



Our Reference: 10627.1 (FNDC)

27 August 2024

Resource Consents Department
Far North District Council
JB Centre
KERIKERI

Dear Sir/Madam

RE: Proposed Subdivision of land at 120 Landing Road – Ian Macgregor

I am pleased to submit application on behalf of Ian Macgregor, for a proposed subdivision of land at Landing Road, Kerikeri, zoned Rural Living. The subdivision will create one additional lot. The application is a restricted discretionary activity.

The application fee of \$2,967 has been paid separately via direct credit.

Regards

Lynley Newport
Senior Planner
THOMSON SURVEY LTD



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 Consent representative to discuss this application prior to lodgement? Yes / No

2. Type of Consent being applied for (more than one circle can be ticked):

- Land Use, Fast Track Land Use*, Subdivision (checked), Discharge, Extension of time (s.125), Change of conditions (s.127), Change of Consent Notice (s.221(3)), Consent under National Environmental Standard (e.g. Assessing and Managing Contaminants in Soil), Other (please specify)

*The fast track for simple land use consents is restricted to consents with a controlled activity status and requires you provide an electronic address for service.

3. Would you like to opt out of the Fast Track Process? Yes / No

4. Applicant Details:

Name/s: Ian MacGregor
Electronic Address for Service (E-mail):
Phone Numbers:
Postal Address:
Post Code:

5. Address for Correspondence: Name and address for service and correspondence (if using an Agent write their details here).

Name/s: Lynley Newport; Thomson Survey Ltd
Electronic Address for Service (E-mail):
Phone Numbers:
Postal Address:

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

6. 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: **Ian Macgregor**

Property Address/: **120 Landing Road**
Location **KERIKERI**

7. Application Site Details:

Location and/or Property Street Address of the proposed activity:

Site Address/ **120 Landing Road**
Location: **KERIKERI**

Legal Description: **Lot 1 DP 439419**

Record of Title: **544679**

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

Site Visit Requirements:

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

Is there a dog on the property? Yes / No

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

Please contact applicant in advance of any site visit, by phone and email.

8. Description of the Proposal:

Please enter a brief description of the proposal here. Attach a detailed description of the proposed activity and drawings (to a recognized scale, e.g. 1:100) to illustrate your proposal. Please refer to Chapter 4 of the District Plan, and Guidance Notes, for further details of information requirements.

Subdivision in the Rural Living Zone to create two lots (one additional).

If this is an application for an Extension of Time (s.125); Change of Consent Conditions (s.127) or 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) or extension being sought, with reasons for requesting them.

9. Would you like to request Public Notification?

Yes/No

10. Other Consent required/being applied for under different legislation (more than one circle can be ticked):

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

11. 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 (further information in regard to this NES is available on the Council's planning web pages):

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? (If the activity is any of the activities listed below, then you need to tick the 'yes' circle). 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

12. 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.

Please attach your AEE to this application.

13. 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 all names in full) IAN MACGREGOR

Email: _____

Postal Address: _____

Phone Numbers: _____

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

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

Name: IAN MACGREGOR (please print)

Signature: _____ (signature of bill payer – **mandatory**) Date: 27-8-24

14. 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.

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

Name: IAN MACDONALD (please print)

Signature:  (signature)

Date: 27-8-24

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

Checklist (please tick if information is provided)

- Payment (cheques payable to Far North District Council)
- A current Certificate of Title (Search Copy not more than 6 months old)
- 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.

Digital Applications may be submitted via E- mail to: Planning.Support@fndc.govt.nz

Only one copy of an application is required, but please note for copying and scanning purposes, documentation should be:

UNBOUND

SINGLE SIDED

NO LARGER THAN A3 in SIZE

Ian MacGregor

PROPOSED SUBDIVISION

120 Landing Road, Kerikeri

**PLANNER'S REPORT &
ASSESSMENT OF ENVIRONMENTAL EFFECTS**



**Thomson Survey Ltd
Kerikeri**

1.0 INTRODUCTION

1.1 Summary of Proposal

The applicant proposes to subdivide their land at 120 Landing Road, Kerikeri, to create one additional vacant lot – total of two lots. Proposed Lot 1 is the vacant lot to be created and will be 4010m² in area. Proposed Lot 2 will support the existing house and sheds and will be 4658m² in area. The property is served by an existing appurtenant easement, off Landing Road, immediately opposite the Riverview Road intersection. This shared access serves the application site, the property to the east of the application site, and two properties beyond the application site to the east (total of four titles). This proposed subdivision will add one title, bringing the total to five.

Copies of proposed scheme plans are attached in Appendix 1. A Location Map is attached in Appendix 2.

Because the subdivision will result in a reduced total site area containing all the existing impermeable surface coverage, a breach of the permitted activity stormwater management coverage (12.5%) will result. The reduced lot area around existing buildings will also result in a breach of the zone's permitted building coverage (10%).

1.2 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 land in one title to create 2 lots, as a controlled activity subdivision and restricted discretionary land use activity under the Operative District Plan, resulting in a restricted discretionary activity status overall.

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:	120 Landing Road, Kerikeri
Legal description:	Lot 1 DP 439419
Record of Title:	544679 with an area of 8668m ² . A copy is attached in Appendix 3, along with relevant interests.

3.0 SITE DESCRIPTION

3.1 Physical & Mapped characteristics

The site is zoned Rural Living in the Operative District Plan (ODP) and Rural Residential in the Proposed District Plan (PDP). No resource features apply and no overlays apply.

The property is located down a right of way on the western side of Landing Road, Kerikeri. The western half of the property consists of vacant lawn, with existing built development located in the eastern half. The property is attractively landscaped around its boundaries and around the existing house.

The existing development is a single storey residence and two sheds, accessed via a driveway off the shared ROW.

The site generally slopes to the west at grades of less than 2°. The site is not serviced by any of the Council's 3 water services.

The site's geology consists of *basalt lava, volcanic plugs and minor tuff*, part of the Kerikeri Volcanic Group Miocene basalt of Kaikohe-Bay of Islands. The site is mapped as containing LUC class 2 soils.

The site is not mapped as being subject to any flood hazard (NRC on-line hazard maps). The site is not mapped as containing any high or outstanding natural or landscape values and does not contain any scheduled or mapped heritage sites, archaeological sites or Sites of Significance to Maori. The site does not contain any areas of indigenous bush or scrubland. The site is not within a high density or kiwi present area.

3.2 Legal Interests on Titles

The property has appurtenant water and drainage rights via Transfer A292271 and Easement Certificate C019578.6. It also has appurtenant right of way, right to convey water, right to convey and transmit electricity, telecommunications and computer media via Easement Instrument 870408.6 – a copy of which is attached in Appendix 3.

The property is subject to Consent Notice 8704084.5, a copy of which is also attached in Appendix 3. This has four clauses relevant to the application site, the fifth clause only applying to the adjacent property. These clauses relate to wastewater treatment (at time of building consent); and roof water collection for fire fighting purposes (also at time of building consent). Both can be complied with because although it is not necessarily proposed to install the wastewater system specified in the consent notice, provision is made in the consent notice for an alternative system.

The consent notice also prevents any new structures within the area marked 'X' on DP 439419. This area is marked 'A' and 'B' on the scheme plan in Appendix 1, shown as subject to the consent notice. The final clause of relevance is one that requires the lot owners to agree that the far North District Council and its successors and assigns, shall have the right to acquire the land in "A" "B", "C" and "Y" on the "occupation diagram" attached to the consent notice, to enable a "road to be created in the future". That occupation diagram forms part of the Consent Notice attached in Appendix 3. The consent notice states that the Council shall not require the registered proprietors for lots to contribute to the cost of construction of any road constructed. This clause will carry over onto both new allotments.

3.3 Consent History

The property file lists two resource consents relevant to the site. These are RC 2030124-RMASUB, and subsequent Variation; and RC 2110172-RMASUB. These do not appear to have been proceeded with.

RC 2110172 was issued in December 2010 and created two lots, including the application site. This consent imposed the consent notice referred to above, including the restrictive covenants.

Since the creation of the original two lots, one of these (adjacent to the application site) has been further subdivided into two lots.

Building Consent history consists of BC-2002-1876 for a new shed / workshop / boat storage & garage building (which appears to relate to the adjacent site), and BC-2014-1155, issued in 2014 for a 3-bedroom, 2 bathroom dwelling with attached garage and on site effluent system.

4.0 SCHEDULE 4 – INFORMATION REQUIRED IN AN APPLICATION

Clauses 2 & 3: Information required in all applications

<i>(1) An application for a resource consent for an activity must include the following:</i>	
<i>(a) a description of the activity:</i>	Refer Sections 1 of this Planning Report.
<i>(b) an assessment of the actual or potential effect on the environment of the activity:</i>	Refer to Section 6 of this Planning Report.
<i>(b) a description of the site at which the activity is to occur:</i>	Refer to Section 3 of this Planning Report.
<i>(c) the full name and address of each owner or occupier of the site:</i>	This information is contained in the Form 9 attached to the application.
<i>(d) a description of any other activities that are part of the proposal to which the application relates:</i>	Refer to Sections 3 and 5 of this Planning Report. The application is for consent pursuant to the ODP.
<i>(e) a description of any other resource consents required for the proposal to which the application relates:</i>	No other consents are required other than that being applied for pursuant to the ODP.
<i>(f) an assessment of the activity against the matters set out in Part 2:</i>	Refer to Section 7 of this Planning Report.
<i>(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):</i> <i>(a) any relevant objectives, policies, or rules in a document; and</i> <i>(b) any relevant requirements, conditions, or permissions in any rules in a document; and</i> <i>(c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).</i>	Refer to Sections 7 of this Planning Report.

<p><i>(3) An application must also include any of the following that apply:</i></p>	
<p><i>(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 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)):</i></p>	<p>Refer sections 3 and 5. The site supports a residential dwelling and ancillary building, legally established and permitted activities.</p> <p>These buildings, and associated impermeable surfaces, whilst legally established permitted activities, will no longer comply with the ODP's permitted standards once Lot 2 is created with smaller total site area.</p>
<p><i>(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)):</i></p>	<p>There is no existing resource consent. Not applicable.</p>
<p><i>(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)).</i></p>	<p>The site is not within an area subject to a customary marine title group. Not applicable.</p>

Clause 4: Additional information required in application for subdivision consent

<p><i>(4) An application for a subdivision consent must also include information that adequately defines the following:</i></p>	
<p><i>(a) the position of all new boundaries:</i> <i>(b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan:</i> <i>(c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips:</i> <i>(d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips:</i> <i>(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:</i> <i>(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):</i> <i>(g) the locations and areas of land to be set aside as new roads.</i></p>	<p>Refer to Scheme Plans in Appendix 1.</p>

Clause 5: Additional information required for application for reclamation – not applicable.

Clause 6: Information required in assessment of environmental effects

<i>(1) An assessment of the activity's effects on the environment must include the following information:</i>	
<i>(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 methods for undertaking the activity:</i>	Refer to Section 6 of this planning report. The activity will not result in any significant adverse effect on the environment.
<i>(b) an assessment of the actual or potential effect on the environment of the activity:</i>	Refer to Section 6 of this planning report.
<i>(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:</i>	Not applicable as the application does not involve hazardous installations.
<i>(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:</i>	The subdivision does not involve any discharge of contaminant.
<i>(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:</i>	Refer to Section 6 of this planning report.
<i>(f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted:</i>	Refer to Section 6 of this planning report. No affected persons are identified.
<i>(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:</i>	No monitoring is required as the scale and significance of effects does not warrant any.
<i>(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</i>	No protected customary right is affected.

(unless written approval for the activity is given by the protected customary rights group).

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

<i>(1) An assessment of the activity's effects on the environment must address the following matters:</i>	
<i>(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:</i>	Refer to Sections 6 and 8 of this planning report and also to the assessment of objectives and policies in Section 7.
<i>(b) any physical effect on the locality, including any landscape and visual effects:</i>	Refer to Section 6. The proposed activity will have no more than minor effects on the physical environment and landscape and visual amenity values.
<i>(c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:</i>	Refer to Section 6. The proposal will have no more than minor effects on habitat and ecosystems.
<i>(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:</i>	Refer to Section 6, and above comments
<i>(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:</i>	The subdivision will not result in the discharge of contaminants, nor any unreasonable emission of noise.
<i>(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.</i>	The subdivision site is not subject to natural hazards and does not involve hazardous installations.

5.0 ACTIVITY STATUS

5.1 Operative District Plan

The site is zoned Rural Living, with no resource features.

Subdivision:

Table 13.7.2.1: Minimum Lot Sizes

(i) RURAL LIVING 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 4,000m ²		The minimum lot size is 3,000m ²

Both lots are in excess of 4000m². The subdivision is a **controlled** subdivision activity.

Zone Rules

As a result of the subdivision creating a smaller area of land around existing buildings/impermeable surfaces, land use consent is required for that existing coverage to be within proposed Lot 2. The total coverage comes to 905.5m², or 19.4% of proposed total site area, complying with the controlled activity threshold specified in 8.7.5.2.2 (20% coverage).

The existing building coverage will also all be within Lot 2 and comes to 500.5m² (10.7%), very slightly over the zone's permitted activity threshold for building coverage of 10%.

In summary, consent is sought for breaches of rules 8.7.5.1.5 and 8.7.5.1.13; only insofar as existing coverage to be within proposed Lot 2.

District Wide Rules:

12.3.6.1.2 Excavation and/or Filling – Zone provides for up to 300m³ in any 12 month period. The only earthworks required at time of subdivision will be formation and upgrading of an entranceway into the new vacant lot. This work will all take place on reasonably level ground, minimising depth of any cut to fill operation. It is doubtful that the earthworks volume will exceed 300m³ and there should be no cut/fill face higher than 1.5m.

The site contains nothing to which Chapters 12.1, 12.2, 12.4, 12.5, or 12.7 relate to. The activity does not involve Hazardous Facilities or Storage.

Rules in Chapter 15.1 Traffic, Parking and Access:

The number of lots using the private access will go from 4 to 5. This results in a requirement for a 5m wide metal carriageway up to the point of the first property served, and 3m metal carriageway beyond that, with passing bays as required. The existing crossing to Landing Road is expansive, and already formed in excess of double width standard.

Summary

The subdivision is a controlled subdivision activity, but the minor breach of building coverage defaults to a restricted discretionary land use activity. As a 'bundled' application, the more restrictive category of consent applies, and this means an overall category of restricted discretionary under the Operative District Plan.

5.2 Proposed District Plan

The Proposed District Plan (PDP) was publicly notified on 27th July 2022. Legal effect must be given to any rules that the Council has identified in the PDP as having immediate legal effect. Such rules may affect activity status of an application. In this instance I have

examined the PDP, where the application site is zoned Rural Residential. There are no zone rules that have legal effect and therefore rules applying to the Rural Residential Zone do not have to be considered in regard this application, or its activity status.

In regard to district wide considerations in the PDP, the only rules in the Subdivision chapter that are marked as having immediate legal effect are those pertaining to Environmental Benefit Subdivisions (not applicable in this instance); Subdivision of a site within a heritage area overlay (again not applicable); Subdivision of a site that contains a scheduled heritage resource (again not applicable); Subdivision of a site containing a scheduled site and area of significance to Maori (not applicable); and Subdivision of a site containing a scheduled SNA (not applicable).

There are two earthworks rules and associated standards in the PDP that have legal effect. The requirements of those rules – related to observance of the ADP, and G05 Erosion and Sediment Control standards, can be achieved via conditions of consent.

In summary, I have not identified any rules in the PDP that have immediate legal effect and must therefore be considered in determining activity status for this proposal.

The Objectives and Policies of the PDP are addressed in Section 7.2 of this report.

6.0 ASSESSMENT OF ENVIRONMENTAL EFFECTS

6.1 Allotment Sizes and Dimensions

Proposed Lot 2 will contain all existing built environment. Proposed Lot 1 is 39m wide and 95m long, meaning there is ample scope to accommodate a 30m x 30m square building envelope complying with setback provisions (3m from boundaries). I consider both lots to be of a size and shape suitable for their intended purpose.

6.2 Natural and Other Hazards

Council GIS maps do not indicate any overland flow paths or flooding hazards in proximity to the property. The land is not erosion prone. The land is not at risk of coastal hazard or sea level rise, nor wildfire. The site is not at risk of alluvion, avulsion, subsidence, rock fall or slippage.

There is no reason under either s106 of the Resource Management Act, or s72 of the Building Act, as to why development cannot occur on the proposed vacant lot or why this subdivision should be granted.

6.3 Water Supply

Reticulated water connections are not available. The existing site is reliant on roof catchment and so too will the new lot be. The application site is already subject to a consent notice requiring adequate fire fighting water supply, along with potable supply. There is no need to re-impose a consent notice in this regard.

6.4 Energy Supply & Telecommunications

The property is zoned Rural Living, a non-urban zone where power and telecommunications is not a requirement at time of subdivision. Notwithstanding this, consultation has been carried out with both Top Energy and Chorus and confirmation received that connections are available.

6.5 Stormwater Disposal

The Site Suitability Report supporting the application (Appendix 4) addresses stormwater management in its section 6, for both lots. The report acknowledges the breach of the permitted coverage for the existing impermeable surfaces to all be within Lot 2, and makes some recommendations in regard to upgrading existing mechanisms to provide for attenuation back to permitted activity level. These small upgrades can be a condition at 224c stage.

The report confirms that future development within Lot 1 will be able to meet / comply with the permitted 12.5% impermeable coverage allowable. This being the case, there need be no specific requirement (including no consent notice condition) in regard Lot 1's future development. Reliance can instead be placed on the requirements of the Building Act in regard to stormwater management, at time of building consent.

In the event that future development exceeds the permitted coverage, the Site Suitability Report provides commentary and recommendations under three scenario's within the controlled activity threshold – 15%; 17.5% and 20% coverage. This has been done simply to show that runoff from coverage exceeding the permitted activity threshold can be adequately and appropriately managed on site. Given that it is by no means a certainty that the permitted threshold will be breached, I see no need to include a consent notice requiring specific stormwater management assessment and reporting for Lot 1. If consent is required by a future lot owner for exceeding the permitted threshold then part of that consent would surely be the provision of a stormwater management report and design for the approval of the Council.

Put simply, unless there is an identified issue in regard to stormwater management for either lot, there is no need to impose an ongoing condition (consent notice) requiring anything over and above what is required as part of a building consent process in any event.

6.6 Sanitary Sewage Disposal

The Site Suitability Report's section 5 provides commentary and assessment in regard to on site wastewater treatment and disposal. No existing system is currently located within proposed vacant Lot 1. The Site Suitability Report includes design parameters for a 6 persons dwelling on Category 5 soils. The report anticipates compliance with the Regional Plan's permitted activity standards.

The Report briefly assesses the existing system within Lot 2, recommending that a drainlayer or other suitably qualified person confirm (at s223 stage) that the disposal field for Lot 2's system is entirely within new lot boundaries and the system is functioning as it is designed to.

6.7 Easements for any purpose

There are no existing easements to which the new lots will be subject to, and no new easements are proposed or necessary. The property's existing appurtenant easements will carry down in favour of the new lot as well as the existing.

6.8 Property Access

The existing entrance into the appurtenant ROW leading to the site is in excess of double width formation.



Existing crossing, with Riverview Road opposite.

The crossing is over existing footpath. Seal repair work could be carried out to improve the surface of the existing crossing where there is existing seal.

Going into the shared ROW, the first section is wide and easily able to accommodate two-way traffic. Refer to photograph below and over page.



View towards application site



Reverse view, leaving application site

Once the first property served exits (their driveway entrance as left of above picture, the remainder of the driveway narrows to generally 3m metal carriageway width. See below.



Balance of shared driveway. Application site is accessed via concrete driveway crossing – see middle of photo, on right hand side of driveway

The existing carriageway could be widened at the point of existing and future crossings serving the subdivision's lots to provide for passing bays.

In summary, I believe the existing access to be fit for purpose and able to accommodate the one additional lot, with some minor upgrading as referenced above.

6.9 Effects of Earthworks

Very little earthworks will be required to give effect to the subdivision other than that required for crossings.

6.10 Building Locations

There are no constraints as to the location of a building within the vacant lot in terms of physical attributes such as flood risk or ground conditions. The site contains good ground and can accommodate residential use with on site wastewater and stormwater management.



Likely location within Lot 1 for a new dwelling

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

The site is zoned Rural Living with no resource feature overlays. It contains no features mapped as having any high or outstanding landscape or natural values and no mapped biodiversity wetlands. There is no land set aside for conservation purposes within the application site.

