

The District Land Registrar,
Box 2207,
AUCKLAND. C1.

Scheme Plan No. 4897

Town of Ohaeawai Ext? N° 2

Owner C.L. Mason.

Attached is a copy of the above-mentioned scheme plan for your record; also a copy of a Notice imposing a Building Line Restriction in pursuance of Section 5 of the Land Subdivision in Counties Act, 1946, for registration in compliance with Section 5 (4) of that Act.

Kindly inform me when registration has been completed.

T.S. Roe

T.S. Roe,
CHIEF SURVEYOR.

ENCLS.
Copy of Scheme Plan.
Copy of notice.

10 George Lane

NOTICE NO. 421
SCHEME PLAN NO. 4897.

CONDITIONS OF BUILDING LINE.

SECTION 5 LAND SUBDIVISION IN COUNTIES ACT, 1946.

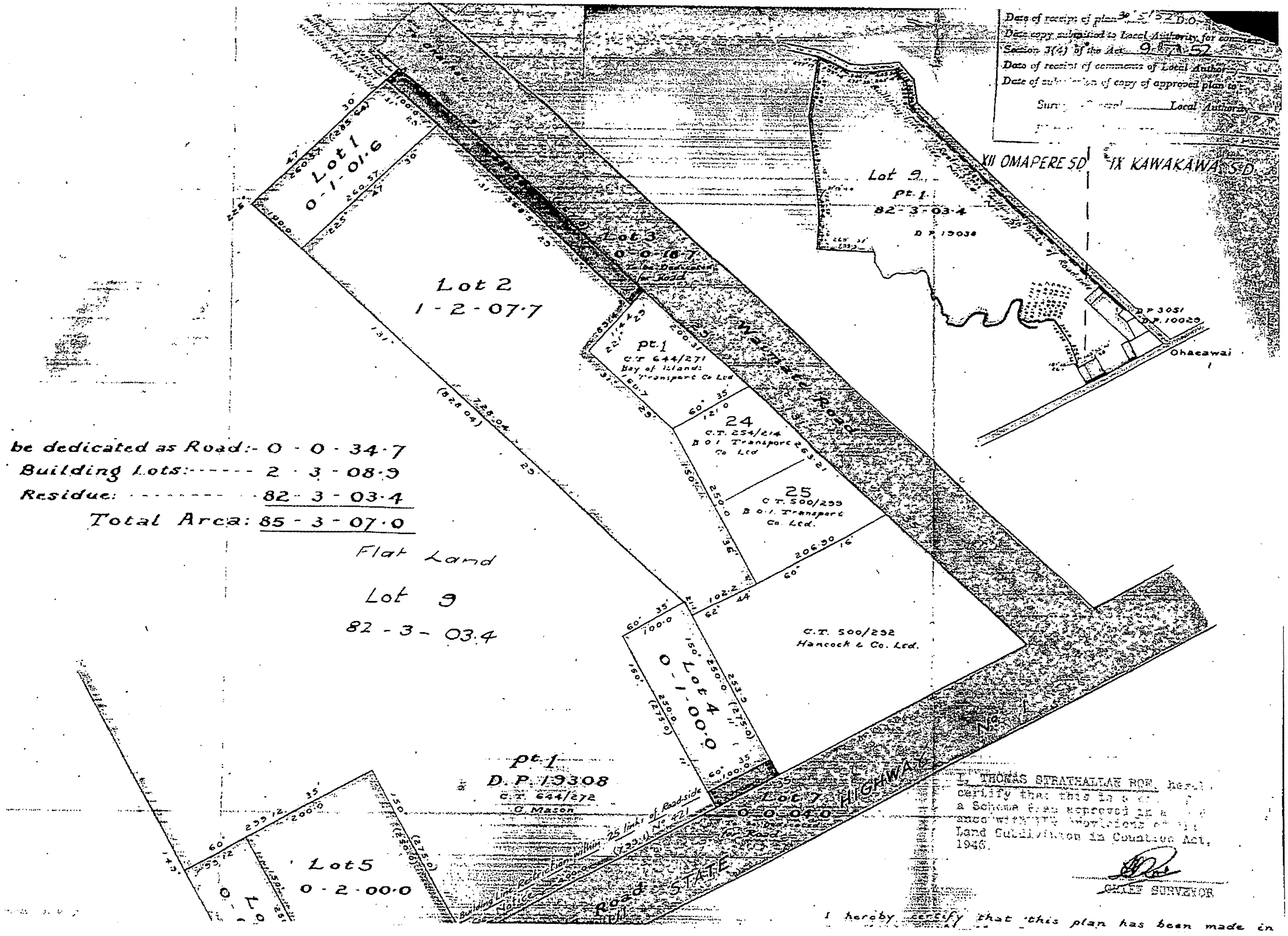
PURSUANT to the provisions of Section 5 (4) of the Land Subdivision in Counties Act, 1946, I, THOMAS STRATHALLAN ROE, Chief Surveyor, North Auckland Land District, HEREBY GIVE NOTICE that Lot 9, more particularly delineated in the scheme plan of the Town of Ohaeawai Extension No.2, being a subdivision of Part O.L.C. 55, Block IX, Kawakawa Survey District and Block XII Omapere Survey District, comprised in Certificate of Title Volume 644 Folio 272, Auckland Land Registry, is subject to the condition that no buildings or hoardings shall be erected on the said Lot within 25 links of the Whangarei-Awanui State Highway No. 1 and the Waimate Road, as shown in the aforementioned scheme plan.

Given under my hand this 18th
day of September, 1952.

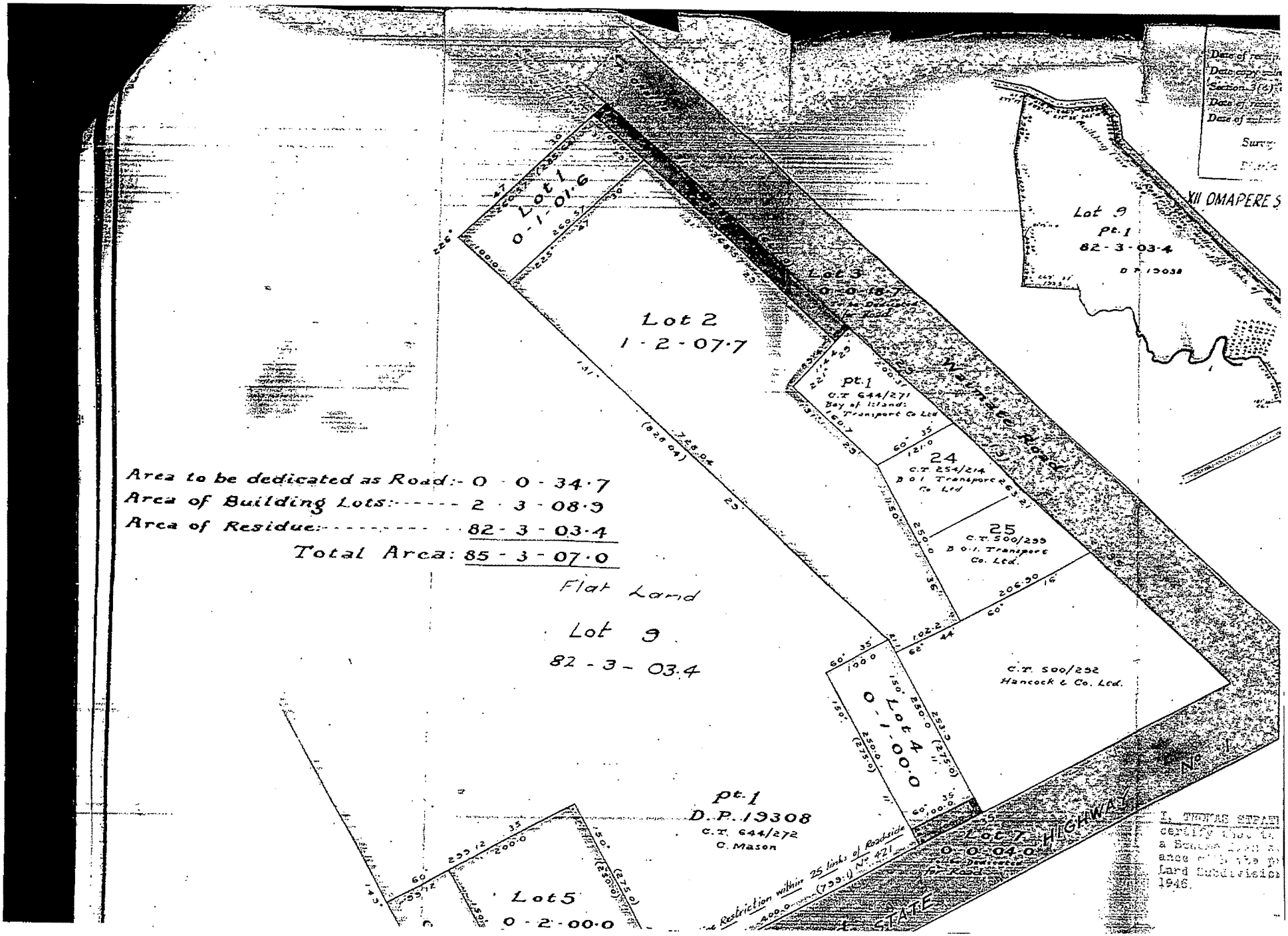
Signed: T.S. Roe,
CHIEF SURVEYOR.
NORTH AUCKLAND LAND DISTRICT.

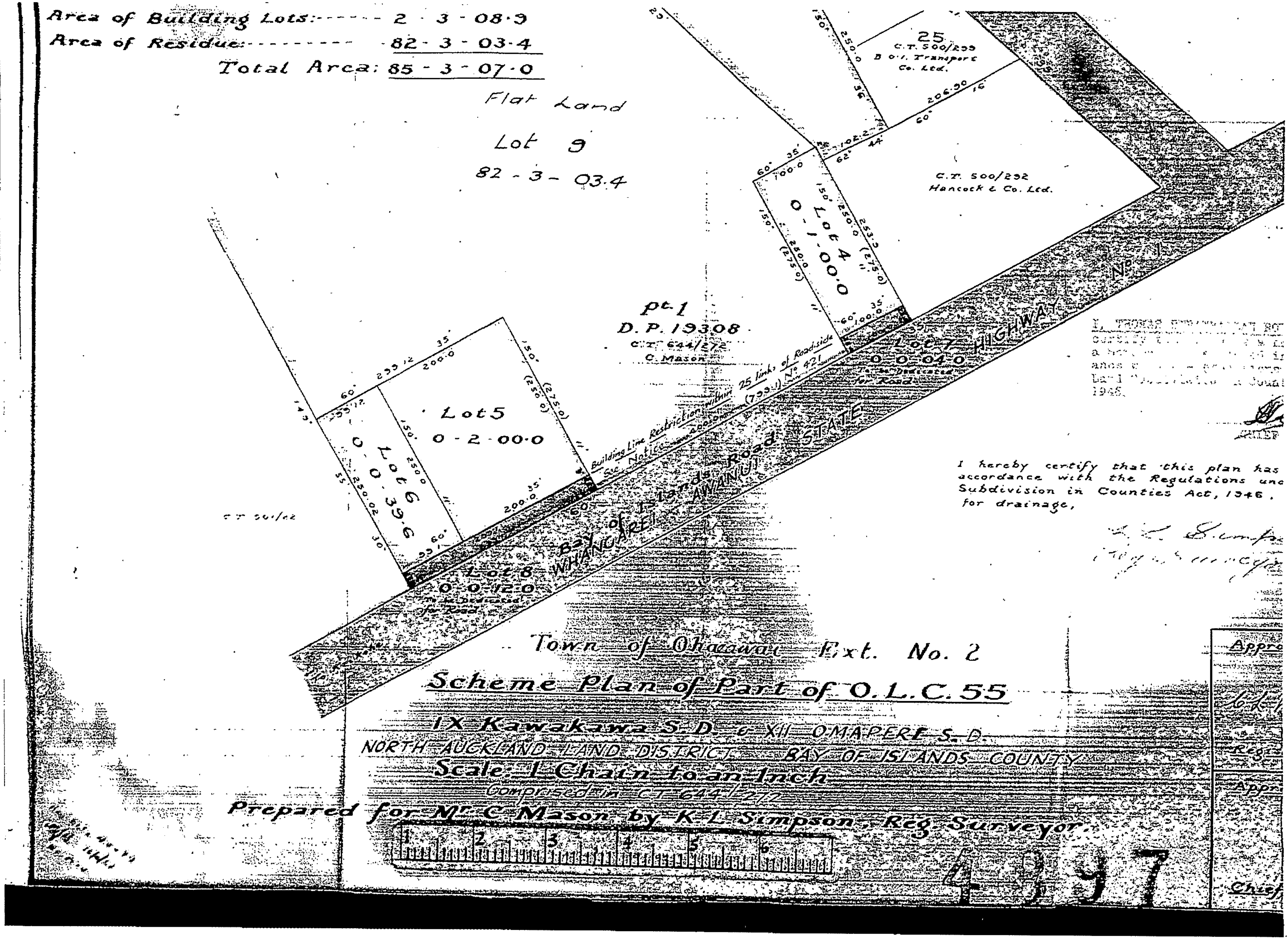
I, THOMAS STRATHALLAN ROE, Hereby Certify that this is a copy of a notice issued in accordance with the Land Subdivision in Counties Act, 1946.

CHIEF SURVEYOR.



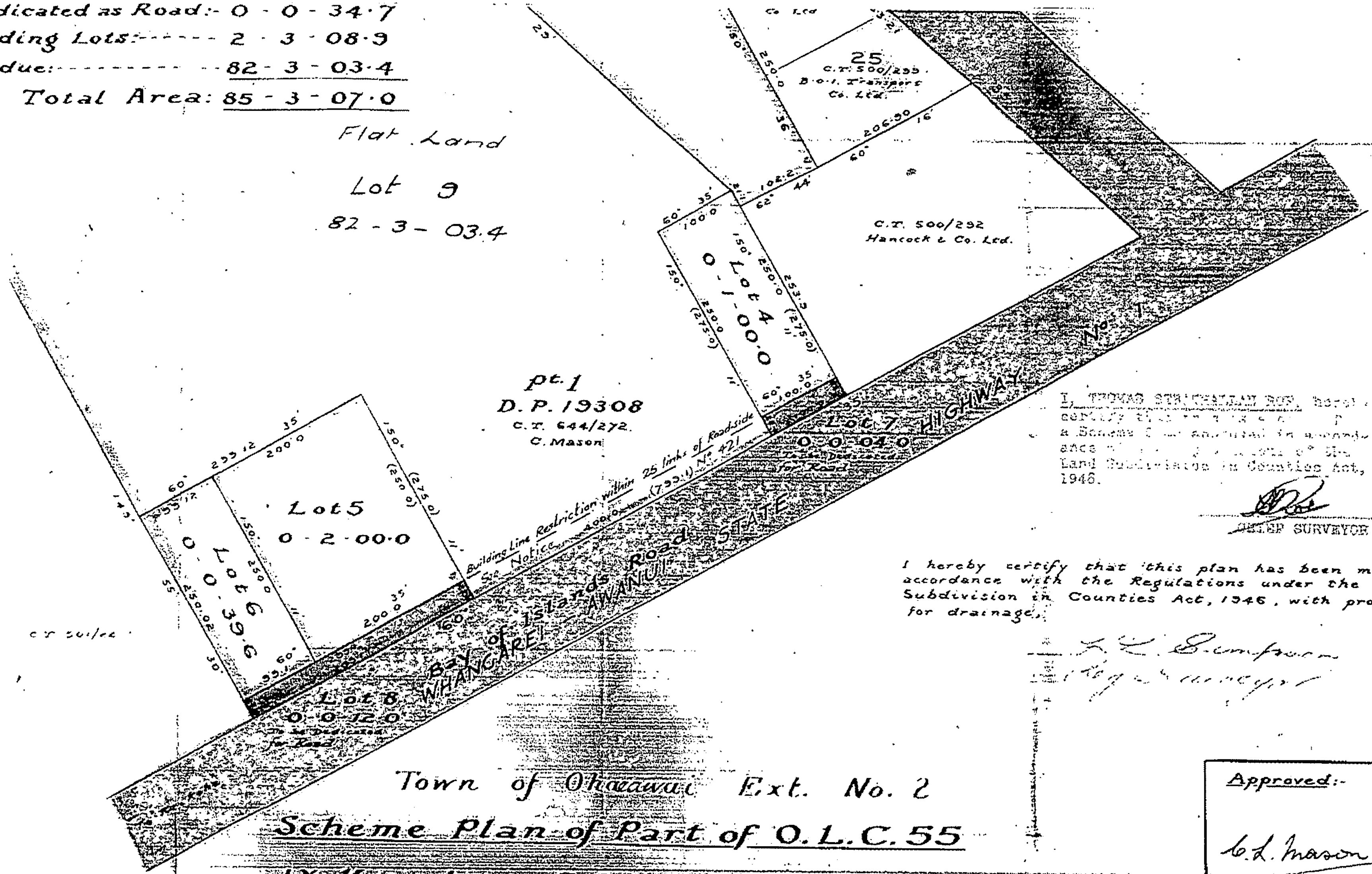
Date of receipt of plan 30.5.52 D.O.
Date copy submitted to Local Authority for comments
Section 3(4) of the Act 9.7.52
Date of receipt of comments of Local Authority
Date of submission of copy of approved plan to
Local Authority
XII OMAPERE S.D.
IX KAWAKAWA S.D.
Lot 9
pt. 1
82-3-03.4
D.P. 19038
D.P. 3051
D.P. 10029
Ohaeawai
Lot 1
0-1-01.6
Lot 2
1-2-07.7
Lot 3
0-0-16.7
pt. 1
C.T. 644/271
Bay of Islands Transport Co Ltd
24
C.T. 254/214
B.O.I. Transport Co Ltd
25
C.T. 500/299
B.O.I. Transport Co. Ltd.
C.T. 500/292
Hancock & Co. Ltd.
Lot 4
0-1-00.0
Lot 5
0-2-00.0
Lot 7
0-0-04.0
to be dedicated for Road
STATE HIGHWAY No. 1
Road
be dedicated as Road:- 0 - 0 - 34.7
Building Lots:------ 2 - 3 - 08.9
Residue: --------- 82 - 3 - 03.4
Total Area: 85 - 3 - 07.0
Flat Land
Lot 9
82 - 3 - 03.4
pt. 1
D.P. 19308
C.T. 644/272
C. Mason
Building Line Restriction within 25 links of Road-side
Notice No. 421
I, THOMAS STRATHALLAN ROE, hereby certify that this is a copy of a Scheme Plan approved in accordance with the provisions of the Land Subdivision in Counties Act, 1946.
CHIEF SURVEYOR
I hereby certify that this plan has been made in


Lot 1
0-1-01.6
Lot 2
1-2-07.7
Lot 3
0-0-18.7
Lot 9
pt.1
82-3-03-4
pt.1
C.T. 644/271
Bay of Island: Transport Co Ltd
24
C.T. 254/214
B.O.I. Transport Co Ltd
25
C.T. 500/239
B.O.I. Transport Co. Ltd.
C.T. 500/252
Hancock & Co. Ltd.
Lot 4
0-1-00.0
Lot 7
0-0-04.0
Lot 5
0-2-00.0
pt.1
D.P. 19308
C.T. 644/272
C. Mason
Area to be dedicated as Road:- 0 - 0 - 34·7
Area of Building Lots:------ 2 - 3 - 08·9
Area of Residue:---------- 82 - 3 - 03·4
Total Area: 85 - 3 - 07·0
Flat Land
Lot 9
82 - 3 - 03.4
Restriction within 25 links of Roadside
STATE



Area of Building Lots:------ 2 - 3 - 08·9
Area of Residue:--------- 82 - 3 - 03·4
Total Area: 85 - 3 - 07·0
Flat Land
Lot 9
82 - 3 - 03·4
Pt 1
D.P. 19308
C.T. 644/272
C. Mason
25
C.T. 500/255
B. o. I. Transport Co. Ltd.
C.T. 500/292
Hancock & Co. Ltd.
Lot 4
0 - 1 - 00·0
Lot 5
0 - 2 - 00·0
Lot 6
0 - 0 - 39·6
Lot 7
0 - 0 - 04·0
To be Dedicated for Road
Lot 8
0 - 0 - 12·0
To be Dedicated for Road
Building Line Restriction within 25 links of Roadside
Bay of Islands Road
WHANGAREI - AWANUI STATE HIGHWAY No. 1
I hereby certify that this plan has
accordance with the Regulations
Subdivision in Counties Act, 1946,
for drainage,
Town of Ohaeawai Ext. No. 2
Scheme Plan of Part of O.L.C. 55
IX Kawakawa S.D. & XII Omapere S.D.
NORTH AUCKLAND LAND DISTRICT BAY OF ISLANDS COUNTY
Scale: 1 Chain to an Inch
Comprised in C.T. 644/272
Prepared for Mr C. Mason by K. L. Simpson, Reg. Surveyor.
1 2 3 4 5 6
4397

...e dedicated as Road:- 0 - 0 - 34·7
Building Lots:------ 2 - 3 - 08·9
Residue:--------- 82 - 3 - 03·4
Total Area: 85 - 3 - 07·0



I, THOMAS STRATHEARN ROY, hereby certify [illegible] a Scheme [illegible] in accordance [illegible] Land Subdivision in Counties Act, 1946.

CHIEF SURVEYOR

I hereby certify that this plan has been made in accordance with the Regulations under the Land Subdivision in Counties Act, 1946, with provision for drainage.

K. L. Simpson
Reg. Surveyor

Town of Ohaeawai Ext. No. 2

Scheme Plan of Part of O.L.C. 55

IX Kawakawa S.D. & XII Omapere S.D.
NORTH AUCKLAND LAND DISTRICT BAY OF ISLANDS COUNTY
Scale: 1 Chain to an Inch
Comprised in C.T. 644/272

Prepared for Mr C. Mason by K. L. Simpson, Reg. Surveyor.

1 2 3 4 5 6

4897

Approved:-
C. L. Mason
Registered Owner
Approved:-
Chief Surveyor

K42768

PARTICULARS ENTERED IN THE REGISTER-BOOK
VOL. 644 FOLIO 272

THE 3rd DAY OF November 1952
AT 2pc O'CLOCK.

AUCKLAND DISTRICT LAND REGISTRY NEW ZEALAND

Assistant Land Registrar.
Auckland.

To. 4-11-1952.

From L.T.S. 7-11-1952

Advise
Chief Surveyor
Auckland

Recorded on L.T. 40189

Vesting of Lot 4
DP 60229
cancels this
Building Line
Restriction

RECALL FILE LABEL
F5000001042450

14880
127 A4 S

Appendix 4

NZTA Approval

NZ TRANSPORT AGENCY
WAKA KOTAHI

www.nzta.govt.nz

44 Bowen Street
Pipitea, Wellington 6011
Private Bag 6995
Wellington 6141
New Zealand
T 0800 699 000
www.nzta.govt.nz

NZ Transport Agency Waka Kotahi Reference: Application-2025-0950

5 November 2025

Lynley Newport
Thomson Survey
Ohaeawai 0472

Sent via Email: lynley@tsurvey.co.nz

Dear Lynley,

Two lot subdivision – 79 & 79B State Highway 1, Ohaeawai – Lynley Newport

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

Proposal

Resource consent is sought to undertake a two-lot subdivision, where the 4000m^2 Lot 1 contains two existing dwellings and associated sheds and the 8.12ha Lot 2 contains the existing kiwifruit orchard (Attachment 1).

Assessment

In assessing the proposed activity, NZTA notes the following:

- The section of State Highway (SH) 01N is 100 km/h and is a primary collector under the One Network Road Classification (ONRC) and under the One Network Framework (ONF). 1376 vehicles use the road daily on average, 9% being heavy vehicles.
- The subdivision is a restricted discretionary activity in the Rural Production zone under the Far North District Plan. There are land use breaches of impermeable surface coverage and residential intensity because the lot area around existing development is reduced. This does not concern NZTA as there is no new development.
- The two dwellings are anticipated to generate 21.4 vehicle movements. The applicant has suggested the orchard would average 2-5 vehicle movements daily depending on the stage in the kiwifruit season.
- This volume of traffic requires a minimum Diagram C access standard (Attachment 2). The applicant would need to seal to the boundary and install traversables at the end of each culvert to meet this standard.
- Given no changes in land use, on site stormwater and noise reverse sensitivity effects are not of concern.

Limited Access Road (LAR)

Your client's site adjoins State Highway 01N 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 Crossing Place (CP) notice for CP156D will be cancelled and CP156D authorised for the new land use once the access have been upgraded to the satisfaction of NZTA.

Conditions

1. The existing vehicle crossing, Crossing Place 156D, shall be upgraded in accordance with the NZ Transport Agency Diagram C Standard as agreed with the Network Management Team and as outlined in the Planning Policy Manual (2007) and to the satisfaction of the NZ Transport Agency Network Manager.

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 confirmation that NZ 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.

We are happy for you to provide this letter to the territory authority as evidence of our s95E RMA and s93 GRPA approvals.

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 (CAR) and for that request to be approved.

Please submit your CAR to 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 the Environmental Planning team at environmentalplanning@nzta.govt.nz.

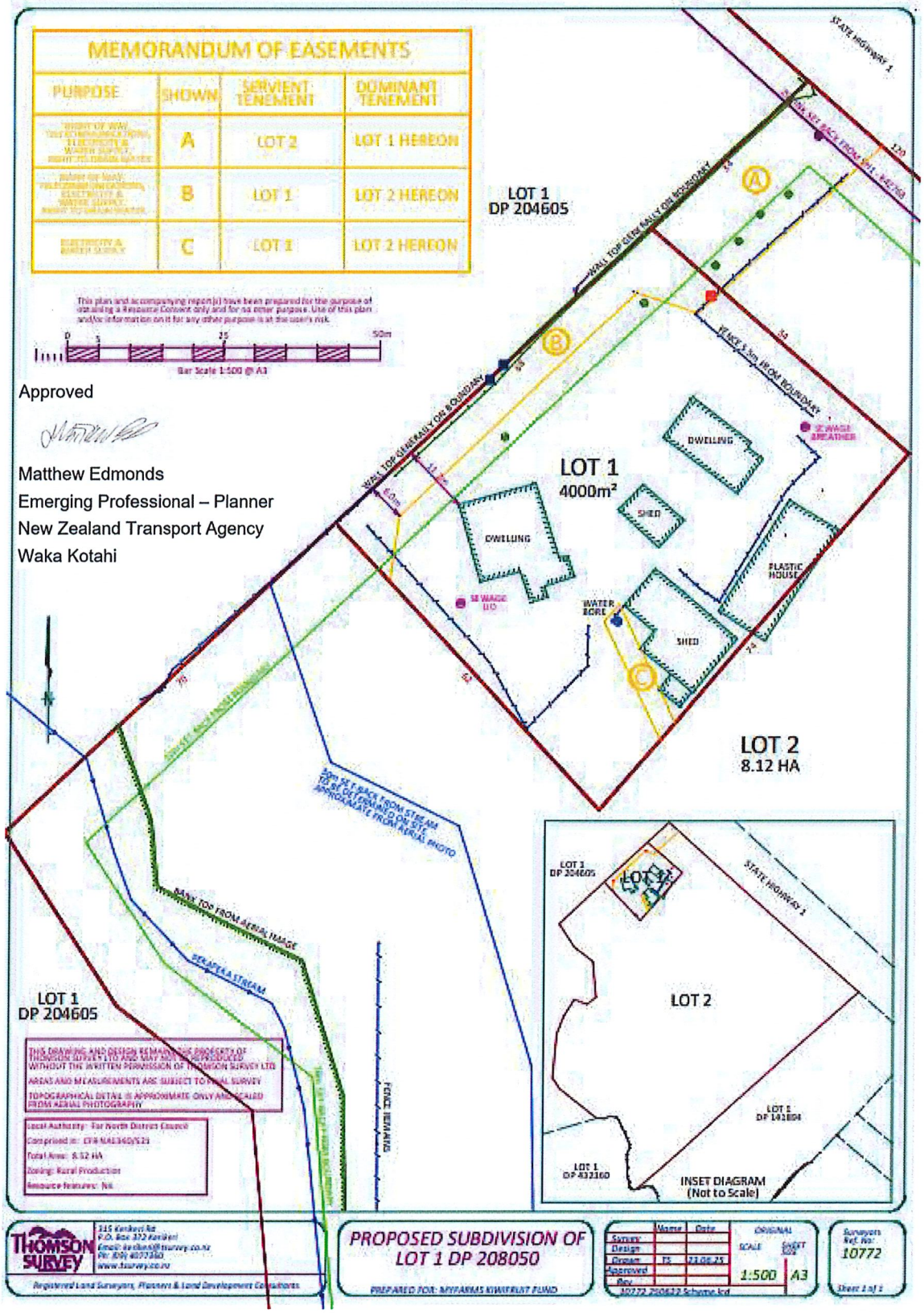
Yours sincerely,

Matthew Edmonds
Emerging Professional
Poutiaki Taiao / Environmental Planning, System Design, on behalf of NZ Transport Agency Waka Kotahi.

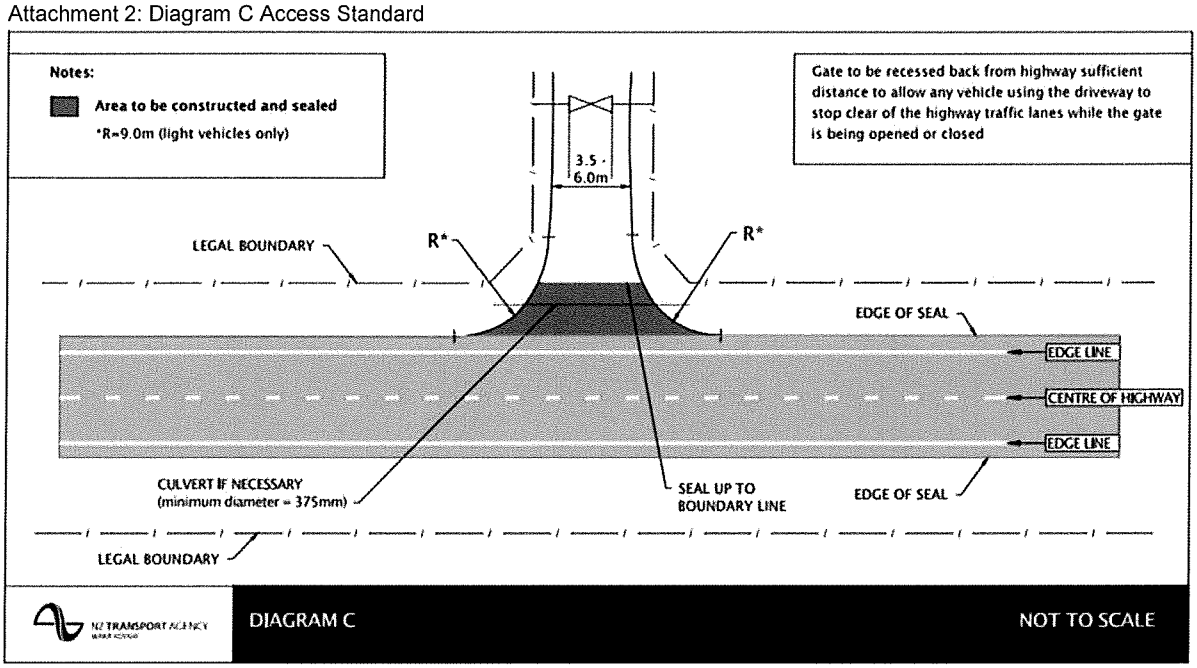
Enclosed:

- Attachment 1: Proposed Site Plan
- Attachment 2: Diagram C Access Standard

Attachment 1: Proposed Site Plan



Attachment 2: Diagram C Access Standard



Appendix 5

Civil Site Suitability Report

Wilton Joubert Limited
09 527 0196
196 Centreway Road,
Orewa, Auckland, 0931

SITE	**79 State Highway 1, Ōhaeawai**
LEGAL DESCRIPTION	**Lot 1 DP 208050**
PROJECT	**2-Lot Subdivision**
CLIENT	**MyFarm KiwiFruit Fund Limited Partnership**
REFERENCE NO.	**142661**
DOCUMENT	**Civil Site Suitability Report**
STATUS/REVISION NO.	**02 – Resource Consent**
DATE OF ISSUE	**24 October 2025**

Report Prepared For	Email
MyFarm KiwiFruit Fund Limited Partnership	fundaccounts@myfarm.co.nz

Authored by	**G.M. Brant** *(Be (Hons) Civil)*	Civil Engineer	gustavo@wjl.co.nz	
Reviewed & Approved by	**B. Steenkamp** *(CPEng, BEng Civil, CMEngNZ, BSc (Geology))*	Senior Civil Engineer	bens@wjl.co.nz	

1 EXECUTIVE SUMMARY

The following table is intended to be a concise summary which must be read in conjunction with the relevant report sections as referenced herein.