Vegetation/habitat

Within the application site there are no areas of significant indigenous vegetation or habitat. Any vegetation within the site is landscaping/gardens.

Fauna

The site is not identified as being within either a kiwi present or high density kiwi area. No restriction on the keeping of cats or dogs on the lots is considered necessary other than and cats or dogs kept on the lots be tied up or kept inside at night.

Heritage/Cultural

There are no listed or mapped Sites of Significance to Maori on the application site, nor any historic buildings, sites, notable trees or archaeological sites as mapped and/or listed in the

District Plan or Far North Maps. The site is outside the Kerikeri Basin Heritage Precinct Visual Buffer Area. There are no water bodies within or adjacent to the site.

6.12 Soil

The site is zoned for large lot living as opposed to productive use. The PDP reinforces this zoning and the intent of Council to see large lot residential development along Landing Road. The proposal enables large lot residential development, with scope within each site for landscaping and gardens. The life supporting capacity of soils will not be unduly compromised.

6.13 Access to, and protection of, waterbodies

There is no qualifying water body that would require the provision of access. There are no natural water bodies within or adjoining the site, which is some distance from the Kerikeri Inlet.

6.14 Land use compatibility (reverse sensitivity)

The area is now predominantly large lot residential in nature. The development of the site into lots of a size similar to others in the area, will not create adverse land use compatibility issues. The site is not adjacent to any land utilised for horticulture, being surrounded by residential use.

6.15 Proximity to Airports

The site is outside of any identified buffer area associated with the Bay of Islands 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

Individual future lot owners may take the opportunity to install energy efficiency devices when they build.

6.18 National Grid Corridor

The National Grid does not run through the application site.

6.19 Effects on Character and Amenity

The character and amenity of Landing Road is one of large lot residential use, with attractive grounds and a generous built environment to open space ratio. The proposal is consistent with this. Both lots comply with the controlled activity minimum lot size for the zone. The vacant lot is able to support built development in compliance with the zone's impermeable and building coverage rules.



View from existing dwelling onto the new proposed lot's likely building area – note intervening planting.

I believe the new PDP's intention to zone the area "Rural Residential" gives a clear indication the FNDC acknowledges the growing residential nature (and demand for housing) of the area. The site can support a residence and on site servicing and maintain the character and amenity of the area. Adverse effects on character and amenity are considered less than minor. Private open space on each lot can be readily accommodated.

6.20 Positive Effects

When carrying out an assessment of effects, an applicant and consent authority are able to, and should, take into account positive effects both on their own merit and as offsetting any potential negative effect.

The proposal allows for people to provide for their economic and social wellbeing. The creation and availability of an additional large lot residential property, close to town, road, cycling and pedestrian networks; provides an attractive option for all family types, from retired couples through to young families. I believe it is essential to provide existing and future residents in the community a choice of lifestyle / residential living options throughout the District.

6.21 Other Matters

Cumulative Effect:

I believe the site can absorb the effects of additional built development without adverse cumulative effects. The proposal is consistent with the zone's permitted residential intensity - 1 dwelling per 4000m².

Precedent Effect:

The proposal does not set any negative precedent given that it is consistent with the zone's permitted residential intensity and only marginally exceeding site coverage in terms of the

existing built development. The vacant lot can be developed within permitted activity residential intensity thresholds.

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 Chapters 8.7 (Rural Living Zone); and 13 (Subdivision), of the District Plan. These are listed and discussed below where relevant to this proposal.

Subdivision Objectives & Policies

Being consistent with the zone's controlled activity lot sizes, the proposal is considered to be entirely consistent with the subdivision chapter's objectives and 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 proposed subdivision promotes sustainable management and is an efficient use and development of the land. It will provide for the social and economic well being of people and communities.

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

The subdivision is appropriate and will be carried out in a manner that does not compromise the life-supporting capacity of air, water, soils or ecosystems. Actual or potential adverse effects can be avoided, remedied or mitigated.

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. By proposing development on land that is none of these things, the proposal is consistent with these objectives as the proposal will not create any adverse effects on the values and character outlined in the two objectives.

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 proposal includes provision for a future lot to provide for its own on-site water storage for potable use. Fire fighting supply can also be accommodated on the lot. Stormwater management has been addressed in supporting reports and can be designed to ensure no off site adverse effects.

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 site does not include or adjoin any waterbody. The site can accommodate on site wastewater treatment and disposal as well as stormwater management. 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.

Top Energy has confirmed that electricity can be provided, albeit the proposal is non urban and connections are not a requirement of the ODP.

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.

A future lot owner will have sufficient scope within the site to include energy efficiencies within their individual home designs, via active means such as solar panels, or passive design strategies such as sky lights and orientation.

The subdivision has access off a Council road and is close to the Kerikeri township and road network.

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, along with existing uses, have been discussed earlier in this report. I believe adequate 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 site is off an existing public road (sealed), and then via internal ROW. The access is existing with no clearance of indigenous vegetation required for the formation of any new access. Appropriate sediment and erosion control measures will be put in place for any earthworks required for any minimal subdivision site works.

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

The site is not subject to any hazard.

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.

It is envisaged that internal to the site, utility services will be underground.

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 is not known to contain any of the natural and physical resources listed in 13.4.6.

Policy 13.4.7 is not discussed as this relates to carparking associated with non residential activities (not relevant) or esplanade areas, none of which are required or considered necessary.

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

This is discussed earlier. Each lot can provide for on-site water storage.

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.

Subdivision

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 will create potential for one additional dwelling within an area with an existing large lot residential character, in a manner that has little or no impact on natural character, indigenous vegetation, landforms, rivers, streams or wetlands;

(b) The resulting level of residential intensity will be compliant with the zone's permitted standard;

(c) The site is not in the coastal environment;

(d) The site does not adjoin any stream or river and no public access is therefore required;

(e) The proposal is not believed to negatively impact on the relationship of Maori with their culture;

(f) There are no existing significant habitat or areas of significant indigenous vegetation;

(g) There are no identified heritage values;

(h) An acceptable stormwater management design forms part of the application; and

(i) The site is not subject to hazard.

I consider the proposal to be consistent with Policy 13.4.13.

Subdivision

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.

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

The additional lot can readily provide for a house site with good access to sunlight and the ability to utilise energy efficiency measures. The site is close to transport networks.

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.

Rural Living Zone Objectives and Policies

Objectives:

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

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

I believe the proposed subdivision to be capable of providing for development that will be in keeping with, and compatible with, the character and amenity of the area.

And policies

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

8.7.4.2 That the Rural Living Zone be applied to areas where existing subdivision patterns have led to a semi-urban character but where more intensive subdivision would result in adverse effects on the rural and natural environment.

See above comments under Objectives.

8.7.4.3 That residential activities have sufficient land associated with each household unit to provide for outdoor space, and where a reticulated sewerage system is not provided, sufficient land for onsite effluent disposal.

The proposed vacant lot retains sufficient land associated with a future household to provide outdoor space and sufficient land for onsite effluent disposal.

Subdivision

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

A dwelling can be constructed on the vacant lot with adequate access to sunlight and daylight.

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

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

The above two policies are not relevant to a subdivision application.

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

The privacy of inhabitants of buildings on adjoining sites is not adversely affected. The properties around the site are already built on and are of a size similar to the vacant lot being proposed. The density level proposed is consistent with the permitted activity residential intensity applying in the zone. I believe this, and the size and shape of the lot, result in there being sufficient provision made for a reasonable level of privacy for the inhabitants of buildings on adjacent sites.

In summary, I believe the proposal is consistent with the Rural Living Zone objectives and policies.

7.2 Proposed District Plan Objectives and Policies

The following is an assessment of the proposal against relevant objectives and policies in the PDP.

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

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

SUB-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

Subdivision

b. where no existing connection is available infrastructure should be planned and consideration be given to connections with the wider infrastructure network.

SUB-O4

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

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

The subdivision results in the efficient use of land. It contributes to the local character and sense of place and reverse sensitivity issues are not unduly increased. It also avoids land use patterns which would prevent land from achieving the objectives and policies of the zone. The subdivision does not increase the risk from natural hazards, because there are none, and manages adverse effects (SUB-O1). The site is not utilised for productive purposes and is not proposed to be zoned for productive use, so the subdivision has no need to protect productive land. The site contains none of the items listed in SUB-O2(b).

The site is not connected to Council services, but the lots will have, or already have, appropriate service connections (SUB-O3). Supporting technical reports conclude the site can support on-site wastewater and stormwater, and can also provide for water supply. The site is located close to town and public open spaces. The site does not adjoin the coastal marine area or any other 'qualifying' water bodies (SUB-O4).

SUB-P1 Enable boundary adjustments that:

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

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.

I believe the proposed allotments will be consistent with the purpose, characteristics and qualities of the zone. The PDP proposes 4000m² sites as a controlled activity minimum lot size. The lots have adequate size and shape to contain buildings and the site has 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 site has existing access, contains no waterbodies, areas of biodiversity, historical or cultural values or hazards.

SUB-P5

Manage subdivision design and layout in the General Residential, Mixed Use and Settlement zone to provide for safe, connected and accessible environments by:

- a. minimising vehicle crossings that could affect the safety and efficiency of the current and future transport network;
- b. avoid cul-de-sac development unless the site or the topography prevents future public access and connections;
- c. providing for development that encourages social interaction, neighbourhood cohesion, a sense of place and is well connected to public spaces;
- d. contributing to a well connected transport network that safeguards future roading connections; and
- e. maximising accessibility, connectivity by creating walkways, cycleways and an interconnected transport network.

The site is not zoned any of the zones referenced by this Policy.

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

- a. demonstrating that the subdivision will be appropriately serviced and integrated with existing and planned infrastructure if available; and
- b. ensuring that the infrastructure is provided in accordance with the purpose, characteristics and qualities of the zone.

The sites can be serviced with on-site wastewater and stormwater management, and on-site water storage. Power and telecommunications are available.

SUB-P7

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

The site does not adjoin any waterbody.

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

Site is not zoned Rural Production.

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 site is not zoned either Rural Production or Rural Lifestyle and the subdivision is not a Management Plan.

SUB-P10

To protect amenity and character by avoiding the subdivision of minor residential units from principal residential units where resultant allotments do not comply with minimum allotment size and residential density.

Not applicable. There are no minor residential units.

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:

Subdivision

-
- 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.

As the proposal does not require consent pursuant to the PDP, the above policy has limited relevance. Notwithstanding this, I believe the proposal has adequately taken into account all of the matters listed above.

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

Rural Residential Zone Objectives:

RRZ-O1 *The Rural Residential zone is used predominantly for rural residential activities and small scale farming activities that are compatible with the rural character and amenity of the zone.*

RRZ-O2 *The predominant character and amenity of the Rural Residential Zone is maintained and enhanced, which includes:*

- a. peri-urban scale residential activities;
- b. small-scale farming activities with limited buildings and structures;
- c. smaller lot sizes than anticipated in the Rural Production or Rural Lifestyle Zones; and
- d. a diverse range of rural residential environments reflecting the character and amenity of the adjacent urban area.

RRZ-O3 *The Rural Residential zone helps meet the demand for growth around urban centres while ensuring the ability of the land to be rezoned for urban development in the future is not compromised.*

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

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

The site is utilised for residential living (RRZ-O1). The predominant character and amenity of the zone and immediate vicinity is not adversely affected (RRZ-O2). The site is already partially developed, supporting residential living (RRZ-O3). There is high demand for residential living in locations such as this, with ready access to road and footpaths and not far from the town centre. I do not believe the proposal significantly adds to reverse sensitivity effects (RRZ-O4).

RRZ-P1 *Enable activities that will not compromise the role, function and predominant character and amenity of the Rural Residential Zone, while ensuring their design, scale and intensity is appropriate, including:*

- a. rural residential activities;
- b. small-scale farming activities;
- c. home business activities;

Subdivision

- d. visitor accommodation; and
- e. small-scale education facilities.

RRZ-P2 Avoid activities that are incompatible with the role, function and predominant character and amenity of the Rural Residential Zone including:

- a. activities that are contrary to the density anticipated for the Rural Residential Zone;
- b. primary production activities, such as intensive indoor primary production or rural industry, that generate adverse amenity effects that are incompatible with rural residential activities; and
- c. commercial or industrial activities that are more appropriately located in an urban zone or a Settlement Zone.

RRZ-P3 Avoid where possible, or otherwise mitigate, reverse sensitivity effects from sensitive and other non-productive activities on primary production activities in adjacent Rural Production Zones and Horticulture Zones.

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

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

RRZ-P5 Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:

- a. consistency with the scale and character of the rural residential environment;
- b. location, scale and design of buildings or structures;
- c. at zone interfaces:
 - i. any setbacks, fencing, screening or landscaping required to address potential conflicts;
 - ii. the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;
- d. the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
- e. the adequacy of roading infrastructure to service the proposed activity;
- f. managing natural hazards;
- g. any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity; and
- h. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

The land use on the site is residential, with additional residential use proposed. This is an activity expected in the zone (RRZ-P1). The existing land use is not incompatible with the role, function and predominant character and amenity of the zone (RRZ-P2). Reverse sensitivity effects are not increased given the existing land uses around the site (RRZ-P3). In addition the area is not 'zoned' under the PDP for continued rural production use. Services that are required to be provided will be available (RRZ-P4). All of the matters in RRZ-P6, where relevant, have been considered and the proposal is considered consistent with the policy.

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 application site does not contain or display any of the features, resources or values outlined in Section 6.

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), (d) and (f). Clause 7(i) has also been considered in regard to stormwater design. It is considered that the proposal represents efficient use and development of a site. Proposed layout and open space, along with waste water and stormwater management proposals, will ensure the maintenance of amenity values and the quality of the environment. The proposal has had regard to the values of ecosystems.

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

The application site has not, as far as I can ascertain, been historically used for horticulture or any other HAIL activity. I have perused historic aerial imagery, dated 1951, 1953, 1972, 1980, 2000, 2005 and 2014 and none indicate horticultural activity on the site. The site is not mapped on either Far North Maps, or NRC's Selected Land Use layer, as being a HAIL site. I do not believe the NES-CS applies.

7.5 National and Regional Policy Statements

I have not identified any national policy statements relevant to this proposal. Whilst the site contains some LUC class 2 soils, it is not zoned General Rural or Rural Production in either the Operative or Proposed District Plan. As such the site does not fall within the definition of "highly productive land" and the NPS Highly Productive Land does not apply. No indigenous vegetation is affected and therefore the NPS Indigenous Biodiversity is not relevant.

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.

Subdivision

The RPS has policies ensuring that productive land is not subject to fragmentation and/or sterilisation to the point where productive capacity is materially reduced, and that reverse sensitivity effects be avoided, remedied or mitigated, however noting the area within which the site is located is no longer predominantly utilised for any productive use, and is not zoned Rural Production, these policies have limited relevance.

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;

In regard to this subdivision, it is considered that no significant additional reverse sensitivity issues arise as a result. The area around the site already supports residential use.

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;

I believe the creation of an additional lot in an area already predominantly large lot residential in character, to be consistent with the above. In fill development such as that proposed has positive effects in that a future lot owner can utilise existing infrastructure already in place to support the area.

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. None of these circumstances exist and public notification is not mandatory. Step 2 of s95A specifies the circumstances that preclude public notification. None of these exist, and public notification is therefore not precluded. Step 3 of s95A must then be considered. This specifies that public notification is required in certain circumstances. These include:

(a) the application is for a resource consent for 1 or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification:

-
- (b) *the consent authority decides, in accordance with section 95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.*

The application is not subject to a rule or national environmental standard that requires public notification. This report and AEE concludes that the activity will not have, nor is it likely to have, adverse effects on the environment that are more than minor. In summary public notification is not required pursuant to Step 3 of s95A.

Step 4 of s95A states that the consent authority is to determine if there are any special circumstances under which public notification may be warranted. Such circumstances are not defined. I do not consider any such circumstances exist.

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. No such groups or persons exist in this instance. Step 2 of s95B specifies the circumstances that preclude limited notification. No such circumstances exist and therefore limited notification is not precluded.

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.

Step 4 of s95B states that the consent authority is to determine if there are any special circumstances under which limited notification may be warranted. Such circumstances are not defined. I do not consider any such circumstances exist.

8.3 S95D Level of Adverse Effects

The AEE in this report assesses effects on the environment and concludes that these will be less than minor. As such public notification is not required.

8.4 S95E Affected Persons & Consultation

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.

The activity is a restricted discretionary activity overall because of *existing* development to be within a new Lot 2 marginally exceeding the permitted activity building coverage (10.7% as opposed to 10%). Were it not for that marginal exceedance (0.7%) the activity would be a controlled activity. The subdivision creates lots complying with the controlled activity minimum lot size, and no land use consent is being sought, or necessary, for future development within proposed vacant Lot 1. Development within the vacant lot can easily comply with the zone's setback and sunlight rules. The property has appurtenant right of way over a shared driveway, but it is entitled to subdivide and utilise that driveway for additional lots. The application does not include any breach of access standards so the other users of the right of way are not adversely affected. In summary, I do not consider the proposal will create minor or more than minor adverse effects on adjacent properties.

The site does not contain any heritage or cultural sites or values, is not close to, and does not contain, any water body, and only minimal earthworks are being proposed. The site does not contain any areas of indigenous vegetation or habitat. The site is not accessed off state highway. As such, no pre lodgement consultation has been considered necessary with tangata whenua, Heritage NZ, Department of Conservation or Waka Kotahi.

9.0 CONCLUSION

The site is considered suitable for the proposed subdivision. Effects on the wider environment are, I believe, capable of remedy and mitigation through conditions of consent, such that they will be less than minor. The proposal is considered consistent with the relevant objectives and policies of the Operative and Proposed District Plans, and relevant objectives and policies of the National and Regional Policy Statements, and consistent with Part 2 of the Resource Management. 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.



Signed
Lynley Newport,
Senior Planner
Thomson Survey Ltd

Dated 26th August 2024

10.0 LIST OF APPENDICES

- Appendix 1** Scheme Plan(s)
- Appendix 2** Location Plan
- Appendix 3** Record of Title & Easement Instruments
- Appendix 4** Site Suitability Report

Appendix 1

Scheme Plan(s)

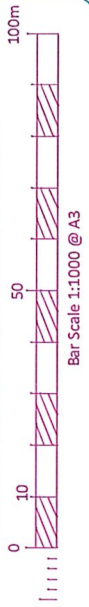


Local Authority: Far North District Council
 Comprised in: 544679
 Total Area: 8668m²
 Zoning: Rural Living
 Resource Features: NIL

THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF THOMSON SURVEY LTD AND MAY NOT BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THOMSON SURVEY LTD
 AREAS AND MEASUREMENTS ARE SUBJECT TO FINAL SURVEY TOPOGRAPHICAL DETAILS IS APPROXIMATE ONLY AND SCALED FROM AERIAL PHOTOGRAPHY

AREAS MARKED (A) (B) ARE SUBJECT TO AN EXISTING CONSENT NOTICE
 CREATED BY 8704084.5

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.



THOMSON SURVEY
 Limited
 Registered Land Surveyors, Planners & Land Development Consultants

315 Kerikeri Rd
 P.O. Box 372 Kerikeri
 Email: kerikeri@thomsonsurvey.co.nz
 Ph: (09) 4073360
 www.thomsonsurvey.co.nz

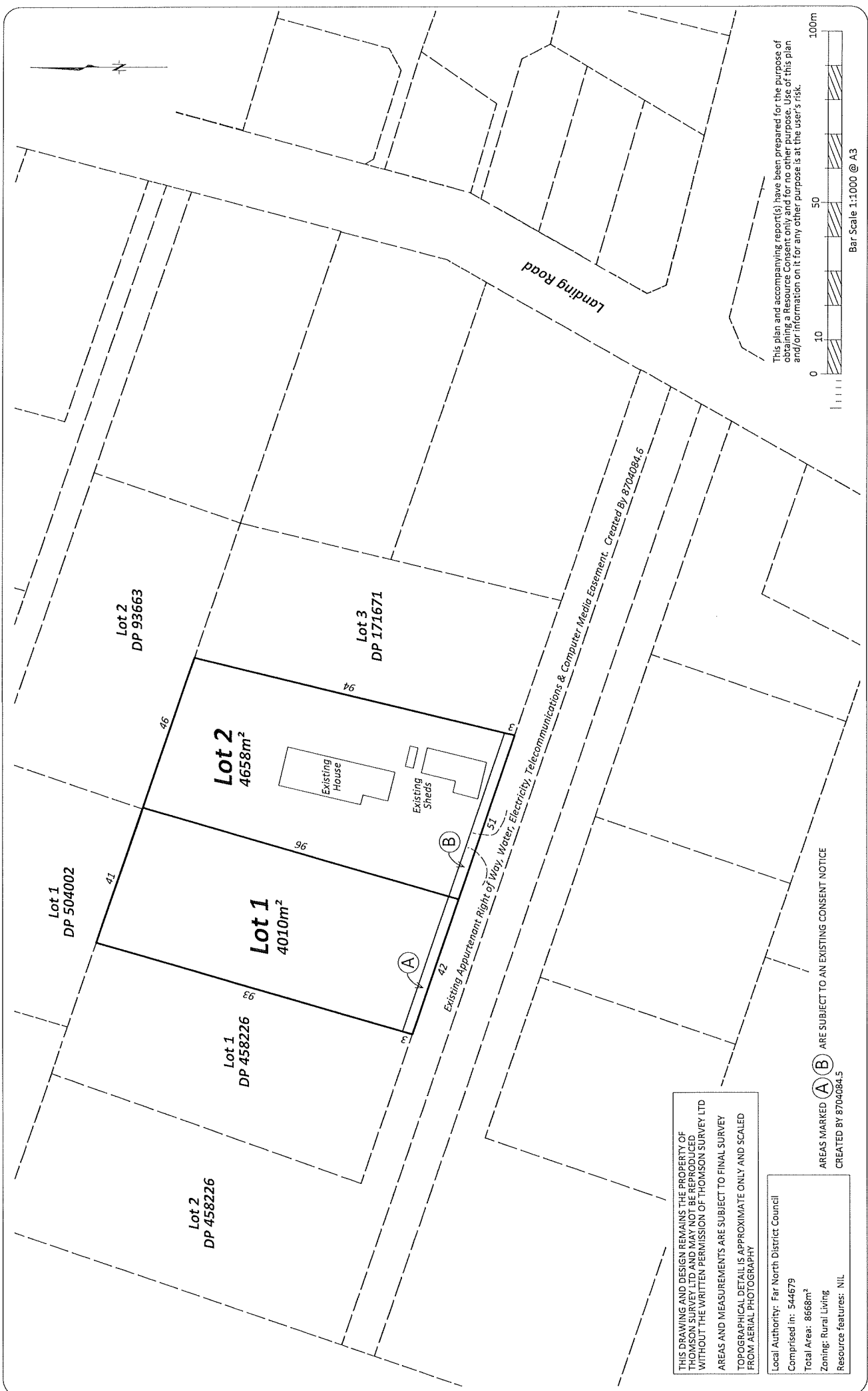
**PROPOSED SUBDIVISION OF
 LOT 1 DP 439419
 120 LANDING ROAD, KERIKERI**

PREPARED FOR: MACGREGOR

Survey	Name	Date	ORIGINAL SCALE	SHEET SIZE
Design				
Drawn	KY	12.04.24	1:1000	A3
Approved				
Rev	KY	24.04.24		

10627 Scheme 20240424

Surveyors Ref. No:
10627
 Sheet 1 of 1



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.

Survey	Name	Date	ORIGINAL	SHEET
Design			SCALE	SIZE
Drawn	KY	12.04.24	1:1000	A3
Approved				
Rev	KY	24.04.24		

10627 Scheme 20240424

Surveyors Ref. No:
10627
Sheet 1 of 1

Local Authority: Far North District Council
Comprised in: 544679
Total Area: 8668m²
Zoning: Rural Living
Resource features: NIL

PROPOSED SUBDIVISION OF LOT 1 DP 439419 120 LANDING ROAD, KERIKERI

PREPARED FOR: MACGREGOR

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Local Authority: Far North District Council
Comprised in: 544679
Total Area: 8668m²
Zoning: Rural Living
Resource features: NIL

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CREATED BY 8704084.5

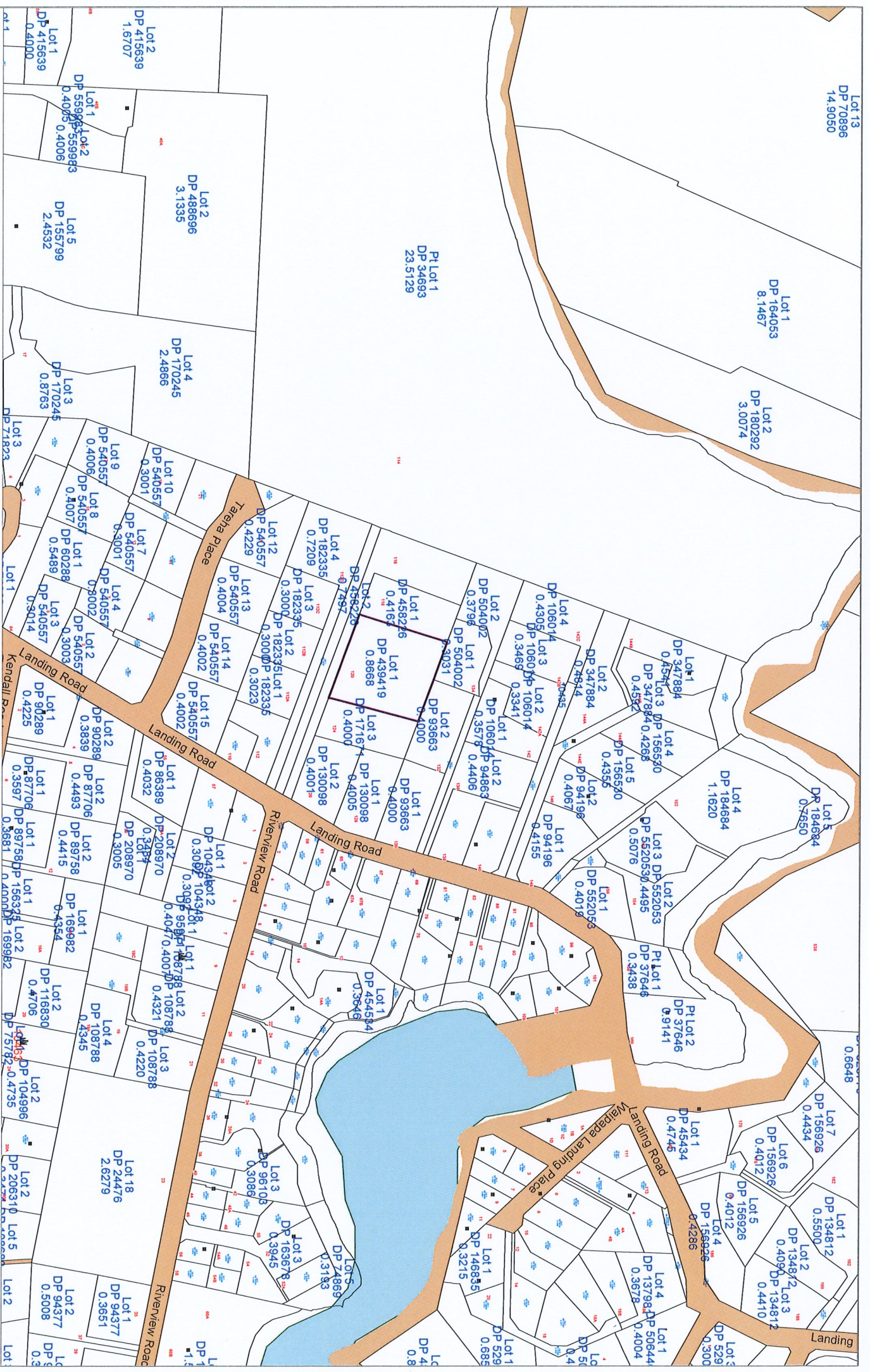
THOMSON SURVEY
LIMITED

315 Kerikeri Rd
P.O. Box 372 Kerikeri
Email: kerikeri@survey.co.nz
Ph: (09) 4073560
www.survey.co.nz

Registered Land Surveyors, Planners & Land Development Consultants

Appendix 2

Location Plan



Lot 13
DP 70896
14,9050

Lot 1
DP 164053
8,1467

Lot 2
DP 180292
3,0074

Pl Lot 1
DP 34693
23,5129

Lot 2
DP 488696
3,1335

Lot 4
DP 170245
2,4866

Lot 2
DP 415639
1,6707

Lot 1
DP 559265
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Lot 1
DP 415639
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Lot 1
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Lot 5
DP 158799
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Lot 3
DP 170245
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Lot 3
DP 71823

Lot 9
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Lot 8
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Lot 3
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Lot 1
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Lot 1
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Lot 2
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Lot 2
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Lot 2
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Lot 4
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Lot 7
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Lot 4
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Appendix 3

Record of Title & Easement Instruments



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




R. W. Muir
Registrar-General
of Land

Identifier 544679
Land Registration District North Auckland
Date Issued 21 September 2011

Prior References
NA104D/887

Estate	Fee Simple
Area	8668 square metres more or less
Legal Description	Lot 1 Deposited Plan 439419

Registered Owners
Ian Macgregor and Mary Clare Macgregor

Interests

Appurtenant hereto is a water right created by Transfer A292271 - 7.6.1968 at 11:50 am

Appurtenant hereto is a drainage right specified in Easement Certificate C019578.6 - 21.7.1989 at 1:38 pm

The easements specified in Easement Certificate C019578.6 are subject to Section 309 (1) (a) Local Government Act 1974

8704084.5 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 21.9.2011 at 10:46 am

Appurtenant hereto is a right of way, right to convey water, right to convey and transmit electricity, telecommunications and computer media created by Easement Instrument 8704084.6 - 21.9.2011 at 10:46 am

Some of the easements created by Easement Instrument 8704084.6 are subject to Section 243 (a) Resource Management Act 1991 (see DP 439419)



View Instrument Details

Instrument No. 8704084.5
Status Registered
Date & Time Lodged 21 Sep 2011 10:46
Lodged By Jonson, Jan Dorothy
Instrument Type Consent Notice under s221(4)(a) Resource Management Act 1991



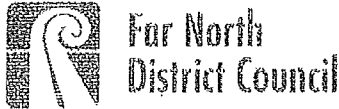
Affected Computer Registers	Land District
544679	North Auckland
544680	North Auckland

Annexure Schedule: Contains 3 Pages.

Signature

Signed by Richard Adrian Ayton as Territorial Authority Representative on 20/10/2011 10:01 AM

*** End of Report ***



Private Bag 752, Memorial Ave
Kerikeri 0400, New Zealand
Freephone: 0800 920 029
Phone: (09) 405 2750
Fax: (09) 401 2137
Email: nsk.us@fndc.govt.nz
Website: www.fndc.govt.nz

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING RC 2110172
Being the Subdivision of Lot 4 DP 171671

PURSUANT to Section 221 and for the purpose of Section 224 (c) (ii) of the Resource Management Act 1991, this Consent Notice is issued by the **FAR NORTH DISTRICT COUNCIL** to the effect that conditions described in the schedule below are to be complied with on a continuing basis by the subdividing owner and the subsequent owners after the deposit of the survey plan, and these are to be registered on the titles of the allotments specified below.

SCHEDULE

Lot 1 – DP 439419

- (i) The lot owner shall in conjunction with the erection of any dwelling obtain a Building Consent and install the wastewater treatment and effluent disposal system as required and detailed in the report prepared by Mike Woodward (Registered Drainlayer).

The estimated cost of the installed system is \$15,000.00 + GST for secondary treatment with trickle irrigation as quoted by Haigh Workman Civil & Structural Consultants dated June 2011.

The estimated cost of the installed system is \$7,600.00 + GST for Primary (septic tank) with soakage trenches as quoted by Haigh Workman Civil & Structural Consultants dated June 2011.

Where a wastewater treatment and disposal system differs from that described in the above mentioned report, a new site and soil evaluation report will be required to be submitted with a Building Consent.

Following 12 months of operation of the wastewater treatment and effluent disposal system the lot owner shall provide certification to Council that the system is operating to its design criteria.

- (ii) Any new dwelling shall have a roof water collection system with a minimum tank storage of 45,000 litres. The tank(s) shall be positioned so that they are safely accessible for fire-fighting purposes fitted with an

outlet compatible with rural fire service equipment. Where more than one tank is utilised they shall be coupled together and at least one tank fitted with rural fire service equipment. Alternatively, the dwelling can be fitted with a sprinkler system approved by Council.

- (iii) No new structures shall be erected on Area "X" on DP 439419

Lot 2 – DP 439419

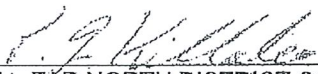
- (iv) No new structures shall be erected on areas "A", "B", "C", "X", "Y" and "Z" on DP 439419. This prohibition relates to new structures only and not those existing at the time of the granting of the Resource Consent RC 2110172-RMASUB dated 22 December 2010 being part of the dwelling as identified on the attached plan.

Lots 1 & 2 – DP 439419

- (v) The registered proprietors for the time being of the Servient Tenements (CTs 544679 and 544680) agree that the Far North District Council and its successors and assigns shall have the right to acquire the land in "A", "B", "C" and "Y" on the attached plan, to enable a road to be created in the future.

The Council shall not require the registered proprietors for the time being of the servient tenements to contribute to the cost of construction of any road constructed on the covenanted land.

SIGNED:


Mr Patrick John Killalea
By the FAR NORTH DISTRICT COUNCIL
Under delegated authority:
PRINCIPAL PLANNER – RESOURCE MANAGEMENT

DATED at KERIKERI this 13th day of October 2011



View Instrument Details

Instrument No. 8704084.6
Status Registered
Date & Time Lodged 21 Sep 2011 10:46
Lodged By Jonson, Jan Dorothy
Instrument Type Easement Instrument



Affected Computer Registers	Land District
544679	North Auckland
544680	North Auckland

Annexure Schedule: Contains 3 Pages.

Grantor Certifications

- I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period

Signature

Signed by Richard Adrian Ayton as Grantor Representative on 20/10/2011 10:02 AM

Grantee Certifications

- I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument
- I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument
- I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply
- I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period

Signature

Signed by Richard Adrian Ayton as Grantee Representative on 20/10/2011 10:02 AM

*** End of Report ***

Form B

Easement instrument to grant easement or *profit à prendre*, or create land covenant

(Sections 90A and 90F Land Transfer Act 1952)

Grantor

Peggy Stockley, John William Stockley and Gay Paula Lynch

Grantee

Ian Macgregor and Mary Clare Macgregor

Grant of Easement or *Profit à prendre* or Creation of Covenant

The Grantor being the registered proprietor of the servient tenement(s) set out in Schedule A grants to the Grantee (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, or creates the covenant(s) set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s)

Schedule A*Continue in additional Annexure Schedule, if required*

Purpose (Nature and extent) of easement; <i>profit</i> or covenant	Shown (plan reference)	Servient Tenement (Computer Register)	Dominant Tenement (Computer Register) or in gross
Right of Way Right to Convey Water Right to Convey and Transmit Electricity, Telecommunications and Computer Media	A, B & C DP439419	Lot 2 DP 439419 CT 544680	Lot 1 DP 439419 CT 544679

Form B - continued

Easements or profits à prendre rights and powers (including terms, covenants and conditions)

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

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2002 and/or Schedule Five of the Property Law Act 2007

The implied rights and powers are hereby [varied] ~~[negated]~~ ~~[added to]~~ or [substituted] by:

~~[Memorandum number _____, registered under section 155A of the Land Transfer Act 1952]~~

~~[the provisions set out in Annexure Schedule]~~

Covenant provisions

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

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

~~[Memorandum number _____, registered under section 155A of the Land Transfer Act 1952]~~

~~[Annexure Schedule]~~

Form L

Annexure Schedule

Page 1 of 1 Pages

Insert instrument type



Easements

Continue in additional Annexure Schedule, if required

- (a) The costs of maintaining the right of way will be borne by the registered proprietors of the dominant and servient tenements in the proportions of one equal part to each tenant;
- (b) Where the need for maintenance is directly attributable to the actions of one of those registered proprietors the cost shall in that case be borne wholly by that proprietor.

SITE 120 Landing Road, Kerikeri
 LEGAL DESCRIPTION Lot 1 DP 439419
 PROJECT 1-into-2-lot Residential Subdivision
 CLIENT Ian McGregor
 REFERENCE NO. 134698
 DOCUMENT Site Suitability Report
 STATUS/REVISION No. 02
 DATE OF ISSUE 6 August 2024

Report Prepared For	Email
Ian McGregor	mary-ian@xtra.co.nz

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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.

Information Supplied:	<ul style="list-style-type: none"> “Proposed Subdivision of Lot 1 DP 439419” scheme plan by Thomson Survey Ref. 10627 dated 12.04.24. FNDC-approved 02.06.2014 “Site Plan” for existing development at Lot 1 DP 439419 by G.J. Gardner Homes Ref. 5079 RevK dated 08.05.2014.
Subdivision Proposal:	<p>Proposed 1-into-2-lot residential subdivision</p> <p>Parent Lot – 8,668m²</p> <p>Proposed Lot 1 – 4,010m²</p> <p>Proposed Lot 2 – 4,658m² (Existing dwelling)</p>
District Plan Zone:	Rural Living
Wastewater	<p>Proposed Lot 1: Tested Soil Category = 5 & Occupancy = 6 persons. Secondary treatment plant & subsurface- or surface-laid PCDI lines recommended. Min Disposal Area = 360m². Min Reserve Area = 30%.</p> <p>Proposed Lot 2: The existing residential dwelling on Proposed Lot 2 is currently serviced by an existing on-site wastewater management system. We recommend that a registered drainlayer or maintenance contractor be engaged to provide commentary on the condition and confirm the location of the existing wastewater system, including any disposal fields or trenches.</p>
Permitted Activity Impermeable Site Coverage:	<u>12.5% or 3,000m²</u>
Impermeable Coverage Activity Status:	<p>Proposed Lot 1: Future assessment required if exceeding Permitted Levels</p> <p>Proposed Lot 2: Controlled – RC Required</p>
Attenuation:	<p>Proposed Lot 1: If future development proposals result in the Permitted impermeable coverage being exceeded, a specific detention design in general accordance with the design parameters herein should be provided for Building Consent. Three future impermeable coverage scenarios have been assessed to illustrate that on-site attenuation back to Permitted Levels is achievable.</p> <p>Proposed Lot 2: Attenuation outlets are to be fitted to the existing rainwater tanks’ overflow discharge outlet per the following specifications:</p> <p>Existing Tank – 2 x 3600mmØ rainwater tanks assumed</p> <p>10% AEP Control Orifice – 44mmØ orifice; located <u>>460mm below the overflow outlet</u></p> <p>1% AEP Control Orifice – 40mmØ orifice; located <u>300mm above the 10% AEP Control Orifice</u></p>
Discharge Point:	<p>Proposed Lot 1: Discharge and overflow from the potable water tanks should be directed via sealed pipes to a safe discharge outlet / dispersal device within the lot.</p> <p>Proposed Lot 2: To dispersal bar on the lot’s southern boundary.</p>

2. SCOPE OF WORK

Wilton Joubert Ltd. (WJL) was engaged by the client, **Ian McGregor**, to produce a suitability assessment for stormwater and wastewater infrastructure servicing a 1-into-2-lot subdivision and future development at the above site.

The following documents were referred to for background data and details of the proposed subdivision:

- “Proposed Subdivision of Lot 1 DP 439419” scheme plan by Thomson Survey Ref. 10627 dated 12.04.24.
- FNDC-approved 02.06.2014 “Site Plan” for existing development at Lot 1 DP 439419 by G.J. Gardner Homes Ref. 5079 RevK dated 08.05.2014.

The proposed lots are referred to herein as “Proposed Lot 1” (4,010m²) and “Proposed Lot 2” (4,658m²), with Proposed Lot 1 being undeveloped and Proposed Lot 2 containing an existing residential development at the time of report-writing. No plans detailing future development on Proposed Lot 1 have been supplied to us.