Legal Description:	Lot 1 DP 208050
Development Type:	2-Lot Subdivision
Scope:	Civil Site Suitability Investigation (Lot 1 only): - Wastewater Assessment - Stormwater Assessment
Development Proposals Supplied:	Scheme Plan by Thomson Survey (Ref No: 10772, dated: 28.07.2025)
District Plan Zone:	Rural Production Zone
Wastewater:	It is recommended that the existing on-site wastewater treatment and disposal systems continue to service the existing residential dwellings given that Lot 1 is not redeveloped. Recommendations for wastewater are provided in Section 5 for any future redevelopment of the lot.
Stormwater Management – District Plan Rules:	Permitted Activity: 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%. Controlled Activity: 8.6.5.2.1 STORMWATER MANAGEMENT – The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 20%.
Stormwater Management:	To comply with the parameters of the Permitted Activity Rule (8.6.5.1.3), Lot 1 must not exceed an impermeable area of 15%. The maximum permitted impermeable area for Lot 1 is 600m². The impermeable area within Lot 1 post-development (once the large shed and plastic house have been removed) amounts to 1,130m² or 28% of Lot 1's area, not meeting the zone's permitted or controlled threshold (20%). Given this, it is recommended to provide stormwater attenuation for the 1% AEP storm event, adjusted for climate change for the impermeable areas over the permitted activity threshold. Stormwater management recommendations are provided in Section 6.

2 SCOPE OF WORK

Wilton Joubert Ltd (WJL) was engaged by the client to undertake a civil site suitability assessment (wastewater & stormwater) of proposed Lot 1 to support a subdivision of Lot 1 DP 208050.

At the time of report writing a scheme plan by Thomson Survey (Ref No: 10772, dated: 28.07.2025) has been provided to WJL showing the proposed subdivision. No development plans for future development of Lot 1 have been supplied to WJL.

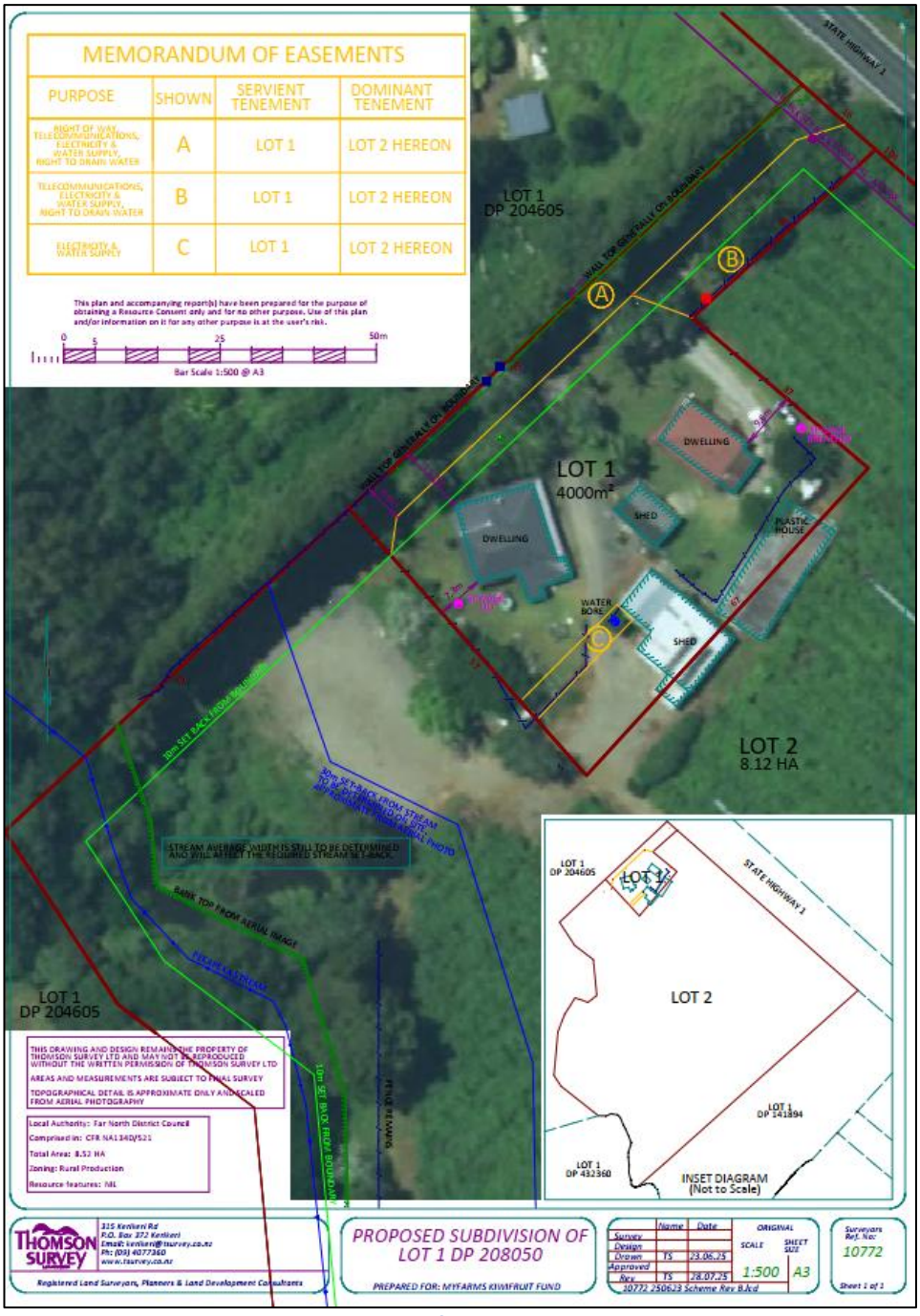


Figure 1: Markup of Proposed Subdivision.

Any revision of the supplied drawings and/or development proposals with wastewater and/or stormwater implications should be referred back to us for review. This report is not intended to support Building Consent applications for the future proposed lots, and any revision of supplied drawings and/or development proposals including those for Building Consent, which might rely on wastewater and/or stormwater herein, should be referred to us for review.

3 SITE DESCRIPTION

The parent 80,223m² Rural Production zoned block is located off the western side of State Highway 1. The site is accessed directly via State Highway 1 from the lot's northern boundary.

Built development on-site comprises two residential dwellings, two sheds (larger shed to be removed), a plastic house (to be removed) and a metalled right of way. Vegetation consists predominantly of orchards.

Topographically speaking, the property generally falls to the southeast at gentle grades.

At the time of preparing this report, we note the FNDC on-line GIS Water Services Map indicates that reticulated water, wastewater, and stormwater service connections are not available to the property. It is our understanding potable water is currently sourced from an on-site bore water supply. It has not been confirmed by the client at this stage if they will continue to utilise the bore water supply or if on-site rainwater tanks will be utilised post-subdivision.

Figure 2: Snip from FNDC GIS Maps Showing Parent Lot's Boundaries (cyan).

4 PUBLISHED GEOLOGY

Local geology across the property is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as; Kerikeri Volcanic Group Pleistocene basalt of Kaikohe - Bay of Islands Volcanic Field, described as; "*Basalt lava and volcanic plugs.*" (ref: GNS Science Website).

Figure 3: Screenshot from New Zealand Geology Web Map hosted by GNS Science.

In addition to the above, geotechnical testing was conducted by WJL within the subject site.

In general terms, the subsoils encountered consisted predominantly of SILT. Approximately 250mm of TOPSOIL was overlying the investigated area. Refer to the appended 'BH Logs'. Given the above, the site's soils have been classified as Category 5 in accordance with the TP58 design manual.

5 WASTEWATER

Existing on-site wastewater treatment systems currently service Lot 1's existing residential dwelling (one system per dwelling).

A site visit conducted by WJL in September 2025 confirms that the existing septic tanks and disposal trenches are located within Lot 1's proposed boundaries. Additionally, no evidence of malfunction or breakout was observed around the disposal areas. It is therefore recommended that the existing wastewater treatment and disposal system continue to service Lot 1's existing residential dwellings.

A new site-specific design in accordance with the AS/NZS: 1547 and TP58 design manual with the recommendations contained within Section 5.1 below will be required by FNDC for any future development within the proposed lot.

5.1 DESIGN PARAMETERS

The following table is intended to be a concise summary of the design parameters, which must be read in conjunction with the relevant report sections as referenced herein.

No future development of the proposed lots is proposed at this stage. The below wastewater design has been completed to show feasibility of on-site wastewater management within the proposed lot. As no development proposals are available at this stage for future development within the proposed lot, our recommendations have been based on a moderate size dwelling containing 4 bedrooms.

Given the subsoils encountered during WJL's fieldwork investigation, we recommend secondary treatment or higher for any new wastewater treatment system within the proposed lot.

At the time of report writing it has not been confirmed if the client will continue to use the existing bore potable water supply, or if rainwater tanks will be utilised post-development. An indicative design has been completed for both scenarios.

Although dripper irrigation is recommended and shown below, alternative trench or bed setup with secondary level treatment is also acceptable subject to specific design.

5.1.1 Summary of Preliminary Design Parameters for a PCDI Secondary Treatment System

Development Type:	Residential Dwellings
Effluent Treatment Level:	Secondary (<BOD5 20 mg/L, TSS 30 mg/L)
Fill Encountered in Disposal Areas:	No
Water Source:	Rainwater Collection Tanks or Reticulated Water Supply
Site Soil Category (TP58):	Category 5 – SILT –Moderate Drainage
Estimate House Occupancy:	6 Persons
Loading Rate:	PCDI System – 4mm/day
Estimated Total Daily Wastewater Production:	Bore Supply: 1,200L/day Rainwater Tanks: 1,080L/day
Typical Wastewater Design Flow Per Person:	Bore Supply: 200L/pp/day (Estimated –water conservation devices may enable lower design flows) Rainwater Supply: 180L/pp/day (Estimated –water conservation devices may enable lower design flows)
Application Method:	Surface Laid PCDI Lines

Loading Method:	Dosed
Minimum Tank size:	Bore Supply: >1,200L Rainwater Supply: >1,080L
Emergency Storage:	24 hours
Estimated Min. Disposal Area Requirement:	Bore Supply: 300m² Rainwater Supply: 270m²
Required Min. Reserve Area:	50%
Buffer Zone:	Not anticipated to be required
Cut-off Drain:	Not anticipated to be required

5.2 REQUIRED SETBACK DISTANCES

The disposal and reserve areas must be situated outside the relevant exclusion areas and setbacks described within Table 9 of the PRPN: Exclusion areas and setback distances for on-site domestic wastewater systems:

Table 9 of the PRPN (Proposed Regional Plan for Northland)			
Feature	Primary treated domestic wastewater	Secondary treated domestic wastewater	Greywater
Exclusion areas			
Floodplain	5% AEP	5% AEP	5% AEP
Horizontal setback distances			
Identified stormwater flow paths (downslope of disposal area)	5 meters	5 meters	5 meters
River, lake, stream, pond, dam or wetland	20 meters	15 meters	15 meters
Coastal marine area	20 meters	15 meters	15 meters
Existing water supply bore	20 meters	20 meters	20 meters
Property boundary	1.5 meters	1.5 meters	1.5 meters
Vertical setback distances			
Winter groundwater table	1.2 meters	0.6 meters	0.6 meters

5.3 NORTHLAND REGIONAL PLAN ASSESSMENT

The existing wastewater disposal systems servicing Lot 1 should meet the compliance points below, stipulated within Section C.6.1.1 of the Proposed Regional Plan for Northland:

C.6.1.1 Existing on-site domestic type wastewater discharge – permitted activity	
The discharge of domestic type wastewater into or onto land from an on-site system that was a permitted activity at the notification date of this Plan, and the associated discharge of any odour into air from the onsite system, are permitted activities, provided:	
#	Rule
1	the discharge volume does not exceed:
	a) three cubic metres per day, averaged over the month of greatest discharge, and
	b) six cubic metres per day over any 24-hour period, and
2	the following reserve disposal areas are available at all times:
	a) one hundred percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or
	b) thirty percent of the existing effluent disposal area where the wastewater has received at least secondary treatment, and
3	the on-site system is maintained so that it operates effectively at all times and maintenance is undertaken in accordance with the manufacturer's specifications, and
4	wastewater irrigation lines are at all times either installed at least 50 millimetres beneath the surface of the disposal area or are covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and
5	the discharge does not contaminate any groundwater supply or surface water, and
6	there is no surface runoff or ponding of wastewater, and
7	there is no offensive or objectionable odour beyond the property boundary.

We envision that there will be no issue meeting the Permitted Activity Status requirements as outlined above.

Any future wastewater disposal system should meet the compliance points below, stipulated within Section C.6.1.3 of the Proposed Regional Plan for Northland:

C.6.1.3 Other on-site treated domestic wastewater discharge– permitted activity	
The discharge of domestic type wastewater into or onto land from an on-site system and the associated discharge of odour into air from the on-site system are permitted activities, provided:	
#	Rule
1	The on-site system is designed and constructed in accordance with the Australian/New Zealand Standard. On-site Domestic Wastewater Management (AS/NZS 1547:2012), and
2	The volume of wastewater discharged does not exceed two cubic metres per day, and
3	The discharge is not via a spray irrigation system or deep soakage system, and

4	The slope of the disposal area is not greater than 25 degrees, and
5	The wastewater has received secondary or tertiary treatment and is discharged via a trench or bed in soil categories 3 to 5 that is designed in accordance with Appendix L of Australian/New Zealand Standard. On-site Domestic Wastewater Management (AS/NZS 1547:2012); or is via an irrigation line system that is:
	a) dose loaded, and
	b) covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and
6	For the discharge of wastewater onto the surface of slopes greater than 10 degrees:
	a) the wastewater, excluding greywater, has received at least secondary treatment, and
	b) the irrigation lines are firmly attached to the disposal area, and
	c) where there is an up-slope catchment that generates stormwater runoff, a diversion system is installed and maintained to divert surface water runoff from the up-slope catchment away from the disposal area, and
	d) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the disposal area, and
	e) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or
	f) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark, and
7	the disposal area and reserve disposal area are situated outside the relevant exclusion areas and setbacks in Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems, and
8	for septic tank treatment systems, a filter that retains solids greater than 3.5 millimetres in size is fitted on the outlet, and
9	the following reserve disposal areas are available at all times:
	a) 100 percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or
	b) 30 percent of the existing effluent disposal area where the wastewater has received secondary treatment or tertiary treatment, and
10	the on-site system is maintained so that it operates effectively at all times and maintenance is undertaken in accordance with the manufacturer's specifications, and
11	the discharge does not contaminate any groundwater water supply or surface water, and
12	there is no surface runoff or ponding of wastewater, and
13	there is no offensive or objectionable odour beyond the property boundary.

We envision that the lot will have no issue meeting the Permitted Activity Status requirements outlined above.

6 STORMWATER MANAGEMENT

6.1 ASSESSMENT CRITERIA

The site lies within the Far North District. The stormwater assessment has been completed in accordance with the recommendations and requirements contained within the Far North District Engineering Standards and the Far North District Council District Plan.

As below, the site resides in a Rural Production Zone.

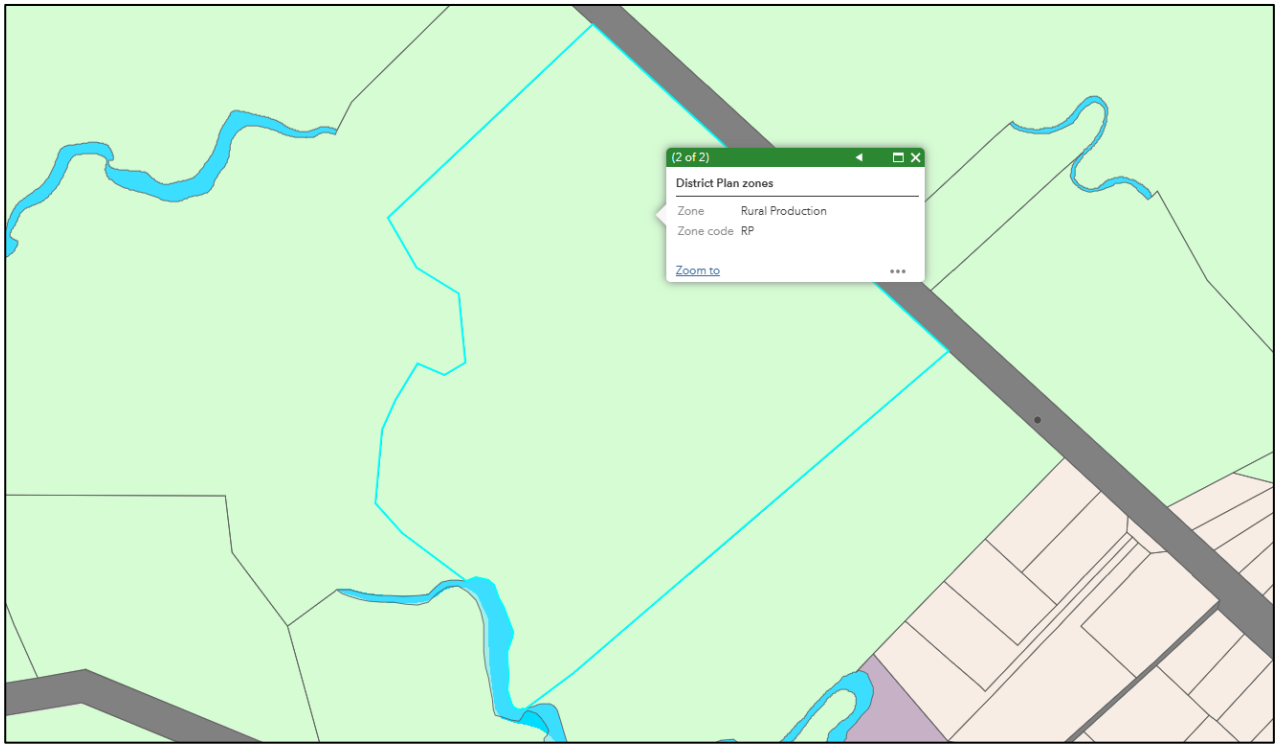


Figure 4: Snip of FNDC Maps Showing Site in Rural Production Zone.

The following Stormwater Management Rules Apply:

Permitted Activity: 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%.

Controlled Activity: 8.6.5.2.1 STORMWATER MANAGEMENT – The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 20%.

To comply with the parameters of the Permitted Activity Rule (8.6.5.1.3), Lot 1 must not exceed an impermeable area of 15%. The maximum permitted impermeable area for Lot 1 is 600m².

The impermeable area within Lot 1 post-development (once the large shed and plastic house have been removed) amounts to 1,130m² or 28% of Lot 1's area, not meeting the zone's permitted or controlled threshold (20%).

Given this, it is recommended to provide stormwater attenuation for the 1% AEP storm event, adjusted for climate change for the impermeable areas over the permitted activity threshold.

To appropriately mitigate stormwater runoff from the existing and future proposed impermeable areas, we recommend utilising Low Impact Design Methods as a means of stormwater management. Design guidance should be taken from 'The Countryside Living Toolbox' design document, and where necessary, 'Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual' Auckland Regional Council (2003).

Stormwater management recommendations for Lot 1 are provided below.

6.2 PRIMARY STORMWATER

6.2.1 Stormwater Runoff from Future Roof Areas

Stormwater runoff from the roof of any future buildings must be captured by a gutter system and conveyed to a detention tank(s) or potable water tank(s).

Discharge and overflow from the potable water tanks should be directed to a dispersal device within the lot unless the discharge is directed to an open channel, where an appropriate riprap outlet is required for erosion control. The dispersal device or discharge point should be positioned on/in stable ground downslope of any buildings and effluent fields, with setback distances as per the relevant standards.

6.2.2 Stormwater Runoff from Future Hardstand Areas

It is recommended to shape future proposed hardstand areas to shed runoff to large, vegetated areas and / or to stormwater catchpits for runoff conveyance to the lot's stormwater dispersal device / discharge outlet.

Long driveways or Right of Ways should be shaped to shed runoff to lower-lying grassed areas, well clear of any structures and effluent disposal trenches / fields. This stormwater runoff should sheet flow and must not be concentrated to avoid scour and erosion. Runoff passed through grassed areas will be naturally filtered of entrained pollutants and will act to mitigate runoff by way of ground recharge and evapotranspiration.

Where even sheet flow is not practicable, concentrated flows must be managed with swales directed to a safe outlet location without causing erosion. These should be sized to manage and provide capacity for secondary flows and mitigate flow velocity where appropriate.

Due to water quality concerns, runoff resulting from hardstand areas should not be allowed to drain to the potable water tanks.

6.2.3 Stormwater Attenuation of Existing Impermeable Areas

It is our understanding that *Dwelling 1* currently discharges runoff to a 1.8mØ x 1.8m high rainwater tank. It is recommended that this rainwater tank be fitted with a 100mmØ outlet pipe (minimum 1% grade) directing runoff to the dispersal device specified in Section 6.2.4 below. To achieve stormwater neutrality for the impermeable areas over the permitted activity threshold, the existing rainwater tank is to be fitted with a 65mmØ outlet orifice located >420mm below the overflow outlet level. Refer to the appended Site Plan (142661-C001), Tank Detail (142661-C210) and calculation set for clarification.

It is our understanding that *Dwelling 2* currently discharges runoff to a 1.8mØ x 1.4m high rainwater tank. It is recommended that this rainwater tank be fitted with a 100mmØ outlet pipe (minimum 1% grade) directing runoff to the dispersal device specified in Section 6.2.4 below. To achieve stormwater neutrality for the impermeable areas over the permitted activity threshold, the existing rainwater tank is to be fitted with a 65mmØ outlet orifice located >160mm below the overflow outlet level. Refer to the appended Site Plan (142661-C001), Tank Detail (142661-C210) and calculation set for clarification.

The drainage line to the dispersal device is to have a minimum 2% grade downslope of the joint where the two tank outlet lines meet. Alternatively, the line is to be upsized to a 150mmØ line at a minimum 1% grade.

If potable water tanks are to be utilised post-subdivision, the downpipe drainage lines should direct runoff directly to the dwelling's corresponding potable water tank(s). Overflow from the dwelling's corresponding potable water tank(s) should be directed to the dwelling's corresponding detention tank specified above.

6.2.4 Stormwater Runoff from Existing Rainwater Tanks

It is recommended that discharge from the existing rainwater tanks be directed via sealed pipes to a dispersal device near the lot's eastern corner. Refer to the appended Site Plan (142661-C001), Dispersal Device Detail (142661-C211) and calculation set for clarification. The dispersal device is to have the following specifications:

- Minimum 7m dispersal bar length and 100mm bar diameter,
- Dispersal bar to be installed parallel to property's topography,

- The dispersal bar is to be installed well clear and downslope of wastewater effluent fields,
- Dispersal bar installed maximum 150mm above ground level via waratah standards & stainless wire or plastic clips,
- 15mmØ outlet holes drilled at 150mm centres along the bar,
- One end of dispersal bar fitted with open 90° bend with mesh/grated cover to serve as emergency overflow,
- Other end of dispersal bar fitted with screw cap installed for maintenance / cleaning access,
- Area around dispersal bar to be planted out to assist with erosion protection, alternatively, a geotextile lining with 6-inch riprap to be placed up to 0.5m downslope of orifice outlets. Plants to consists of natives such as flaxes and shrubs to provide good ground cover.
- Dispersal device located well clear of the septic system/trenches.

Alternatively, a dispersal trench as per the Countryside Living Toolbox may also be used.

6.3 SECONDARY STORMWATER

Where required, overland flows and similar runoff from higher ground should be intercepted by means of shallow surface drains or small bunds near structures to protect these from both saturation and erosion.

6.4 DISTRICT PLAN ASSESSMENT

This section has been prepared to demonstrate the likely effects of the activity on stormwater runoff and the means of mitigating runoff.

In assessing an application under this provision, the Council will exercise discretion to review the following matters below, (a) through (r). In respect of matters (a) through (r), we provide the following comments:

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.	No discharge permits are required. No resource consent issued documents stipulating specific requirements are known for the subject site or are anticipated to exist.
(b) Whether the application complies with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009 (to be used in conjunction with NZS 4404:2004).	The application is deemed compliant with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009
(c) Whether the application complies with the Far North District Council Strategic Plan - Drainage.	The application is deemed compliant with the Far North District Council Strategic Plan - Drainage

(d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas.	Stormwater management should be provided for the subject lot by utilising Low Impact Design Methods. Guidance for design should be taken from 'The Countryside Living Toolbox' design document, and where necessary, *"Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual" Auckland Regional Council (2003).* All roof runoff will be collected by rainwater tanks for conveyance to a safe outlet point. Hardstand areas should either be shaped to shed to lower-lying lawn areas as passive mitigation, or to swales for runoff conveyance to a safe outlet location.
(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.	As above. Runoff from new and existing roof areas will be collected, directed to rainwater tanks and discharged in a controlled manner to a discharge outlet, reducing scour and erosion. Hardstand areas should either be shaped to shed to lower-lying lawn areas as passive mitigation, or to swales for runoff conveyance to a safe outlet location.
(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.	Runoff from roof areas is free of litter, chemical spillages, or contaminants from roads. Future proposed hardstand areas are best shaped to shed to large pasture areas via sheet flow to ensure that runoff does not concentrate. Large downslope pasture areas act as bio-filter strips to filter out entrained pollutants.
(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.	No alteration to waterways is proposed.
(h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments.	No applicable.
(i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off.	Not applicable.
(j) The necessity to provide on-site retention basins to contain surface run-off where the capacity of the outfall is incapable of accepting flows, and where the outfall has limited capacity, any need to restrict the rate of discharge from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place.	Not applicable.
(k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects.	Outlet locations are to be determined during detailed design and are to be located such that

	there are no adverse effects on adjacent properties.
(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.

7 LIMITATIONS

We anticipate that this report is to be submitted to Council in support of a Resource Consent application.

This report has been commissioned solely for the benefit of our client, **MyFarm KiwiFruit Fund Limited Partnership**, in relation to the project as described herein, and to the limits of our engagement, with the exception that the local Territorial Authority may rely on it to the extent of its appropriateness, conditions, and limitations, when issuing the subject consent.

Any variations from the development proposals as described herein as forming the basis of our appraisal should be referred back to us for further evaluation. Copyright of Intellectual Property remains with Wilton Joubert Limited, and this report may NOT be used by any other entity, or for any other proposals, without our written consent. Therefore, no liability is accepted by this firm or any of its directors, servants, or agents, in respect of any other civil aspects of this site, nor for its use by any other person or entity, and any other person or entity who relies upon any information contained herein does so entirely at their own risk. Where other parties may wish to rely on it, whether for the same or different proposals, this permission may be extended, subject to our satisfactory review of their interpretation of the report.

Although this report may be submitted to a local authority in connection with an application for a consent, permission, approval, or pursuant to any other requirement of law, this disclaimer shall still apply and require all other parties to use due diligence where necessary and does not remove the necessity for the normal inspection of site conditions and the design of foundations as would be made under all normal circumstances.

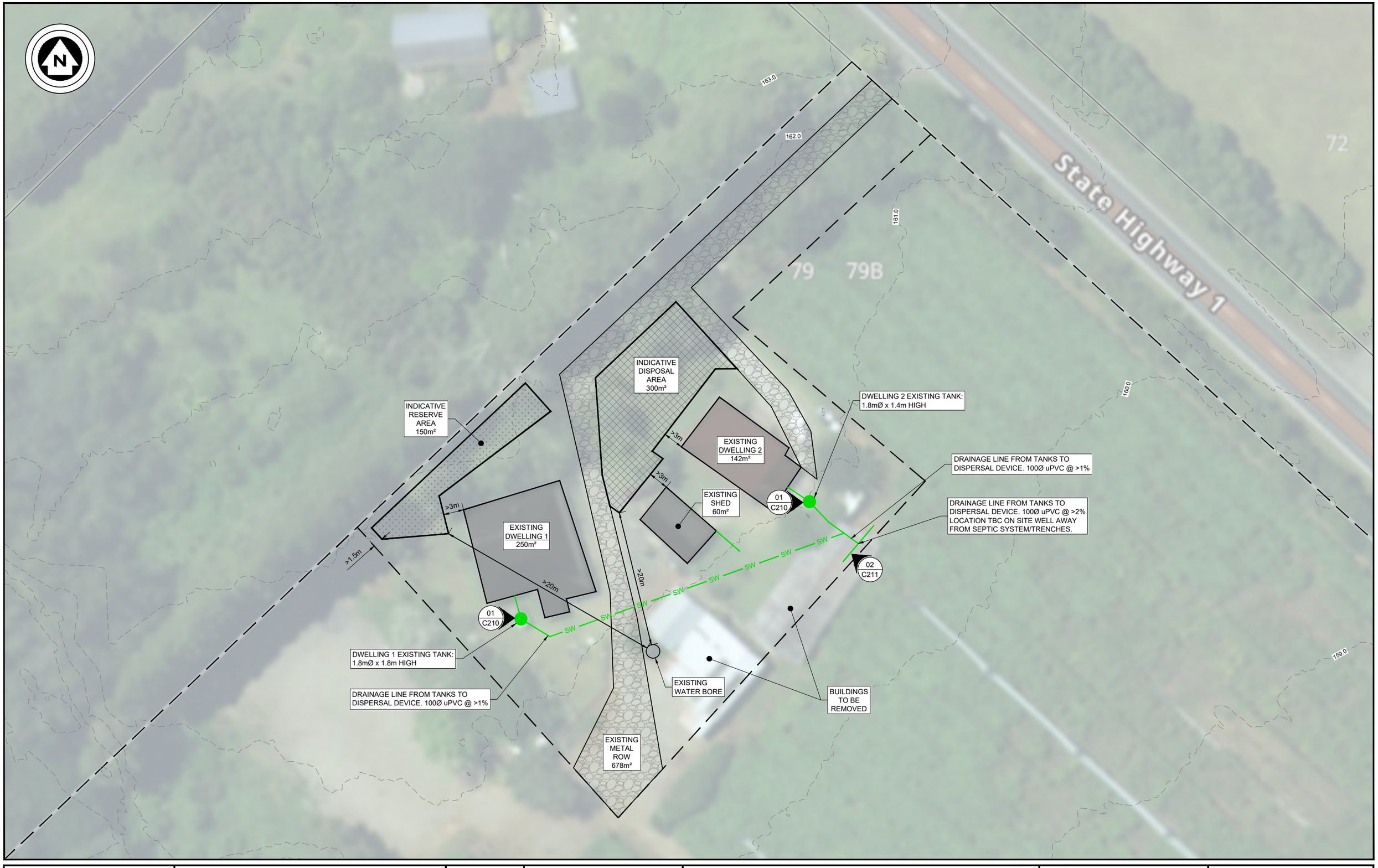
Thank you for the opportunity to provide our service on this project, and if we can be of further assistance, please do not hesitate to contact us.

Yours faithfully,

WILTON JOUBERT LIMITED

Enclosures:

- Site Plan – C001 (1 sheet)
- Tank Detail – C210 (1 sheet)
- Dispersal Device Detail – C211 (1 sheet)
- Hand Auger Borehole Records (2 sheets)
- Calculation Set



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ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	OCT '25	GMB	CIVIL SITE SUITABILITY REPORT

DESIGNED BY: GMB
DRAWN BY: GMB
CHECKED BY: BGS
SURVEYED BY: N/A

SERVICES NOTE

WHERE EXISTING SERVICES ARE SHOWN, THEY ARE INDICATIVE ONLY AND MAY NOT INCLUDE ALL SITE SERVICES. WILTON JOUBERT LTD DOES NOT WARRANT THAT ALL, OR INDEED ANY SERVICES ARE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING SERVICES PRIOR TO AND FOR THE DURATION OF THE CONTRACT WORKS.

RESOURCE CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
SITE PLAN

PROJECT DESCRIPTION:
CIVIL SITE SUITABILITY REPORT

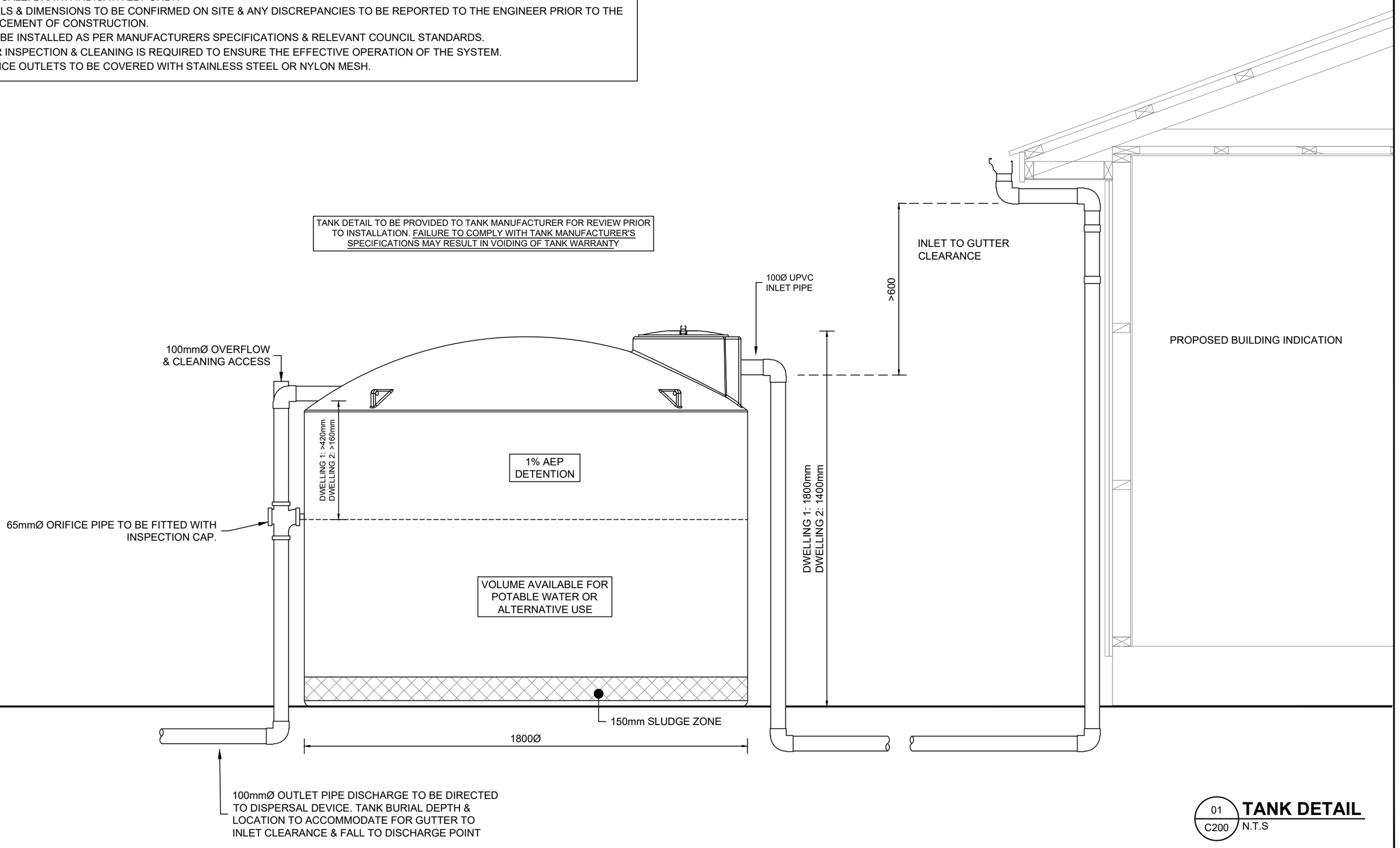
PROJECT TITLE:
PROPOSED SUBDIVISION OF LOT 1 DP 208050 79 STATE HIGHWAY OHAEAWAI NORTHLAND

ORIGINAL DRAWING SIZE: A3
OFFICE: OREWA
DRAWING SCALE: 1:500
CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 142661-C001
ISSUE: 01

NOTES:

1. NOT TO SCALE. DRAWN INDICATIVELY ONLY.
2. ALL LEVELS & DIMENSIONS TO BE CONFIRMED ON SITE & ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
3. TANK TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS & RELEVANT COUNCIL STANDARDS.
4. REGULAR INSPECTION & CLEANING IS REQUIRED TO ENSURE THE EFFECTIVE OPERATION OF THE SYSTEM.
5. ALL ORIFICE OUTLETS TO BE COVERED WITH STAINLESS STEEL OR NYLON MESH.

TANK DETAIL TO BE PROVIDED TO TANK MANUFACTURER FOR REVIEW PRIOR TO INSTALLATION. FAILURE TO COMPLY WITH TANK MANUFACTURER'S SPECIFICATIONS MAY RESULT IN VOIDING OF TANK WARRANTY



01 / C200 **TANK DETAIL** N.T.S

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No.	DATE	BY	DESCRIPTION
01	OCT '25	GMB	CIVIL SITE SUITABILITY REPORT

DESIGNED BY: GMB
DRAWN BY: GMB
CHECKED BY: BGS
SURVEYED BY: N/A

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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

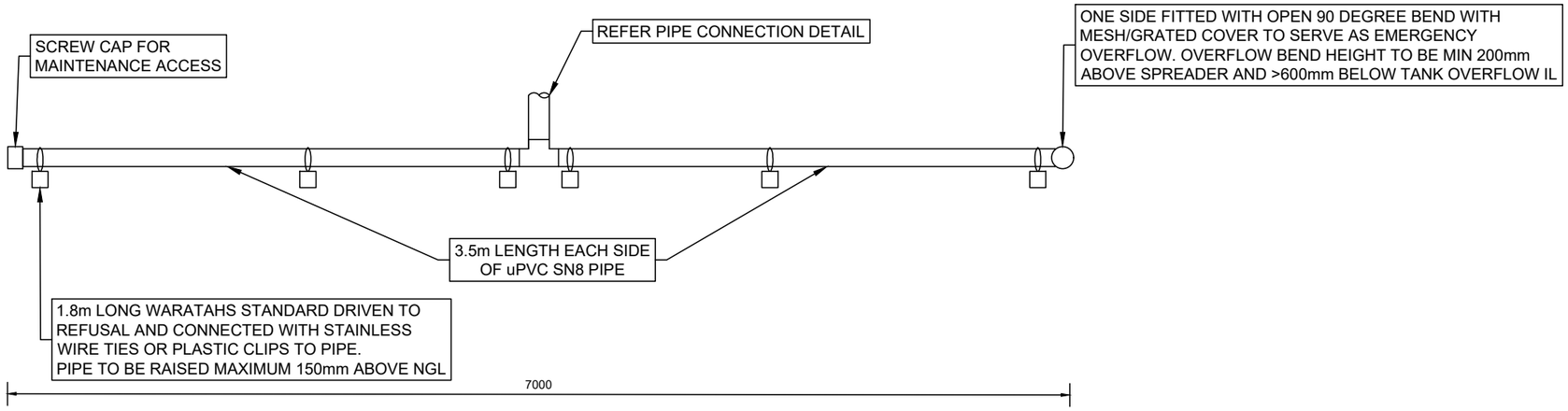
DRAWING TITLE: **TANK DETAIL**

PROJECT DESCRIPTION: **CIVIL SITE SUITABILITY REPORT**

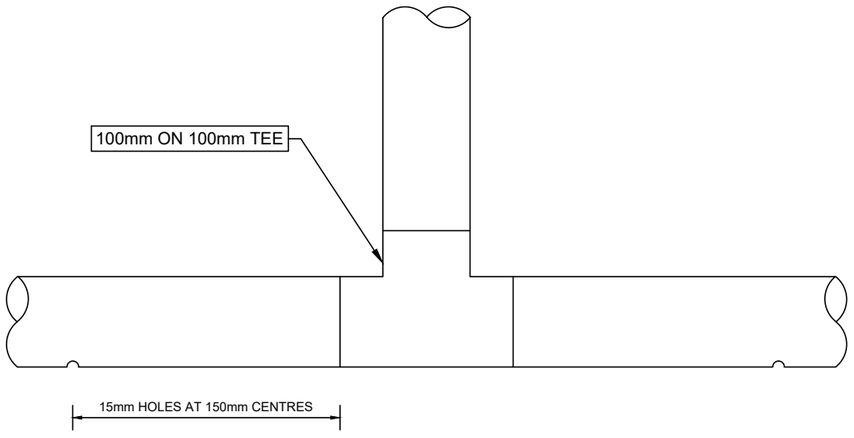
PROJECT TITLE:
PROPOSED SUBDIVISION OF LOT 1 DP 208050
79 STATE HIGHWAY
OHAEAWAI
NORTHLAND

ORIGINAL DRAWING SIZE: A3
OFFICE: OREWA
DRAWING SCALE: N.T.S
CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 142661-C210
ISSUE: 01

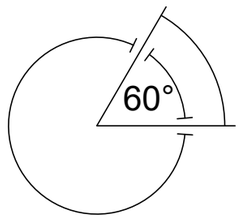
DISPERSAL DEVICE DETAIL TO SHOW FEASIBILITY ONLY. ALTERNATIVE SOLUTIONS ARE ALSO ACCEPTABLE SUBJECT TO REVIEW FROM WJL

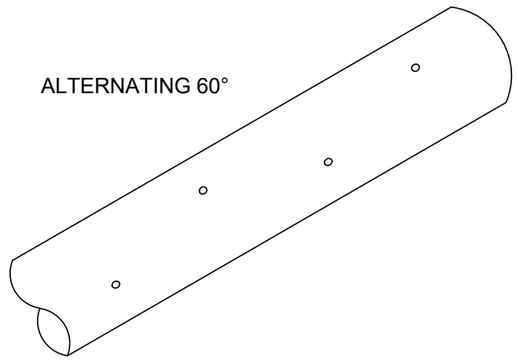


PLAN



PIPE CONNECTION DETAIL





PIPE OUTLET HOLE ARRANGEMENT DETAIL

02 / C001 **DISPERSAL DEVICE DETAIL**

N.T.S

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RESOURCE CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE: **DISPERSAL DEVICE DETAIL**

PROJECT DESCRIPTION: **CIVIL SITE SUITABILITY REPORT**

PROJECT TITLE: **PROPOSED SUBDIVISION OF LOT 1 DP 208050 79 STATE HIGHWAY OHAEAWAI NORTHLAND**

ORIGINAL DRAWING SIZE: A3
OFFICE: **OREWA**
DRAWING SCALE: **N.T.S**
CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: **142661-C211**
ISSUE: **01**

HAND AUGER : HA01

JOB NO.: 142661 **SHEET:** 1 OF 1

START DATE: 23/09/2025 **NORTHING:** **GRID:**

CLIENT: My Farm Kiwifruit Fund Ltd Partnership **DIAMETER:** 50mm **EASTING:**

PROJECT: SW / WW Suitability Report **SV DIAL:** **ELEVATION:** Ground

SITE LOCATION: 79 State Highway 1, Ohaewai **FACTOR:** **DATUM:**

SOIL DESCRIPTION

TOPSOIL | CLAY | SAND | PEAT | FILL | SILT | GRAVEL | ROCK

STRATIGRAPHY	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
TOPSOIL, dark brown, dry.	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group — NATURAL: SILT (trace Clay), brown, dry to moist, no plasticity (friable), occasional Gravels & clasts.	0.4						
0.8m: Frequent Gravels & Clasts.	0.6						
	0.8						
	1.0						
EOH: 1.20m - Target depth.	1.2						
	1.4						

REMARKS

End of borehole @ 1.20m (Target Depth: 1.20m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

LOGGED BY: JM

CHECKED BY: BGS

▼ Standing groundwater level

▽ GW while drilling

WILTON JOUBERT Consulting Engineers

Wilton Joubert Orewa
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Address: 4/196 Centreway Road, Orewa 0931

HAND AUGER : HA02

JOB NO.: 142661 **SHEET:** 1 OF 1

START DATE: 23/09/2025 **NORTHING:** **GRID:**

CLIENT: My Farm Kiwifruit Fund Ltd Partnership **DIAMETER:** 50mm **EASTING:**

PROJECT: SW / WW Suitability Report **SV DIAL:** **ELEVATION:** Ground

SITE LOCATION: 79 State Highway 1, Ohaewai **FACTOR:** **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
	TOPSOIL, dark brown, dry.	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	NATURAL: SILT (trace Clay), brown, dry to moist, no plasticity (friable), occasional Gravels & clasts.		0.4						
	0.8m: Frequent Gravels & Clasts.		0.6						
			0.8						
	EOH: 1.00m - Too hard to auger.		1.0						
			1.2						
			1.4						

TOPSOIL FILL CLAY SILT SAND GRAVEL PEAT ROCK

REMARKS

End of borehole @ 1.00m (Target Depth: 1.20m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

LOGGED BY: JM

CHECKED BY: BGS

▼ Standing groundwater level

▽ GW while drilling

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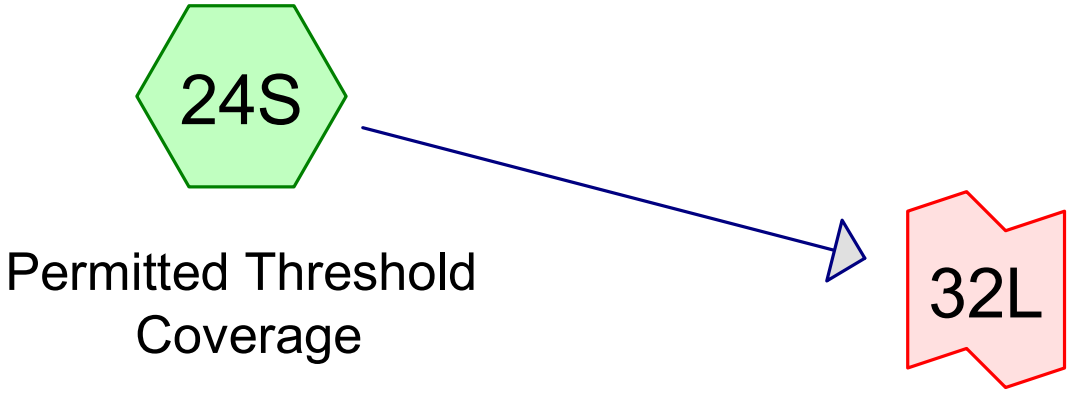
Permitted Threshold



Permitted Threshold Coverage

Permitted Flows

Subcat Reach Pond Link

Routing Diagram for 142661
Prepared by Wilton Joubert Limited, Printed 3/10/2025

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 24S: Permitted Runoff Area=4,000.0 m² 15.00% Impervious Runoff Depth>264 mm
Tc=10.0 min CN=78 Runoff=75.92 L/s 1,056.8 m³

Link 32L: Permitted Flows Inflow=75.92 L/s 1,056.8 m³
Primary=75.92 L/s 1,056.8 m³

Summary for Subcatchment 24S: Permitted Threshold Coverage

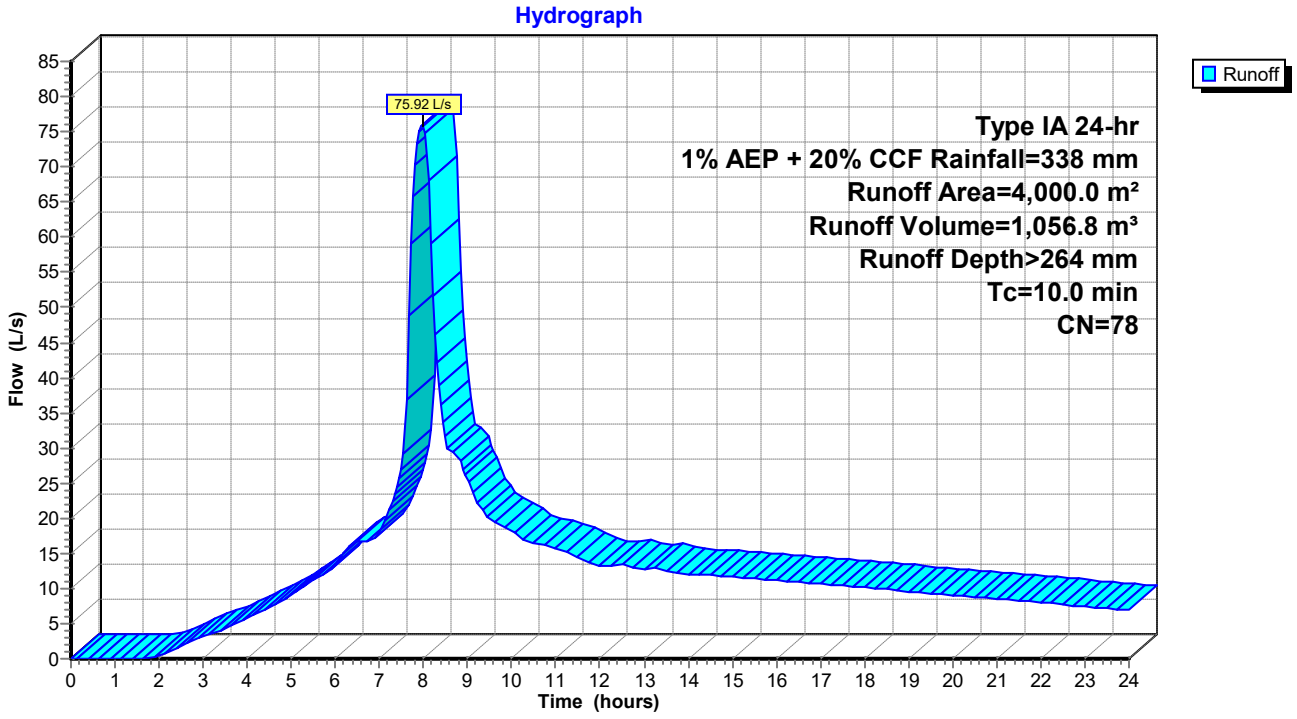
Runoff = 75.92 L/s @ 7.97 hrs, Volume= 1,056.8 m³, Depth> 264 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
3,400.0	74	>75% Grass cover, Good, HSG C
600.0	98	Roofs, HSG C
4,000.0	78	Weighted Average
3,400.0		85.00% Pervious Area
600.0		15.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 24S: Permitted Threshold Coverage

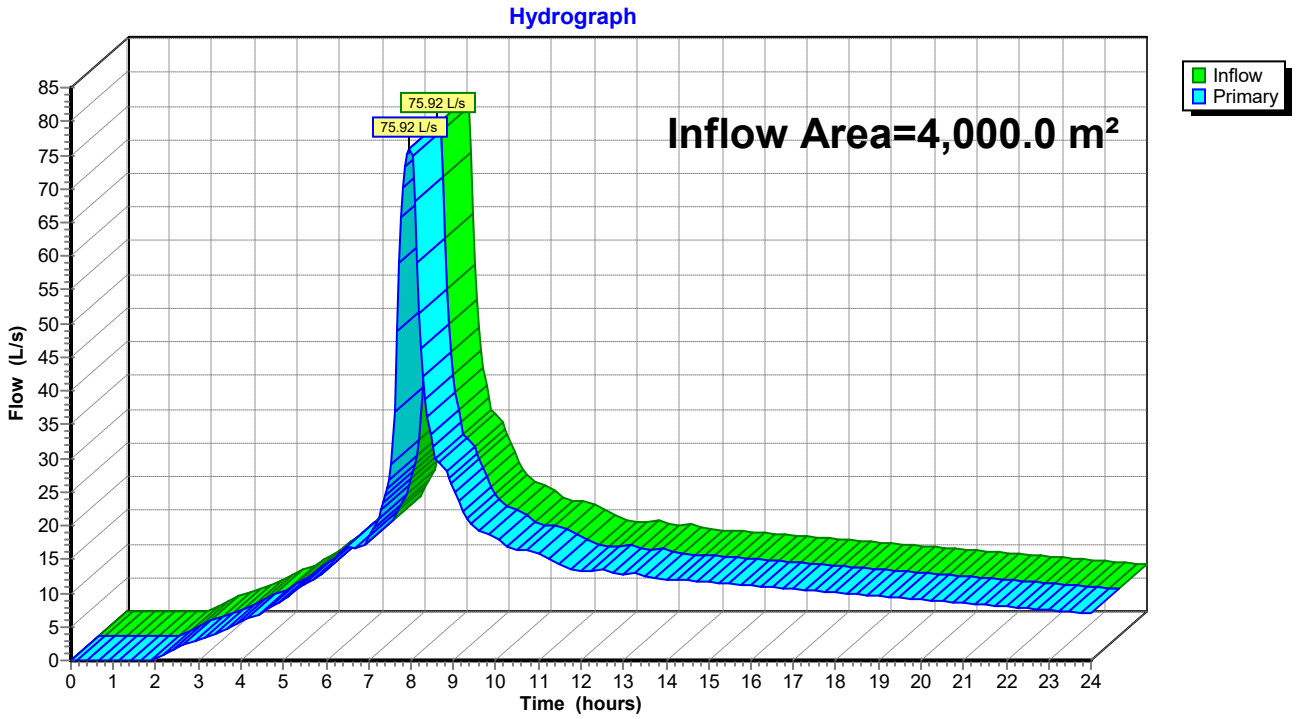


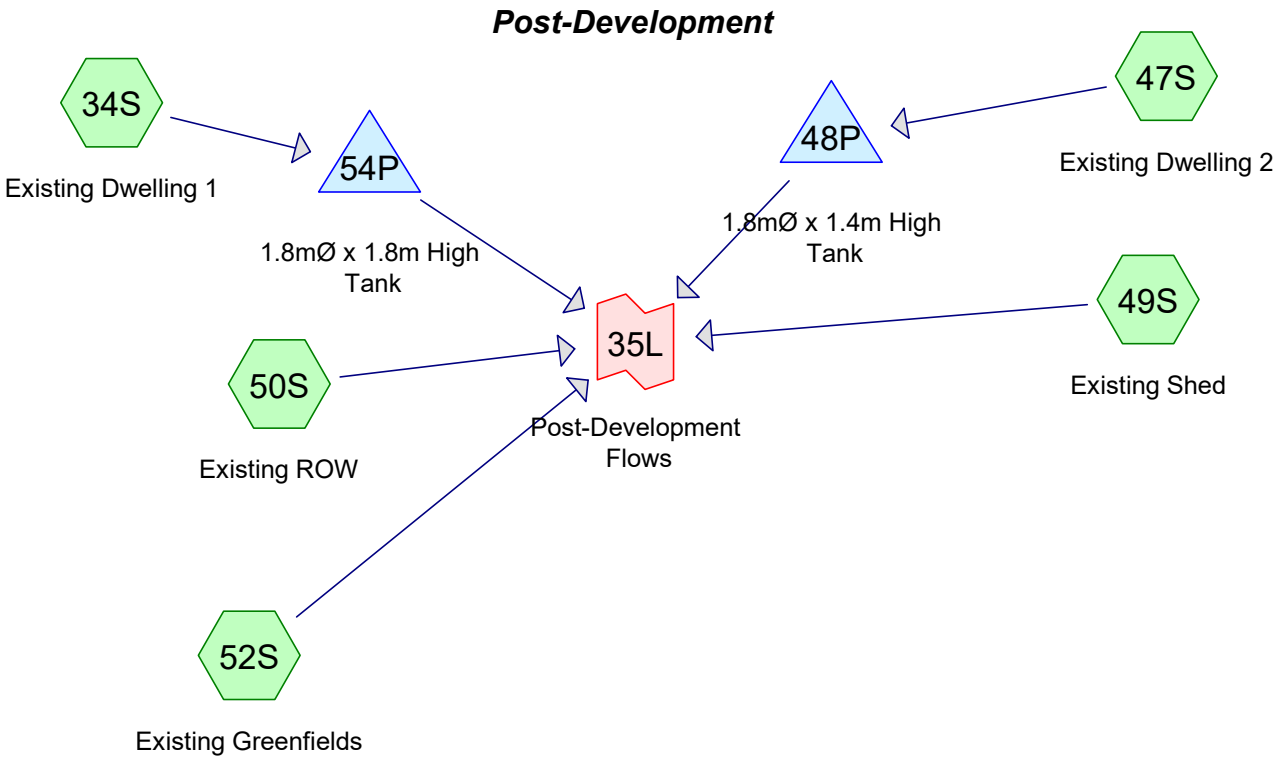
Summary for Link 32L: Permitted Flows

Inflow Area = 4,000.0 m², 15.00% Impervious, Inflow Depth > 264 mm for 1% AEP + 20% CCF event
Inflow = 75.92 L/s @ 7.97 hrs, Volume= 1,056.8 m³
Primary = 75.92 L/s @ 7.97 hrs, Volume= 1,056.8 m³, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 32L: Permitted Flows





Subcat Reach Pond Link

Routing Diagram for 142661
Prepared by Wilton Joubert Limited, Printed 3/10/2025

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 34S: Existing Dwelling 1 Runoff Area=250.0 m² 100.00% Impervious Runoff Depth>331 mm
Tc=10.0 min CN=98 Runoff=5.57 L/s 82.8 m³

Subcatchment 47S: Existing Dwelling 2 Runoff Area=142.0 m² 100.00% Impervious Runoff Depth>331 mm
Tc=10.0 min CN=98 Runoff=3.17 L/s 47.0 m³

Subcatchment 49S: Existing Shed Runoff Area=60.0 m² 100.00% Impervious Runoff Depth>331 mm
Tc=10.0 min CN=98 Runoff=1.34 L/s 19.9 m³

Subcatchment 50S: Existing ROW Runoff Area=678.0 m² 0.00% Impervious Runoff Depth>302 mm
Tc=10.0 min CN=89 Runoff=14.49 L/s 204.9 m³

Subcatchment 52S: Existing Runoff Area=2,870.0 m² 0.00% Impervious Runoff Depth>250 mm
Tc=10.0 min CN=74 Runoff=51.30 L/s 716.3 m³

Pond 48P: 1.8mØ x 1.4m High Tank Peak Elev=0.159 m Storage=0.4 m³ Inflow=3.17 L/s 47.0 m³
Outflow=3.14 L/s 47.0 m³

Pond 54P: 1.8mØ x 1.8m High Tank Peak Elev=0.414 m Storage=1.1 m³ Inflow=5.57 L/s 82.8 m³
Outflow=5.45 L/s 82.7 m³

Link 35L: Post-Development Flows Inflow=75.58 L/s 1,070.7 m³
Primary=75.58 L/s 1,070.7 m³

Summary for Subcatchment 34S: Existing Dwelling 1

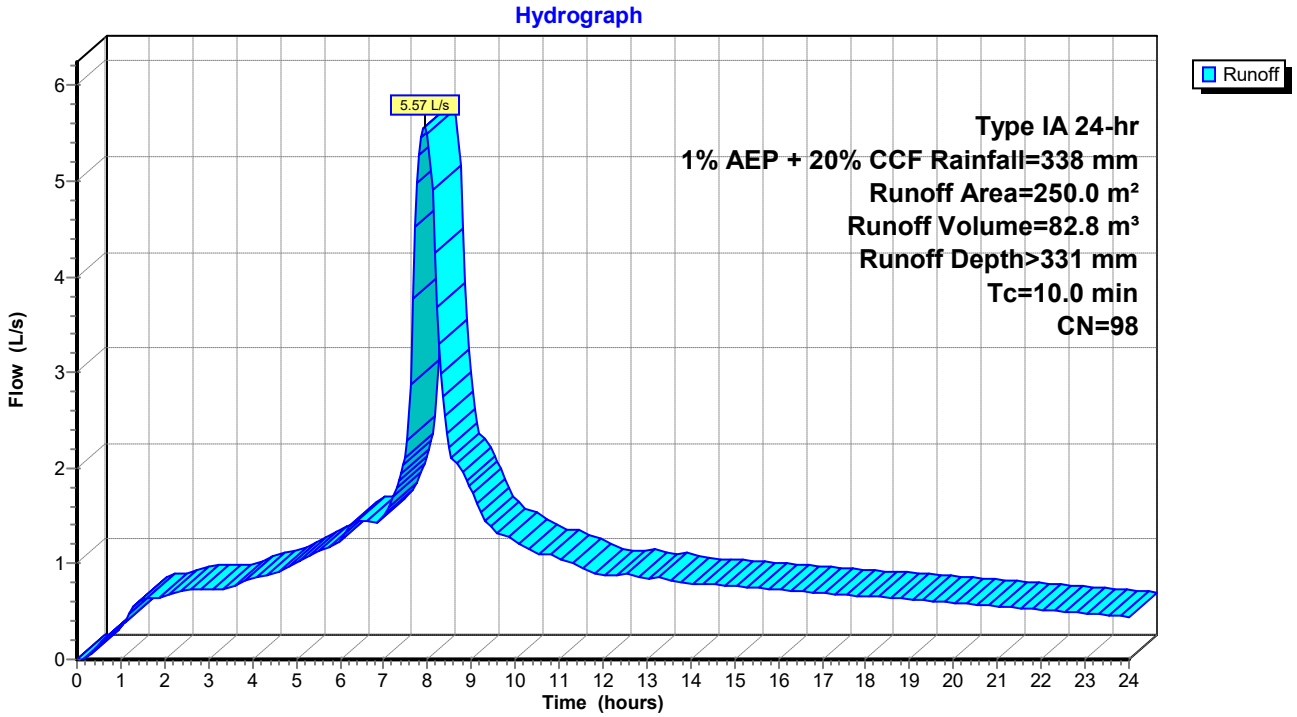
Runoff = 5.57 L/s @ 7.94 hrs, Volume= 82.8 m³, Depth> 331 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
250.0	98	Roofs, HSG C
250.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 34S: Existing Dwelling 1



Summary for Subcatchment 47S: Existing Dwelling 2

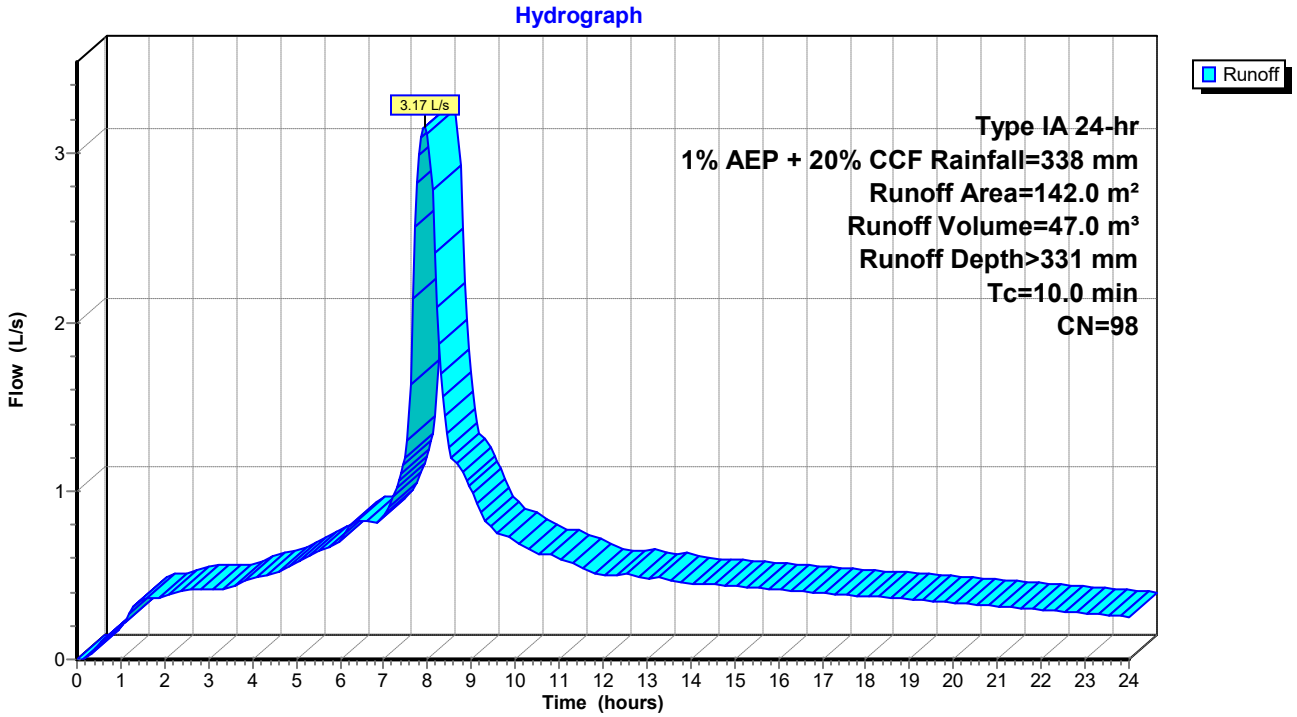
Runoff = 3.17 L/s @ 7.94 hrs, Volume= 47.0 m³, Depth> 331 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
142.0	98	Roofs, HSG C
142.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 47S: Existing Dwelling 2