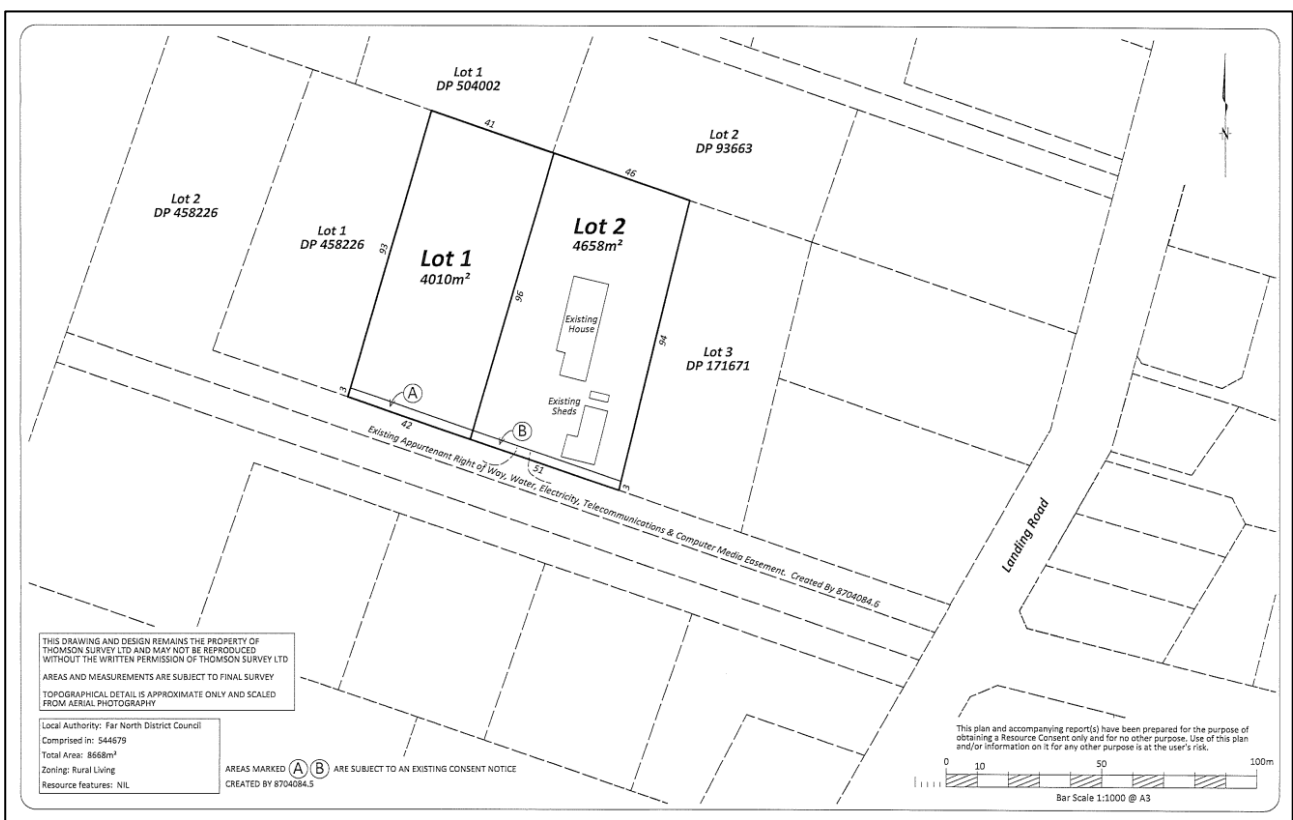


Figure 1: Subdivision Scheme Plan supplied by Thomson Survey (Ref. 10627 dated 12.04.2024).

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 assessments herein, should be referred to us for review.

3. SITE DESCRIPTION

The 8,668m² parent lot is legally described as Lot 1 DP 439419 and is located on the northern side of a metalled right of way off the western side of Landing Road in Kerikeri. The western half of the property consists of vacant lawn, with existing residential development being located in the eastern half of the property.

The existing development consists of a single-storey dwelling and two sheds accessed via a partially-metalled partially-concreted driveway. The existing dwelling is serviced by 2 x 25,000L Promax rainwater tanks behind the sheds and a wastewater disposal system that was sighted in a site visit undertaken by WJL as being located north of the dwelling, generally in-line with the layout shown in the FNDC-approved "Site Plan" for the existing development by G.J. Gardner Homes (Ref. 5079 RevK dated 08.05.2014) that was supplied to us by the client.

The site generally slopes to the west at grades of less than 2°. No stormwater, wastewater or water supply reticulation is available to the property. Council GIS maps do not indicate any overland flow paths or flooding hazards in proximity to the property. No stormwater drains were identified within or adjacent to the property boundaries during the site visit.

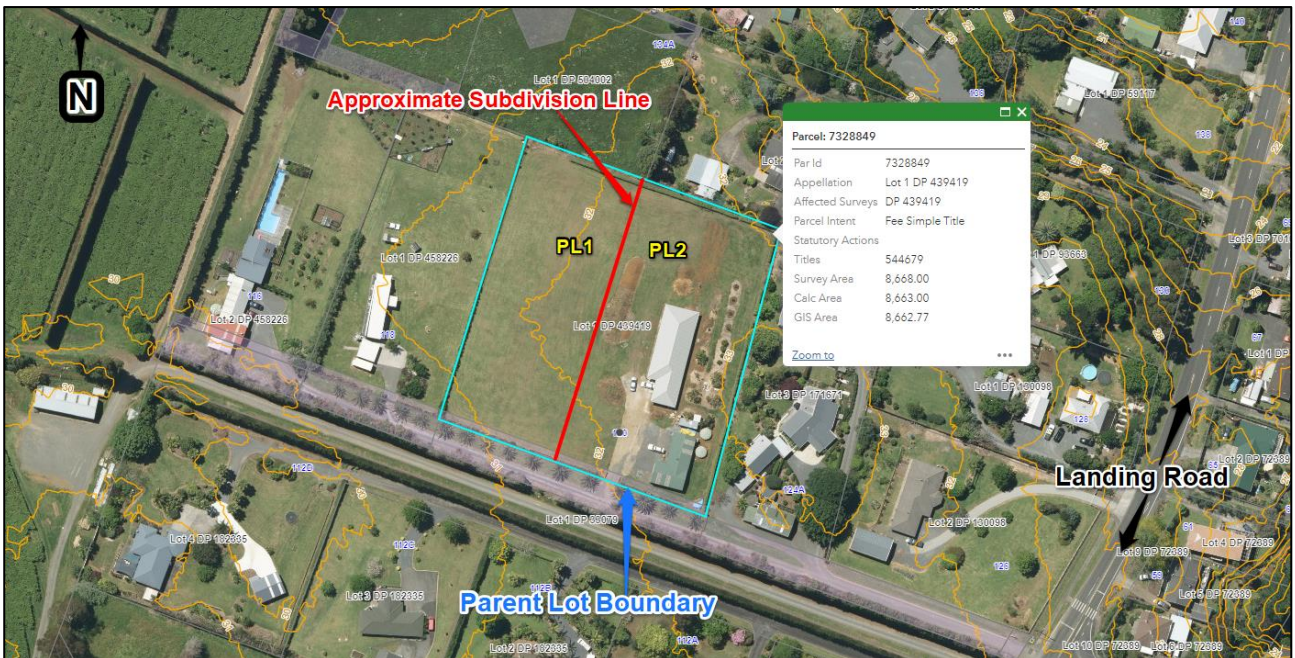


Figure 2: Aerial view of the site from FNDC GIS maps showing the site boundary (cyan) and 1.0m contours (orange).



Figure 3: Site Photo – View of the vacant Proposed Lot 1 area (centre & right) and the existing dwelling (left) from the northern side of Proposed Lot 1, facing south.

4. PUBLISHED GEOLOGY

Local geology at the property is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as Kerikeri Volcanic Group Miocene basalt of Kaikohe – Bay of Islands Volcanic Field (red shaded area), described as; “Basalt lava, volcanic plugs and minor tuff.”, refer; ‘GNS Science Website’.

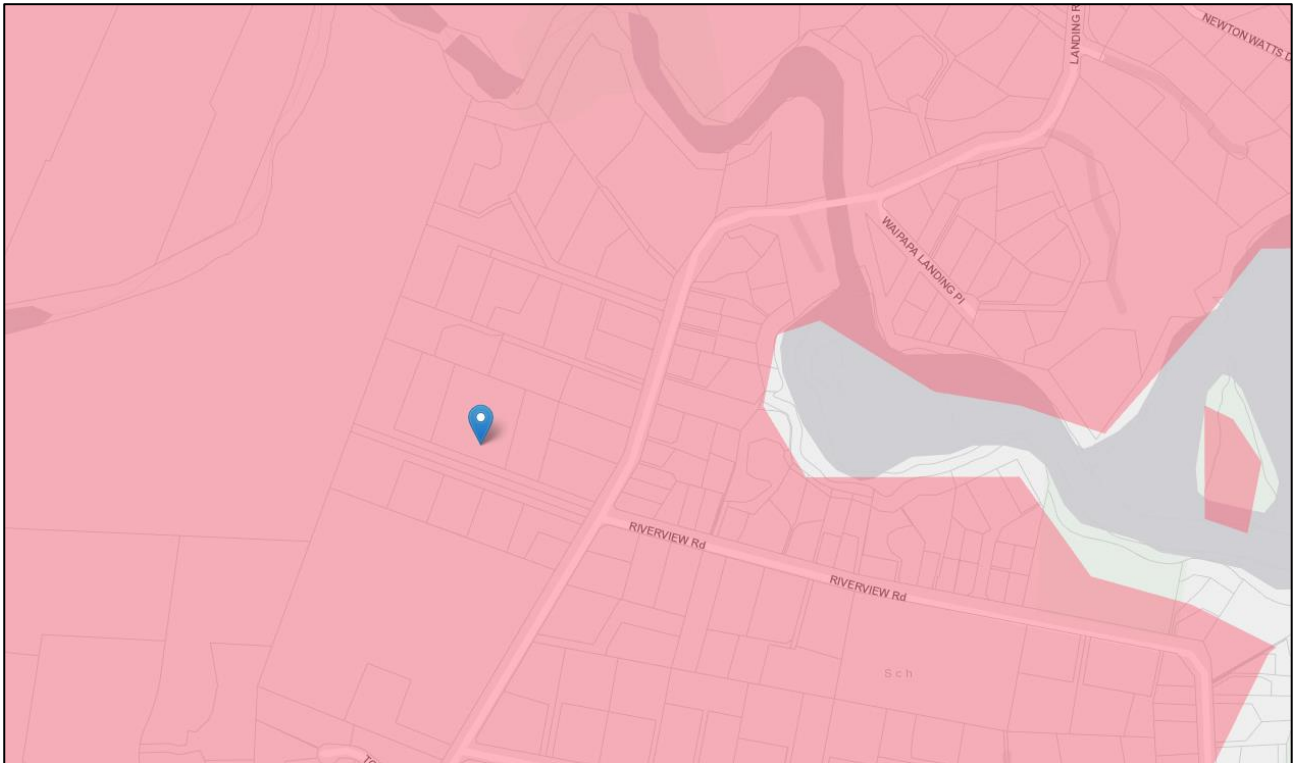


Figure 4: Screenshot from New Zealand Geology Web Map hosted by GNS Science.

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

In general terms, the subsoils encountered consisted of slightly clayey SILT to a borehole target depth of 1.2m, with one of the two boreholes being terminated at 0.8m due to a boulder obstruction. Groundwater was not encountered in either borehole.

Approximately 200mm of TOPSOIL was overlying the investigated area. Refer to the appended ‘BH Logs’. Given the above, the site’s soils have been classified **Category 5** in accordance with the TP58 design manual.

5. WASTEWATER

5.1 PROPOSED LOT 1

No existing wastewater management systems is present within Proposed Lot 1. Any future design should comply with the Regional Plan’s permitted activity, and if not, obtain the necessary consent.

5.1.1 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.

As no development proposals are available at this stage for the eventual residential development within the proposed lots, 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 lots.

Table 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
Site Soil Category (TP58):	Category 5 – Clayey SILT – Moderate to Slow Drainage
Estimate House Occupancy:	6 Persons
Loading Rate:	PCDI System – 3mm/day
Estimated Total Daily Wastewater Production per Lot:	1,080L
Typical Wastewater Design Flow Per Person:	180l/pp/pd (Estimated – introduction of water conservation devices may enable lower design flows)
Application Method:	Subsurface or Surface Laid PCDI Lines
Loading Method:	Dosed
Minimum Tank size:	>1,080L
Emergency Storage:	24 hours
Estimated Min. Disposal Area Requirement:	360m ²
Required Min. Reserve Area:	30%
Buffer Zone:	Not required
Cut-off Drain:	Not required

5.1.2 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:

Feature	Primary treated domestic type wastewater	Secondary and tertiary treated domestic type wastewater	Greywater
<i>Exclusion areas</i>			
Floodplain	5 percent annual exceedance probability	5 percent annual exceedance probability	5 percent annual exceedance probability
<i>Horizontal setback distances</i>			
Identified stormwater flow path (including a formed road with kerb and channel, and water-table drain) that is down-slope of the disposal area	5 metres	5 metres	5 metres
River, lake, stream, pond, dam or natural wetland	20 metres	15 metres	15 metres
Coastal marine area	20 metres	15 metres	15 metres
Existing water supply bore	20 metres	20 metres	20 metres
Property boundary	1.5 metres	1.5 metres	1.5 metres
<i>Vertical setback distances</i>			
Winter groundwater table	1.2 metres	0.6 metres	0.6 metres

Figure 5: Table 9 of the PRPN (Proposed Regional Plan for Northland).

5.1.3 NORTHLAND REGIONAL PLAN ASSESSMENT

The 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
7	f) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark, and
	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 there will be no issue meeting the Permitted Activity Status requirements as outlined above. An indicative disposal field layout is given in the appended Site Plan.

5.2 PROPOSED LOT 2

The existing residential dwelling on Proposed Lot 2 is currently serviced by an existing on-site wastewater management system.

We recommend that a registered drainlayer or maintenance contractor be engaged to provide commentary on the condition and confirm the location of the existing wastewater system, including any disposal fields or trenches.

If the existing wastewater system is functional, fit for the existing dwelling and located within Proposed Lot 2 it may continue to operate given that the lot is not redeveloped.

If any part of the wastewater system, including any disposal fields or trenches is not located within the lot, the system can either be relocated to within the lot and/or upgraded, or it can be decommissioned and replaced with a new on-site wastewater treatment system in general accordance with the design parameters outlined Section 5.1 of this report.

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.

The site is zoned Rural Living. The following Stormwater Management Rules Apply:

8.7.5.1.5 – **Permitted Activities – Stormwater Management** - The maximum proportion or amount of the gross site area covered by buildings and other impermeable surfaces shall be 12.5% or 3,000m², whichever is the lesser.

8.7.5.2.2 – **Controlled Activities – Stormwater Management** - The maximum proportion or amount of the gross site area covered by buildings and other Impermeable Surfaces shall be 20% or 3300m², whichever is the lesser.

To comply with the parameters of the Permitted Activity Rule (8.7.5.1.5), Lots 1 & 2 must not exceed an impermeable area of 12.5% of the proposed lot area or 3,000m² on each lot.

If future development proposals for Proposed Lot 1 result in the Permitted impermeable coverage being exceeded, a specific detention design in general accordance with the design parameters herein should be provided for Building Consent.

The total impermeable area within Proposed Lot 2 will breach Permitted Activity levels as a result of the subdivision, and will be considered a Controlled Activity. See Section 6.1.2 for further clarification.

6.1.1 Proposed Lot 1

No specific development plans have been provided for Proposed Lot 1 at the time of report-writing. Any future development on the new lot resulting in the Permitted impermeable area coverage being exceeded will require runoff attenuation measures to mitigate the adverse effects of runoff to Permitted Activity levels. To illustrate that on-site attenuation will be achievable, three separate potential future impermeable coverage scenarios, per the table below, have been assessed and preliminary detention tank designs have been provided for these in Section 6.2.1 below.

Table 2: Proposed Lot 1 Impermeable Coverage Scenarios 1-3

	Coverage Scenario		
	1	2	3
Total Impermeable Area (m ²)	601.5	701.8	802.1
% of Site Area Impermeable	15	17.5	20
Permitted Coverage Exceedance (m ²)	100.3	200.5	300.8

If future development proposals result in the Permitted impermeable coverage being exceeded, a specific detention design in general accordance with the design parameters herein should be provided for Building Consent.

6.1.2 Proposed Lot 2

The existing impermeable areas located within the bounds of Proposed Lot 2, measured from the supplied plans, are as follows:

Table 3: Proposed Lot 2 Existing Impermeable Surfaces

Existing Impermeable Surface within Proposed Lot 2	Area (m ²)
Dwelling Roof	346.7
Shed Roof Areas	153.8
Uncovered Hardstand	405

The total impermeable area within Proposed Lot 2, post-subdivision, will amount to 905.5m² or 19.4% of the site area, and will be considered a Controlled Activity under the FNDC District Plan. Therefore, additional considerations for stormwater management as outlined in the FNDC District Plan Cl 8.7.5.2.2 are required for Proposed Lot 2. An Assessment of Environmental Effects has been included in Section 6.5 of this report.

A site-specific stormwater attenuation design in accordance with the FNDC Engineering Standards is required for Proposed Lot 2 to mitigate the adverse effects of runoff to levels equivalent to the Permitted Activity impermeable coverage.

It is recommended to provide attenuation for the existing impermeable areas within Proposed Lot 2 in excess of the Permitted Activity threshold back to pre-development flows for the 10% AEP and 1% AEP storm events, with an allowance for climate change, via the retrofitting of attenuation outlets on the existing rainwater tanks

6.1.3 Hydrologic / Hydraulic Calculations Methodology

The hydrologic and hydraulic calculations have been computed using the HydroCAD modelling software. The model has been configured utilising a Type IA storm curve with a 24-hour duration in accordance with the FNDC Engineering Standards Table 4-1.

10% AEP and 1% AEP rainfall values of 162mm and 248mm respectively were adopted from NIWA HIRDS, with the post-development rainfall values being increased to 183mm and 283mm per the RCP6.0 2081-2100 scenario to account for climate change effects.

6.2 PRIMARY STORMWATER

6.2.1 Lot 1

Roof Area Runoff

Stormwater runoff from the roof of any future buildings must be captured by a gutter system and conveyed to potable water tanks.

Discharge and overflow from the potable water tanks should be directed via sealed pipes to a safe discharge outlet / dispersal device within the lot – see the appended Typical Dispersal Outlet Detail C212. The dispersal device or discharge point should be positioned downslope of any buildings and effluent disposal areas, with setbacks as per the relevant standards. An indicative dispersal outlet location is given in the appended Site Plan.

Detention Volume

On-site runoff attenuation will be required in accordance with the criteria outlined in Section 6.1.1 of this report if future development on the lot exceeds the Permitted Activity levels for impermeable coverage. It is recommended that attenuation is provided via a detention volume in the upper section of the site's potable water tanks.

The below detention configurations in Table 4 have been provided to demonstrate that on-site attenuation in compliance with the applicable criteria is feasible. The detention design should be finalised at building consent. A site-specific attenuation report, including a final detention tank design, will be required for any future development on Proposed Lot 1 once proposed impermeable coverages are finalised. The tanks should be fitted with an adequately sized overflow outlet directing flows to the discharge point.

The below configurations assume that the detention volume is contained within 2 x 25,000L rainwater tanks of 3600mmØ or greater.

Table 4: Lot 1 Coverage Scenarios Detention Setups

	Coverage Scenario		
	1	2	3
10% AEP Detention Orifice Diameter (mm)	32	40	44
10% AEP Orifice height below Overflow Outlet Invert (mm)	>160	>290	>420
1% AEP Detention Orifice Diameter (mm)	32	34	40
1% AEP Orifice height above 10% AEP Orifice (mm)	110	180	270
Total Detention Volume Provided (m ³)	3.2	5.6	8.4

As per the appended calculation set, the above detention setups will provide attenuation for compliance with the applicable criteria outlined in Section 6.1.1 Table 2 of this report.

Stormwater Runoff from 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.

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

6.2.2 Lot 2

No changes/additions to the existing impermeable areas on Proposed Lot 2 are proposed as part of this subdivision. Aside from the retrofitting of attenuation outlets to the existing rainwater tanks, no changes to the proposed stormwater management system on Lot 2 are proposed as part of this subdivision. Any stormwater management devices outside the Proposed Lot 2 boundary are to be relocated to within the boundary such that the efficacy of the stormwater management system is unaffected.