Summary for Subcatchment 49S: Existing Shed

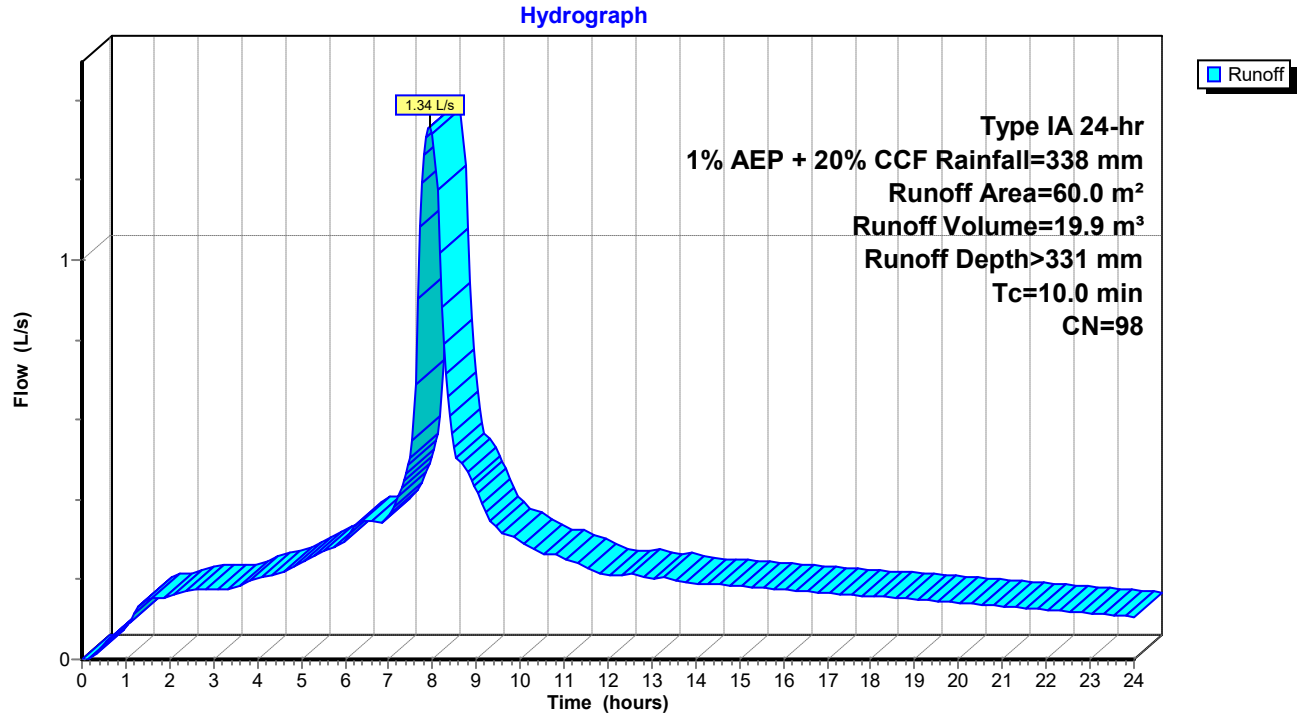
Runoff = 1.34 L/s @ 7.94 hrs, Volume= 19.9 m³, Depth> 331 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
60.0	98	Roofs, HSG C
60.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 49S: Existing Shed



Summary for Subcatchment 50S: Existing ROW

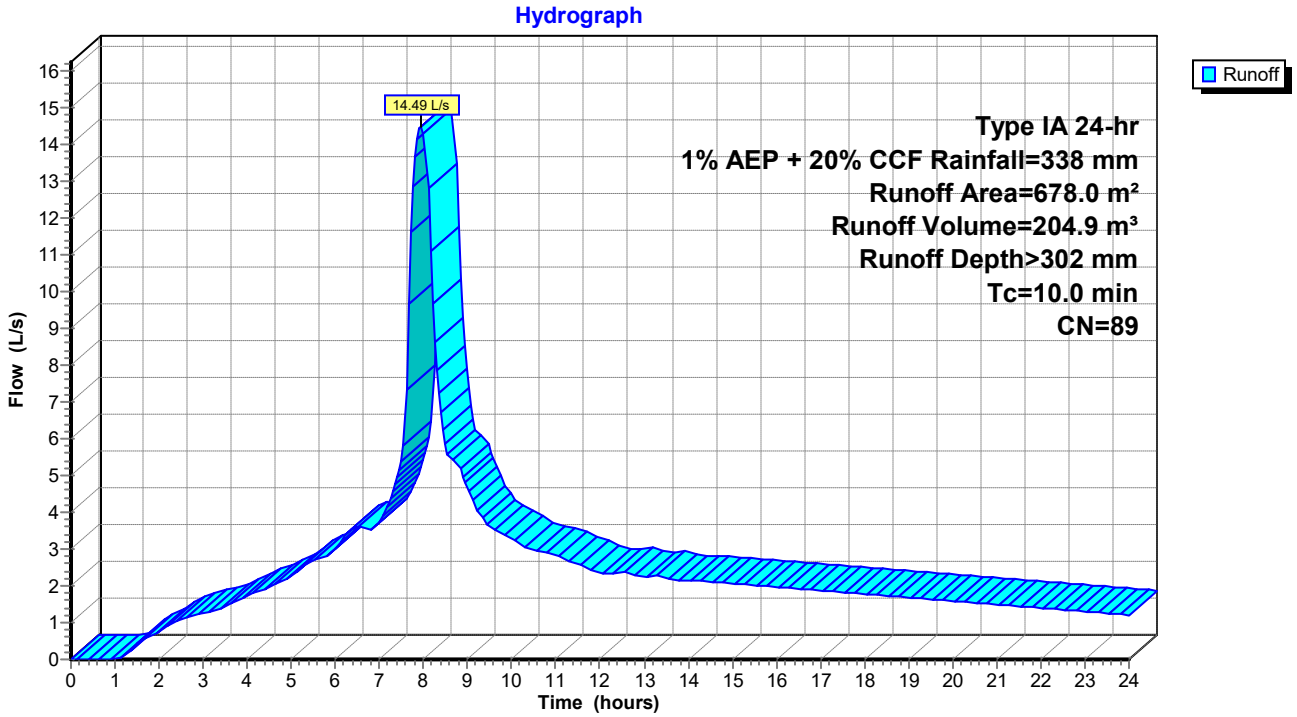
Runoff = 14.49 L/s @ 7.95 hrs, Volume= 204.9 m³, Depth> 302 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
678.0	89	Gravel roads, HSG C
678.0		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 50S: Existing ROW



Summary for Subcatchment 52S: Existing Greenfields

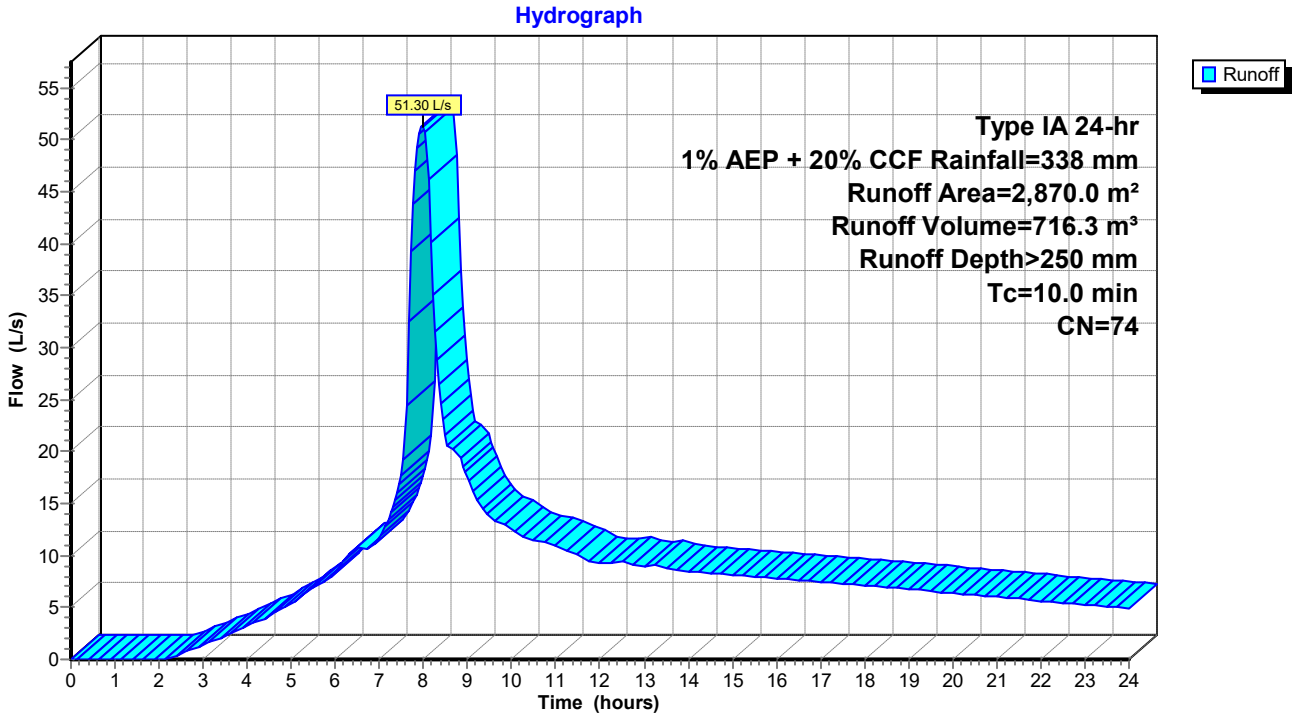
Runoff = 51.30 L/s @ 7.98 hrs, Volume= 716.3 m³, Depth> 250 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
2,870.0	74	>75% Grass cover, Good, HSG C
2,870.0		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 52S: Existing Greenfields



Summary for Pond 48P: 1.8mØ x 1.4m High Tank

Inflow Area = 142.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 3.17 L/s @ 7.94 hrs, Volume= 47.0 m³
Outflow = 3.14 L/s @ 7.99 hrs, Volume= 47.0 m³, Atten= 1%, Lag= 3.3 min
Primary = 3.14 L/s @ 7.99 hrs, Volume= 47.0 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 0.159 m @ 7.99 hrs Surf.Area= 2.5 m² Storage= 0.4 m³

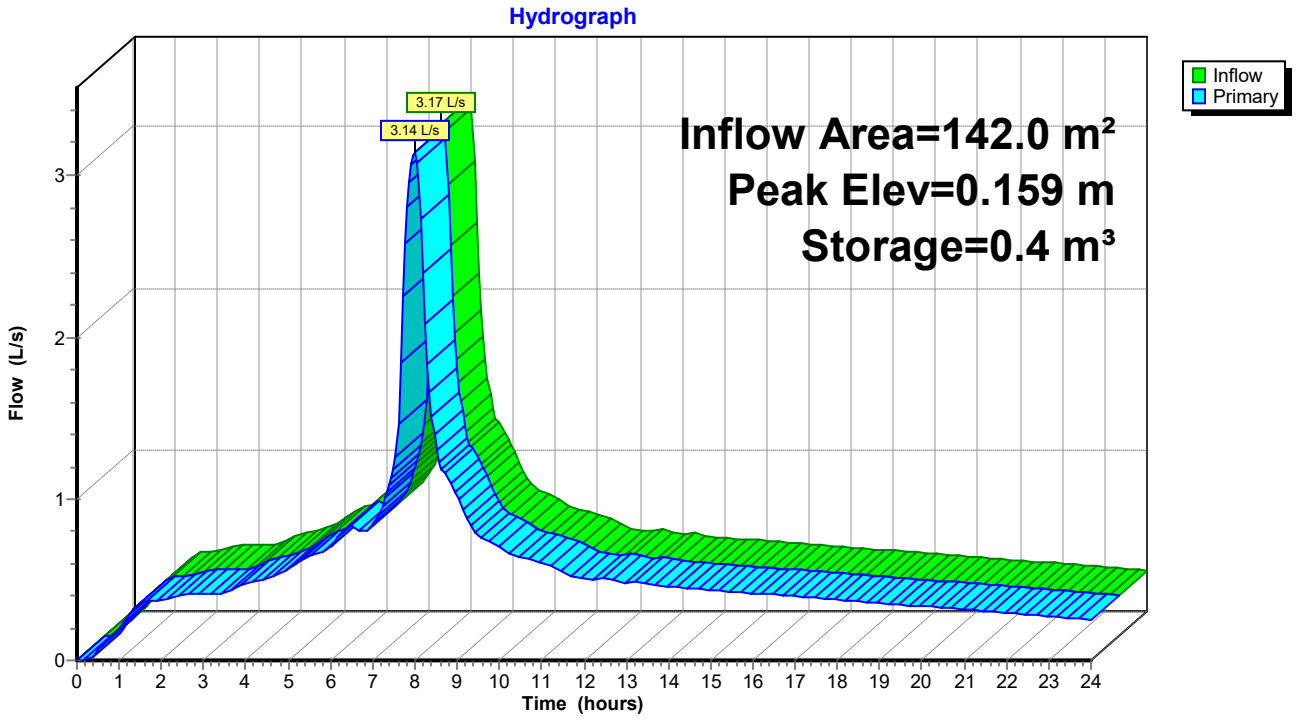
Plug-Flow detention time= 2.5 min calculated for 47.0 m³ (100% of inflow)
Center-of-Mass det. time= 1.6 min (644.6 - 643.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	3.6 m³	**1.80 mD x 1.40 mH Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**65 mm Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=3.14 L/s @ 7.99 hrs HW=0.159 m (Free Discharge)
1=Orifice/Grate (Orifice Controls 3.14 L/s @ 0.95 m/s)

Pond 48P: 1.8mØ x 1.4m High Tank



Summary for Pond 54P: 1.8mØ x 1.8m High Tank

Inflow Area = 250.0 m², 100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 5.57 L/s @ 7.94 hrs, Volume= 82.8 m³
Outflow = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³, Atten= 2%, Lag= 5.3 min
Primary = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 0.414 m @ 8.03 hrs Surf.Area= 2.5 m² Storage= 1.1 m³

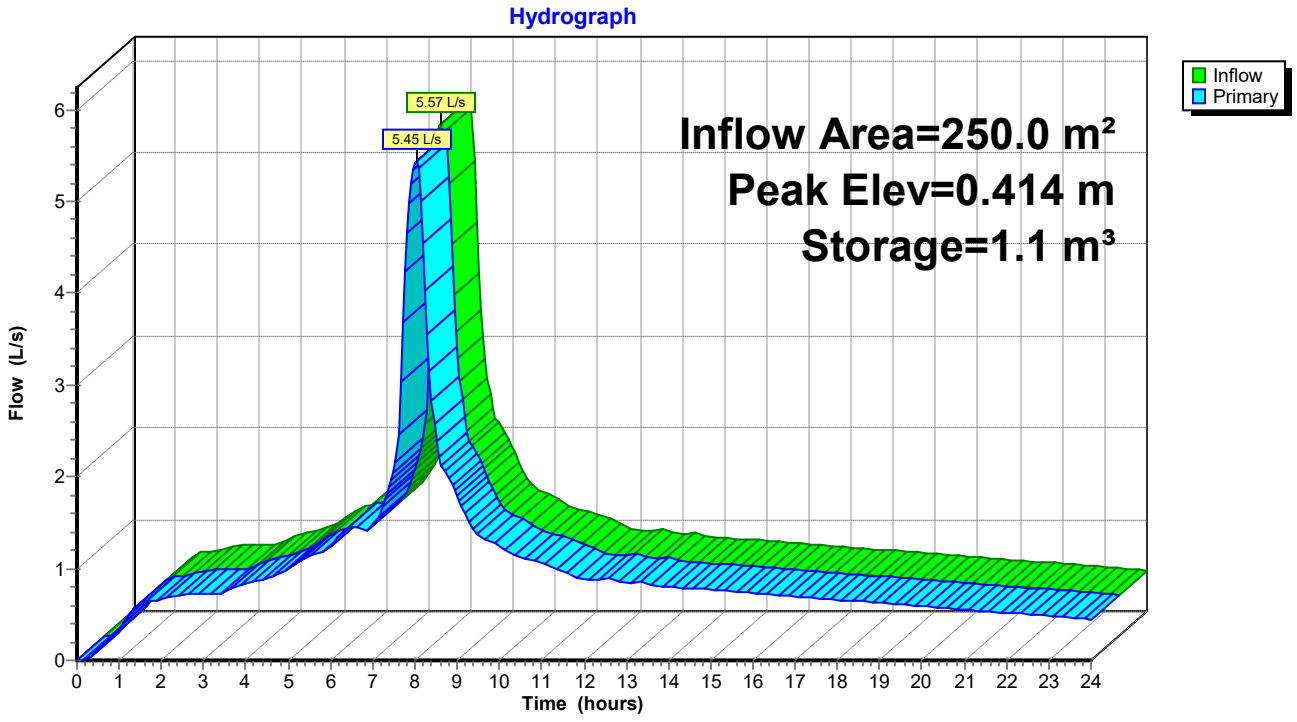
Plug-Flow detention time= 2.2 min calculated for 82.7 m³ (100% of inflow)
Center-of-Mass det. time= 1.5 min (644.6 - 643.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	4.6 m³	**1.80 mD x 1.80 mH Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**65 mm Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.43 L/s @ 8.03 hrs HW=0.412 m (Free Discharge)
1=Orifice/Grate (Orifice Controls 5.43 L/s @ 1.64 m/s)

Pond 54P: 1.8mØ x 1.8m High Tank

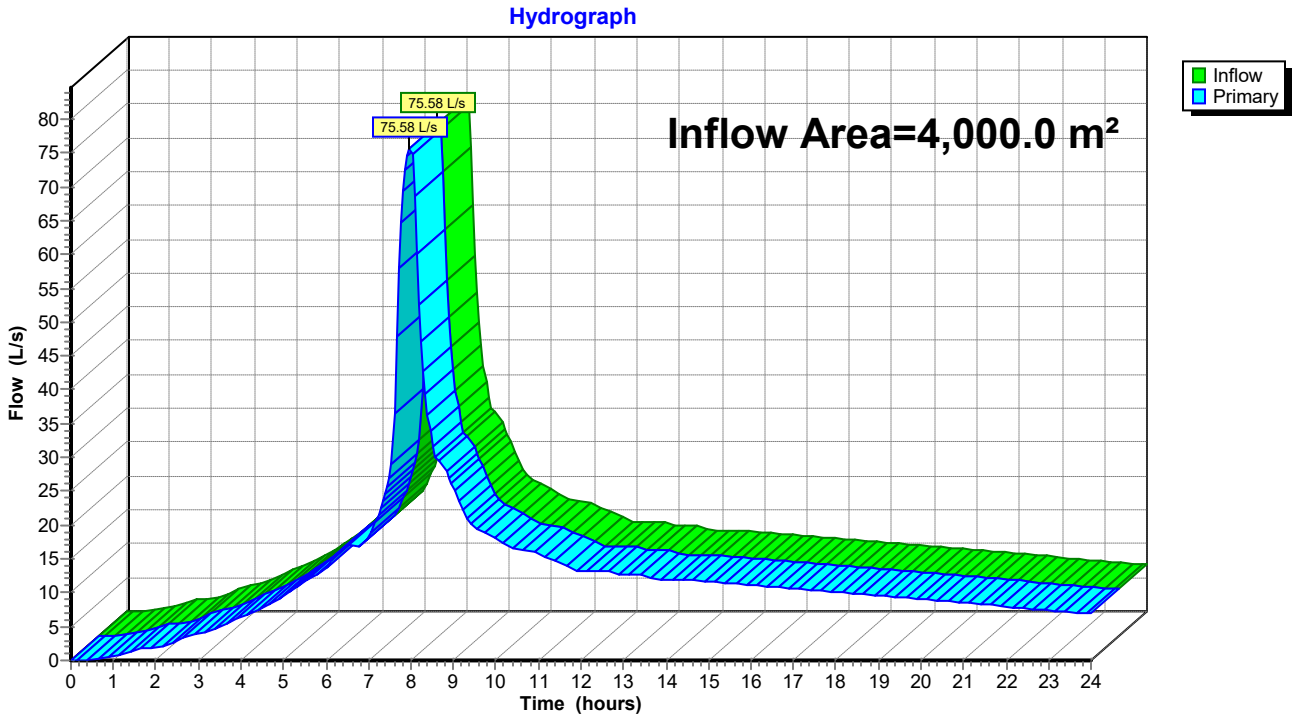


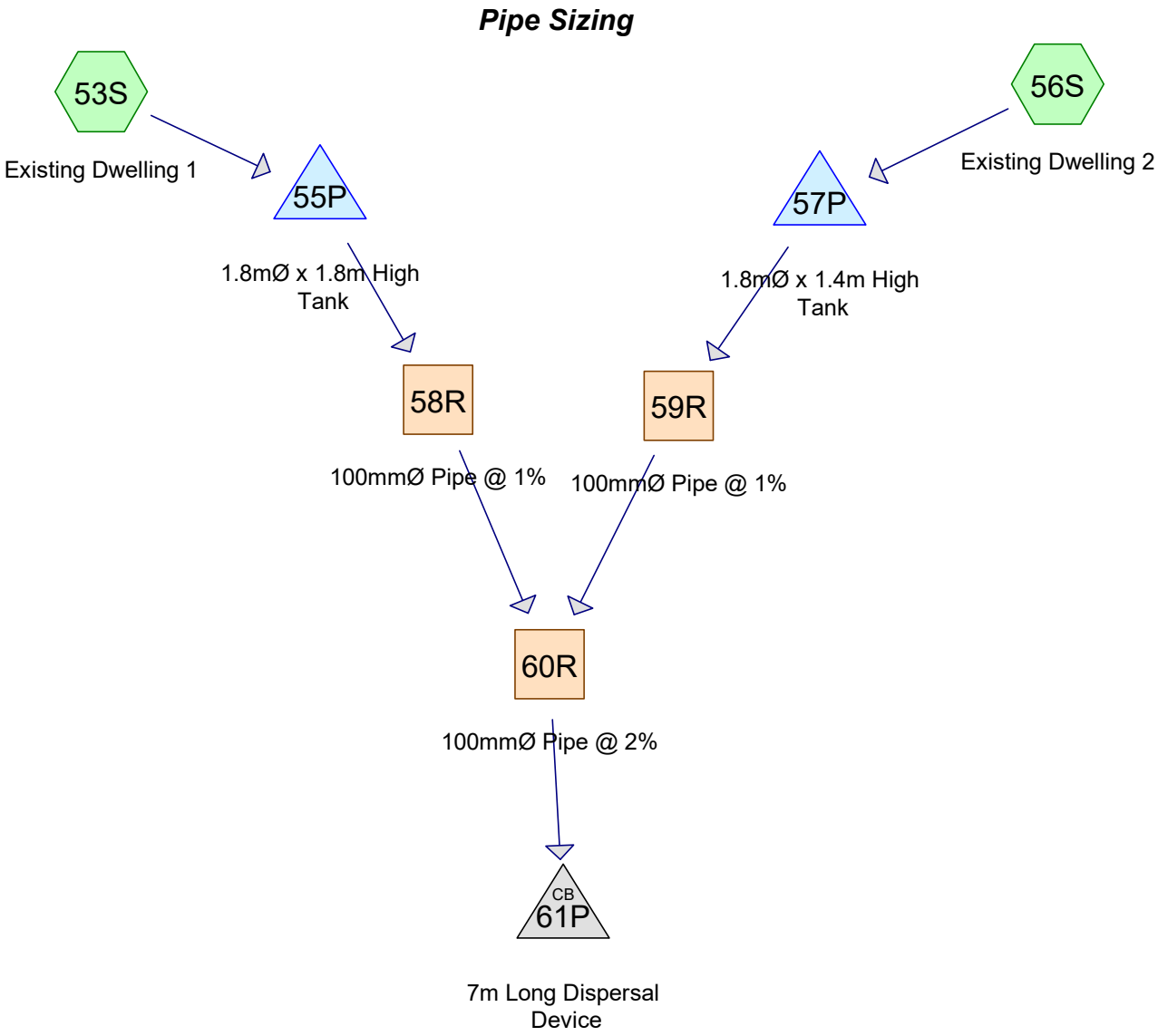
Summary for Link 35L: Post-Development Flows

Inflow Area = 4,000.0 m², 11.30% Impervious, Inflow Depth > 268 mm for 1% AEP + 20% CCF event
Inflow = 75.58 L/s @ 7.97 hrs, Volume= 1,070.7 m³
Primary = 75.58 L/s @ 7.97 hrs, Volume= 1,070.7 m³, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 35L: Post-Development Flows





Subcat Reach Pond Link

Routing Diagram for 142661- Pipe Sizing
Prepared by Wilton Joubert Limited, Printed 3/10/2025

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 53S: Existing Dwelling 1 Runoff Area=250.0 m² 100.00% Impervious Runoff Depth>331 mm
Tc=10.0 min CN=98 Runoff=5.57 L/s 82.8 m³

Subcatchment 56S: Existing Dwelling 2 Runoff Area=142.0 m² 100.00% Impervious Runoff Depth>331 mm
Tc=10.0 min CN=98 Runoff=3.17 L/s 47.0 m³

Reach 58R: 100mmØ Pipe @ 1% Avg. Flow Depth=0.07 m Max Vel=0.88 m/s Inflow=5.45 L/s 82.7 m³
100 mm Round Pipe n=0.011 L=10.00 m S=0.0100 m/m Capacity=6.10 L/s Outflow=5.45 L/s 82.7 m³

Reach 59R: 100mmØ Pipe @ 1% Avg. Flow Depth=0.05 m Max Vel=0.78 m/s Inflow=3.14 L/s 47.0 m³
100 mm Round Pipe n=0.011 L=10.00 m S=0.0100 m/m Capacity=6.10 L/s Outflow=3.14 L/s 46.9 m³

Reach 60R: 100mmØ Pipe @ 2% Avg. Flow Depth=0.08 m Max Vel=1.25 m/s Inflow=8.57 L/s 129.6 m³
100 mm Round Pipe n=0.011 L=10.00 m S=0.0200 m/m Capacity=8.63 L/s Outflow=8.57 L/s 129.6 m³

Pond 55P: 1.8mØ x 1.8m High Tank Peak Elev=0.414 m Storage=1.1 m³ Inflow=5.57 L/s 82.8 m³
Outflow=5.45 L/s 82.7 m³

Pond 57P: 1.8mØ x 1.4m High Tank Peak Elev=0.159 m Storage=0.4 m³ Inflow=3.17 L/s 47.0 m³
Outflow=3.14 L/s 47.0 m³

Pond 61P: 7m Long Dispersal Device Peak Elev=-1.920 m Inflow=8.57 L/s 129.6 m³
Outflow=8.57 L/s 129.6 m³

Summary for Subcatchment 53S: Existing Dwelling 1

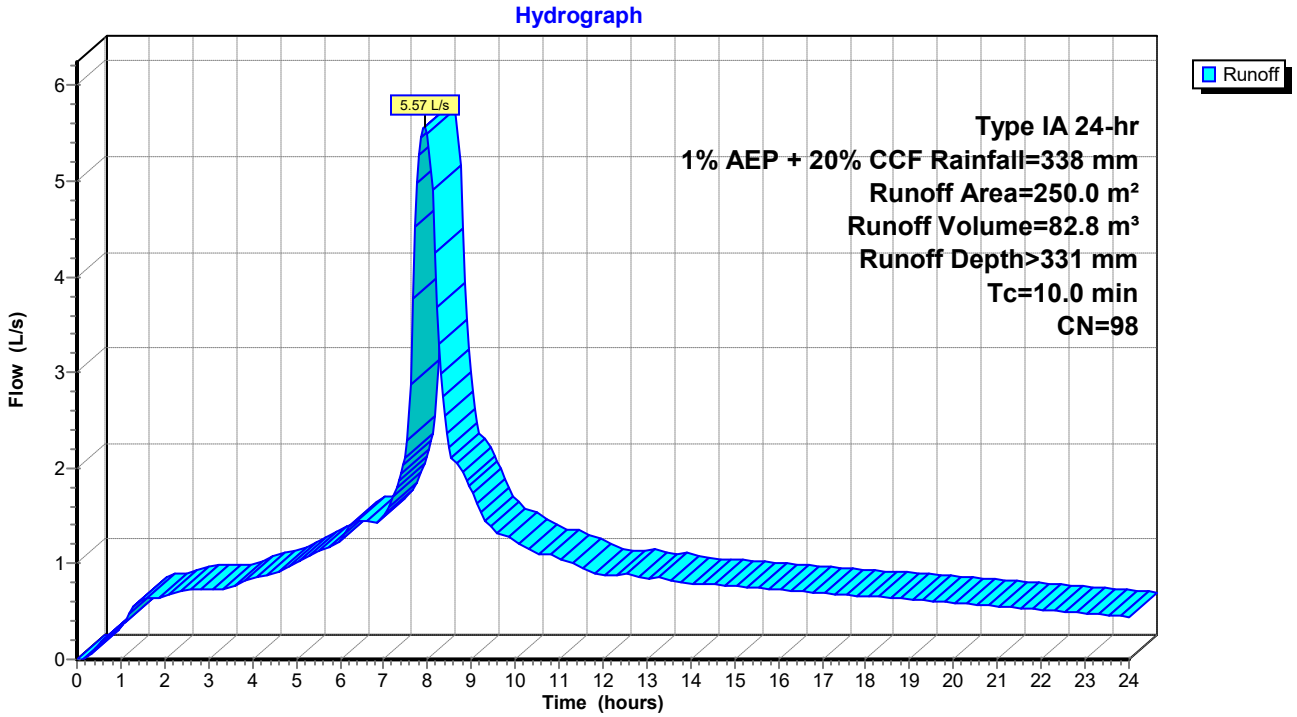
Runoff = 5.57 L/s @ 7.94 hrs, Volume= 82.8 m³, Depth> 331 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
250.0	98	Roofs, HSG C
250.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 53S: Existing Dwelling 1



Summary for Subcatchment 56S: Existing Dwelling 2

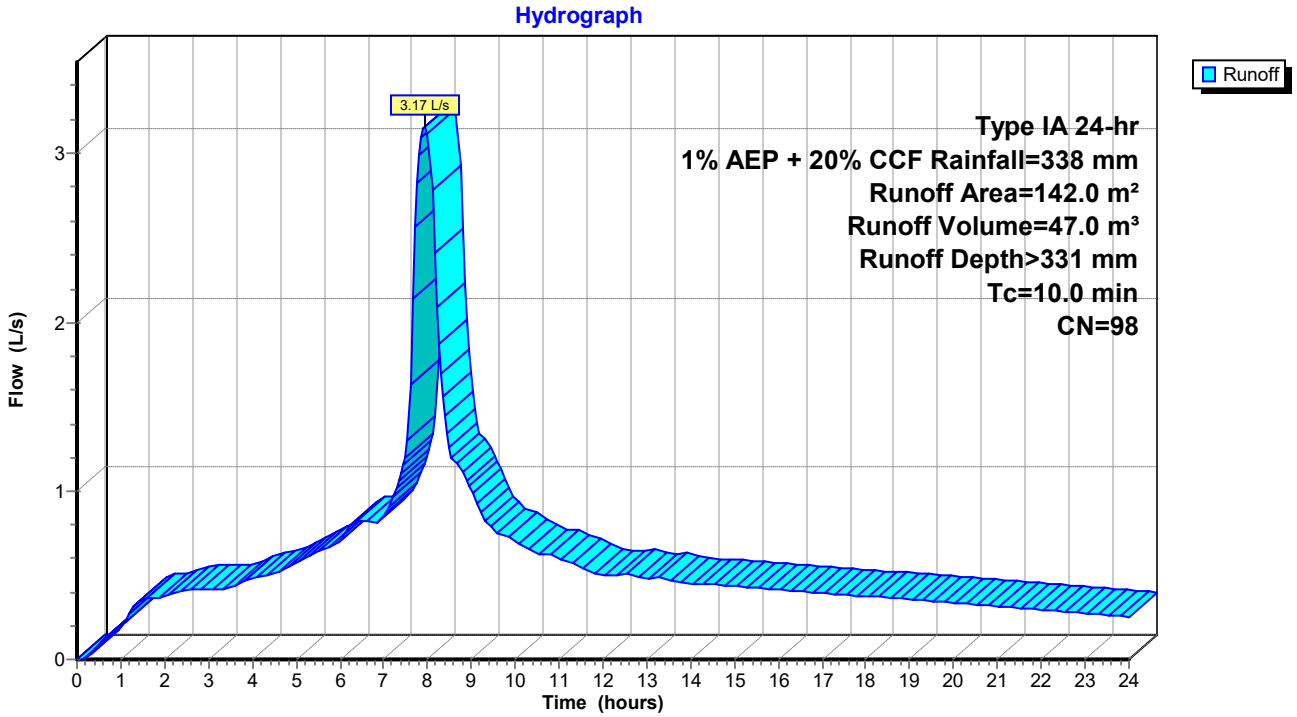
Runoff = 3.17 L/s @ 7.94 hrs, Volume= 47.0 m³, Depth> 331 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=338 mm

Area (m²)	CN	Description
142.0	98	Roofs, HSG C
142.0		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 56S: Existing Dwelling 2



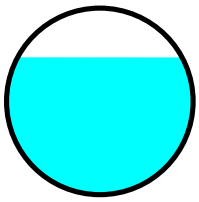
Summary for Reach 58R: 100mmØ Pipe @ 1%

Inflow Area = 250.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³
Outflow = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³, Atten= 0%, Lag= 0.1 min

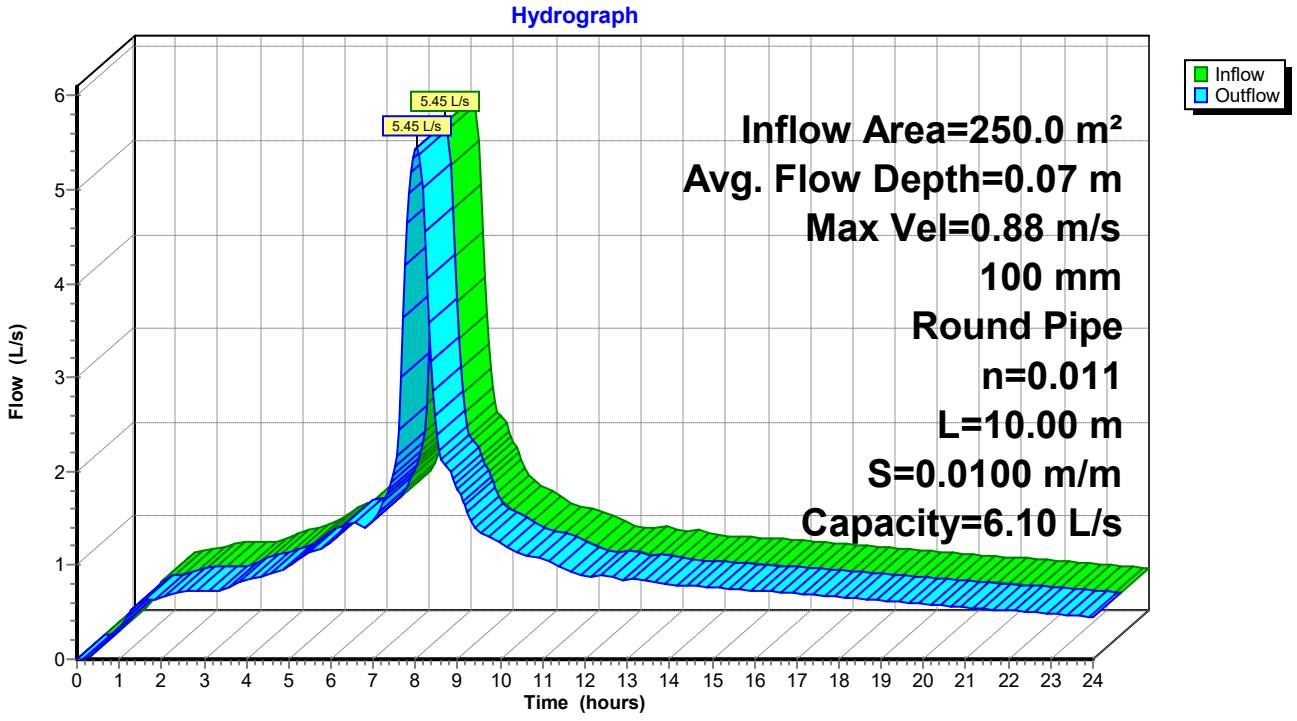
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.88 m/s, Min. Travel Time= 0.2 min
Avg. Velocity = 0.55 m/s, Avg. Travel Time= 0.3 min

Peak Storage= 0.1 m³ @ 8.03 hrs
Average Depth at Peak Storage= 0.07 m
Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 6.10 L/s

100 mm Round Pipe
n= 0.011 PVC, smooth interior
Length= 10.00 m Slope= 0.0100 m/m
Inlet Invert= -1.000 m, Outlet Invert= -1.100 m



Reach 58R: 100mmØ Pipe @ 1%



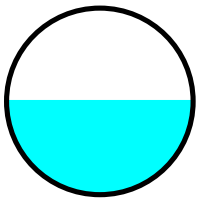
Summary for Reach 59R: 100mmØ Pipe @ 1%

Inflow Area = 142.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 3.14 L/s @ 7.99 hrs, Volume= 47.0 m³
Outflow = 3.14 L/s @ 7.99 hrs, Volume= 46.9 m³, Atten= 0%, Lag= 0.1 min

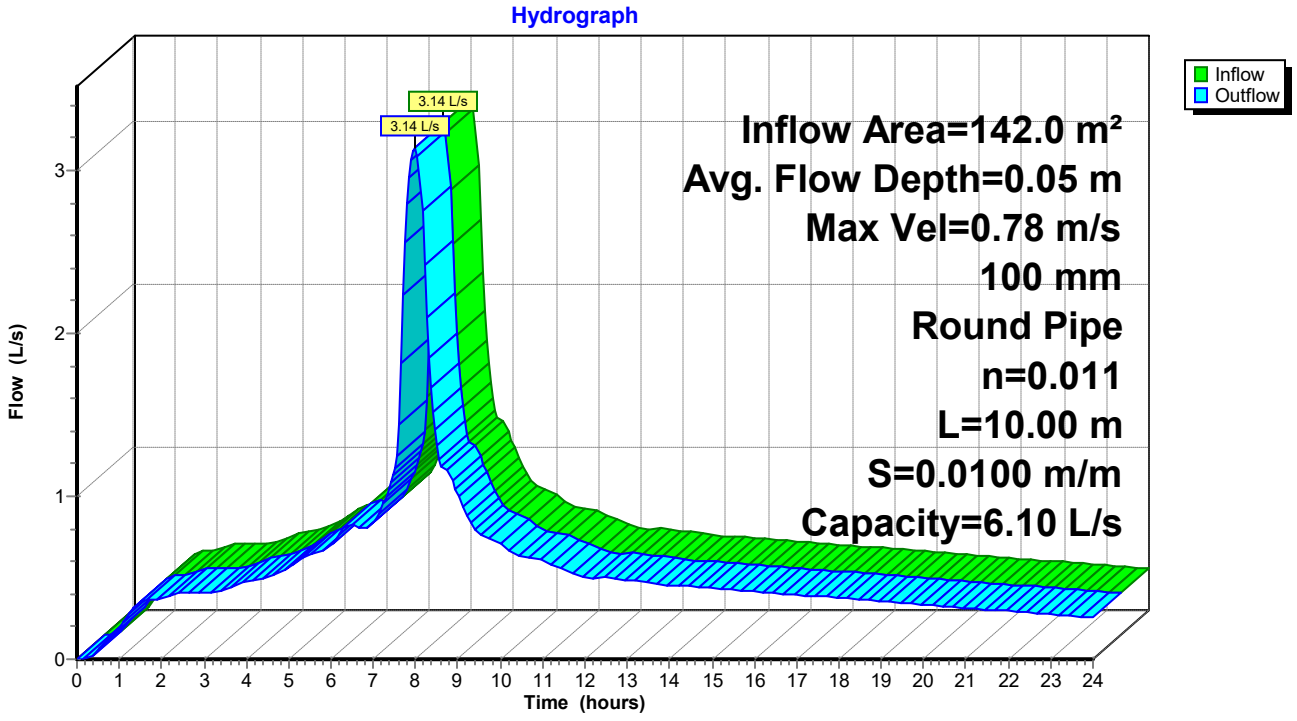
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.78 m/s, Min. Travel Time= 0.2 min
Avg. Velocity = 0.46 m/s, Avg. Travel Time= 0.4 min

Peak Storage= 0.0 m³ @ 7.99 hrs
Average Depth at Peak Storage= 0.05 m
Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 6.10 L/s

100 mm Round Pipe
n= 0.011 PVC, smooth interior
Length= 10.00 m Slope= 0.0100 m/m
Inlet Invert= -1.000 m, Outlet Invert= -1.100 m



Reach 59R: 100mmØ Pipe @ 1%



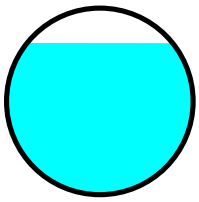
Summary for Reach 60R: 100mmØ Pipe @ 2%

Inflow Area = 392.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 8.57 L/s @ 8.02 hrs, Volume= 129.6 m³
Outflow = 8.57 L/s @ 8.02 hrs, Volume= 129.6 m³, Atten= 0%, Lag= 0.1 min

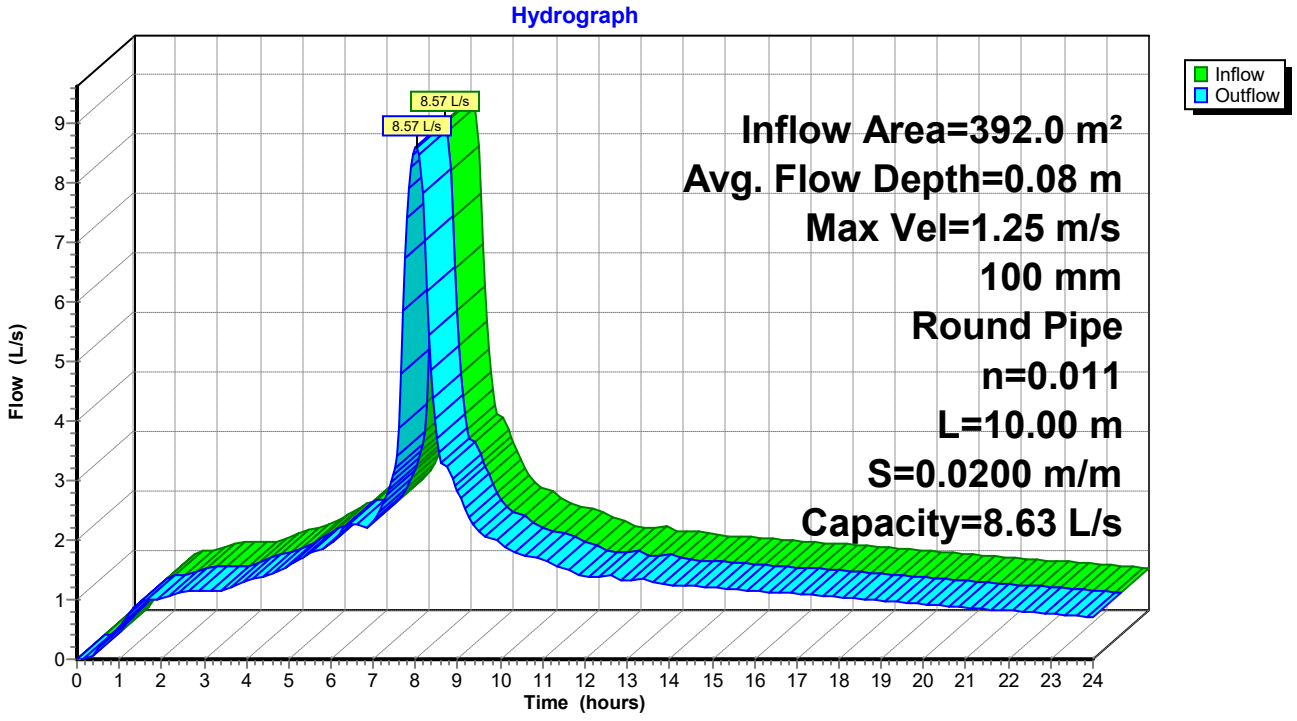
Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.25 m/s, Min. Travel Time= 0.1 min
Avg. Velocity = 0.79 m/s, Avg. Travel Time= 0.2 min

Peak Storage= 0.1 m³ @ 8.02 hrs
Average Depth at Peak Storage= 0.08 m
Bank-Full Depth= 0.10 m Flow Area= 0.01 m², Capacity= 8.63 L/s

100 mm Round Pipe
n= 0.011 PVC, smooth interior
Length= 10.00 m Slope= 0.0200 m/m
Inlet Invert= -1.100 m, Outlet Invert= -1.300 m



Reach 60R: 100mmØ Pipe @ 2%



Summary for Pond 55P: 1.8mØ x 1.8m High Tank

Inflow Area = 250.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 5.57 L/s @ 7.94 hrs, Volume= 82.8 m³
Outflow = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³, Atten= 2%, Lag= 5.3 min
Primary = 5.45 L/s @ 8.03 hrs, Volume= 82.7 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 0.414 m @ 8.03 hrs Surf.Area= 2.5 m² Storage= 1.1 m³

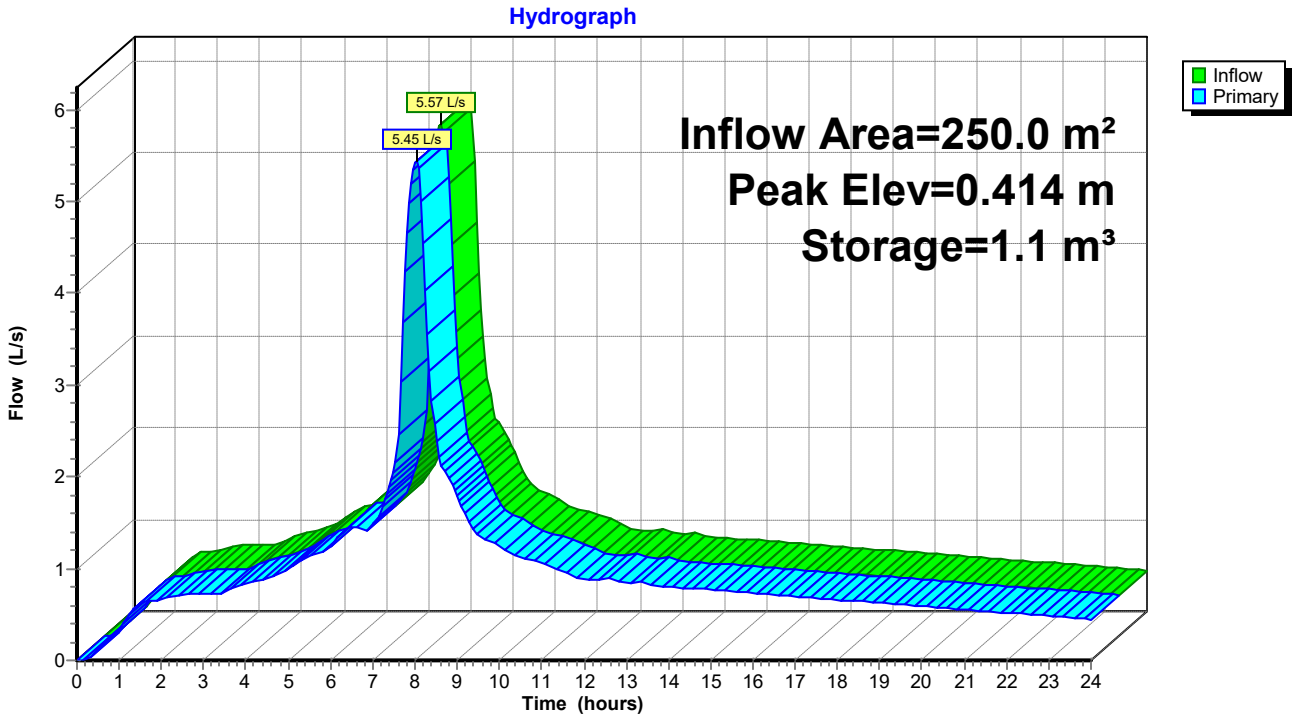
Plug-Flow detention time= 2.2 min calculated for 82.7 m³ (100% of inflow)
Center-of-Mass det. time= 1.5 min (644.6 - 643.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	4.6 m³	**1.80 mD x 1.80 mH Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**65 mm Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=5.43 L/s @ 8.03 hrs HW=0.412 m (Free Discharge)
1=Orifice/Grate (Orifice Controls 5.43 L/s @ 1.64 m/s)

Pond 55P: 1.8mØ x 1.8m High Tank



Summary for Pond 57P: 1.8mØ x 1.4m High Tank

Inflow Area = 142.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 3.17 L/s @ 7.94 hrs, Volume= 47.0 m³
Outflow = 3.14 L/s @ 7.99 hrs, Volume= 47.0 m³, Atten= 1%, Lag= 3.3 min
Primary = 3.14 L/s @ 7.99 hrs, Volume= 47.0 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 0.159 m @ 7.99 hrs Surf.Area= 2.5 m² Storage= 0.4 m³

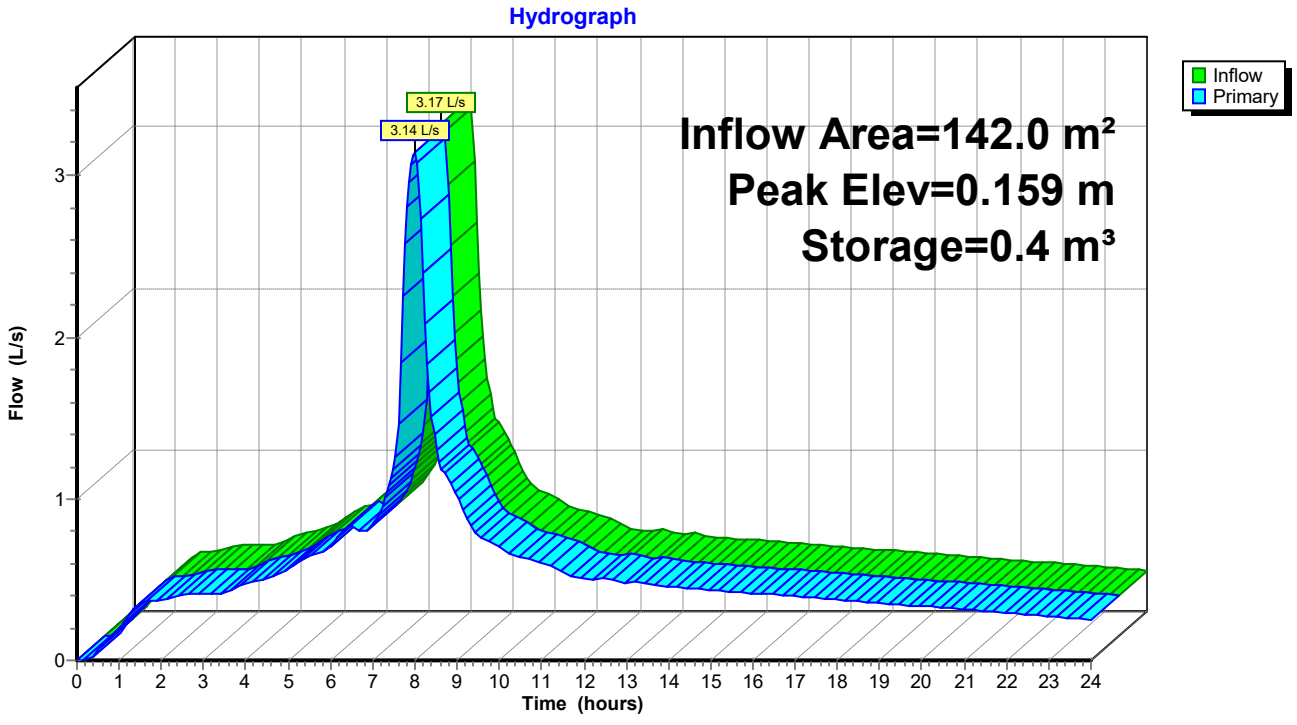
Plug-Flow detention time= 2.5 min calculated for 47.0 m³ (100% of inflow)
Center-of-Mass det. time= 1.6 min (644.6 - 643.1)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	3.6 m³	**1.80 mD x 1.40 mH Vertical Cone/Cylinder**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**65 mm Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=3.14 L/s @ 7.99 hrs HW=0.159 m (Free Discharge)
1=Orifice/Grate (Orifice Controls 3.14 L/s @ 0.95 m/s)

Pond 57P: 1.8mØ x 1.4m High Tank



Summary for Pond 61P: 7m Long Dispersal Device

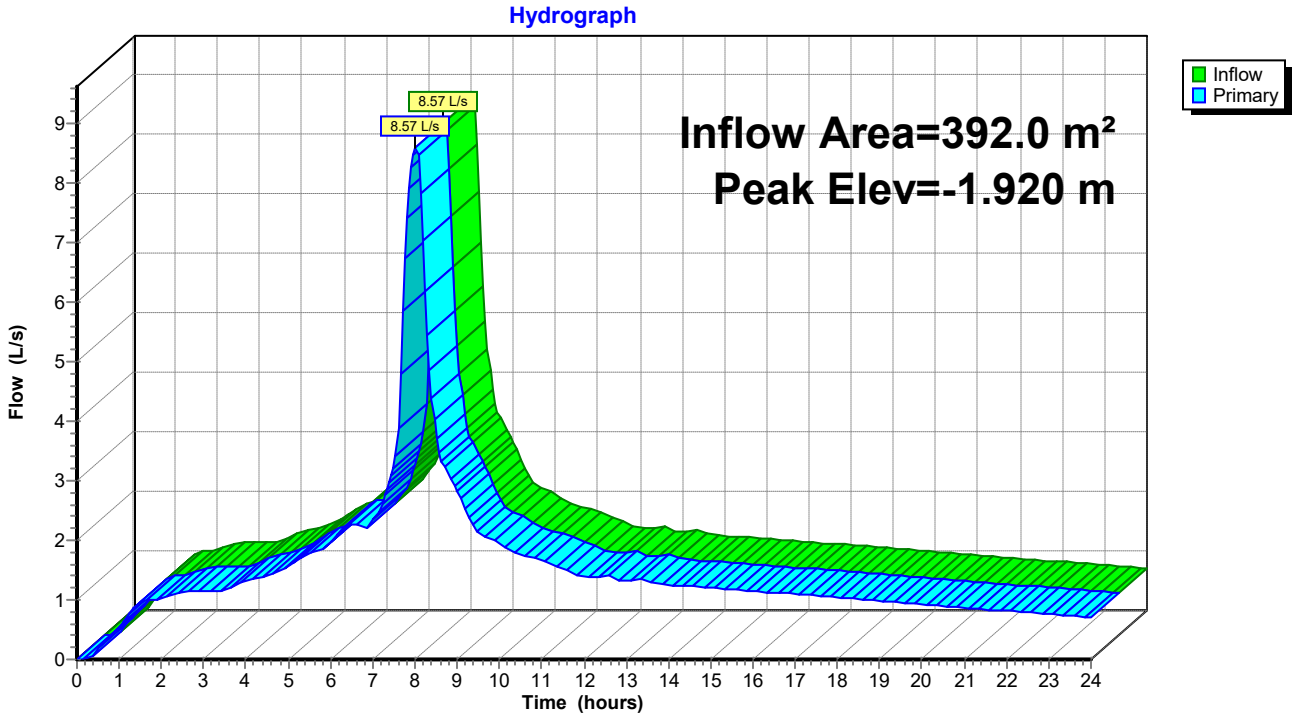
Inflow Area = 392.0 m²,100.00% Impervious, Inflow Depth > 331 mm for 1% AEP + 20% CCF event
Inflow = 8.57 L/s @ 8.02 hrs, Volume= 129.6 m³
Outflow = 8.57 L/s @ 8.02 hrs, Volume= 129.6 m³, Atten= 0%, Lag= 0.0 min
Primary = 8.57 L/s @ 8.02 hrs, Volume= 129.6 m³

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= -1.920 m @ 8.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	-2.000 m	**15 mm Vert. Orifice/Grate X 68.00** C= 0.600

Primary OutFlow Max=8.56 L/s @ 8.02 hrs HW=-1.921 m (Free Discharge)
1=Orifice/Grate (Orifice Controls 8.56 L/s @ 0.71 m/s)

Pond 61P: 7m Long Dispersal Device



Appendix 6

PSI Report

Prepared for Myfarm Kiwifruit Fund Limited Partnership

Preliminary Site Investigation 79 SH1, Ohaeawai

Report NZEM2025.J172.Final

NZ Environmental Management

TABLE OF CONTENTS

SECTIONS

LIST OF FIGURES

LIST OF TABLES

DOCUMENT CONTROL

NZEM Quality System: Issued Details	
Document Reference	NZEM2025.J172.Final
Report Revision	1
Report Status	Final
Prepared by	R Bell (Bsc, LLB)
Reviewed by	H Windsor (BSc, CEnvP)
Approved by	H Windsor (BSc, CEnvP)
Date Issued	10 November 2025

1. Executive Summary

The property is located at 79 State Highway 1, Ohaeawai and has the legal description of LOT 1 DP 208050.

The property has a land use history of agricultural use and kiwifruit orcharding, with an area of residential living where two houses are located. A large shed and polyhouse were also present on the property. The owners propose to separate the residential and production portions of the property by subdivision.

About 72 percent of the property would be assessed as the 'Piece of Land', with the 'Area of Investigation' being the existing residential part of the property.

The HAIL category considered were:

A 10 - Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds.

I - Any land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk

H - Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment

This report goes in support of a subdivision application.

Stratified sampling was carried out across the proposed future residential living Lot (proposed Lot 1). The second Lot will stay in production and consequently is not subject to the NESCS.

No earthworks will be required for the subdivision.

A review of conceptual site model shows the source – pathway – receptor linkage to be incomplete complete as no source contamination was considered to be present.

The results of the PSI indicate that it is highly unlikely there will be a risk to human health if the proposed subdivision is carried out.

The application may therefore be assessed as a permitted activity.

2. Introduction

2.1 Investigation Objectives

NZ Environmental Management Ltd (NZEM) was engaged by Russell McDivitt on behalf of Myfarm Kiwifruit Fund Limited Partnership to undertake a Preliminary Site Investigation (PSI) at 79 State Highway 1, Ohaeawai to support a proposed subdivision on the Site.

The PSI seeks to assess whether past or present land use activities may have resulted in soil contamination that could pose a risk to human health or the environment in accordance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS, 2011).

Specifically, the investigation aims to:

- Identify past and present land uses to determine the likelihood of hazardous activities and industries (HAIL activities) occurring on-site.
- Assess the presence and potential sources of contaminants of interest (COI) related to historical and current chemical or hazardous material use.
- Characterise the location, nature, extent, and potential risk of any contamination.
- Assess whether the Site is suitable for its intended future land use within the context of the NESCS guidelines.
- Evaluate whether further investigation, remediation, or management measures (e.g., Detailed Site Investigation (DSI) or Site Management Plan (SMP)) are necessary.

2.2 Investigation Scope

To achieve the objectives, the scope of this investigation comprised the following:

- Review of historical records: Examination of available aerial photographs and property records to identify potential HAIL activities.
- Regulatory database review: Checking the Northland Regional Council (NRC) Selected Land Use Register (SLR) and other publicly available sources for records of possible historical contamination, soil conditions, and hydrogeological conditions.
- Site inspection and sampling: Conducting a site walkover to observe current site conditions and collection of soil samples in accordance with applicable nationally recognised guidelines[1] and the rationale outlined in this report.
- Laboratory analysis: Testing collected soil samples for COI's based on identified site history and potential contamination sources.

[1] Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis of Soils (MfE, 2011).

- Data evaluation: Reviewing laboratory results to determine the presence and concentration of contaminants.
- Conceptual Site Model (CSM) development: Establishing a Conceptual Site Model to assess contaminant source, pathways, potential receptors, and assess risk.

This PSI report is based on the proposed subdivision plan provided by Myfarm Kiwifruit Fund Limited Partnership at the time of writing. Sampling locations were identified as per the site layout plan (Appendix A - A1). If there is any change to the proposed subdivision plan, reassessment should be undertaken.

3. Site Description and Environmental Setting

3.1 Site Identification

The property is legally described as Lot 1 Deposited Plan 208050 with the certificate of title identifier NZ134D/521, and is located at 79 State Highway 1, Ohaeawai with approximate co-ordinates of: -35.347918°S, 173.875313°E.

The 8.52 ha property is located on the west side of State Highway 1 and is listed by the Far North District Council as having 'rural production' zoning. The surrounding land use is a mixture of residential and rural production land.

The rohe map on Te Puni Kokiri shows the location of the property as being within the Ngāpuhi rohe.

Aerial photographs are given in Appendix B.

Certificate of Title is given in Appendix H.

3.2 Site Layout and Current Site Use

Lot 1 Deposited Plan 208050 has an irregular shape and is predominantly flat. The south-western boundary of the property follows the Pekapeka stream while the north-eastern boundary aligns along State Highway One.

Two residential dwelling and a garage are in the mid-northern boundary area. These are accessed by a driveway along the north-western property boundary. To the south-east of the houses is a polyhouse and an area where an implement shed has recently been removed.

The bulk of the Lot is planted in kiwifruit with a ~1000m^2 gravelled area located to the west of the houses on proposed Lot 2.

Current management practices include mowing the grass around the houses. The kiwifruit are grown commercially using conventional spray practices as per Seeka requirements (Appendix E, Figure 14-).

3.3 Proposed Site Use

It is proposed to subdivide the production portion of the property off from the residential portion (Appendix A, A1).

Proposed Lot 1 will remain residential. Proposed Lot 2 will remain in production use and therefore, the NESCS does not apply to proposed Lot 2.

For the purposes of this PSI the portion of proposed Lot 1 around the shed and polyhouse, and where historically kiwifruit orcharding occurred was defined as the 'Area of Investigation' and has an area of approximately 1,850m^2. A plan showing the Area of Investigation within the contemporary site layout is provided in Appendix A, A2.

3.4 Site Inspection

A site inspection (walkover) was carried out by Reade Bell and Heather Windsor on 2 October 2025. Weather conditions at the time of inspection were cloudy with occasional light rain. Photographs were taken and shown in Appendix D.

The property is moderately well maintained, with lawns mown (Appendix D, Photo 3). Both residences area tenanted. Access onto the property is via a gravel driveway off State Highway 1. The land owner has recently removed the implement shed from the Area of Investigation (Appendix D, Photo 1) and at the time of the site visit the polyhouse was still in place (Appendix D, Photo 6).

Surface drainage was observed to flow west towards Pekapeka Stream.

No staining or odour was noted during the site visit.

3.5 Geology and Hydrology

Table 3-1: Site Geology and Hydrology.

Parameter	Description	Source
Soil Type	Ohaeawai silt loam. NZEM staff observed brown, clayey silt on the property	*soils-maps.landcareresearch.co.nz , nrcgis.maps*
Parent rock	Kerikeri Volcanic Group Late Miocene basalt of Kaikohe - Bay of Islands Volcanic Field	*data.gns.cri.nz/geology 1:250,000*
Contour	Gently sloping southwest towards Pekapeka Stream	
Drinking water	Borewater	
Aquifer	Waimate Aquifer	*nrcgis.maps*
Catchment	Waitangi	*nrcgis.maps*
Closest water body	Pekapeka Stream on southwestern property boundary	*nrcgis.maps*
Groundwater wells	Bore located on the property (see Appendix A1)	*nrcgis.maps*
Flood Risk	No flood risk is shown on NRC maps	*nrcgis.maps*
Erosion Prone	No	*nrcgis.maps*

4. Historical Site Use

4.1 Summary of Site History

The property has a history of pastoral farming, kiwifruit orcharding including a polyhouse and implement shed, and residential land use.

This land use site history was obtained by reviewing council property files, aerial photographs, and title information and from discussion with the current landowner.

Information regarding the title history is summarised in Appendix H, Table 14-6. Aerial photographs are provided in Appendix B. A summary of land use is provided in Appendix E, Table 14-2.

The property is not listed on the Northland Regional Council (NRC) selected land use register (SLR). Six incidents were lodged against the property in the Council property files (Appendix F, Figure 14-3). The incidents are largely associated with spray drift, with one fire incident reported involving green waste and pallet burning in 2011. It is not known where the fire was located.

The title information lists the occupation of landowners prior to 1933 as 'accountant', from 1953 to 1982 as 'farmer', with aerial photographs taken prior to 1977 showing the property in pasture (Appendix B).

Orcharding has been present on the property since at least 1981, as evidenced by aerial photographs showing kiwifruit vines. The orchard was removed for a period of time between approximately 2007 and 2013 before being reestablished.

The implement shed which was located to the east of the residences, was composed of two sheds which were amalgamated over time. A three bay implement shed was consented in 1983 and this was built beside an existing two bay implement shed. The resulting building was demolished shortly before the site visit on 2 October. Much of the demolition material had been removed from site with the remainder stacked on a concrete footing (Appendix D, photo 5)[2]. It was noted that the footings for the demolished shed were timber enclosed in concrete (Appendix D, Photo 7).

A polyhouse, consented in 2012, was present on site in neglected condition. The frame was of metal plate construction with plastic cover. The consent application listed the use as non-commercial, but it is unknown what was grown in it. The floor was covered in three layers of weed mat and benches were present along the walls (Appendix D, Photo 6). A small shed, with toilet facilities was located at the north-east end of the polyhouse (Appendix D, Photo 7).

[2] No evidence for the presence of asbestos containing material was seen in property files or during site inspection

4.2 Review of Other Information

No other reports were reviewed as part of this PSI.

4.3 Potential HAIL Activity

As a result of historic land uses on the property, the potential HAIL activities considered in this PSI were:

A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds, and

I - Any land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk

H - Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment

5. Sampling

5.1 Sampling design plan

The 'Area of Investigation' identified in this investigation includes the area of proposed Lot 1 around the sheds and polyhouses and the eastern portion of proposed Lot 1 where historically kiwifruit orcharding was undertaken, but which is now residential (Appendix A, A2).

Sampling and analysis (of the identified contaminants of concern) was undertaken as part of the PSI. The aim of the sampling is to:

- determine the presence of and/or general extent of any soil contamination and the potential adverse impact of such contamination on human health, and
- obtain sufficient information to make an estimate of risk posed by contamination to human health.