The following specifications assume that the two existing rainwater tanks on-site are connected via balancing pipes. To address the Controlled Activity status applicable to the lot as a result of the subdivision, the tanks' overflow discharge riser is to be fitted with attenuation orifices per the following specifications:

Existing Tanks	2 x 3600mmØ rainwater tanks assumed
Outlet orifice (10% AEP control)	44mm diameter orifice ; located <u>>460mm below the Overflow Outlet</u> <ul style="list-style-type: none">- 291mm water elevation- 5.9m³ Storage
Outlet orifice (1% AEP control)	40mm diameter orifice ; located <u>300mm above the 10% AEP Control Orifice</u> <ul style="list-style-type: none">- 456mm water elevation- 9.3m³ Storage

As the existing impermeable coverage on Proposed Lot 2 will be considered a Controlled Activity as a result of the reduction in site area post-subdivision, additional considerations for stormwater management as outlined in the FNDC District Plan 8.7.5.2.2 are required. An assessment of environmental effects has been provided in Section 6.5 of this report.

The approved Site Plan for the existing development by G.J. Gardner Homes Ref. 5079 RevK dated 08.05.2014 indicates a stormwater overflow pipe directed towards Proposed Lot 1. It is recommended to redirect the tank overflow (if this has not already been redirected) to a dispersal bar on the lot's southern boundary as shown on the appended Site Plan.

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 - SUBDIVISION

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 (d). In respect of matters (a) through (d), we provide the following comments:

13.7.3.4 – Stormwater Disposal

<p><i>(a) All allotments shall be provided, within their net area, with a means for the disposal of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces, in such a way so as to avoid or mitigate any adverse effects of stormwater runoff on receiving environments, including downstream properties. This shall be done for a rainfall event with a 10% Annual Exceedance Probability (AEP).</i></p>	<p>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. Low impact design principles should be used to control and mitigate the effects of increased runoff from new hardstand areas. 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. The proposed stormwater control system is to manage stormwater and attenuate the 10- and 100-year storm events back to permitted levels to mitigate adverse effects on the receiving environment.</p>
<p><i>(b) The preferred means of disposal of collected stormwater in urban areas will be by way of piping to an approved outfall, each new allotment shall be provided with a piped connection to the outfall laid at least 600mm into the net area of the allotment. This includes land allocated on a cross lease or company lease. The connection should be at the lowest point of the site to enable water from driveways and other impervious surfaces to drain to it. Where it is not practical to provide stormwater connections for each lot then the application for subdivision shall include a report detailing how stormwater from each lot is to be disposed of without adversely affecting downstream properties or the receiving environment.</i></p>	<p>No existing stormwater connection is available for either Lots 1 or 2. Lot 1 is to utilise a suitable level spreader at the disposal point. The disposal point should be at a location well clear of any downstream flood risk. The dispersal device would promote sheet flow to mitigate any risk of erosion or concentrated runoff. Hardstand areas are recommended to be shaped to shed runoff to large, vegetated areas and / or to stormwater catchpits for runoff conveyance to the lot's stormwater dispersal device / discharge outlet. The above will mitigate adverse effects on the receiving environment. Lot 2 currently discharges to a roadside swale. This location is considered adequate.</p>
<p><i>(c) The provision of grass swales and other water retention devices such as ponds and depressions in the land surface may be required by the Council in order to achieve adequate mitigation of the effects of stormwater runoff.</i></p>	<p>No swales, gulleys or overland flow paths are present on site. Stormwater runoff will naturally sheet flow off site. Stormwater control system for Lot 1 should mimic this.</p>
<p><i>(d) All subdivision applications creating sites 2ha or less shall include a detailed report from a Chartered Professional Engineer or other suitably qualified person addressing stormwater disposal.</i></p>	<p>The recommendations within this report should be followed.</p>

<p><i>(d) Where flow rate control is required to protect downstream properties and/or the receiving environment then the stormwater disposal system shall be designed in accordance with the onsite control practices as contained in “Technical Publication 10, Stormwater Management Devices – Design Guidelines Manual” Auckland Regional Council (2003).</i></p>	<p>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).</p> <p>All roof runoff will be collected by rainwater tanks for conveyance to a safe outlet point. Low impact design principles should be used to control and mitigate the effects of increased runoff from new hardstand areas. 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.</p> <p>The proposed stormwater control system is to manage stormwater and attenuate the 10- and 100-year storm events back to permitted levels to mitigate adverse effects on the receiving environment.</p>
--	---

6.5 DISTRICT PLAN ASSESSMENT – PROPOSED LOT 2

This report has been prepared to demonstrate the likely effects of increased stormwater run-off arising from the proposed subdivision and subsequent Controlled Activity status pertaining to on-site impermeable coverage on Proposed Lot 2, and the means of mitigating run-off to no more than the levels that would result from the specified permitted threshold.

In assessing an application under this provision, the Council will exercise its discretion to review the following matters below, (a) through (i) of FNDCDP Cl 8.7.5.2.2.

In respect of matters (a) through (i), we provide the following comments:

<p><i>(a) the extent to which building site coverage and Impermeable Surfaces contribute to total catchment impermeability and the provisions of any catchment or drainage plan for that catchment;</i></p>	<p>No changes/additions to the existing impermeable areas on Proposed Lot 2 are proposed as part of this subdivision. A minimum detention setup has been specified in Section 6.2.2 of this report to assess the increase in impermeable coverage relative to the site area resulting from the subdivision.</p>
<p><i>(b) the extent to which Low Impact Design principles have been used to reduce site impermeability;</i></p>	<p>Tank attenuation proposed.</p>
<p><i>(c) any cumulative effects on total catchment impermeability;</i></p>	<p>No changes/additions to the existing impermeable areas on Proposed Lot 2 are proposed as part of this subdivision.</p>

<p><i>(d) the extent to which building site coverage and Impermeable Surfaces will alter the natural contour or drainage patterns of the site or disturb the ground and alter its ability to absorb water;</i></p>	<p>No changes to the existing stormwater routing are proposed as part of the subdivision. If stormwater management devices/outlets are to be relocated to within the proposed Proposed Lot 2 boundary, these are to be maintained such that the efficacy of the stormwater management system is unaffected.</p>
<p><i>(e) the physical qualities of the soil type;</i></p>	<p>Kerikeri Volcanic Group. Moderate drainage.</p>
<p><i>(f) the availability of land for the disposal of effluent and stormwater on the site without adverse effects on the water quantity and water quality of water bodies (including groundwater and aquifers) or on adjacent sites;</i></p>	<p>No changes to the existing stormwater routing are proposed as part of the subdivision. If stormwater management devices/outlets are to be relocated to within the Proposed Lot 2 boundary, these are to be maintained such that the efficacy of the stormwater management system is unaffected.</p> <p>The site is currently serviced by an existing effluent disposal system. The existing effluent field location relative to the proposed boundary is to be verified via an on-site survey to confirm that an offset of 1.5m from the field to the boundary and >5m offset from the field to the stormwater disposal point is available. If this is not achievable, the effluent field should be modified/repositioned to accommodate these offsets.</p>
<p><i>(g) the extent to which paved, Impermeable Surfaces are necessary for the proposed activity;</i></p>	<p>No changes to the existing hardstand areas are proposed as part of this subdivision.</p>
<p><i>h) the extent to which land scaping and vegetation may reduce adverse effects of runoff;</i></p>	<p>Existing Planting is present on-site. No specific stormwater mitigation via landscaping is proposed.</p>
<p><i>(i) the means and effectiveness of mitigating stormwater runoff to that expected by permitted activity threshold.</i></p>	<p>A minimum detention setup has been specified in Section 6.2.2 of this report to assess the increase in impermeable coverage relative to the site area resulting from the subdivision.</p>

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 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.

Wilton Joubert Ltd.



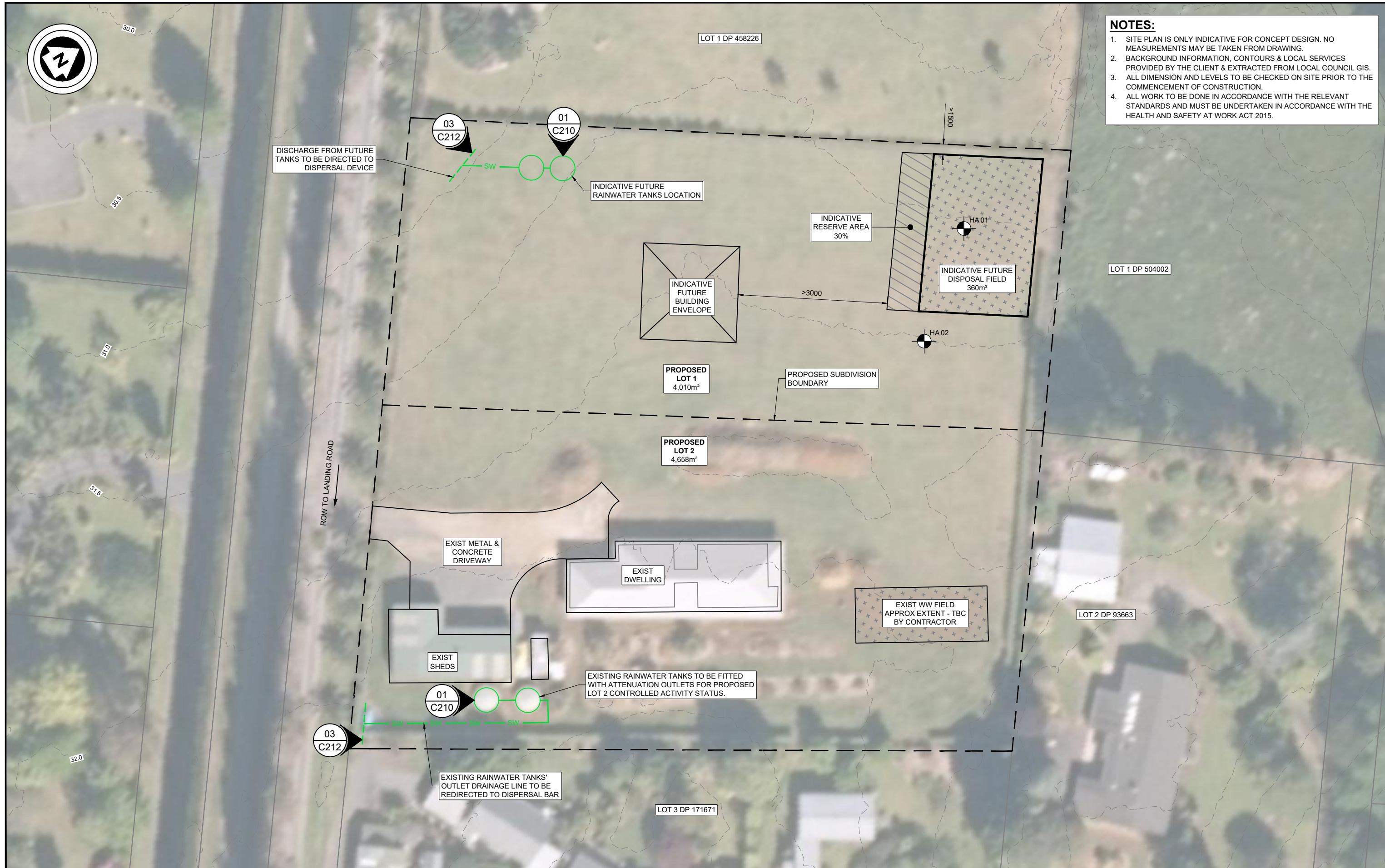
Patrick McSweeney
BE(Hons)

REPORT ATTACHMENTS

1. Site Plan – C001 (1 sheet)
2. Proposed Lot 1 Future Tank Detail - C210 (1 sheet)
3. Proposed Lot 2 Tank Detail - C211 (1 sheet)
4. Typical Dispersal Device Detail - C212 (1 sheet)
5. Calculation Set



- NOTES:**
1. SITE PLAN IS ONLY INDICATIVE FOR CONCEPT DESIGN. NO MEASUREMENTS MAY BE TAKEN FROM DRAWING.
 2. BACKGROUND INFORMATION, CONTOURS & LOCAL SERVICES PROVIDED BY THE CLIENT & EXTRACTED FROM LOCAL COUNCIL GIS.
 3. ALL DIMENSION AND LEVELS TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE RELEVANT STANDARDS AND MUST BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH AND SAFETY AT WORK ACT 2015.



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ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	JUN '24	PM	SITE SUITABILITY ASSESSMENT

DESIGNED BY:
PM

DRAWN BY:
PM

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BGS

SURVEYED BY:
OTHER

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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

DRAWING TITLE:
SITE PLAN

PROJECT DESCRIPTION:
SITE SUITABILITY ASSESSMENT

PROJECT TITLE:
**LOT 1 DP 439419
120 LANDING ROAD
KERIKERI**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: 1:500	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 134698-C001	ISSUE: 01
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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.
6. ASSUMED USE OF A 25,000 LITRE PLASTIC WATER TANKS OR SIMILARLY APPROVED.

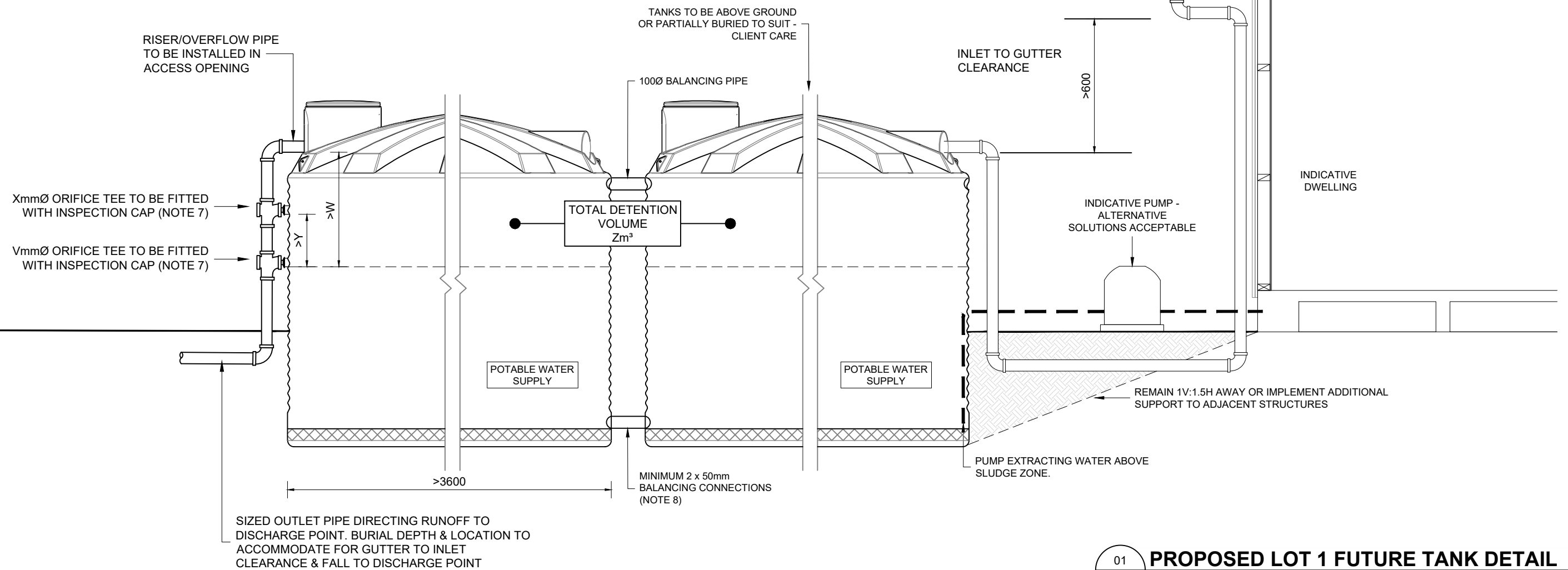
PLASTIC TANKS NOTES:

7. ALL OUTLETS / PENETRATIONS UNDER HIGH WATER PRESSURE TO BE INSTALLED BY THE MANUFACTURER.
8. TANKS TO BE CONNECTED AT BASE VIA FLEXIBLE CONNECTIONS ONLY.

DETENTION ORIFICE SETUPS					
SCENARIO	V (10% AEP ORIFICE DIAMETER IN MM)	W (HEIGHT BELOW OVERFLOW IN MM)	X (1% AEP ORIFICE DIAMETER IN MM)	Y (HEIGHT ABOVE 10% AEP ORIFICE IN MM)	Z (TOTAL DETENTION VOLUME)
1	32	>160	32	110	3.2
2	40	>290	34	180	5.6
3	44	>420	40	270	8.4

INTERNAL RISER SETUP ALSO ACCEPTABLE. TANK PENETRATIONS FOR ORIFICE TEES TO HAVE MINIMUM SEPARATION COMPLYING WITH MANUFACTURER'S SPECIFICATIONS.

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
C001 **PROPOSED LOT 1 FUTURE TANK DETAIL**
N.T.S

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ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
01	JUN '24	PM	SITE SUITABILITY ASSESSMENT

DESIGNED BY: PM
DRAWN BY: PM
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SURVEYED BY: OTHER

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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

DRAWING TITLE: **PROPOSED LOT 1 FUTURE TANK DETAIL**

PROJECT DESCRIPTION: **SITE SUITABILITY ASSESSMENT**

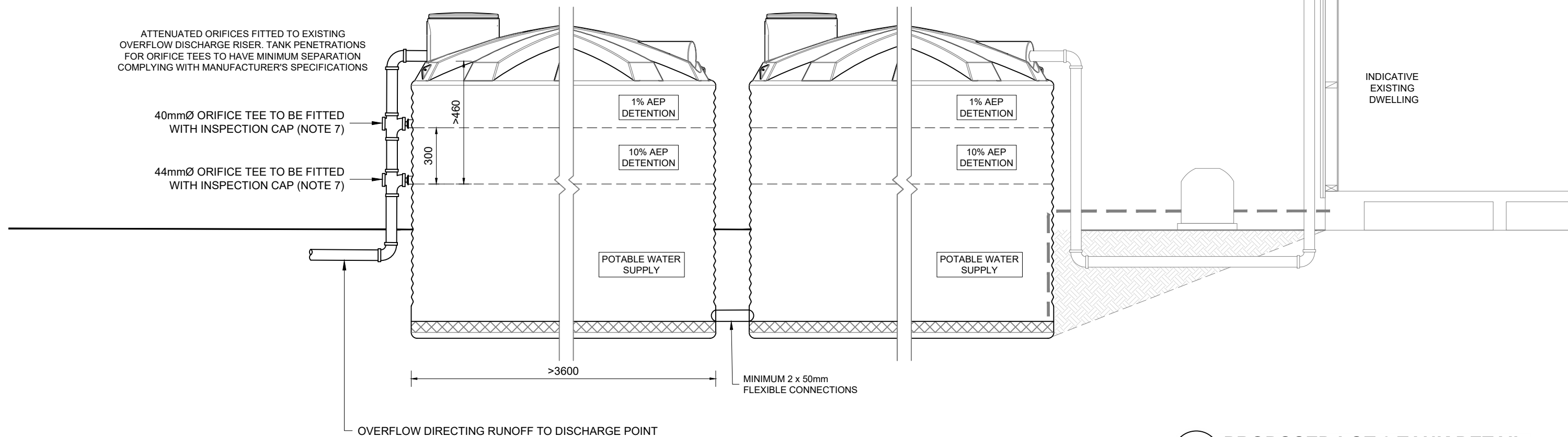
PROJECT TITLE: **LOT 1 DP 439419
120 LANDING ROAD
KERIKERI**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: N.T.S	CO-ORDINATE SYSTEM: NOT COORDINATED
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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.
6. ASSUMED USE OF A 25,000 LITRE PLASTIC WATER TANKS OR SIMILARLY APPROVED.