As per NESCS 2012 requirements, standards only need to be developed for the contaminants of interest (COI) for the piece of land, given the activities and industries that have occurred or likely to have occurred. Based on the land use summary, the following NESCS priority contaminants were considered as potential COI for 79 State Highway 1, Ohaewai:

- Metals (including arsenic, cadmium and copper)
- Pesticides (including organochlorines (OCP's))

There were no indications of likely fuel storage in or around the lot and as such hydrocarbons were not considered contaminants of interest (COI).[3]

NZEM utilise a qualitative screening approach to the selection of the COI that although does not guarantee that other hazardous substances are not present in the land, it does indicate a lower probability that those contaminants will occur in the soil (MfE 2011).

The land-use history obtained as part of this investigation indicates that potential contaminants would likely be heterogeneous in distribution and confined to the area of use.

- Stratified sampling was utilised to inform the conceptual site model and the risk assessment. Systematic sampling was undertaken in area of polyhouse and shed with judgemental sampling in the area of historic orcharding.
- The Soil Investigation Design Plan is shown in Appendix I.
- Sampling was carried out using a stainless-steel spade (grab technique).

[3] Other potential COI such as BaP, dioxins and PCP were not considered applicable as orchards are not considered as one of the hazardous activities or industries such as timber treatment, coal fired power generation, chemical manufacture etc that are more normally associated with BaP, dioxins and PCP.

- Samples were collected from a depth of between 0-150mm.
- Field screening techniques were not utilised.
- Background samples were not collected.

5.2 Field and laboratory Quality Assurance/Quality Control

To avoid cross contamination, disposable nitrile gloves were worn during sampling and changed between every sample. Sampling equipment was cleaned between each sample as per section 5.3 of MfE 2021, Contaminated Land Management Guidelines No 5.

The labelled samples were couriered to Hill Laboratories under chain of custody documentation (Appendix G). As per the contaminants of interest identified as part of the PSI, the laboratory was instructed, where applicable, to analyse the sample for NESCS metals.

- Ten individual systematic samples were collected in the area of implement shed and polyhouse (8 m x 5 m within are around footprints).
- Six of the field samples collected around the eastern residence in historic kiwifruit area, were composited into three samples by the laboratory for analysis of heavy metals.
- Two individual samples were analysed for multiresidue pesticides. One composite sample (of two) was analysed for OCP's to inform the conceptual site model. More pesticide samples were not collected due to the low risk[4] and the high cost of the analysis.

All samples are kept in storage for two months by the laboratory in case re-analysis of the samples is required.

Laboratory testing was carried out by Hills Laboratories Ltd. The lab is an NZS/ISO/IEC 17025:2017 accredited laboratory which incorporates the aspects of ISO 9000 relevant to testing laboratories. Original laboratory transcripts are attached to this report (Appendix G).

One duplicate was collected as part of this PSI but held by the laboratory.

[4] Since the inception of the NESCS (2011) NZ Environmental has undertaken more than 650 tests for OCP's in Northland on a variety of land uses including pastoral, orchards, stock yards, market gardens and around farm sheds. Only one of those tests returned concentration of OCP above guideline values and very few were above laboratory detection limits. The one elevated result for OCP's was confined to the location of a doorway in a chemical storage shed on land with a long-term market gardening land use history.

6. Sampling Results

6.1 Soil sampling and field observations

A total of seventeen samples were collected over the site. Samples were collected by R. Bell and H. Windsor on the 2 October 2025. Samples were collected as stratified samples as per Soil Investigation Design Plan (Appendix I).

- Soils were largely collected as per the plan. Sample 17212 could not be collected in the proposed area due to dense banana plantation so was moved to outside the eastern door of the polyhouse.
- Sampling data including soil descriptions is given in Appendix E, Table 14-3Table 14-3.

6.2 Basis for guideline values

The laboratory results are compared to the Soil Contaminant Standards, ($SCSs_{health}$), at which exposure is judged to be acceptable because any adverse effects on human health for most people are likely to be no more than minor. The $SCSs_{health}$, have been calculated for five generic land-use exposure types to reflect different land use scenarios.

The scenario used for assessing $SCSs_{health}$ in this PSI was: Residential – Standard residential lot, for single dwelling sites with gardens, including home grown produce consumption (10 percent) (NESCS 2012).

$SCSs_{(health)}$, have two functions:

1) Health-based trigger values - $SCSs_{health}$, represent a human health risk threshold above which:
   a) The effects on human health may be unacceptable over time;
   b) Further assessment of a site is required to be undertaken.
2) Remediation targets - $SCSs_{health}$, represent the maximum concentrations of contaminants at or beneath which land is considered 'safe for human use' and the risk to people is considered to be acceptable.

6.3 Background concentrations

Predicted Background Concentration (PBC) estimates of the background concentration (mg/kg) of arsenic, cadmium, chromium, copper, lead, nickel and zinc across New Zealand are available by Landcare Research on the Land Resource Information Systems portal NZ5. The effective median, and 95th quantile is calculated based on geological unit classification.

[5]https://lris.scinfo.org.nz/layer/48470-pbc-predicted-background-soil-concentrations-new-zealand/

For Northland, however the numbers of samples these values are based on are limited and the FNDC do not accept these background figures at this time.

More statistically robust background concentrations are available for volcanic soils for the Auckland region, and these are shown in Table 6-1.

6.4 Results

The laboratory tests undertaken show the concentrations of the selected NESCS analytes. The results are summarised in Table 6-1. All values are mg/kg dry weight. The laboratory report is given in Appendix G.

Table 6-1: Summary of laboratory results

		Total Recoverable Arsenic	Total Recoverable Cadmium	Total Recoverable Chromium	Total Recoverable Copper	Total Recoverable Lead	Total Recoverable Nickel	Total Recoverable Zinc	Total DDT Isomers	Dieldrin
		As	Cd	Cr	Cu	Pb	Ni	Zn		
All values reported as		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Detection limit		2	0.1	2	2	0.4	2	4	0.06	0.01
Sample Number	01	5	0.15	22	21	14.2	11	68	-	-
	02	12	0.83	23	46	57	20	1750	-	-
	03	4	0.19	20	22	12.3	10	69	< 0.08	< 0.014
	04	9	0.39	12	28	29	12	176	-	-
	05	13	0.45	24	82	36	18	370	-	-
	06	5	0.15	23	21	13.2	8	64	-	-
	07	8	0.35	22	28	16.3	12	120	-	-
	08	5	0.44	17	30	16	13	125	< 0.08	< 0.013
	09	8	0.36	16	28	9.7	14	210	-	-
	Composite 10 + 11	22	0.32	40	40	12.7	17	165		
	10	38	-	-	-	-	-	-	-	-
	11	13	-	-	-	-	-	-	-	-
	12	7	0.17	12	37	7.2	6	82	-	-
	Composite 12 + 14	-	-	-	-	-	-	-	< 0.10	< 0.016
	Composite 13 + 14	6	0.46	26	31	18.5	9	141	-	-
	Composite 15 + 16	8	0.45	26	29	16	10	70	-	-
	017 (duplicate of 08)	Cold Hold								
NES Soil Guideline Values April 2012										
Residential 10%		20	3	>10000	460	210	-	-	70	2.6
Background Auckland Volcanic Soils		0.4 - 12	<0.1 - 0.65	3 - 125*	20 - 90	< 1.5 - 65	4 - 320	54 - 1,160	-	-
U95 LRIS Soils Predicted		8.87	0.51	128.5	108.3	56.34	77.43	295.8	-	-

Note: *Chromium background range not valid for Kerikeri volcanics (Page 35 ARC)

The laboratory results were compared to the NESCS 2012 soil contaminant standard values, at which exposure is judged to be acceptable because any adverse effects on human health for most people are likely to be no more than minor.

- A total of seventeen samples were collected across the Area of Investigation. Thirteen samples were analysed for heavy metals (three composite and ten individual). Two samples were analysed for multiresidue pesticides and one composite sample was analysed for OCP's. Two of the composite samples were also individually analysed for arsenic.

- The land use scenario applicable to this site was conservatively selected and compared to the NESCS applicable standards (NESCS 2012) for Residential with 10% produce consumption; defined as a Standard Residential Lot, for single dwelling sites with gardens, including homegrown produce consumption (10 per cent). The Rural

residential 25% guideline was not selected as proposed Lot 1 was less than 4ha in size.

- Soil chemistry showed all values for metal COI below the applicable guideline values except for arsenic in sample 17210.
- Soil chemistry results showed all values for pesticides well below the applicable guideline values.

6.4.1 Statistical analysis of results

Twelve of the returned results from the systematic sampling undertaken around the implement shed and polyhouse were used to calculate the mean, standard deviation and 95% concentration of arsenic in the soil (Appendix E, Figure 14-2).

- The Soil Guideline Value (NESCS 2012) applicable to the residential 10% land use guideline for arsenic is 20 mg/kg.
- The highest concentration of arsenic was 38 mg/kg (sample 17210), not more than two times the applicable guideline value.
- The mean concentration was 10.58mg/kg
- The 95% confidence level was 16.39 mg/kg, below the applicable SGV of 20 mg/kg.

Statistical analysis of the arsenic results in the hotspot area of interest indicate that the soil would not be considered as contaminated from past HAIL land use under the NESCS[6].

[6] Contaminated land management guidelines No 5: Site investigation and analysis of soils, section 7.4.2

7. Soil disturbance

Soil Regulation 8(3) of the NESCS does allow for relatively small-scale soil disturbance that may occur on land, such as minor landscaping, foundation excavations, and replacement of underground services, to occur without the need for resource consent (MfE 2011). Providing the requirements around controlling exposure and disposal are met, the disturbance and removal of lower volumes of soil is considered a low-risk activity.

The NESCS requirements include:

a) Controls are in place to minimise people's contact (for example, in dust or water) with the soil and kept in place until soil is reinstated

b) Soil reinstated to erosion resistant state within 1 month (for example, foundations laid, access metalled, grass sown or garden mulched)

c) Integrity of soil containing structures are not compromised

d) Soil disturbed is less than 25 m^3 (in-situ volume) per 500 m^2 of land per year (not including samples for lab testing)

e) Soil removed is less than 5 m^3 (in-situ volume) per 500 m^2 of land per year

f) Activity duration less than 2 months.

g) Any soil removed from site must be disposed of at a facility authorised to receive soil of that kind (regulation 8(3 e)), the closest is Puwera Landfill

For this site:

- Minimal earthworks will be required for the subdivision.
- Future earthworks requirements are unknown, Appendix E, Table 14-4 outlines annual permissible soil disturbance volumes for proposed Lot 1.

8. Risk Assessment

The NESCS identifies contaminants as a problem when the contaminants are at a concentration and a place where they have, or are reasonably likely to have, an adverse effect on human health and the environment (NESCS 2012). The NESCS 2012 further states that a key decider under the NESCS is whether, under the intended land-use, the exposure to soil is reasonably likely to harm human health.

8.1 Conceptual site model

A Conceptual Site Model (CSM) was developed and shown in Appendix B with a summary shown below in Table 8-1.

The CSM for 79 State Highway 1, Ohaeawai was based on a review of available title information, aerial photographs, the site history, council records, a site inspection and soil sampling results.

Land use on area of investigation comprises: Pastoral use and kiwifruit orcharding with an implement shed and polyhouse (non-commercial) also located on site.

The potential pathways considered are outlined in section 8.3 and Appendix C.

Receptors include children and adult residents. The groundwater well was identified as a potential priority pathway.

Table 8-1: Summary of Conceptual Site Model

Land Use	Potential Sources	Potential Pathways	Potential Receptors
Residential	Historic use of fertiliser, pesticides and herbicides associated with pastoral and orcharding land use, including on adjacent areas and from the orchard polyhouse and shed.	-Ingestion, dermal contact while gardening and children playing. -Crop uptake and ingestion of soil on crop. -Ingestion or dermal contact during maintenance. -Dust inhalation associated with earthworks.	Adults, children, and playing children. Adult construction and maintenance workers.

8.2 Contaminant probability

This PSI was undertaken to ascertain if there is any potential contamination from past HAIL land use in the soil. Soil sampling results indicated soils would not be considered as contaminated under the NESCS[6].

The likelihood that the contaminant poses a risk to any receptor is low.

8.3 Characterisation of potential pathways

- Pathway considered is direct dermal contact with chemicals in soil through play or contact with soil during maintenance.
- Pathway considered is crop uptake of chemicals from soil leading to ingestion.
- Pathway considered is accidental ingestion of chemicals in soil during play or maintenance.
- Pathway considered is dust inhalation associated with earthworks. Considered low risk.

8.4 Risk summary

The risk to human health on proposed Lot 1 of 79 State Highway 1, Ohaeawai is assessed in the context of the proposed site use: that of residential living.

- Soils disturbance volumes as part of subdivision would be minimal.
- Soil sampling results indicated soils would not be considered as contaminated under the NESCS[6]
- A review of the Conceptual Site Model shows the source – pathway – receptor linkage to be incomplete as source contamination is not considered to be present under the NESCS.
- The soil samples collected were considered to adequately represent the soils present to adequately inform to the CSM.

9. Discussion and conclusion

This PSI was undertaken to determine if soil on the Area of Investigation on Lot 2 DP 208050 is contaminated, and information contained within this report is considered appropriate to the nature of the proposed activity, the level of certainty and availability of information about the past use of the land, the contaminants present (or potentially present), and the level of risk posed.

The information collated in this PSI indicates the following results:

- The land has a history of pastoral use and kiwifruit growing. An implement shed and polyhouse were also located on the Area of Investigation.
- The site is not listed on NRC Selected Land Use Register.
- The HAIL category considered applicable in the Area of Investigation was A10 - Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds.
- The piece of land on proposed Lot 1 Identified as HAIL site under categories: A10 comprises 1,850 m^2. As such 92.5 m^3 of soil disturbance is permitted and 18.5 m^3 of soil removal is permitted per year to meet the requirements of Section 7 (regulation 8(3)).
- Earth works disturbance volumes will not exceed regulation 8(3) amounts as minimal earthworks will be carried out. Buildings and infrastructure are already existing.
- A total of seventeen samples were collected in soils at the site. As per the identified contaminants of interest, metals and pesticides were analysed by Hill Laboratories.
- The applicable standard is Residential - Standard residential Lot, for single dwelling sites with gardens, including homegrown produce consumption (10 per cent).
- The soil chemistry shows all results below the applicable guideline values for all analysts (pesticides and metals) except for arsenic in one sample. Statistical analysis of the results indicate soils would not be considered as contaminated under the NESCS. The source of the arsenic is unknown but likely from leaching of treated timber.
- A review of the conceptual site model following this investigation shows that the source – exposure – receptor linkages are incomplete, with source contamination not considered to be present[6].
- *Pursuant to regulation 8(4)(b) - it is highly unlikely that there will be a risk to human health if the activity is done to the piece of land.*
- The application may therefore be assessed as a permitted activity.

10. Report limitations

The report was based on evidence gathered during a site walkover, by indicative soil sampling, by studying council and historic records, and by discussions with present landowners. The information in this document is based on publicly available documents which were assumed to be accurate.

Stratified soil sampling of surface soils was carried out to inform the conceptual site model.

The laboratory test results are subject to the limitations inherent to the laboratory techniques used.

With time the site conditions and applicable environmental standards may change and as such the report conclusions may not apply at a future date.

Any future land use change on the property or amendments to the proposed subdivision plan may require further investigation.

NZ Environmental Management will not be held liable for any future discovery of isolated hot spots or discharge unknown at the time of sampling, such as buried drums of chemicals.

11. SQEP certification of report

PRELIMINARY SITE INVESTIGATION CERTIFYING STATEMENT

I Heather Windsor of NZ Environmental Management Ltd certify that:

This preliminary site investigation meets the requirements of the Resource Management (National Environmental Standard for assessing and managing contaminants in soil to protect human health) Regulations 2011 because it has been:

a. done by a suitably qualified and experienced practitioner, and

b. reported on in accordance with the current edition of Contaminated land management guidelines No 1 – Reporting on contaminated sites in New Zealand, and

c. the report is certified by a suitably qualified and experienced practitioner.

The activity to be undertaken as defined in R 5(5) is described in section 3.3 of this preliminary site investigation.

Evidence of the qualifications and experience of the suitably qualified and experienced practitioner(s) who have done this investigation and have certified this report is appended to the preliminary site investigation report.

Signed and dated:  DATE: 10 November 2025

12. Bibliography and references

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Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to protect Human Health) Regulations 2011. Order In Council, 2011. Wellington.

13. Glossary

Area of Interest An area or target within the piece of land identified as having hazardous substances on or in it at elevated levels or above background. Reported concentrations are below the soil contaminant standards for the applicable land use scenario with in-situ soils unlikely to pose a risk to human health. May require further investigation, management, or remediation for more conservative land use scenarios (largely applicable to soil removal offsite).

Area of Investigation Location within a piece of land upon which there is a proposed change in land use.

Control Area An investigated and defined area of contaminated soil on a piece of land, with hazardous substances in or on it that are above the soil contaminant standards for the applicable land use scenario and where the contaminants are reasonably likely to have adverse effects on the human health. The control area is reported as an area requiring remediation or management.

COI Contaminants of Interest

CSM Conceptual Site Model

DSI Detailed Site Investigation

FNDC Far North District Council

HAIL Hazardous Activities and Industries List

mg/kg Milligrams per kilogram

NES National Environmental Standard

NESCS The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

NZMS New Zealand Map Series

NRC Northland Regional Council

OCP Organochlorine Pesticides

Piece of Land The NESCS applies to any piece of land on which an activity or industry described in the current edition of the Hazardous Activities and Industries List (HAIL) is being undertaken, has been undertaken or is more likely than not to have been undertaken (see regulation 5(7)).

PSI Preliminary Site Investigation

RAP Remediation Action Plan

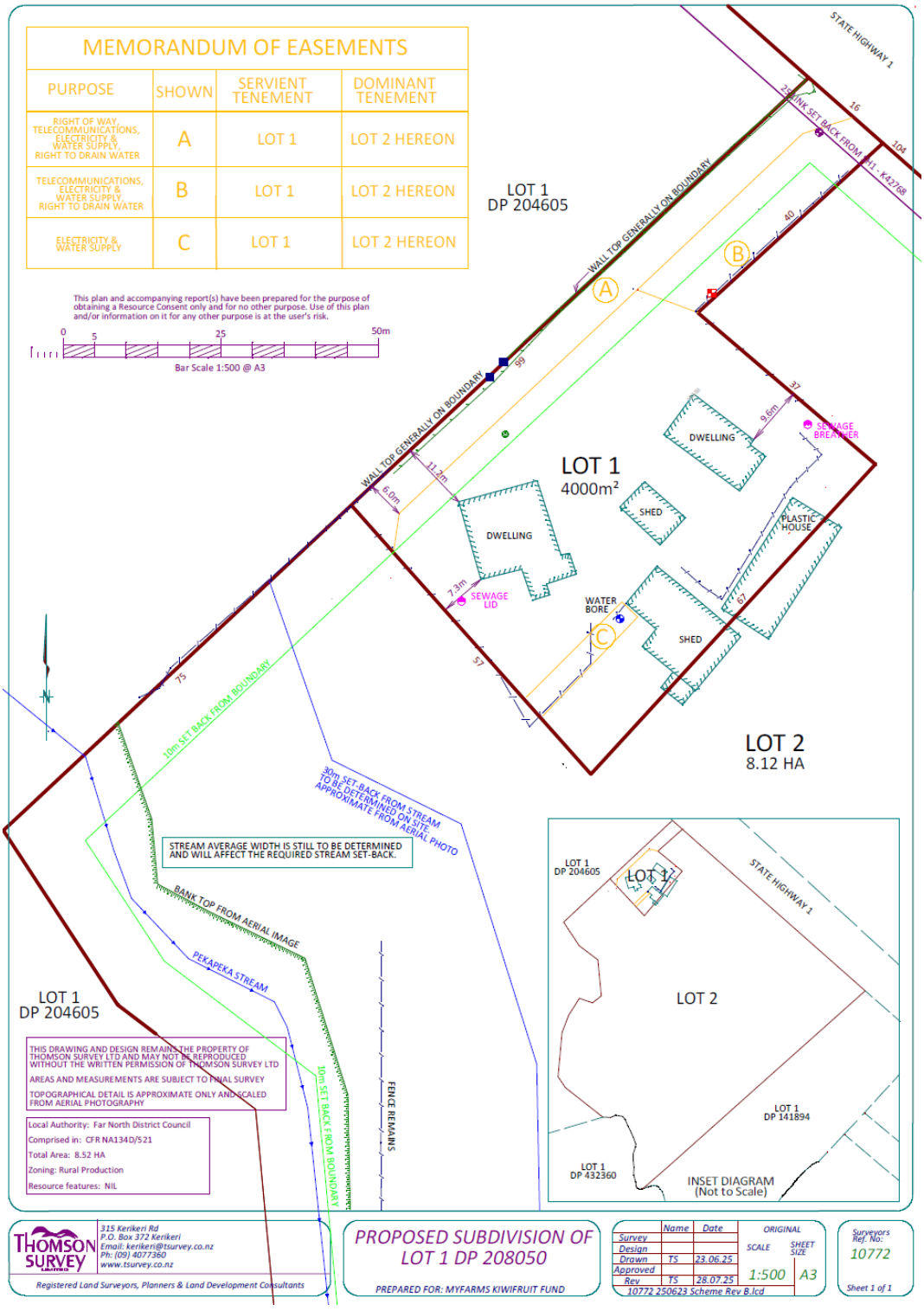
SVR Site Validation Report

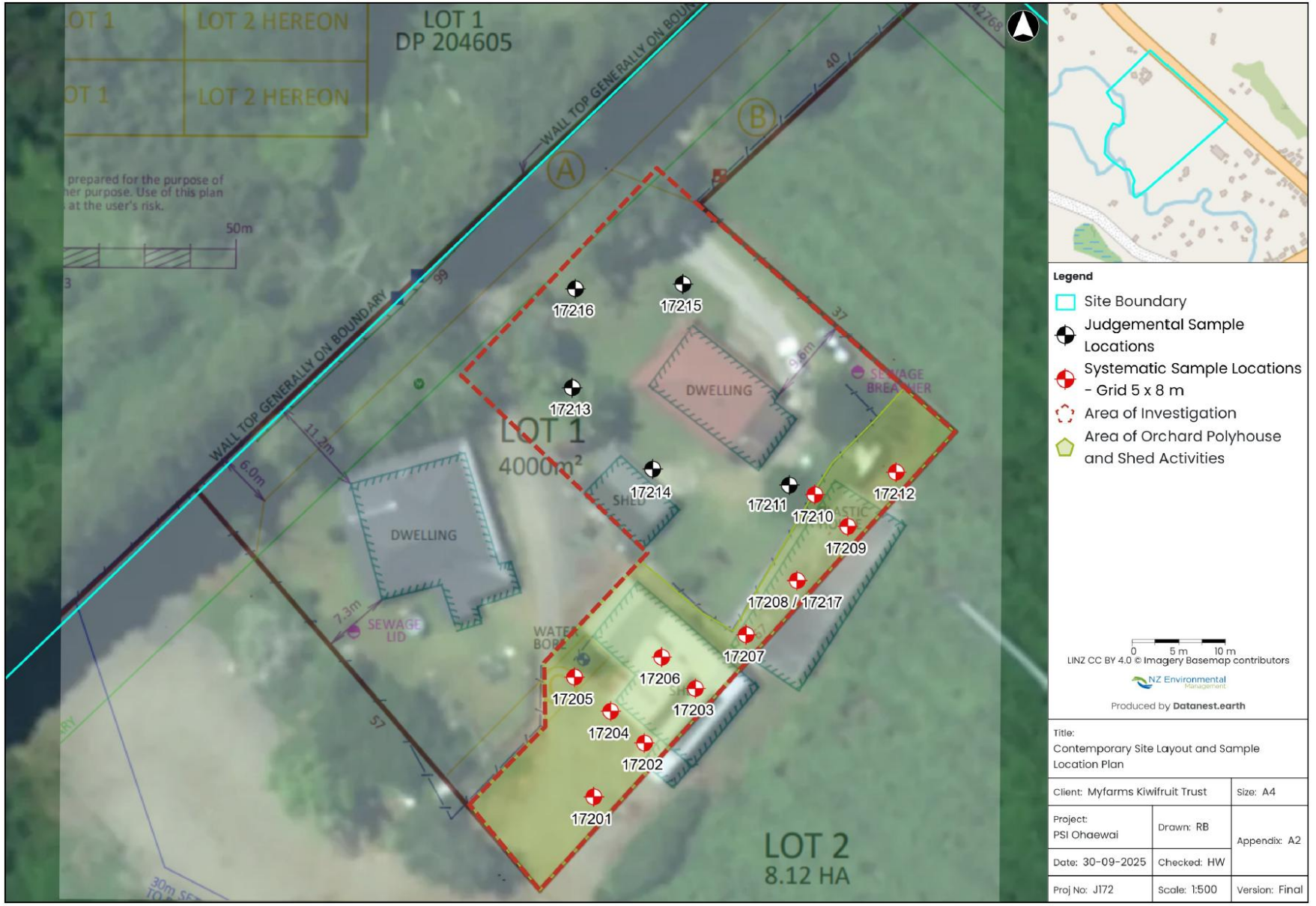
Target Area An area or target within the piece of land identified as potentially having hazardous activities or industries resulting in contaminants to be present at elevated levels or above background.

UCL Upper Confidence Limit

14. Appendices

14.1 Appendix A: Proposed Site Layout (A1) and Sample Location Plan (A2)

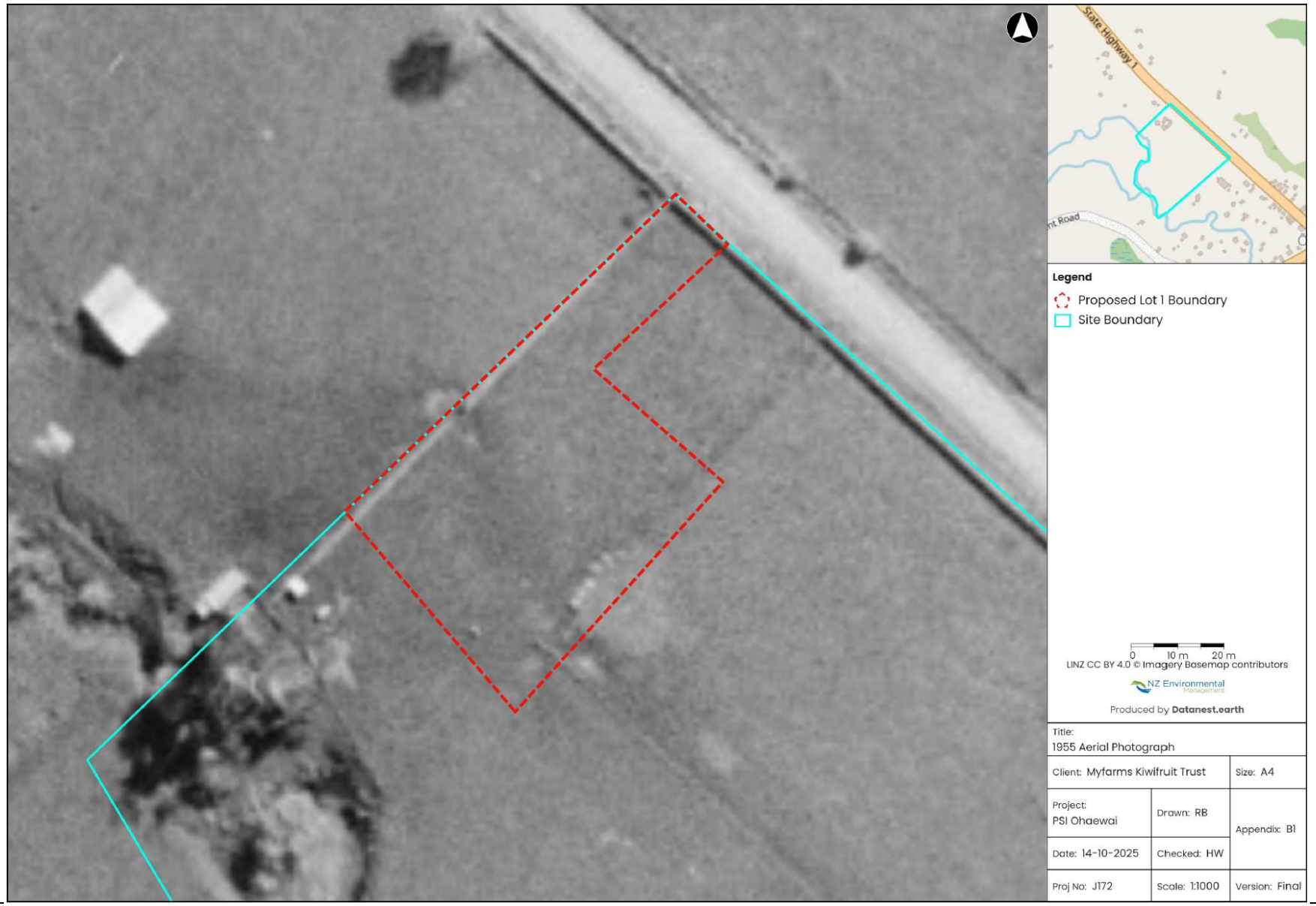



LOT 1
DP 204605
LOT 2 HEREON
LOT 2 HEREON
prepared for the purpose of
her purpose. Use of this plan
at the user's risk.
50m
WALL TOP GENERALLY ON BOUNDARY
WALL TOP GENERALLY ON BOUNDARY
A
B
40
99
37
LOT 1
4000m²
DWELLING
DWELLING
SHED
SEWAGE BREATHER
SEWAGE LID
11.2m
6.0m
7.3m
9.6m
17216
17215
17213
17214
17211
17210
17212
17209
17208 / 17217
17207
17206
17205
17203
17204
17202
17201
LOT 2
8.12 HA
Legend
Site Boundary
Judgemental Sample Locations
Systematic Sample Locations - Grid 5 x 8 m
Area of Investigation
Area of Orchard Polyhouse and Shed Activities
0 5 m 10 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
Contemporary Site Layout and Sample Location Plan
Client: Myfarms Kiwifruit Trust
Size: A4
Project: PSI Ohaewai
Drawn: RB
Appendix: A2
Date: 30-09-2025
Checked: HW
Proj No: J172
Scale: 1:500
Version: Final

14.2 Appendix B: Aerial Photographs (B1 to B6 Sourced from Retrolens and Google Earth)

Table 14-1 Summary of Aerial Photographs

Year of Aerial Photograph	Landuse on Area of Investigation	HAIL Category Considered
1955	Pastoral farming	I
1969	Pastoral farming	I
1977	Pastoral farming	I
1981	Orchard (appears to be kiwifruit)	A10
1986	Orchard (kiwifruit), dwelling, shed	A10, I
1987	Orchard (kiwifruit), dwelling, shed	A10, I
2007	Two dwellings, shed, no orchard	I
2009	Two dwellings, shed, no orchard	I
2013	Orchard being developed, polyhouse, two dwellings, shed	A10, I
2016	Orchard (kiwifruit), polyhouse, two dwellings, shed	A10, I
2020	Orchard (kiwifruit), polyhouse, two dwellings, shed	A10, I


State Highway 1
Legend
Proposed Lot 1 Boundary
Site Boundary
0 10 m 20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
1955 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B1
Date: 14-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final


State Highway 1
Ōhae
Legend
Proposed Lot 1 Boundary
Site Boundary
0 10 m 20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
1977 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B2
Date: 18-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final

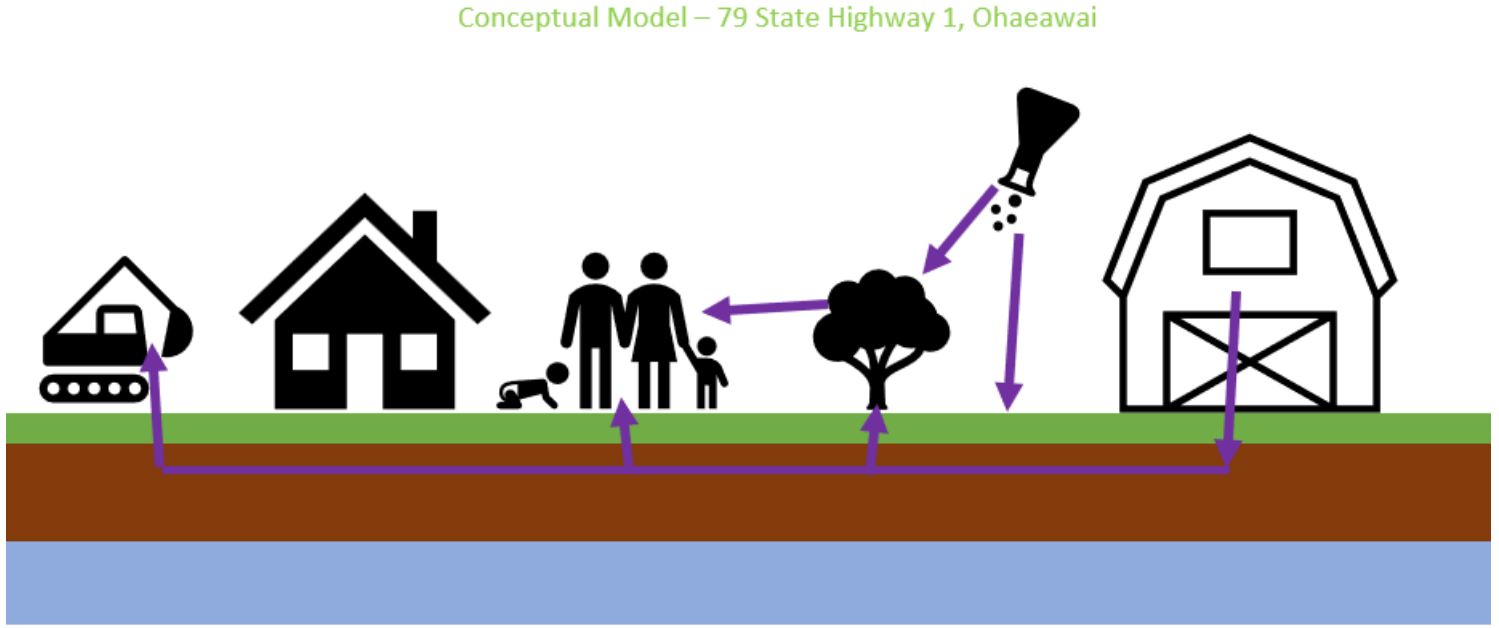

Ōhaeawa
Legend
Proposed Lot 1 Boundary
Site Boundary
0 10 m 20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
1986 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B3
Date: 18-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final


New Zealand State Highway 1
Legend
Proposed Lot 1 Boundary
Site Boundary
0 10 m 20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
2007 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B4
Date: 18-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final


New Zealand State Highway 1
Legend
Proposed Lot 1 Boundary
Site Boundary
0
10 m
20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
2013 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B5
Date: 18-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final


New Zealand State Highway 1
State Highway 1
Legend
Proposed Lot 1 Boundary
Site Boundary
0 10 m 20 m
LINZ CC BY 4.0 © Imagery Basemap contributors
NZ Environmental Management
Produced by Datanest.earth
Title:
2020 Aerial Photograph
Client: Myfarms Kiwifruit Trust
Size: A4
Project:
PSI Ohaewai
Drawn: RB
Appendix: B6
Date: 18-10-2025
Checked: HW
Proj No: J172
Scale: 1:1000
Version: Final

14.3 Appendix C: Conceptual Site Model



14.4 Appendix D: Contemporary Site Photographs (Photo 1 to 5)

Photo 1	**Date: 2 October 2025**

Showing southwestern end of polyhouse and footprint of now removed shed.