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



02
C001 **PROPOSED LOT 2 TANK DETAIL**
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No.	DATE	BY	DESCRIPTION
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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

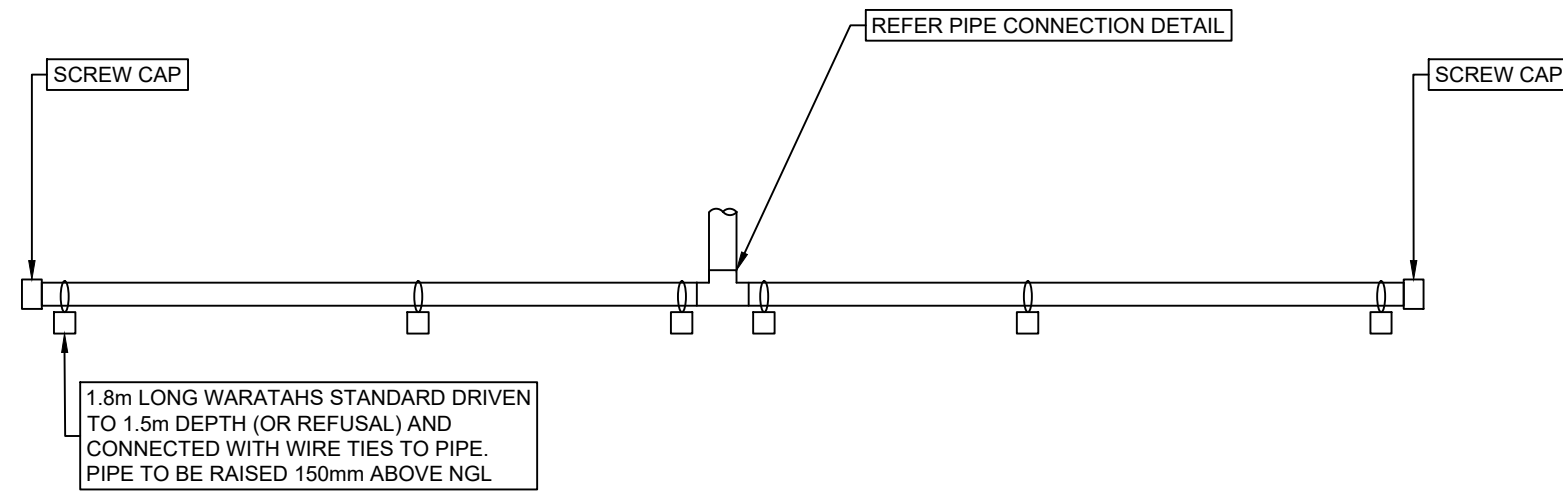
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PROPOSED LOT 2 TANK DETAIL

PROJECT DESCRIPTION:
SITE SUITABILITY ASSESSMENT

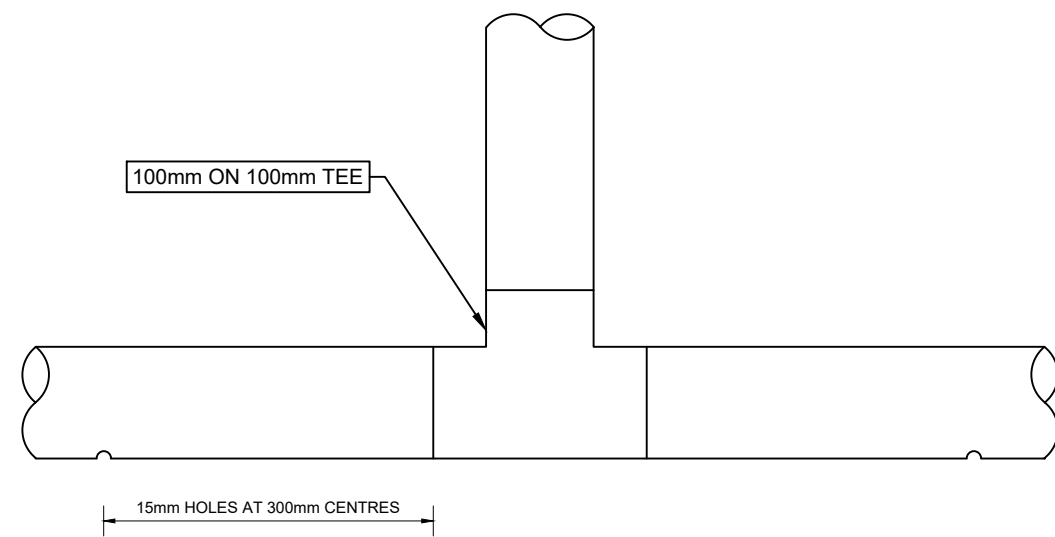
PROJECT TITLE:
**LOT 1 DP 439419
120 LANDING ROAD
KERIKERI**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
DRAWING SCALE: N.T.S	CO-ORDINATE SYSTEM: NOT COORDINATED
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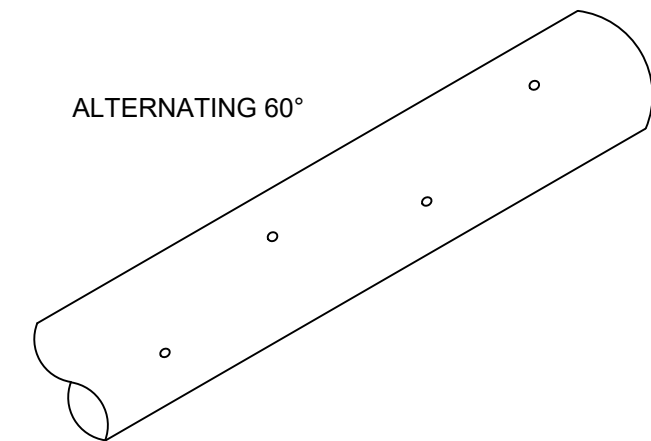
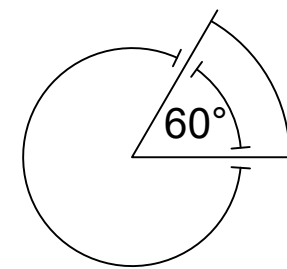
NOTE:
ALTERNATIVE DISPERSAL TRENCH ALSO
ACCEPTABLE WITH DETAILED DESIGN



PLAN



PIPE CONNECTION DETAIL



PIPE OUTLET HOLE
ARRANGEMENT DETAIL

03 **TYPICAL DISPERSAL DEVICE DETAIL**
C001 N.T.S

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01	JUN '24	PM	SITE SUITABILITY ASSESSMENT

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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEERS APPROVAL

DRAWING TITLE:
TYPICAL DISPERSAL DEVICE DETAIL

PROJECT DESCRIPTION:
SITE SUITABILITY ASSESSMENT

PROJECT TITLE:
**LOT 1 DP 439419
120 LANDING ROAD
KERIKERI**

ORIGINAL DRAWING SIZE: A3	OFFICE: OREWA
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Proposed Lot 1



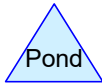
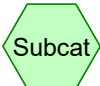
Future Permitted
Coverage Exceedance
Estimation 1 (100.3m²) -
Greenfields 15% Site
Area



Future Permitted
Coverage Exceedance
Estimation 2 (200.5m²) -
Greenfields 17.5% Site
Area



Future Permitted
Coverage Exceedance
Estimation 3 (300.8m²) -
Greenfields 20% Site
Area



134698

Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

Prepared by WJL

Printed 26/06/2024

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Page 2

Subcatchment 21S: Future Permitted Coverage Exceedance Estimation 2 (200.5m²) - Greenfields 17.5%

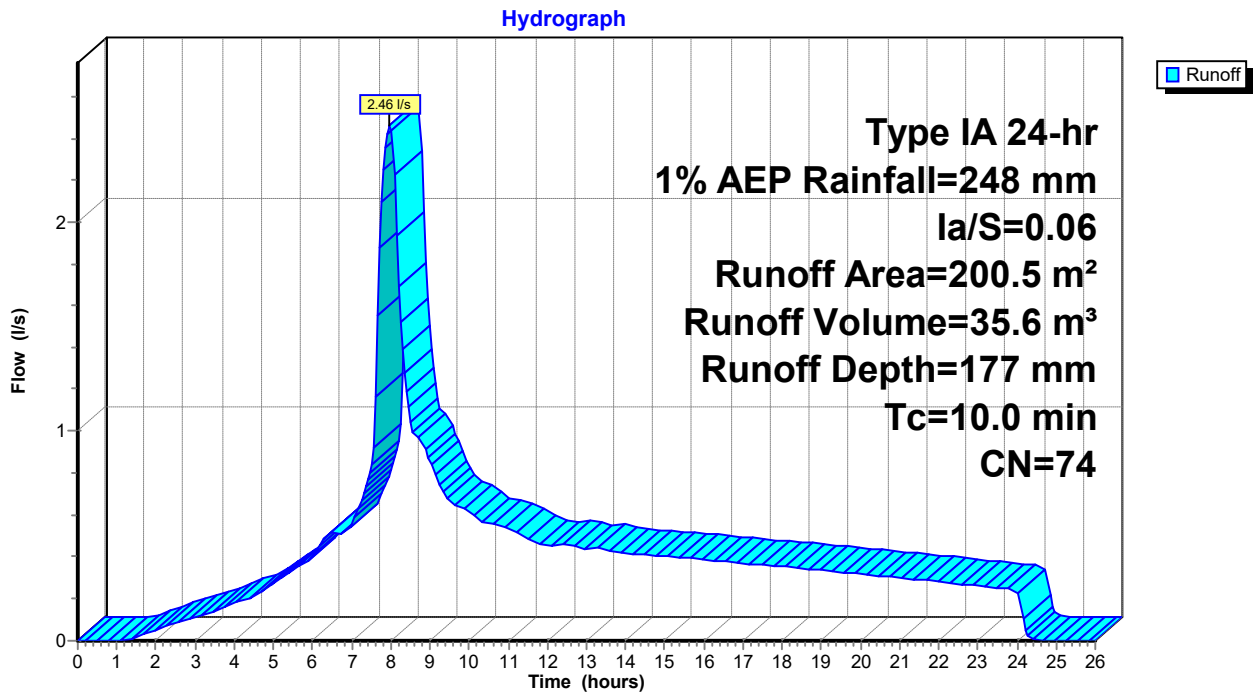
Runoff = 2.46 l/s @ 7.98 hrs, Volume= 35.6 m³, Depth= 177 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

Area (m ²)	CN	Description
200.5	74	Greenfields Conditions
200.5		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 21S: Future Permitted Coverage Exceedance Estimation 2 (200.5m²) - Greenfields 17.5% Site



134698

Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

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Page 3

for Subcatchment 25S: Future Permitted Coverage Exceedance Estimation 3 (300.8m²) - Greenfields 20%

Runoff = 3.69 l/s @ 7.98 hrs, Volume= 53.4 m³, Depth= 177 mm

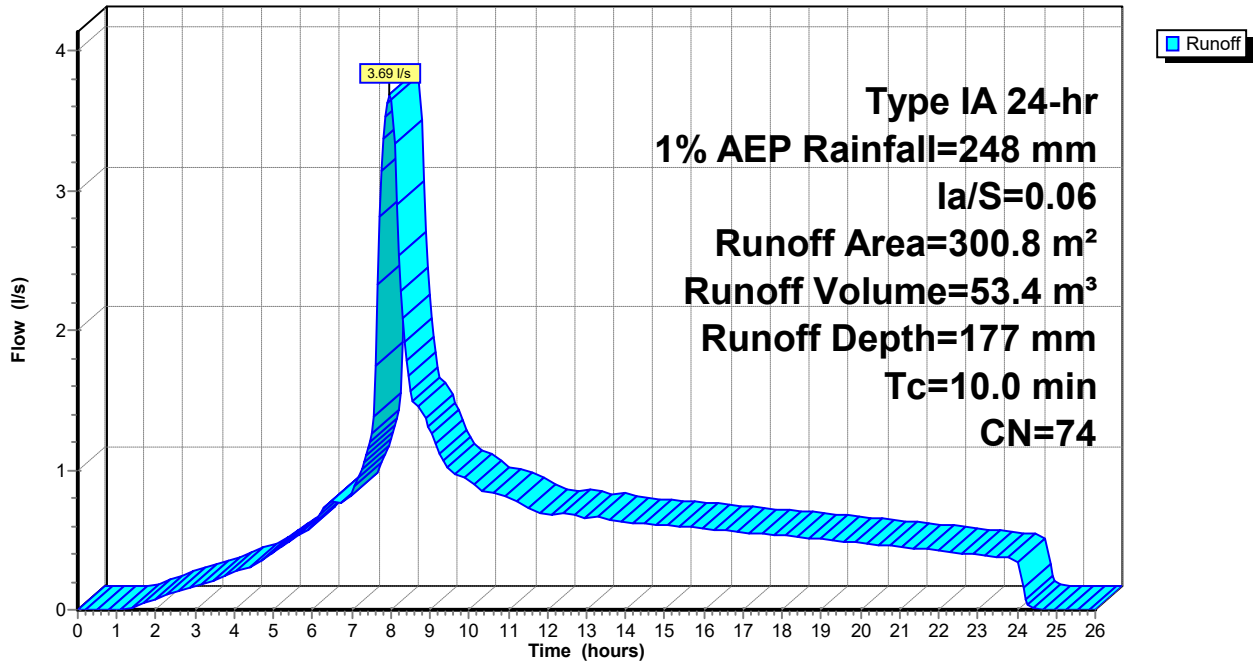
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Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

Area (m ²)	CN	Description
300.8	74	Greenfields Conditions
300.8		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 25S: Future Permitted Coverage Exceedance Estimation 3 (300.8m²) - Greenfields 20% Site A

Hydrograph



134698

Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

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for Subcatchment 30S: Future Permitted Coverage Exceedance Estimation 1 (100.3m²) - Greenfields 15%

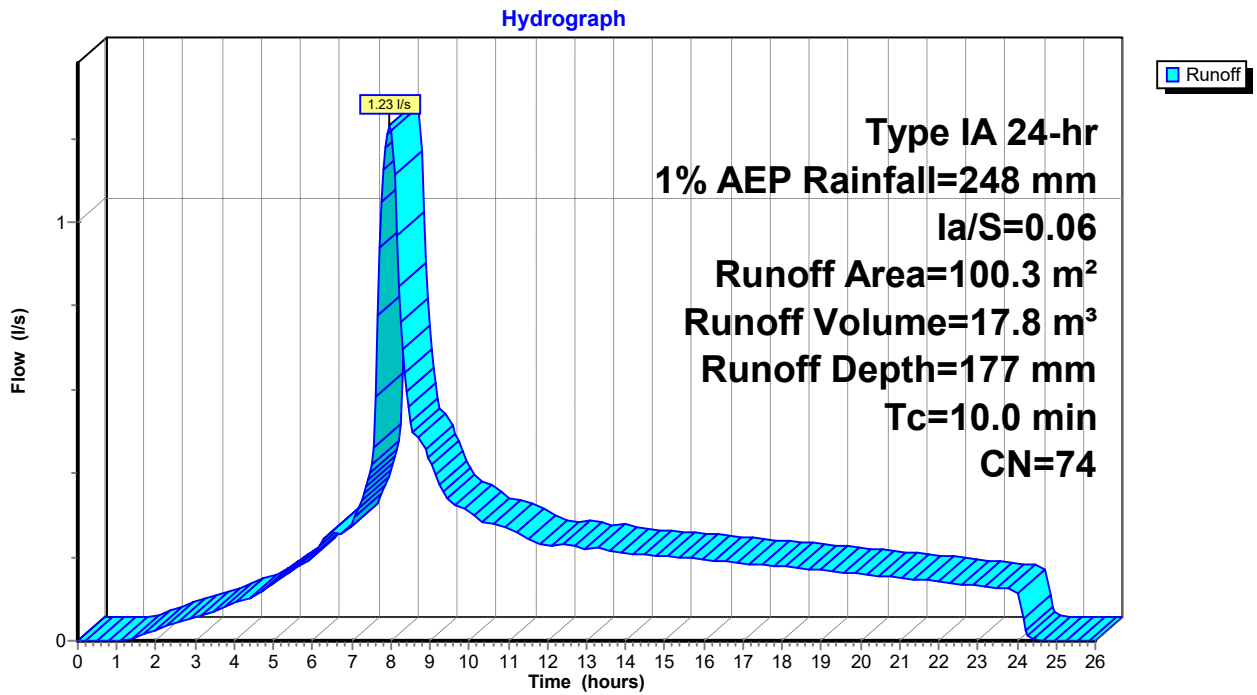
Runoff = 1.23 l/s @ 7.98 hrs, Volume= 17.8 m³, Depth= 177 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

Area (m ²)	CN	Description
100.3	74	Greenfields Conditions
100.3		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 30S: Future Permitted Coverage Exceedance Estimation 1 (100.3m²) - Greenfields 15% Site A



134698

Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

Prepared by WJL

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Page 5

Subcatchment 21S: Future Permitted Coverage Exceedance Estimation 2 (200.5m²) - Greenfields 17.5%

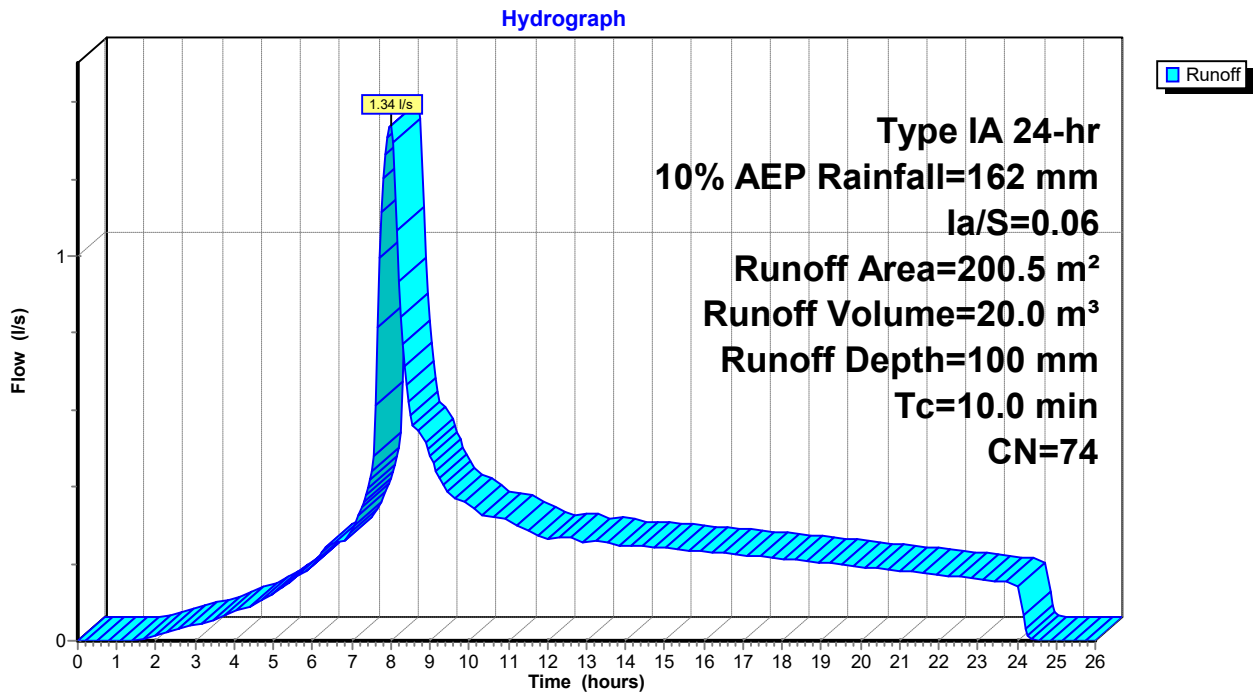
Runoff = 1.34 l/s @ 7.99 hrs, Volume= 20.0 m³, Depth= 100 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

Area (m ²)	CN	Description
200.5	74	Greenfields Conditions
200.5		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 21S: Future Permitted Coverage Exceedance Estimation 2 (200.5m²) - Greenfields 17.5% Site



134698

Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

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Page 6

for Subcatchment 25S: Future Permitted Coverage Exceedance Estimation 3 (300.8m²) - Greenfields 20%

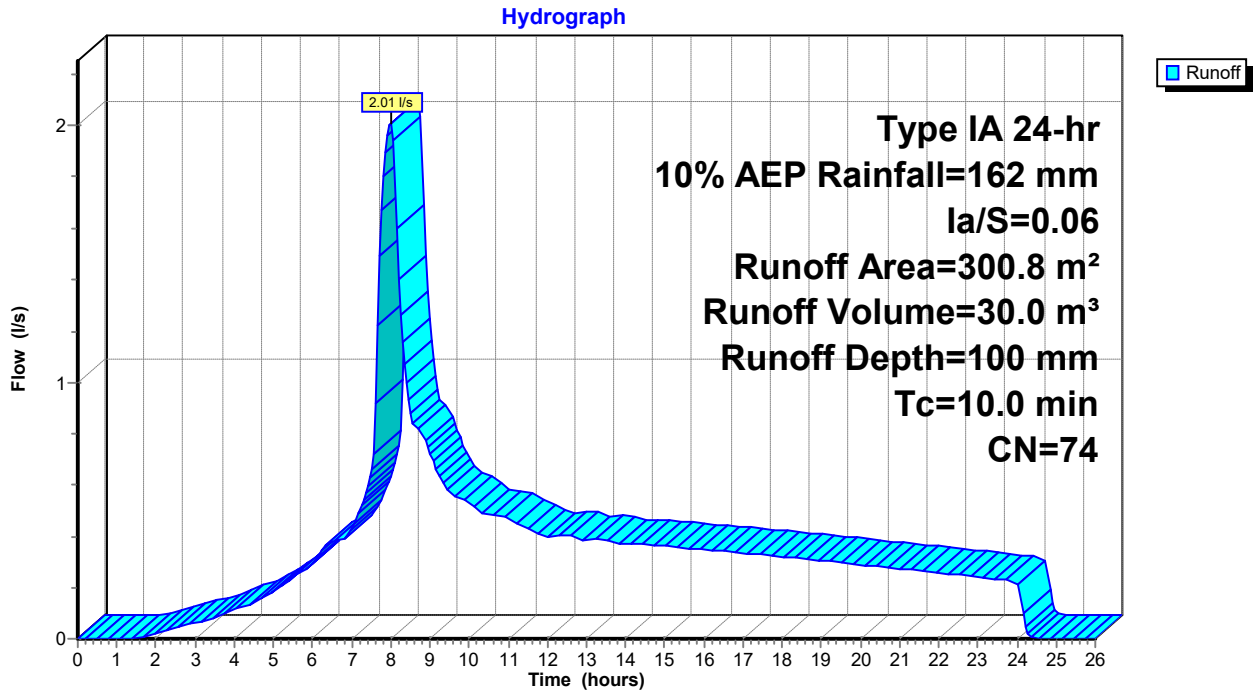
Runoff = 2.01 l/s @ 7.99 hrs, Volume= 30.0 m³, Depth= 100 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 300.8	74	Greenfields Conditions
300.8		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 25S: Future Permitted Coverage Exceedance Estimation 3 (300.8m²) - Greenfields 20% Site A



134698

Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

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for Subcatchment 30S: Future Permitted Coverage Exceedance Estimation 1 (100.3m²) - Greenfields 15%

Runoff = 0.67 l/s @ 7.99 hrs, Volume= 10.0 m³, Depth= 100 mm

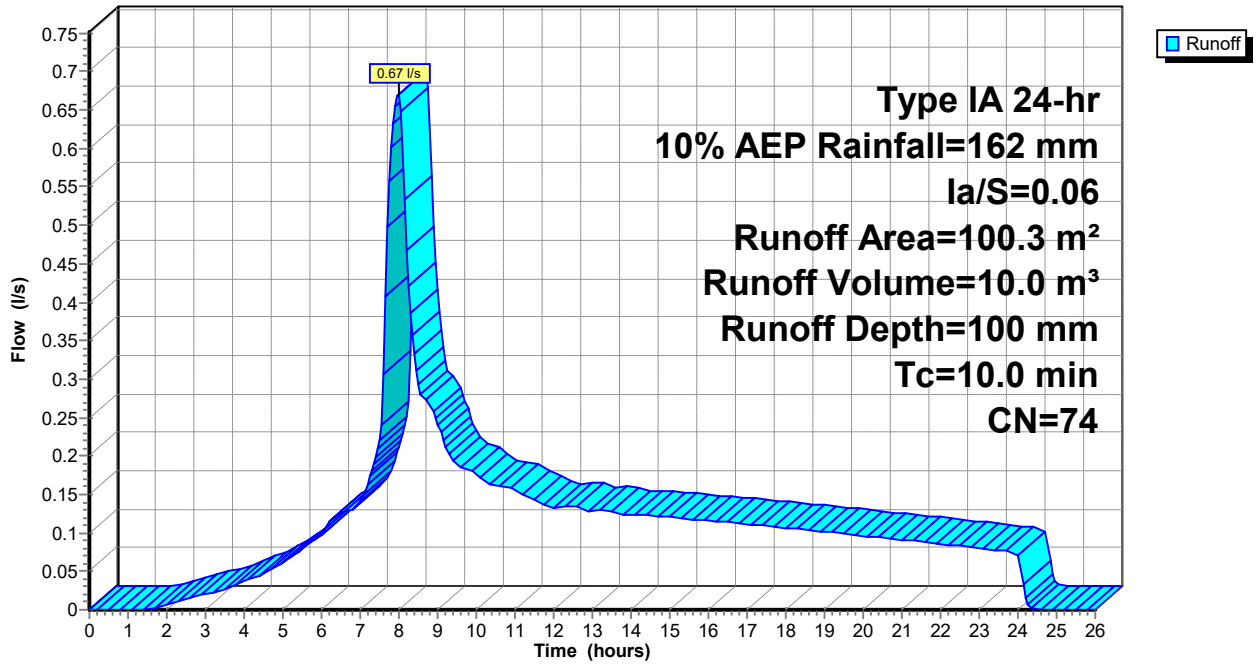
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 100.3	74	Greenfields Conditions
100.3		100.00% Pervious Area

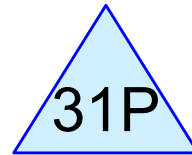
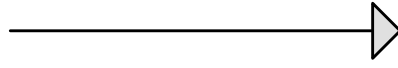
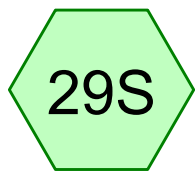
Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 30S: Future Permitted Coverage Exceedance Estimation 1 (100.3m²) - Greenfields 15% Site A

Hydrograph

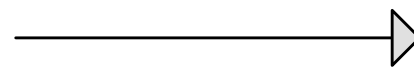


Proposed Lot 1



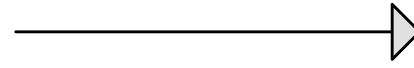
Permitted Coverage
Exceedance 1 via
Dwelling Roof

Detention Volume in
New Rainwater Tanks 1



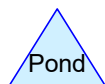
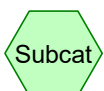
Permitted Coverage
Exceedance 2 via
Dwelling Roof

Detention Volume in
New Rainwater Tanks 2



Permitted Coverage
Exceedance 3 via
Dwelling Roof

Detention Volume in
New Rainwater Tanks 3



Summary for Subcatchment 20S: Permitted Coverage Exceedance 2 via Dwelling Roof

Runoff = 3.74 l/s @ 7.94 hrs, Volume= 55.7 m³, Depth= 278 mm

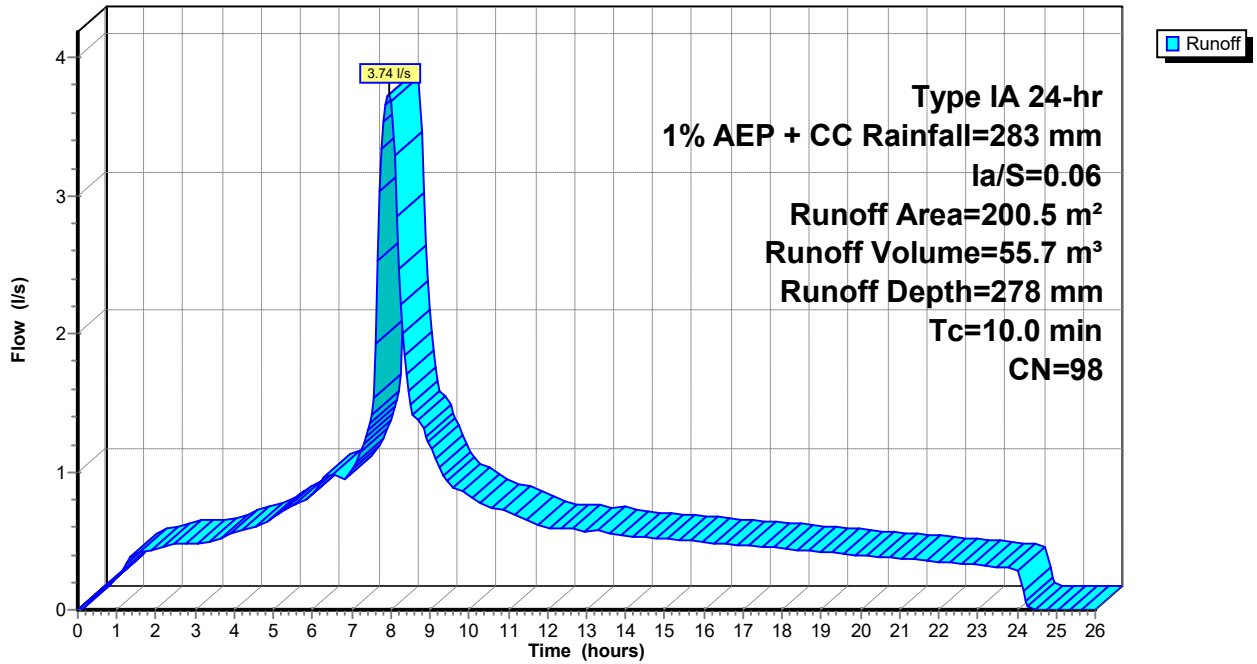
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 1% AEP + CC Rainfall=283 mm, Ia/S=0.06

Area (m ²)	CN	Description
200.5	98	Impermeable Roof Area
200.5		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 20S: Permitted Coverage Exceedance 2 via Dwelling Roof

Hydrograph



Summary for Subcatchment 24S: Permitted Coverage Exceedance 3 via Dwelling Roof

Runoff = 5.61 l/s @ 7.94 hrs, Volume= 83.5 m³, Depth= 278 mm

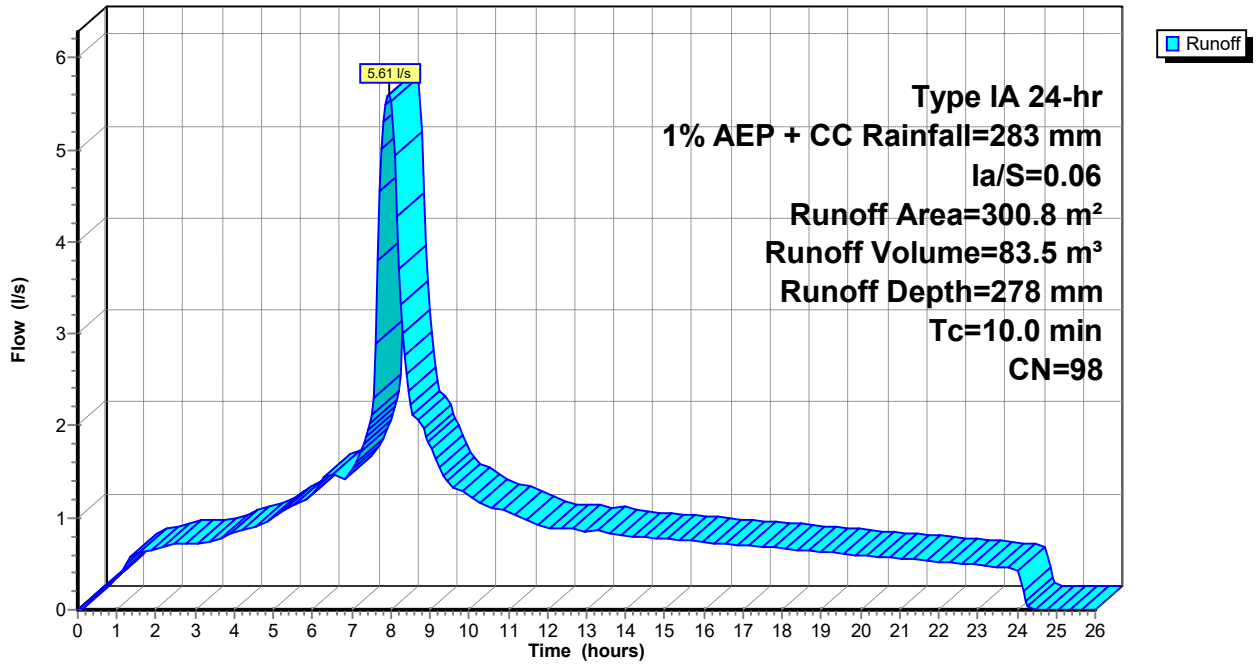
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + CC Rainfall=283 mm, Ia/S=0.06

Area (m ²)	CN	Description
300.8	98	Impermeable Roof Area
300.8		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 24S: Permitted Coverage Exceedance 3 via Dwelling Roof

Hydrograph



Summary for Subcatchment 29S: Permitted Coverage Exceedance 1 via Dwelling Roof

Runoff = 1.87 l/s @ 7.94 hrs, Volume= 27.8 m³, Depth= 278 mm

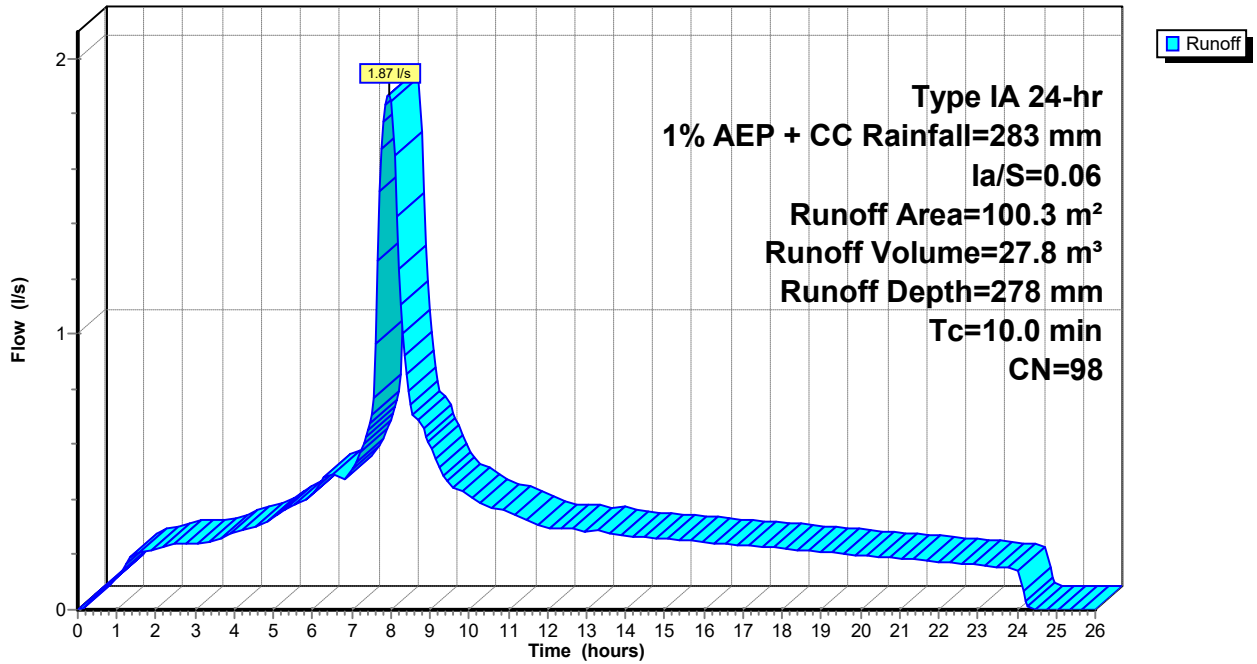
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 1% AEP + CC Rainfall=283 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 100.3	98	Impermeable Roof Area
100.3		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 29S: Permitted Coverage Exceedance 1 via Dwelling Roof

Hydrograph



Summary for Pond 22P: Detention Volume in New Rainwater Tanks 2

Inflow Area = 200.5 m², 100.00% Impervious, Inflow Depth = 278 mm for 1% AEP + CC event
 Inflow = 3.74 l/s @ 7.94 hrs, Volume= 55.7 m³
 Outflow = 2.40 l/s @ 8.22 hrs, Volume= 55.6 m³, Atten= 36%, Lag= 16.7 min
 Primary = 2.40 l/s @ 8.22 hrs, Volume= 55.6 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.281 m @ 8.22 hrs Surf.Area= 20.4 m² Storage= 5.7 m³

Plug-Flow detention time= 34.4 min calculated for 55.6 m³ (100% of inflow)
 Center-of-Mass det. time= 34.1 min (679.4 - 645.3)

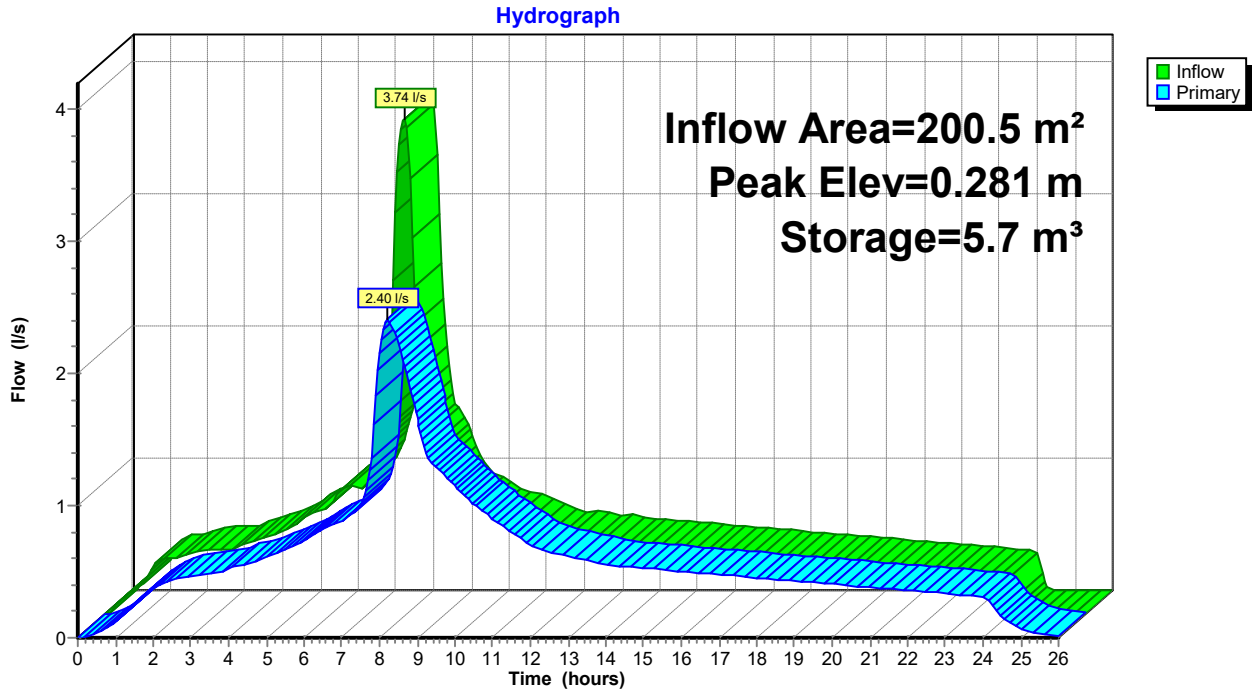
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	40 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.180 m	34 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=2.40 l/s @ 8.22 hrs HW=0.281 m (Free Discharge)

- 1=10% AEP Neutrality Orifice (Orifice Controls 1.71 l/s @ 1.36 m/s)
- 2=1% AEP Neutrality Orifice (Orifice Controls 0.70 l/s @ 0.77 m/s)

Pond 22P: Detention Volume in New Rainwater Tanks 2



Summary for Pond 26P: Detention Volume in New Rainwater Tanks 3

Inflow Area = 300.8 m², 100.00% Impervious, Inflow Depth = 278 mm for 1% AEP + CC event
 Inflow = 5.61 l/s @ 7.94 hrs, Volume= 83.5 m³
 Outflow = 3.69 l/s @ 8.21 hrs, Volume= 83.5 m³, Atten= 34%, Lag= 16.2 min
 Primary = 3.69 l/s @ 8.21 hrs, Volume= 83.5 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.412 m @ 8.21 hrs Surf.Area= 20.4 m² Storage= 8.4 m³

Plug-Flow detention time= 31.7 min calculated for 83.5 m³ (100% of inflow)
 Center-of-Mass det. time= 31.5 min (676.7 - 645.3)