Photo 2	**Date: 2 October 2025**

Looking southwest from water bore location towards kiwifruit orchard.

Photo 3	**Date: 2 October 2025**

Looking southeast towards kiwifruit orchard between residential dwelling and road.

Photo 4	**Date: 2 October 2025**

Looking south, showing the two residential dwellings and residential garage between. Polyhouse is visible in background.

Photo 5	**Date: 2 October 2025**

Looking north towards residential garage. Showing water bore shed and footprint of now removed orchard shed in foreground.

Photo 6	**Date: 2 October 2025**

Showing inside the polyhouse.

Photo 7	**Date: 2 October 2025**

Old shed footings

Photo 8	**Date: 2 October 2025**

Shed at east end of polyhouse

14.5 Appendix E: Supporting Tables and Documents

Table 14-2 Land Use Summary

Site History	
Land use history	Prior to ~ 1981: Pastoral farming 1981 to ~early 1990s: Residential and kiwifruit orchard 2012 to present: Kiwifruit orchard with polyhouse and residential dwellings
Management practices	Prior to 1981: Unknown, possible pesticides use associated with farming such as DDT ~1981 to Present: Unknown, possible pesticides use associated with kiwifruit orcharding, since 2013 use in accordance with Seeka Spray Programme
Waste disposal	Municipal
Chemical storage practices	No chemicals stored on site, pesticides ad fertilisers associated with kiwifruit orchard
Chemicals used on the site	Glyphosate edge control, sprays as per Seeka Spray Programme
Environmental incidents	4 x spray drift notifications (2013, 2013, 2015, 2016), smoke nuisance from burning vegetation and pallets (2011 - unknown location), dust nuisance from orchard activities (2011).
Certificates of title	Appendix H
Location of surface water drains and stormwater drainage channels	Surface water drains towards west and Pekapeka Stream at western property boundary
Information on fill material	N/A
Potable drinking water source	On-site water bore
Proposed sewage disposal (if any)	Septic tank

KIWIFRUIT SPRAY PROGRAMME 2025 CK

Seeka
SELECT EXCELLENCE

	Timing	PSA / Pest & Diseases / Other	Product	Water Mixing Rate (per 100 L)	Water Application Rate (per ha)	Re-Entry Period	Comment
POST HARVEST	Post harvest Late March to May	PSA	Nordox 75WG	70 g	1200 L	When fully dry	To protect picking scars
		Scale	Movento 100SC®	96 ml	1000 L	12 hours	**JA required** unless you have Kiwigreen results over 4%; Consider spray drift into unharvested blocks; Allow 1 week between Actigard and Movento; Requires functioning leaves
			Kwicken	100 ml			
			Du-Wett	40 ml			
	To compact leaf fall Early June	Leaf fall	Copper Sulphate	450 g	1500 L	When fully dry	To compact leaf fall; Rotate blocks using this product year to year; Works best if natural leaf fall has started; Allow 3 weeks between Hi-Cane and copper sulphate
			Citric Acid	900 g			
			Engulf	100 ml			
	Immediately after leaf fall	PSA	Nordox 75WG	70 g	1000 L	When fully dry	Target the whole canopy to protect leaf scars; Must spray before winter pruning
DORMANCY	Cicadas: After leaf fall, pre mid-July PVH: After pruning and tieing down	Cicada/ PVH eggs	Assail	100 ml	1000 L	48 hours	1 spray allowed until bud break, timing depends on the pest of concern; If both pests are a problem, apply for a JA for the second spray (PVH); Allow 3 days between copper or bud breaking product
			Engulf	100 ml			
	Immediately after pruning	PSA	Nordox 75WG	70 g	800 L	When fully dry	Target the whole canopy to protect pruning wounds; Allow 1 week between copper and Hi-Cane
	30 - 40 days before estimated natural bud break	Promote bud break	Hi-Cane	6 L	700 L	5 days	Allow 1 week between copper and Hi-Cane and 3 weeks between copper sulphate and Hi-Cane; Ensure property spray plan is updated and all neighbours notified of the spray
			Driftstop	200 ml			
	Just prior to bud break	PSA	Nordox 75WG	55 g	800 L	When fully dry	Last winter protection before bud break
		Frost	ThermoMax	32 ml			DO NOT mix with urea; Next application in 7 days time
BUD PHASE TO FLOWERING	At green tip	PSA	Kocide Opti	70 g	800 L	When fully dry	Alternatively use Hortcare Copper Hydroxide 300 at 50 g/100 L for lower copper input
		Frost	ThermoMax	32 ml			DO NOT mix with urea; If frosts continue apply again in 2 - 3 weeks
	Bud break until bird pressure ends	Birds	Avian Control	300 ml	800 L	When fully dry	Best applied with Umbrella; Max 3 sprays allowed; Consider alternating with Flock off and Eco Bird 14.5; DO NOT mix with foliars
	1 - 2 weeks after bud break Shoots 5 - 10 cm long	PSA	Kocide Opti	70 g	800 L	When fully dry	Alternatively use Hortcare Copper Hydroxide 300 at 50 g/100 L for lower copper input
	3 - 4 weeks after bud break Leaves open, flower buds visible	PSA	Kocide Opti	70 g	1000 L	48 hours	If wanting to use 2 pre flower Actigards, the first one could be tank mixed here at 20 g/100 L
			Kasumin	500 ml			Must fill intent to spray and OPIS forms; Must be applied 21 days before flowers open; Use AI nozzles and Driftstop at 100 ml/100 L
	10 - 14 days pre flowering	Scale #1 Leafroller #1	Movento 100SC®	96 ml	1000 L	12 hours	To buffer pH of water to under 7.5 use Hybrid SB or Lokit; Movento min product rate 960 ml/ha; Prodigy is the preferred product due to its efficacy against eggs as well as the pest
			Prodigy®	30 ml			
			Du-Wett	40 ml			
	5 - 6 weeks after bud break Flower buds on lengthened stalks	PSA	Aureo Gold	50 g	1000 L	12 hours	Allow 14 days between copper and Aureo Gold; Not tested in 2024 formulation testing, use at grower's risk; UV-sensitive
			Du-Wett	40 ml			
			Actigard	20 g			Don't use Actigard on stressed vines; Allow 21 days between Actigard applications; Max rate 200 g/ha
	Last thing before flowering	PSA	Aureo Gold	50 g	1000 L	24 hours	Allow 14 days between copper and Aureo Gold; Not tested in 2024 formulation testing, use at grower's risk; UV-sensitive
			Du-Wett	40 ml			
		Sclerotinia #1	Luna Privilege 250SC	60 ml			Min product rate 600 ml/ha; DO NOT tank mix with Prodigy; If using old stock of 500SC use 300 ml/ha
	During flowering	Sclerotinia #2	Timorex Gold	100 ml	1500 L	When fully dry	Alternatively use TripleX at 150 ml/100 L with Du-Wett
		PSA	Aureo Gold	50 g	1000 L	4 hours	Allow 14 days between copper and Aureo Gold; Not tested in 2024 formulation testing, use at grower's risk; UV-sensitive
			Du-Wett	40 ml			
	SKIN SENSITIVE PERIOD — HW: 14 - 35 days after fruit set, GA: 21 - 80 days after fruit set; Caution around mineral oil and foliar use at this time						
FRUIT SET TO MONITORING	After flowering	Scale #2	Excel Organic Oil	1 L	1500 - 2000 L	When fully dry	HW – within 2 weeks from flowering; GA – within 3 weeks from flowering; Apply in good drying conditions (Humidity < 60%, slight breeze, not in the heat of the day); Can be tank mixed with Biobit, counts as 1 leafroller spray
	2 weeks post fruit set	Leafroller #2	Proclaim Opti	4 g	1000 L	When fully dry	Max of 3 leafroller sprays allowed up to the start of monitoring; Max product rate 40 g/ha; Alternatively use Entrust Naturalyte for a different mode of action
			Du-Wett	40 ml			
	After male pruning	PSA	Aureo Gold	50 g	1000 L	4 hours	Allow 14 days between copper and Aureo Gold; Not tested in 2024 formulation testing, use at grower's risk; UV-sensitive
			Du-Wett	40 ml			
	5 - 6 weeks post fruit set	Leafroller #3	Proclaim Opti	4 g	1000 L	When fully dry	Max of 3 leafroller sprays allowed up to the start of monitoring; Max product rate 40 g/ha
			Du-Wett	40 ml			
	Late December	PVH off orchard	Zetapy	100 ml	1000 L +	Do not apply on the crop	Apply to shelters/gullies/scrub in the afternoon; Ensure new batch of Zetapy stored in a cool dry place; Use Hybrid SB or Lokit to buffer water pH below 7; Re-apply in 2 weeks if needed
			Excel Organic Oil	500 ml			
		PVH on orchard	Zetapy	133 ml	1500 L	When fully dry	Spray centre of block outwards at dusk or dawn; Don't exceed 2 L/ha as residues can occur
	MANAGE WHEATBUG HOST WEEDS ON LOADOUT — Manually or with herbicide, refer to CPS for options and withholding period						
MONITORING	From mid-January	Sooty mould	TripleX	300 ml	1000 L	When fully dry	Use as a preventative, 2 - 3 weekly intervals; UV-sensitive; Best results with Du-Wett; DO NOT mix with Wetcit; Can be tank mixed with Zetapy, but add Zetapy to tank last; If mixing, use Du-Wett, 200 ml of Zetapy and water rate 1000 L/ha
		PVH on orchard	Zetapy	133 ml	1500 L	When fully dry	Spray at dusk or dawn; Don't exceed 2 L/ha as residues can occur; DO NOT use old stored batch; **Withholding period 14 days**
	PRE HARVEST — To clean fruit use phosphoric acid (like Seniphos) day before harvest, for tough stains use lactic acid (like Kiwilustro) 1 - 3 days before harvest						

Figure 14-1 Seeka Spray Programme

Table 14-3 Soil Sample Description and Location

Sample Number	Sampling Pattern	Location	Description	Coordinates
17201	Systematic	0.15 m bgl - Gravel driveway	Clayey SILT, brown, moderate plasticity, moist	-35.3481751, 173.8752084
17202		0.15 m bgl - Corner of concrete pad outside small shed (removed)	Gravelly SILT, some clay, brown, moist, angular gravel, well graded	-35.3481227, 173.8752688
17203		0.15 m bgl - Removed shed footprint on southern half	Clayey SILT, brown, moderate plasticity, moist	-35.3480699, 173.8753291
17204		0.15 m bgl - Gravel driveway, west of shed entrance (shed removed)	Gravelly SILT, some clay, brown, moist, angular gravel, well graded	-35.3480922, 173.8752288
17205		0.15 m bgl - West of pump shed	Gravelly SILT, some clay, brown, moist, angular gravel, well graded	-35.3480611, 173.8751884
17206		0.15 m bgl - Removed shed footprint on northern half	Clayey SILT, brown, moderate plasticity, moist	-35.3480394, 173.8752890
17207		0.15 m bgl - Inside polyhouse, west end	Clayey SILT, trace angular gravel, brown, moderately friable, moist	-35.3480178, 173.8753895
17208 / 17217 (duplicate)		0.15 m bgl - Inside polyhouse, centre	Clayey SILT, trace angular gravel, brown, moderately friable, moist	-35.3479653, 173.8754499
17209		0.15 m bgl - Inside polyhouse, east end	Clayey SILT, trace angular gravel, brown, moderately friable, moist	-35.3479129, 173.8755103
17210		0.15 m bgl - Outside polyhouse wall, near northeast corner	Clayey SILT, dark brown, organic material (wood chips), topsoil, moist, some plastic waste	-35.3478821, 173.8754709
17211	Judgemental	0.15 m bgl - Grassed area south of residential dwelling	Clayey SILT, trace angular gravel, brown, rootlets, moderately friable, moist	-35.3478753, 173.8754519
17212	Systematic	0.15 m bgl - East of polyhouse	Potting mix silty soil, pumice, high organic content, green fertiliser pellets.	-35.3478603, 173.8755727
17213	Judgemental	0.15 m bgl - Grassed area north of residential garage	Clayey SILT, brown, rootlets, moderately friable, moist	-35.3477785, 173.8751828
17214		0.15 m bgl - Grassed area east of residential garage	Clayey SILT, brown, rootlets, moderately friable, moist	-35.3478574, 173.8752784
17215		0.15 m bgl - Grassed area northeast of eastern-most residential dwelling	Clayey SILT, brown, rootlets, moderately friable, moist	-35.3476782, 173.8753144
17216		0.15 m bgl - Grassed area north of eastern-most residential dwelling	Clayey SILT, trace angular gravel, brown, rootlets, moderately friable, moist	-35.3476827, 173.8751867

Table 14-4 Earthworks Volumes Under Regulation 8.3

Size of Proposed Lot (m^2)	Approximate Area of Piece of Land (m^2)	Earthworks disturbance volumes not requiring consent (annual) m^3	Earthworks removal volumes not requiring consent (annual) m^3
4000	1850	92.5	18.5

Gamma UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation	ProUCL 5.2 10/11/2025 10:57:52 am		
From File	WorkSheet.xls		
Full Precision	OFF		
Confidence Coefficient	95%		
Number of Bootstrap Operations	2000		
C0			
General Statistics			
Total Number of Observations	12	Number of Distinct Observations	8
		Number of Missing Observations	1
Minimum	4	Mean	10.58
Maximum	38	Median	8
SD	9.199	SD of logged Data	0.617
Coefficient of Variation	0.869	Skewness	2.767
Gamma GOF Test			
A-D Test Statistic	0.754	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.74	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.209	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.248	Data appear Gamma Distributed at 5% Significance Level	
Data appear to Follow Approximate Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.514	k star (bias corrected MLE)	1.941
Theta hat (MLE)	4.209	Theta star (bias corrected MLE)	5.452
nu hat (MLE)	60.34	nu star (bias corrected)	46.59
MLE Mean (bias corrected)	10.58	MLE Sd (bias corrected)	7.596
		Approximate Chi Square Value (0.05)	31.93
Adjusted Level of Significance	0.029	Adjusted Chi Square Value	30.08
Assuming Gamma Distribution			
95% Approximate Gamma UCL	15.44	95% Adjusted Gamma UCL	16.39
Suggested UCL to Use			
95% Adjusted Gamma UCL	16.39		
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			

Figure 14-2 - ProUCL statistical analysis arsenic results

14.6 Appendix F: Property File Information

From: Contaminated Land Management Team <contamination@nrc.govt.nz>
Sent: Friday, October 3, 2025 12:05:30 PM
To: Heather Windsor <Heather@nzem.co.nz>
Subject: RE: property file check (NRC reference: REQ.628095)

Kia ora Heather,

Regarding your site query for 71 state Highway 1, Ohaewai (Lot 1 DP 208050):

The property that you have enquired about is not listed on the NRC Selected Land-use Register (SLR) for any current or historical Hazardous Activities and Industries List (HAIL) activities. Please note that the SLR is not a comprehensive list of all sites that have a HAIL land use history. It is a live record and therefore continually being updated.

Aerial imagery shows the presence of horticultural activity and therefore HAIL A.10 may apply.

There are 6 environmental incidents recorded on the property as detailed below, please let me know if you require further information.

Date	Reference Number	Subject	Description	Further info from File
26/09/2011	REQ.422417	Dust nuisance	Dustdrift.	Dust nuisance from orchard activities.
29/11/2011	REQ.422858	Burning and smoke nuisance	Smoke nuisance	Alleged burning of green vegetation and pallets.
15/12/2013	REQ.572276	Spraydrift	Lack of notification for agrichemical application @ SH1, Ohaeawai	No notification received of repeated agrichemical applications by neighbouring orchard.
1/08/2014	REQ.574446	Spraydrift	Spraying without notification @ SH1, Ohaeawai	Spraying without notification.
3/07/2016	REQ.581022	Spraydrift	Spraydrift @ SH1, Ohaeawai	Spraying without notification.
20/08/2015	REQ.578184	Spraydrift	Spray drift @ State Hwy 1, Ohaeawai.	Spraying without notification.

There are no active consents recorded on the property.

Please note, as per Rule C.6.8.1 of the Proposed Regional Plan for Northland, copies of site investigation reports, where land disturbance has occurred, must be provided to the regional council within three months of completion of the investigation.

Reports can be sent to contamination@nrc.govt.nz

If I can be of any further assistance, please do not hesitate to contact me.

Kyle Richards
Environmental Monitoring Officer – Industrial Activities & Contaminated Land
Northland Regional Council » Te Kaunihera ā rohe o Te Taitokerau
M 027 268 8938

Northland REGIONAL COUNCIL
Te Kaunihera ā rohe o Te Taitokerau

P 0800 002 004 » **W** www.nrc.govt.nz

Figure 14-3 NRC Property File and SLR Review

Table 14-5 Summary of FNDC file

Building/Resource Consent Number	Date	Activity	Applicable to Area of Investigation Y/N	Applicable HAIL category
BP2036832	21/11/1983	Re-site dwelling	N	N/A
BC-950784	1/07/1998	Alterations to existing dwelling	N	N/A
BC-951160	1/07/1998	Garage	Y	N/A
20020440	22/01/2002	New dwelling	Y	N/A
BC-2012-1312/0	8/06/2012	Polyhouse	Y	A10

14.7 Appendix G: Laboratory Results and Chain of Custody

Hill Labs

R J Hill Laboratories Limited
28 Duke Street Frankton 3204
Private Bag 3205
Hamilton 3240 New Zealand
0508 HILL LAB 44 555 22
+64 7 858 2000
mail@hill-labs.co.nz
www.hill-labs.co.nz

Job No: **400 1361**
Date Recv: 06-Oct-25 11:10
Received by: Callum MacDonald
3140013610

Quote No	140656	
Primary Contact	Heather Windsor	293087
Submitted By	Heather Windsor	293087
Client Name	NZ Environmental Management Limited	293085
Address	460 Kerikeri Road RD 3, Kerikeri 0293	
Phone	*Mobile*	
Email		
Charge To	NZ Environmental Management Limited	293085
Client Reference	Ohaeawai	
Additional Client Ref		
Order No		

Results To *Reports will be emailed to Primary Contact by default. Additional Reports will be sent as specified below*

☑ Email Primary Contact ☐ Email Submitter ☐ Email Client
☐ Email Other
☐ Other

Dates of testing are not routinely included in the Certificates of Analysis. Please inform the laboratory if you would like this information reported.

Sent to Hill Labs
Date & Time: 3/10/25 0830
Name: R Bell
☑ Tick if you require COC to be emailed back
Signature:

Received at Hill Labs
Date & Time:
Name:
Signature:

Condition ☐ Room Temp ☐ Chilled ☐ Frozen
Temp: 16.1
☐ Sample & Analysis details checked
Signature:

Priority ☐ Low ☐ Normal ☑ High
☐ **Urgent** (ASAP, *extra charge applies, please contact lab first*)

Requested Reporting Date:

The section below MUST be completed, otherwise the sample may be rejected

Water Source ☐ Well/Bore ☐ Rain (ex roof) ☐ Spring ☐ Stream/River ☐ Town Supply ☐ Dam

Water Supply
☐ Drinking water supplying one household only "domestic self supply"
☐ Drinking water supplying multiple households, school, marae, workplaces, motel, cafe etc (Office use: DW_DWSNZ)
☐ Source (raw) water that will be treated prior to drinking, or, that will not be used for drinking

Quoted Sample Types

~~Potable Water (Pot)~~, Soil (Soil)

No.	Sample Name	Taumata Arowai Registration Code (If Required)	Sample Date/Time	Sample Type	Tests Required
1	17201		2/10/25	Soil	HM
2	17202		↓	↓	↓
3	17203		↓	↓	+MRP
4	17204		↓	↓	↓

Page 1 of 2

No.	Sample Name	Taumata Arowai Registration Code (If Required)	Sample Date/Time	Sample Type	Tests Required
5	17205		2/10/25	SOIL	HM
6	17206		↓	↓	↓
7	17207				
8	17208				+ MRP
9	17209				↓
10	17212				HM
11	COMP 17211 + 17210				HM
12	COMP 17213 + 17214				HM
13	COMP 17215 + 17216		↓	↓	HM
14	17217		2/10/25	SOIL	COLD HOLD
15	COMP 17212 + 17214		2/10/25	SOIL	OCP
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

As per Section 73 (2) of the Water Services Act (2021), Hill Labs must report any drinking water supplier test result (including the test report and client's contact details) that does not comply with the Drinking Water Standards of New Zealand to Taumata Arowai. This does not apply to domestic, single household, self-supply testing. By submitting samples to Hill Labs, you consent to this requirement.

R J Hill Laboratories Limited
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Private Bag 3205
Hamilton 3240 New Zealand

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Certificate of Analysis

Client:	NZ Environmental Management Limited	**Lab No:**	4001361	SPv2
Contact:	Heather Windsor 460 Kerikeri Road RD 3 Kerikeri 0293	**Date Received:**	06-Oct-2025	
		Date Reported:	15-Oct-2025	**(Amended)**
		Quote No:	140656	
		Order No:		
		Client Reference:	Ohaeawai	
		Submitted By:	Heather Windsor	

Sample Type: Soil

Sample Name:		17201 02-Oct-2025	17202 02-Oct-2025	17203 02-Oct-2025	17204 02-Oct-2025	17205 02-Oct-2025
Lab Number:		4001361.1	4001361.2	4001361.3	4001361.4	4001361.5
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	73	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	5	12	4	9	13
Total Recoverable Cadmium	mg/kg dry wt	0.15	0.83	0.19	0.39	0.45
Total Recoverable Chromium	mg/kg dry wt	22	23	20	12	24
Total Recoverable Copper	mg/kg dry wt	21	46	22	28	82
Total Recoverable Lead	mg/kg dry wt	14.2	57	12.3	29	36
Total Recoverable Nickel	mg/kg dry wt	11	20	10	12	18
Total Recoverable Zinc	mg/kg dry wt	68	1,750	69	176	370
Multiresidue Pesticides in Soil samples by GCMS						
Acetochlor	mg/kg dry wt	-	-	< 0.010	-	-
Alachlor	mg/kg dry wt	-	-	< 0.006	-	-
Aldrin	mg/kg dry wt	-	-	< 0.014	-	-
Atrazine	mg/kg dry wt	-	-	< 0.010	-	-
Atrazine-desethyl	mg/kg dry wt	-	-	< 0.010	-	-
Atrazine-desisopropyl	mg/kg dry wt	-	-	< 0.019	-	-
Azaconazole	mg/kg dry wt	-	-	< 0.005	-	-
Azinphos-methyl	mg/kg dry wt	-	-	< 0.019	-	-
Benalaxyl	mg/kg dry wt	-	-	< 0.005	-	-
Bendiocarb	mg/kg dry wt	-	-	< 0.010	-	-
Benodanil	mg/kg dry wt	-	-	< 0.019	-	-
alpha-BHC	mg/kg dry wt	-	-	< 0.014	-	-
beta-BHC	mg/kg dry wt	-	-	< 0.014	-	-
delta-BHC	mg/kg dry wt	-	-	< 0.014	-	-
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.014	-	-
Bifenthrin	mg/kg dry wt	-	-	< 0.005	-	-
Bitertanol	mg/kg dry wt	-	-	< 0.019	-	-
Bromacil	mg/kg dry wt	-	-	< 0.010	-	-
Bromophos-ethyl	mg/kg dry wt	-	-	< 0.010	-	-
Bromopropylate	mg/kg dry wt	-	-	< 0.010	-	-
Bupirimate	mg/kg dry wt	-	-	< 0.010	-	-
Buprofezin	mg/kg dry wt	-	-	< 0.010	-	-
Butachlor	mg/kg dry wt	-	-	< 0.010	-	-
Captafol	mg/kg dry wt	-	-	< 0.05	-	-
Captan	mg/kg dry wt	-	-	< 0.019	-	-
Carbaryl	mg/kg dry wt	-	-	< 0.010	-	-
Carbofenothion	mg/kg dry wt	-	-	< 0.010	-	-
Carbofuran	mg/kg dry wt	-	-	< 0.010	-	-

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

Sample Type: Soil						
Sample Name:		17201 02-Oct-2025	17202 02-Oct-2025	17203 02-Oct-2025	17204 02-Oct-2025	17205 02-Oct-2025
Lab Number:		4001361.1	4001361.2	4001361.3	4001361.4	4001361.5
Multiresidue Pesticides in Soil samples by GCMS						
cis-Chlordane	mg/kg dry wt	-	-	< 0.014	-	-
trans-Chlordane	mg/kg dry wt	-	-	< 0.014	-	-
Chlorfenvinphos	mg/kg dry wt	-	-	< 0.014	-	-
Chlorfluazuron	mg/kg dry wt	-	-	< 0.010	-	-
Chlorothalonil	mg/kg dry wt	-	-	< 0.010	-	-
Chlorpropham	mg/kg dry wt	-	-	< 0.019	-	-
Chlorpyrifos	mg/kg dry wt	-	-	< 0.010	-	-
Chlorpyrifos-methyl	mg/kg dry wt	-	-	< 0.010	-	-
Chlortoluron	mg/kg dry wt	-	-	< 0.019	-	-
Chlozolinate	mg/kg dry wt	-	-	< 0.010	-	-
Coumaphos	mg/kg dry wt	-	-	< 0.019	-	-
Cyanazine	mg/kg dry wt	-	-	< 0.010	-	-
Cyfluthrin	mg/kg dry wt	-	-	< 0.012	-	-
Cyhalothrin	mg/kg dry wt	-	-	< 0.010	-	-
Cypermethrin	mg/kg dry wt	-	-	< 0.03	-	-
Cyproconazole	mg/kg dry wt	-	-	< 0.019	-	-
Cyprodinil	mg/kg dry wt	-	-	< 0.010	-	-
2,4'-DDD	mg/kg dry wt	-	-	< 0.014	-	-
4,4'-DDD	mg/kg dry wt	-	-	< 0.014	-	-
2,4'-DDE	mg/kg dry wt	-	-	< 0.014	-	-
4,4'-DDE	mg/kg dry wt	-	-	0.053	-	-
2,4'-DDT	mg/kg dry wt	-	-	< 0.014	-	-
4,4'-DDT	mg/kg dry wt	-	-	0.019	-	-
Total DDT Isomers	mg/kg dry wt	-	-	< 0.08	-	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	< 0.010	-	-
Diazinon	mg/kg dry wt	-	-	< 0.005	-	-
Dichlobenil	mg/kg dry wt	-	-	< 0.010	-	-
Dichlofenthion	mg/kg dry wt	-	-	< 0.010	-	-
Dichlofluanid	mg/kg dry wt	-	-	< 0.010	-	-
Dichloran	mg/kg dry wt	-	-	< 0.03	-	-
Dichlorvos	mg/kg dry wt	-	-	< 0.010	-	-
Dicofol	mg/kg dry wt	-	-	< 0.05	-	-
Dicrotophos	mg/kg dry wt	-	-	< 0.019	-	-
Dieldrin	mg/kg dry wt	-	-	< 0.014	-	-
Difenoconazole	mg/kg dry wt	-	-	< 0.014	-	-
Dimethoate	mg/kg dry wt	-	-	< 0.019	-	-
Dinocap	mg/kg dry wt	-	-	< 0.11	-	-
Diphenylamine	mg/kg dry wt	-	-	< 0.019	-	-
Diuron	mg/kg dry wt	-	-	< 0.010	-	-
Endosulfan I	mg/kg dry wt	-	-	< 0.014	-	-
Endosulfan II	mg/kg dry wt	-	-	< 0.014	-	-
Endosulfan sulphate	mg/kg dry wt	-	-	< 0.014	-	-
Endrin	mg/kg dry wt	-	-	< 0.014	-	-
Endrin aldehyde	mg/kg dry wt	-	-	< 0.014	-	-
Endrin ketone	mg/kg dry wt	-	-	< 0.014	-	-
EPN	mg/kg dry wt	-	-	< 0.010	-	-
Ethion	mg/kg dry wt	-	-	< 0.010	-	-
Etrimfos	mg/kg dry wt	-	-	< 0.010	-	-
Famphur	mg/kg dry wt	-	-	< 0.010	-	-
Fenarimol	mg/kg dry wt	-	-	< 0.010	-	-
Fenitrothion	mg/kg dry wt	-	-	< 0.010	-	-
Fenpropathrin	mg/kg dry wt	-	-	< 0.010	-	-
Fenpropimorph	mg/kg dry wt	-	-	< 0.010	-	-
Fensulfothion	mg/kg dry wt	-	-	< 0.010	-	-

Sample Type: Soil						
Sample Name:		17201 02-Oct-2025	17202 02-Oct-2025	17203 02-Oct-2025	17204 02-Oct-2025	17205 02-Oct-2025
Lab Number:		4001361.1	4001361.2	4001361.3	4001361.4	4001361.5
Multiresidue Pesticides in Soil samples by GCMS						
Fenvalerate (including Esfenvalerate)	mg/kg dry wt	-	-	< 0.014	-	-
Fluazifop-butyl	mg/kg dry wt	-	-	< 0.010	-	-
Fluometuron	mg/kg dry wt	-	-	< 0.010	-	-
Flusilazole	mg/kg dry wt	-	-	< 0.010	-	-
Fluvalinate	mg/kg dry wt	-	-	< 0.007	-	-
Folpet	mg/kg dry wt	-	-	< 0.019	-	-
Furalaxyl	mg/kg dry wt	-	-	< 0.005	-	-
Haloxyfop-methyl	mg/kg dry wt	-	-	< 0.010	-	-
Heptachlor	mg/kg dry wt	-	-	< 0.014	-	-
Heptachlor epoxide	mg/kg dry wt	-	-	< 0.014	-	-
Hexachlorobenzene	mg/kg dry wt	-	-	< 0.014	-	-
Hexaconazole	mg/kg dry wt	-	-	< 0.010	-	-
Hexazinone	mg/kg dry wt	-	-	< 0.005	-	-
Hexythiazox	mg/kg dry wt	-	-	< 0.05	-	-
Imazalil	mg/kg dry wt	-	-	< 0.05	-	-
Indoxacarb	mg/kg dry wt	-	-	< 0.010	-	-
Iodofenphos	mg/kg dry wt	-	-	< 0.010	-	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	< 0.05	-	-
Isazophos	mg/kg dry wt	-	-	< 0.010	-	-
Isofenphos	mg/kg dry wt	-	-	< 0.005	-	-
Kresoxim-methyl	mg/kg dry wt	-	-	< 0.005	-	-
Leptophos	mg/kg dry wt	-	-	< 0.010	-	-
Linuron	mg/kg dry wt	-	-	< 0.019	-	-
Malathion	mg/kg dry wt	-	-	< 0.010	-	-
Metalaxyl	mg/kg dry wt	-	-	< 0.010	-	-
Methacrifos	mg/kg dry wt	-	-	< 0.010	-	-
Methamidophos	mg/kg dry wt	-	-	< 0.05	-	-
Methidathion	mg/kg dry wt	-	-	< 0.010	-	-
Methiocarb	mg/kg dry wt	-	-	< 0.010	-	-
Methoxychlor	mg/kg dry wt	-	-	< 0.014	-	-
Metolachlor	mg/kg dry wt	-	-	< 0.006	-	-
Metribuzin	mg/kg dry wt	-	-	< 0.010	-	-
Mevinphos	mg/kg dry wt	-	-	< 0.019	-	-
Molinate	mg/kg dry wt	-	-	< 0.019	-	-
Myclobutanil	mg/kg dry wt	-	-	< 0.010	-	-
Naled	mg/kg dry wt	-	-	< 0.05	-	-
Nitrofen	mg/kg dry wt	-	-	< 0.019	-	-
Nitrothal-isopropyl	mg/kg dry wt	-	-	< 0.010	-	-
Norflurazon	mg/kg dry wt	-	-	< 0.019	-	-
Omethoate	mg/kg dry wt	-	-	< 0.05	-	-
Oxadiazon	mg/kg dry wt	-	-	< 0.010	-	-
Oxychlordane	mg/kg dry wt	-	-	< 0.005	-	-
Oxyfluorfen	mg/kg dry wt	-	-	< 0.005	-	-
Paclobutrazol	mg/kg dry wt	-	-	< 0.010	-	-
Parathion-ethyl	mg/kg dry wt	-	-	< 0.010	-	-
Parathion-methyl	mg/kg dry wt	-	-	< 0.010	-	-
Penconazole	mg/kg dry wt	-	-	< 0.010	-	-
Pendimethalin	mg/kg dry wt	-	-	< 0.010	-	-
Permethrin	mg/kg dry wt	-	-	< 0.003	-	-
Phosmet	mg/kg dry wt	-	-	< 0.010	-	-
Phosphamidon	mg/kg dry wt	-	-	< 0.010	-	-
Pirimicarb	mg/kg dry wt	-	-	< 0.010	-	-
Pirimiphos-methyl	mg/kg dry wt	-	-	< 0.010	-	-

Sample Type: Soil						
Sample Name:		17201 02-Oct-2025	17202 02-Oct-2025	17203 02-Oct-2025	17204 02-Oct-2025	17205 02-Oct-2025
Lab Number:		4001361.1	4001361.2	4001361.3	4001361.4	4001361.5
Multiresidue Pesticides in Soil samples by GCMS						
Prochloraz	mg/kg dry wt	-	-	< 0.05	-	-
Procymidone	mg/kg dry wt	-	-	< 0.010	-	-
Prometryn	mg/kg dry wt	-	-	< 0.005	-	-
Propachlor	mg/kg dry wt	-	-	< 0.010	-	-
Propanil	mg/kg dry wt	-	-	< 0.03	-	-
Propazine	mg/kg dry wt	-	-	< 0.005	-	-
Propetamphos	mg/kg dry wt	-	-	< 0.010	-	-
Propham	mg/kg dry wt	-	-	< 0.010	-	-
Propiconazole	mg/kg dry wt	-	-	< 0.007	-	-
Prothiofos	mg/kg dry wt	-	-	< 0.010	-	-
Pyrazophos	mg/kg dry wt	-	-	< 0.010	-	-
Pyrifenox	mg/kg dry wt	-	-	< 0.014	-	-
Pyrimethanil	mg/kg dry wt	-	-	< 0.010	-	-
Pyriproxyfen	mg/kg dry wt	-	-	< 0.010	-	-
Quintozene	mg/kg dry wt	-	-	< 0.019	-	-
Quizalofop-ethyl	mg/kg dry wt	-	-	< 0.010	-	-
Simazine	mg/kg dry wt	-	-	< 0.010	-	-
Simetryn	mg/kg dry wt	-	-	< 0.010	-	-
Sulfentrazone	mg/kg dry wt	-	-	< 0.05	-	-
Sulfotep	mg/kg dry wt	-	-	< 0.010	-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	< 0.019	-	-
Tebuconazole	mg/kg dry wt	-	-	< 0.010	-	-
Tebufenpyrad	mg/kg dry wt	-	-	< 0.005	-	-
Terbacil	mg/kg dry wt	-	-	< 0.010	-	-
Terbumeton	mg/kg dry wt	-	-	< 0.010	-	-
Terbuthylazine	mg/kg dry wt	-	-	< 0.005	-	-
Terbuthylazine-desethyl	mg/kg dry wt	-	-	< 0.010	-	-
Terbutryn	mg/kg dry wt	-	-	< 0.010	-	-
Tetrachlorvinphos	mg/kg dry wt	-	-	< 0.010	-	-
Thiabendazole	mg/kg dry wt	-	-	< 0.05	-	-
Thiobencarb	mg/kg dry wt	-	-	< 0.010	-	-
Tolylfluanid	mg/kg dry wt	-	-	< 0.005	-	-
Triadimefon	mg/kg dry wt	-	-	< 0.010	-	-
Triazophos	mg/kg dry wt	-	-	< 0.010	-	-
Trifluralin	mg/kg dry wt	-	-	< 0.010	-	-
Vinclozolin	mg/kg dry wt	-	-	< 0.010	-	-

Sample Name:		17206 02-Oct-2025	17207 02-Oct-2025	17208 02-Oct-2025	17209 02-Oct-2025	17210 02-Oct-2025
Lab Number:		4001361.6	4001361.7	4001361.8	4001361.9	4001361.10
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	78	-	-
Total Recoverable Arsenic	mg/kg dry wt	-	-	-	-	38
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	5	8	5	8	-
Total Recoverable Cadmium	mg/kg dry wt	0.15	0.35	0.44	0.36	-
Total Recoverable Chromium	mg/kg dry wt	23	22	17	16	-
Total Recoverable Copper	mg/kg dry wt	21	28	30	28	-
Total Recoverable Lead	mg/kg dry wt	13.2	16.3	16.0	9.7	-
Total Recoverable Nickel	mg/kg dry wt	8	12	13	14	-
Total Recoverable Zinc	mg/kg dry wt	64	120	125	210	-
Multiresidue Pesticides in Soil samples by GCMS						
Acetochlor	mg/kg dry wt	-	-	< 0.009	-	-
Alachlor	mg/kg dry wt	-	-	< 0.006	-	-
Aldrin	mg/kg dry wt	-	-	< 0.013	-	-

Sample Type: Soil						
	Sample Name:	17206 02-Oct-2025	17207 02-Oct-2025	17208 02-Oct-2025	17209 02-Oct-2025	17210 02-Oct-2025
	Lab Number:	4001361.6	4001361.7	4001361.8	4001361.9	4001361.10
Multiresidue Pesticides in Soil samples by GCMS						
Atrazine	mg/kg dry wt	-	-	< 0.009	-	-
Atrazine-desethyl	mg/kg dry wt	-	-	< 0.009	-	-
Atrazine-desisopropyl	mg/kg dry wt	-	-	< 0.018	-	-
Azaconazole	mg/kg dry wt	-	-	< 0.005	-	-
Azinphos-methyl	mg/kg dry wt	-	-	< 0.018	-	-
Benalaxyl	mg/kg dry wt	-	-	< 0.005	-	-
Bendiocarb	mg/kg dry wt	-	-	< 0.009	-	-
Benodanil	mg/kg dry wt	-	-	< 0.018	-	-
alpha-BHC	mg/kg dry wt	-	-	< 0.013	-	-
beta-BHC	mg/kg dry wt	-	-	< 0.013	-	-
delta-BHC	mg/kg dry wt	-	-	< 0.013	-	-
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.013	-	-
Bifenthrin	mg/kg dry wt	-	-	< 0.005	-	-
Bitertanol	mg/kg dry wt	-	-	< 0.018	-	-
Bromacil	mg/kg dry wt	-	-	< 0.009	-	-
Bromophos-ethyl	mg/kg dry wt	-	-	< 0.009	-	-
Bromopropylate	mg/kg dry wt	-	-	< 0.009	-	-
Bupirimate	mg/kg dry wt	-	-	< 0.009	-	-
Buprofezin	mg/kg dry wt	-	-	< 0.009	-	-
Butachlor	mg/kg dry wt	-	-	< 0.009	-	-
Captafol	mg/kg dry wt	-	-	< 0.05	-	-
Captan	mg/kg dry wt	-	-	< 0.018	-	-
Carbaryl	mg/kg dry wt	-	-	< 0.009	-	-
Carbofenothion	mg/kg dry wt	-	-	< 0.009	-	-
Carbofuran	mg/kg dry wt	-	-	< 0.009	-	-
cis-Chlordane	mg/kg dry wt	-	-	< 0.013	-	-
trans-Chlordane	mg/kg dry wt	-	-	< 0.013	-	-
Chlorfenvinphos	mg/kg dry wt	-	-	< 0.013	-	-
Chlorfluazuron	mg/kg dry wt	-	-	< 0.009	-	-
Chlorothalonil	mg/kg dry wt	-	-	< 0.009	-	-
Chlorpropham	mg/kg dry wt	-	-	< 0.018	-	-
Chlorpyrifos	mg/kg dry wt	-	-	< 0.009	-	-
Chlorpyrifos-methyl	mg/kg dry wt	-	-	< 0.009	-	-
Chlortoluron	mg/kg dry wt	-	-	< 0.018	-	-
Chlozolinate	mg/kg dry wt	-	-	< 0.009	-	-
Coumaphos	mg/kg dry wt	-	-	< 0.018	-	-
Cyanazine	mg/kg dry wt	-	-	< 0.009	-	-
Cyfluthrin	mg/kg dry wt	-	-	< 0.011	-	-
Cyhalothrin	mg/kg dry wt	-	-	< 0.009	-	-
Cypermethrin	mg/kg dry wt	-	-	< 0.03	-	-
Cyproconazole	mg/kg dry wt	-	-	< 0.018	-	-
Cyprodinil	mg/kg dry wt	-	-	< 0.009	-	-
2,4'-DDD	mg/kg dry wt	-	-	< 0.013	-	-
4,4'-DDD	mg/kg dry wt	-	-	< 0.013	-	-
2,4'-DDE	mg/kg dry wt	-	-	< 0.013	-	-
4,4'-DDE	mg/kg dry wt	-	-	0.015	-	-
2,4'-DDT	mg/kg dry wt	-	-	< 0.013	-	-
4,4'-DDT	mg/kg dry wt	-	-	< 0.013	-	-
Total DDT Isomers	mg/kg dry wt	-	-	< 0.08	-	-
Deltamethrin (including Tralomethrin)	mg/kg dry wt	-	-	< 0.009	-	-
Diazinon	mg/kg dry wt	-	-	< 0.005	-	-
Dichlobenil	mg/kg dry wt	-	-	< 0.009	-	-
Dichlofenthion	mg/kg dry wt	-	-	< 0.009	-	-
Dichlofluanid	mg/kg dry wt	-	-	< 0.009	-	-

Sample Type: Soil						
Sample Name:		17206 02-Oct-2025	17207 02-Oct-2025	17208 02-Oct-2025	17209 02-Oct-2025	17210 02-Oct-2025
Lab Number:		4001361.6	4001361.7	4001361.8	4001361.9	4001361.10
Multiresidue Pesticides in Soil samples by GCMS						
Dichloran	mg/kg dry wt	-	-	< 0.03	-	-
Dichlorvos	mg/kg dry wt	-	-	< 0.010	-	-
Dicofol	mg/kg dry wt	-	-	< 0.05	-	-
Dicrotophos	mg/kg dry wt	-	-	< 0.018	-	-
Dieldrin	mg/kg dry wt	-	-	< 0.013	-	-
Difenoconazole	mg/kg dry wt	-	-	< 0.013	-	-
Dimethoate	mg/kg dry wt	-	-	< 0.018	-	-
Dinocap	mg/kg dry wt	-	-	< 0.10	-	-
Diphenylamine	mg/kg dry wt	-	-	< 0.018	-	-
Diuron	mg/kg dry wt	-	-	< 0.009	-	-
Endosulfan I	mg/kg dry wt	-	-	< 0.013	-	-
Endosulfan II	mg/kg dry wt	-	-	< 0.013	-	-
Endosulfan sulphate	mg/kg dry wt	-	-	< 0.013	-	-
Endrin	mg/kg dry wt	-	-	< 0.013	-	-
Endrin aldehyde	mg/kg dry wt	-	-	< 0.013	-	-
Endrin ketone	mg/kg dry wt	-	-	< 0.013	-	-
EPN	mg/kg dry wt	-	-	< 0.009	-	-
Ethion	mg/kg dry wt	-	-	< 0.009	-	-
Etrimfos	mg/kg dry wt	-	-	< 0.009	-	-
Famphur	mg/kg dry wt	-	-	< 0.009	-	-
Fenarimol	mg/kg dry wt	-	-	< 0.009	-	-
Fenitrothion	mg/kg dry wt	-	-	< 0.009	-	-
Fenpropathrin	mg/kg dry wt	-	-	< 0.009	-	-
Fenpropimorph	mg/kg dry wt	-	-	< 0.009	-	-
Fensulfothion	mg/kg dry wt	-	-	< 0.009	-	-
Fenvalerate (including Esfenvalerate)	mg/kg dry wt	-	-	< 0.013	-	-
Fluazifop-butyl	mg/kg dry wt	-	-	< 0.009	-	-
Fluometuron	mg/kg dry wt	-	-	< 0.009	-	-
Flusilazole	mg/kg dry wt	-	-	< 0.009	-	-
Fluvalinate	mg/kg dry wt	-	-	< 0.007	-	-
Folpet	mg/kg dry wt	-	-	< 0.018	-	-
Furalaxyl	mg/kg dry wt	-	-	< 0.005	-	-
Haloxyfop-methyl	mg/kg dry wt	-	-	< 0.009	-	-
Heptachlor	mg/kg dry wt	-	-	< 0.013	-	-
Heptachlor epoxide	mg/kg dry wt	-	-	< 0.013	-	-
Hexachlorobenzene	mg/kg dry wt	-	-	< 0.013	-	-
Hexaconazole	mg/kg dry wt	-	-	< 0.009	-	-
Hexazinone	mg/kg dry wt	-	-	< 0.005	-	-
Hexythiazox	mg/kg dry wt	-	-	< 0.05	-	-
Imazalil	mg/kg dry wt	-	-	< 0.05	-	-
Indoxacarb	mg/kg dry wt	-	-	< 0.009	-	-
Iodofenphos	mg/kg dry wt	-	-	< 0.009	-	-
IPBC (3-Iodo-2-propynyl-n-butylcarbamate)	mg/kg dry wt	-	-	< 0.05	-	-
Isazophos	mg/kg dry wt	-	-	< 0.009	-	-
Isofenphos	mg/kg dry wt	-	-	< 0.005	-	-
Kresoxim-methyl	mg/kg dry wt	-	-	< 0.005	-	-
Leptophos	mg/kg dry wt	-	-	< 0.009	-	-
Linuron	mg/kg dry wt	-	-	< 0.018	-	-
Malathion	mg/kg dry wt	-	-	< 0.009	-	-
Metalaxyl	mg/kg dry wt	-	-	< 0.009	-	-
Methacrifos	mg/kg dry wt	-	-	< 0.009	-	-
Methamidophos	mg/kg dry wt	-	-	< 0.05	-	-
Methidathion	mg/kg dry wt	-	-	< 0.009	-	-

Sample Type: Soil						
Sample Name:		17206 02-Oct-2025	17207 02-Oct-2025	17208 02-Oct-2025	17209 02-Oct-2025	17210 02-Oct-2025
Lab Number:		4001361.6	4001361.7	4001361.8	4001361.9	4001361.10
Multiresidue Pesticides in Soil samples by GCMS						
Methiocarb	mg/kg dry wt	-	-	< 0.009	-	-
Methoxychlor	mg/kg dry wt	-	-	< 0.013	-	-
Metolachlor	mg/kg dry wt	-	-	< 0.006	-	-
Metribuzin	mg/kg dry wt	-	-	< 0.009	-	-
Mevinphos	mg/kg dry wt	-	-	< 0.018	-	-
Molinate	mg/kg dry wt	-	-	< 0.018	-	-
Myclobutanil	mg/kg dry wt	-	-	< 0.009	-	-
Naled	mg/kg dry wt	-	-	< 0.05	-	-
Nitrofen	mg/kg dry wt	-	-	< 0.018	-	-
Nitrothal-isopropyl	mg/kg dry wt	-	-	< 0.009	-	-
Norflurazon	mg/kg dry wt	-	-	< 0.018	-	-
Omethoate	mg/kg dry wt	-	-	< 0.05	-	-
Oxadiazon	mg/kg dry wt	-	-	< 0.009	-	-
Oxychlordane	mg/kg dry wt	-	-	< 0.005	-	-
Oxyfluorfen	mg/kg dry wt	-	-	< 0.005	-	-
Paclobutrazol	mg/kg dry wt	-	-	< 0.009	-	-
Parathion-ethyl	mg/kg dry wt	-	-	< 0.009	-	-
Parathion-methyl	mg/kg dry wt	-	-	< 0.009	-	-
Penconazole	mg/kg dry wt	-	-	< 0.009	-	-
Pendimethalin	mg/kg dry wt	-	-	< 0.009	-	-
Permethrin	mg/kg dry wt	-	-	< 0.003	-	-
Phosmet	mg/kg dry wt	-	-	< 0.009	-	-
Phosphamidon	mg/kg dry wt	-	-	< 0.009	-	-
Pirimicarb	mg/kg dry wt	-	-	< 0.009	-	-
Pirimiphos-methyl	mg/kg dry wt	-	-	< 0.009	-	-
Prochloraz	mg/kg dry wt	-	-	< 0.05	-	-
Procymidone	mg/kg dry wt	-	-	< 0.009	-	-
Prometryn	mg/kg dry wt	-	-	< 0.005	-	-
Propachlor	mg/kg dry wt	-	-	< 0.009	-	-
Propanil	mg/kg dry wt	-	-	< 0.03	-	-
Propazine	mg/kg dry wt	-	-	< 0.005	-	-
Propetamphos	mg/kg dry wt	-	-	< 0.009	-	-
Propham	mg/kg dry wt	-	-	< 0.009	-	-
Propiconazole	mg/kg dry wt	-	-	< 0.007	-	-
Prothiofos	mg/kg dry wt	-	-	< 0.009	-	-
Pyrazophos	mg/kg dry wt	-	-	< 0.009	-	-
Pyrifenox	mg/kg dry wt	-	-	< 0.013	-	-
Pyrimethanil	mg/kg dry wt	-	-	< 0.009	-	-
Pyriproxyfen	mg/kg dry wt	-	-	< 0.009	-	-
Quintozene	mg/kg dry wt	-	-	< 0.018	-	-
Quizalofop-ethyl	mg/kg dry wt	-	-	< 0.009	-	-
Simazine	mg/kg dry wt	-	-	< 0.009	-	-
Simetryn	mg/kg dry wt	-	-	< 0.009	-	-
Sulfentrazone	mg/kg dry wt	-	-	< 0.05	-	-
Sulfotep	mg/kg dry wt	-	-	< 0.009	-	-
TCMTB [2-(thiocyanomethylthio) benzothiazole,Busan]	mg/kg dry wt	-	-	< 0.018	-	-
Tebuconazole	mg/kg dry wt	-	-	< 0.009	-	-
Tebufenpyrad	mg/kg dry wt	-	-	< 0.005	-	-
Terbacil	mg/kg dry wt	-	-	< 0.009	-	-
Terbumeton	mg/kg dry wt	-	-	< 0.009	-	-
Terbuthylazine	mg/kg dry wt	-	-	< 0.005	-	-
Terbuthylazine-desethyl	mg/kg dry wt	-	-	< 0.009	-	-
Terbutryn	mg/kg dry wt	-	-	< 0.009	-	-
Tetrachlorvinphos	mg/kg dry wt	-	-	< 0.009	-	-

Sample Type: Soil						
Sample Name:		17206 02-Oct-2025	17207 02-Oct-2025	17208 02-Oct-2025	17209 02-Oct-2025	17210 02-Oct-2025
Lab Number:		4001361.6	4001361.7	4001361.8	4001361.9	4001361.10
Multiresidue Pesticides in Soil samples by GCMS						
Thiabendazole	mg/kg dry wt	-	-	< 0.05	-	-
Thiobencarb	mg/kg dry wt	-	-	< 0.009	-	-
Tolylfluanid	mg/kg dry wt	-	-	< 0.005	-	-
Triadimefon	mg/kg dry wt	-	-	< 0.009	-	-
Triazophos	mg/kg dry wt	-	-	< 0.009	-	-
Trifluralin	mg/kg dry wt	-	-	< 0.009	-	-
Vinclozolin	mg/kg dry wt	-	-	< 0.009	-	-

Sample Name:		17211 02-Oct-2025	17212 02-Oct-2025	Composite of 17210 & 17211	Composite of 17213 & 17214	Composite of 17215 & 17216
Lab Number:		4001361.11	4001361.12	4001361.18	4001361.19	4001361.20
Individual Tests						
Total Recoverable Arsenic	mg/kg dry wt	13	-	-	-	-
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	-	7	22	6	8
Total Recoverable Cadmium	mg/kg dry wt	-	0.17	0.32	0.46	0.45
Total Recoverable Chromium	mg/kg dry wt	-	12	40	26	26
Total Recoverable Copper	mg/kg dry wt	-	37	40	31	29
Total Recoverable Lead	mg/kg dry wt	-	7.2	12.7	18.5	16.0
Total Recoverable Nickel	mg/kg dry wt	-	6	17	9	10
Total Recoverable Zinc	mg/kg dry wt	-	82	165	141	70

Sample Name:		Composite of 17212 & 17214
Lab Number:		4001361.21
Individual Tests		
Dry Matter	g/100g as rcvd	62
Organochlorine Pesticides Screening in Soil		
Aldrin	mg/kg dry wt	< 0.016
alpha-BHC	mg/kg dry wt	< 0.016
beta-BHC	mg/kg dry wt	< 0.016
delta-BHC	mg/kg dry wt	< 0.016
gamma-BHC (Lindane)	mg/kg dry wt	< 0.016
cis-Chlordane	mg/kg dry wt	< 0.016
trans-Chlordane	mg/kg dry wt	< 0.016
2,4'-DDD	mg/kg dry wt	< 0.016
4,4'-DDD	mg/kg dry wt	< 0.016
2,4'-DDE	mg/kg dry wt	< 0.016
4,4'-DDE	mg/kg dry wt	< 0.016
2,4'-DDT	mg/kg dry wt	< 0.016
4,4'-DDT	mg/kg dry wt	< 0.016
Total DDT Isomers	mg/kg dry wt	< 0.10
Dieldrin	mg/kg dry wt	< 0.016
Endosulfan I	mg/kg dry wt	< 0.016
Endosulfan II	mg/kg dry wt	< 0.016
Endosulfan sulphate	mg/kg dry wt	< 0.016
Endrin	mg/kg dry wt	< 0.016
Endrin aldehyde	mg/kg dry wt	< 0.016
Endrin ketone	mg/kg dry wt	< 0.016
Heptachlor	mg/kg dry wt	< 0.016
Heptachlor epoxide	mg/kg dry wt	< 0.016
Hexachlorobenzene	mg/kg dry wt	< 0.016
Methoxychlor	mg/kg dry wt	< 0.016

Analyst's Comments

Amended Report: This certificate of analysis replaces report '4001361-SPv1' issued on 10-Oct-2025 at 1:48 pm.
Reason for amendment: Additional testing added, at the request of the client.

Summary of Methods

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

Sample Type: Soil

Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-12, 18-20
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	10-11
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-9, 12, 18-20
Multiresidue Pesticides in Soil samples by GCMS	Sonication extraction, GC-ECD and GC-MS analysis. In-house based on US EPA 8081 and US EPA 8270.	0.003 - 0.06 mg/kg dry wt	3, 8
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	21
Dry Matter	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry) , gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	3, 8, 21
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	-	10-11
Composite Environmental Solid Samples*	Individual sample fractions mixed together to form a composite fraction.	-	10-16
Total Recoverable Arsenic	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	2 mg/kg dry wt	10-11

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

Testing was completed between 06-Oct-2025 and 15-Oct-2025. For completion dates of individual analyses please contact the laboratory.

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

Ara Heron BSc (Tech)
Client Services Manager - Environmental

14.8 Appendix H: Property Title

Table 14-6 Title History

Certificate of Title	From	Registered Owners	Occupation	Area
NZ134D/521	14/05/2001	MyFarm KiwiFruit Fund Limited Partnership	Kiwifruit orcharder	8.52 ha
NA52A/1001	12/08/1982	Thomas Alfred Hayward, Mark Thomas Hayward, Christopher John Hayward, Frederick Michael Hayward.	Realestate agent, soil conservationist, agronomist, labourer	11.91 ha
NA16B/859	20/02/1969	George Robert Cann	Farmer	32.912 ha
NA1069/155	16/04/1953	Charles Leighton Mason	Farmer	33.5 ha
NA644/272	28/04/1933	Morton John Hargraves	Accountant	34.72 ha
NA444/64	10/09/1926	Morton John Hargraves	Accountant	34.8 ha

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA134D/521**
Land Registration District	**North Auckland**
Date Issued	14 May 2001

Prior References
NA52A/1001

Estate	Fee Simple
Area	8.5200 hectares more or less
Legal Description	Lot 1 Deposited Plan 208050

Registered Owners
MyFarm KiwiFruit Fund Limited Partnership

Interests

K42768 Building Line Restriction

922970.1 Gazette Notice declaring adjoining State Highway No 1 (Awanui to Bluff) a limited access road - 8.9.1980 at 10.53 am

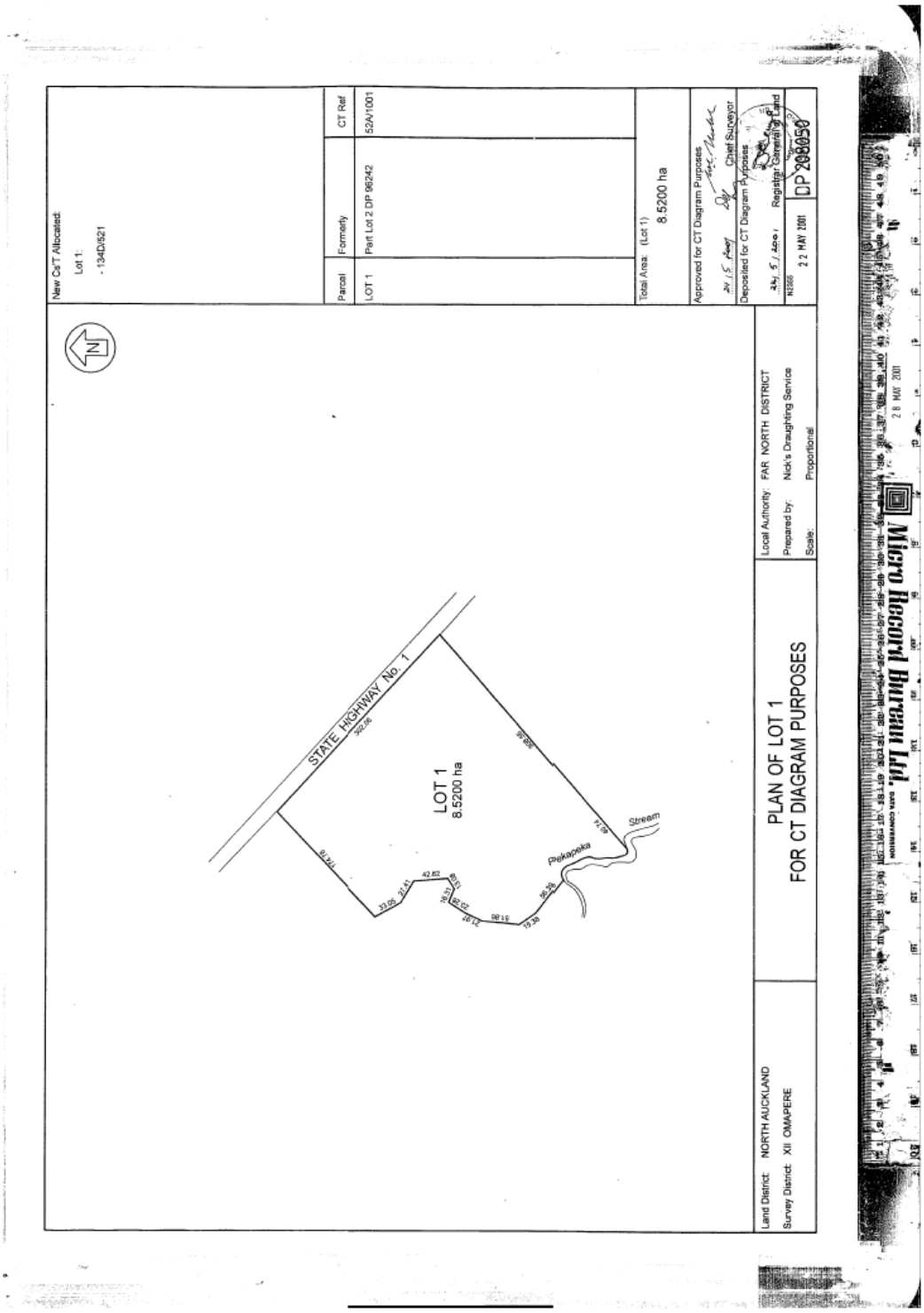
5886709.5 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 4.2.2004 at 9:00 am

13040923.4 Mortgage to ASB Bank Limited - 27.6.2024 at 6:05 pm

Transaction ID 7066088
Client Reference

Search Copy Dated 15/10/25 3:14 pm, Page 1 of 2
Register Only

Identifier **NA134D/521**



14.9 Appendix I: Soil Investigation Design Plan

Sampling and Analysis Plan - Job # 172			Date: 2/10/25
Site Location:	Address:	Grid Reference:	
	71 SH1, Ohaeawai	-35.347918°	173.875313°
Objectives:	**Investigation Objectives:** To identify if any contaminant of concern is present on site and characterise with respect to the proposed new dwelling. Evaluate whether further investigation, remediation, or management measures are necessary. Assess site as to disposal of soil from site re landfill acceptance criteria.		
	Sampling Objectives: Identify distribution of any COI across the area of investigation as per proposed subdivision plan and identified on historic aerials.		
Site History:	Pastoral farming, kiwifruit orchard and polyhouse, shed residential		
Current Landuse:	Kiwifruit orchard, residential		
Intended Landuse:	Residential		
CSM Summary: Refer CSM:	Source	Pathway	Receptor
	Historic use of sprays, spray drfit, accidental release of spray	Gardening, play	Adult, child
Media investgated:	Soil		
Analytes:	Pesticides, heavy metals		
Reference Background Concentration:	Cavanagh, J E, 2016. User Guide: Background soil concentrations and soil guidelinevalues for the protection of ecological receptors (Eco-SGVs) –Consultation Draft		
	https://lris.scinfo.org.nz/layer/48470-pbc-predicted-background-soil-concentrations-new-zealand/		
Sampling Pattern:	Systematic 8 x 5 m grid (red) and judgemental (pink)		
Sample Depths:	0-0.15 m, no depth samples		
Composites:	3 x compsites of 2 samples for Heavy Metals, 1 x composite of 2 for OCP's		
Quality Assurance/Quality Control:	1 x duplicate sample (held cold pending results)		
Sampling Method & Equipment:	Stainless spade		
Decontamination:	Spade: As per section 5.3 Contaminated land management guidelines No 5, 2021		

Soil Investigation Design Plan:				
Sampling preferred order:	Judgemental first, then systematic grid from rear to roadside			
Lab Details:	Name of Lab: Hills	Containers required: PSoil250, G300	Analysis required: HM, OCP, MRP	Other:
Courier Details:	Name of Courier: Aramex	Date sent: 3/10/25	Container used: Small chillybin	Track Number: MX0028545930

14.10 Appendix J: Statement of Qualification as a SQEP

As per the NESCS User Guide Suitably Qualified and Experienced Practitioner requirements Heather Windsor holds a Bachelor of Science degree. She has over 10 years experience investigating and reporting on contaminated land and is a Certified Environmental Practioner (CEnvP).