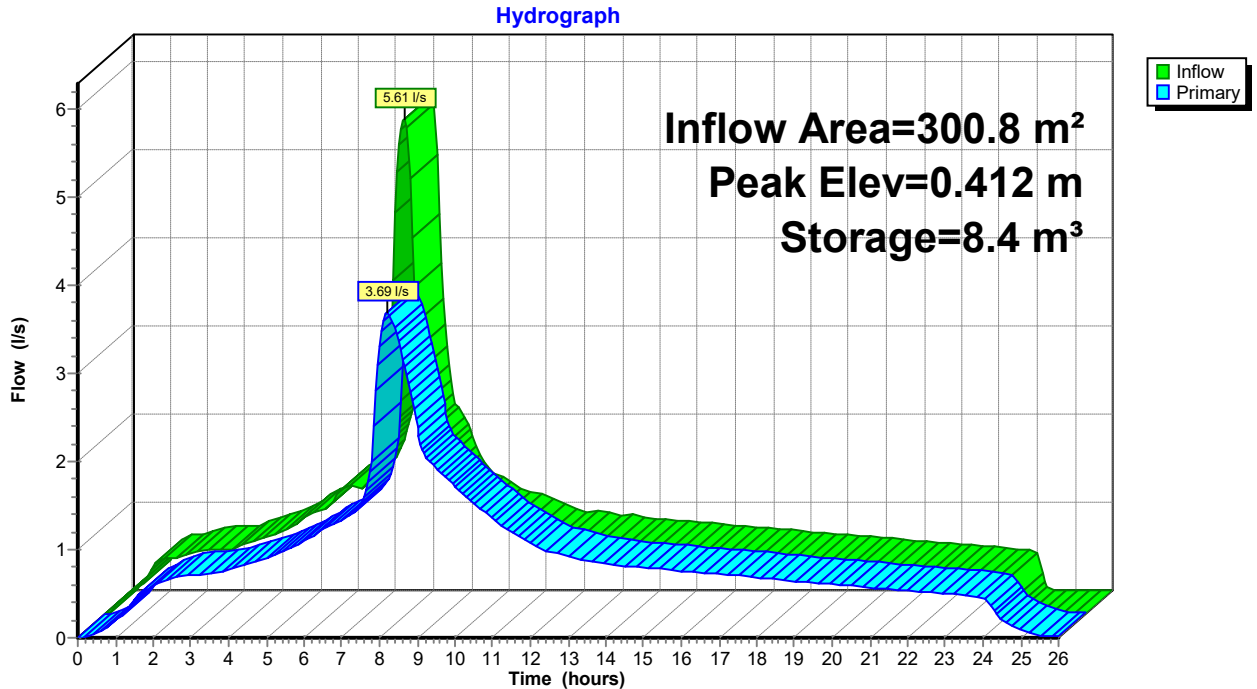
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	44 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.270 m	40 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=3.69 l/s @ 8.21 hrs HW=0.412 m (Free Discharge)

- 1=10% AEP Neutrality Orifice (Orifice Controls 2.52 l/s @ 1.66 m/s)
- 2=1% AEP Neutrality Orifice (Orifice Controls 1.16 l/s @ 0.93 m/s)

Pond 26P: Detention Volume in New Rainwater Tanks 3



Summary for Pond 31P: Detention Volume in New Rainwater Tanks 1

Inflow Area = 100.3 m², 100.00% Impervious, Inflow Depth = 278 mm for 1% AEP + CC event
 Inflow = 1.87 l/s @ 7.94 hrs, Volume= 27.8 m³
 Outflow = 1.20 l/s @ 8.22 hrs, Volume= 27.8 m³, Atten= 36%, Lag= 16.8 min
 Primary = 1.20 l/s @ 8.22 hrs, Volume= 27.8 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.159 m @ 8.22 hrs Surf.Area= 20.4 m² Storage= 3.2 m³

Plug-Flow detention time= 45.1 min calculated for 27.8 m³ (100% of inflow)
 Center-of-Mass det. time= 44.4 min (689.7 - 645.3)

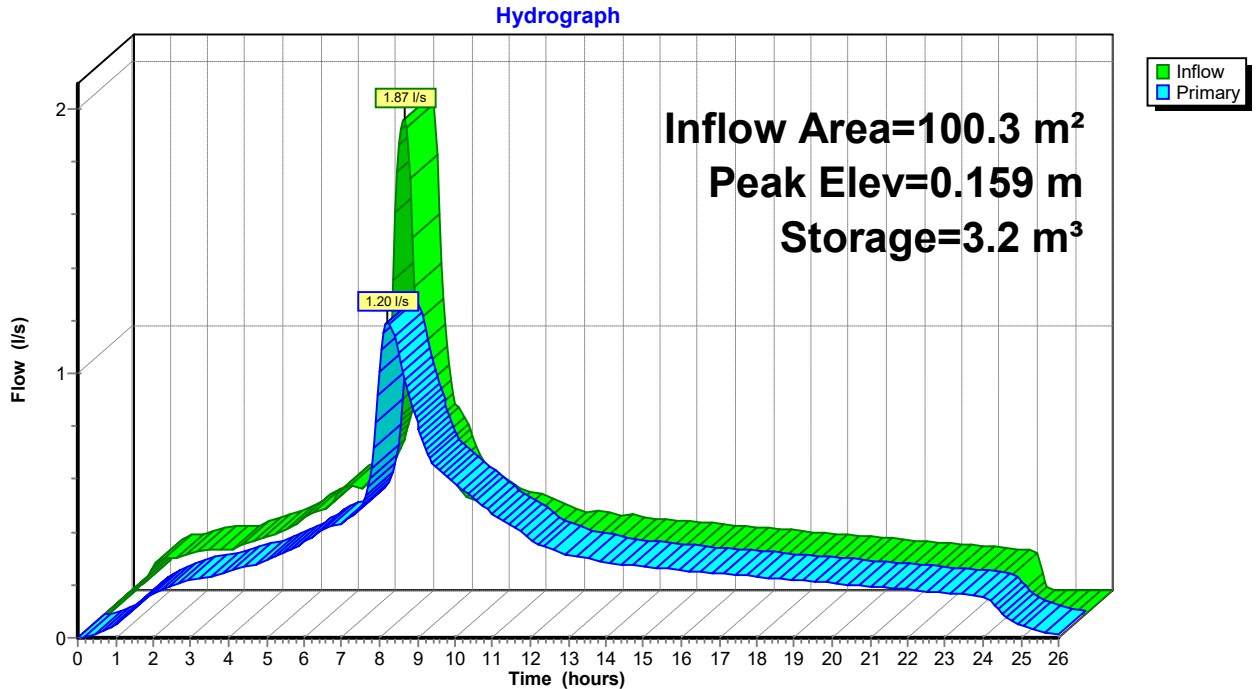
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	32 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.110 m	32 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=1.20 l/s @ 8.22 hrs HW=0.159 m (Free Discharge)

- 1=10% AEP Neutrality Orifice (Orifice Controls 0.81 l/s @ 1.01 m/s)
- 2=1% AEP Neutrality Orifice (Orifice Controls 0.39 l/s @ 0.48 m/s)

Pond 31P: Detention Volume in New Rainwater Tanks 1



Summary for Subcatchment 20S: Permitted Coverage Exceedance 2 via Dwelling Roof

Runoff = 2.41 l/s @ 7.94 hrs, Volume= 35.6 m³, Depth= 178 mm

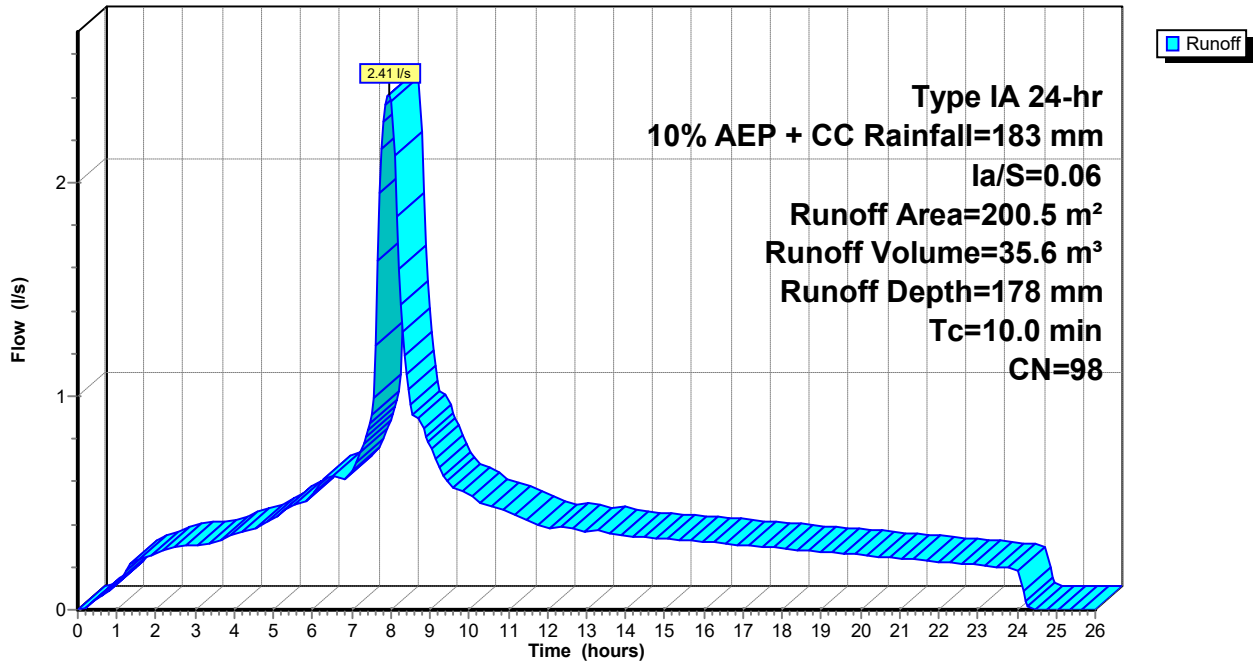
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP + CC Rainfall=183 mm, Ia/S=0.06

Area (m ²)	CN	Description
200.5	98	Impermeable Roof Area
200.5		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 20S: Permitted Coverage Exceedance 2 via Dwelling Roof

Hydrograph



Summary for Subcatchment 24S: Permitted Coverage Exceedance 3 via Dwelling Roof

Runoff = 3.62 l/s @ 7.94 hrs, Volume= 53.4 m³, Depth= 178 mm

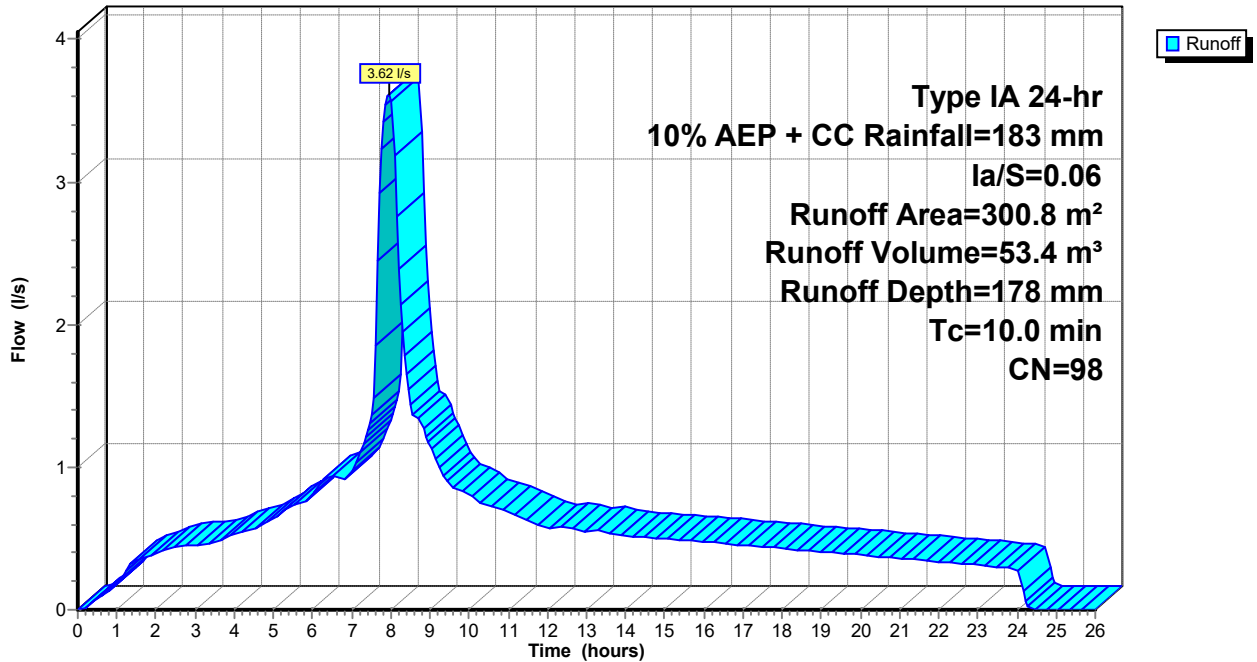
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10% AEP + CC Rainfall=183 mm, Ia/S=0.06

Area (m ²)	CN	Description
300.8	98	Impermeable Roof Area
300.8		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 24S: Permitted Coverage Exceedance 3 via Dwelling Roof

Hydrograph



Summary for Subcatchment 29S: Permitted Coverage Exceedance 1 via Dwelling Roof

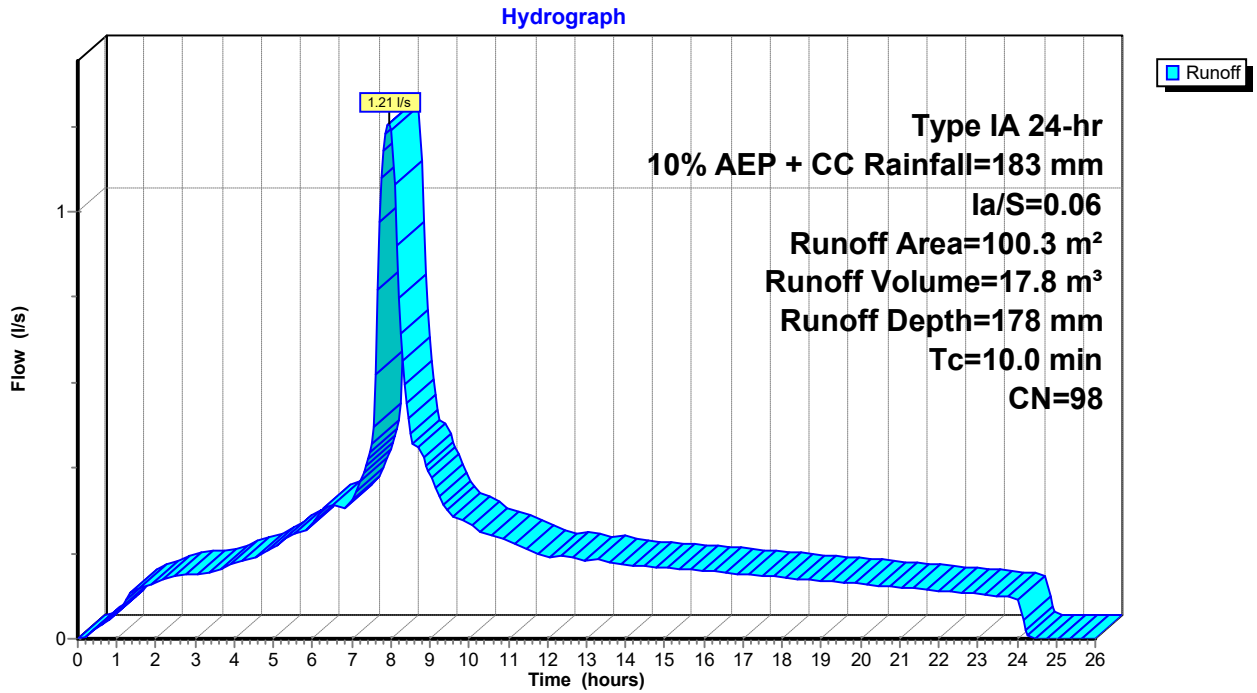
Runoff = 1.21 l/s @ 7.94 hrs, Volume= 17.8 m³, Depth= 178 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP + CC Rainfall=183 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 100.3	98	Impermeable Roof Area
100.3		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 29S: Permitted Coverage Exceedance 1 via Dwelling Roof



Summary for Pond 22P: Detention Volume in New Rainwater Tanks 2

Inflow Area = 200.5 m², 100.00% Impervious, Inflow Depth = 178 mm for 10% AEP + CC event
 Inflow = 2.41 l/s @ 7.94 hrs, Volume= 35.6 m³
 Outflow = 1.34 l/s @ 8.29 hrs, Volume= 35.6 m³, Atten= 45%, Lag= 20.8 min
 Primary = 1.34 l/s @ 8.29 hrs, Volume= 35.6 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.180 m @ 8.28 hrs Surf.Area= 20.4 m² Storage= 3.7 m³

Plug-Flow detention time= 34.1 min calculated for 35.6 m³ (100% of inflow)
 Center-of-Mass det. time= 33.8 min (683.8 - 650.0)

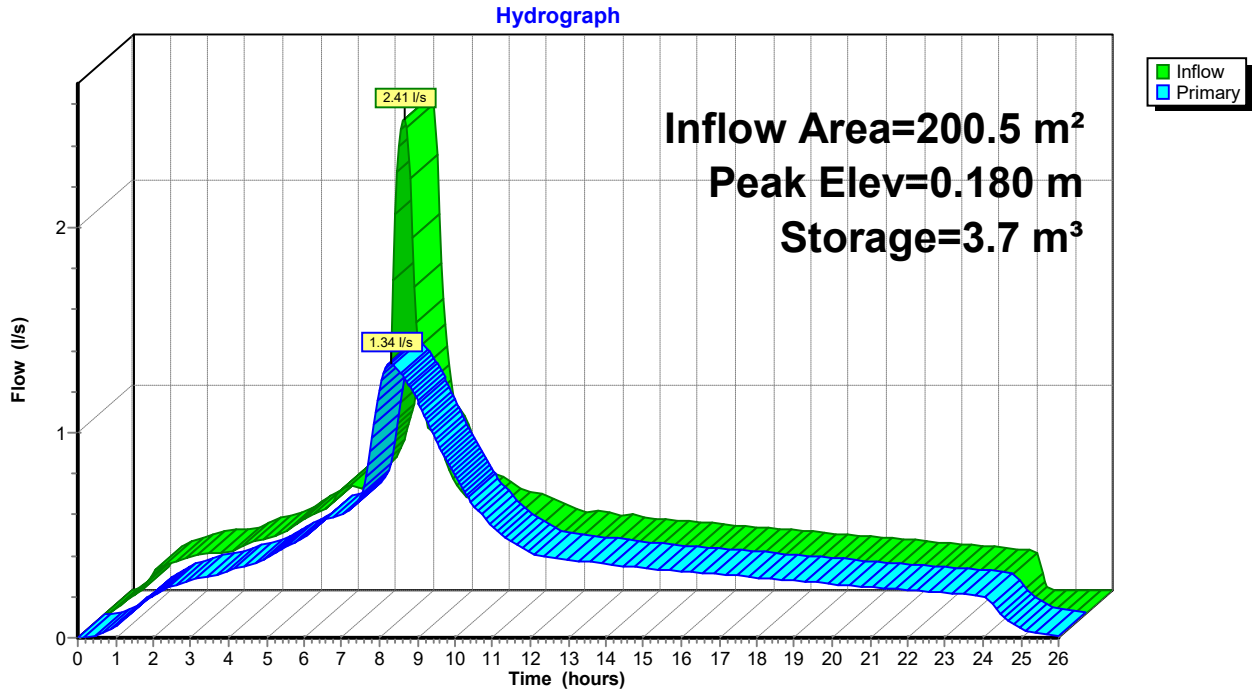
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	40 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.180 m	34 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=1.34 l/s @ 8.29 hrs HW=0.180 m (Free Discharge)

- 1=10% AEP Neutrality Orifice (Orifice Controls 1.34 l/s @ 1.06 m/s)
- 2=1% AEP Neutrality Orifice (Orifice Controls 0.00 l/s @ 0.04 m/s)

Pond 22P: Detention Volume in New Rainwater Tanks 2



Summary for Pond 26P: Detention Volume in New Rainwater Tanks 3

Inflow Area = 300.8 m², 100.00% Impervious, Inflow Depth = 178 mm for 10% AEP + CC event
 Inflow = 3.62 l/s @ 7.94 hrs, Volume= 53.4 m³
 Outflow = 1.99 l/s @ 8.29 hrs, Volume= 53.4 m³, Atten= 45%, Lag= 21.1 min
 Primary = 1.99 l/s @ 8.29 hrs, Volume= 53.4 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.265 m @ 8.29 hrs Surf.Area= 20.4 m² Storage= 5.4 m³

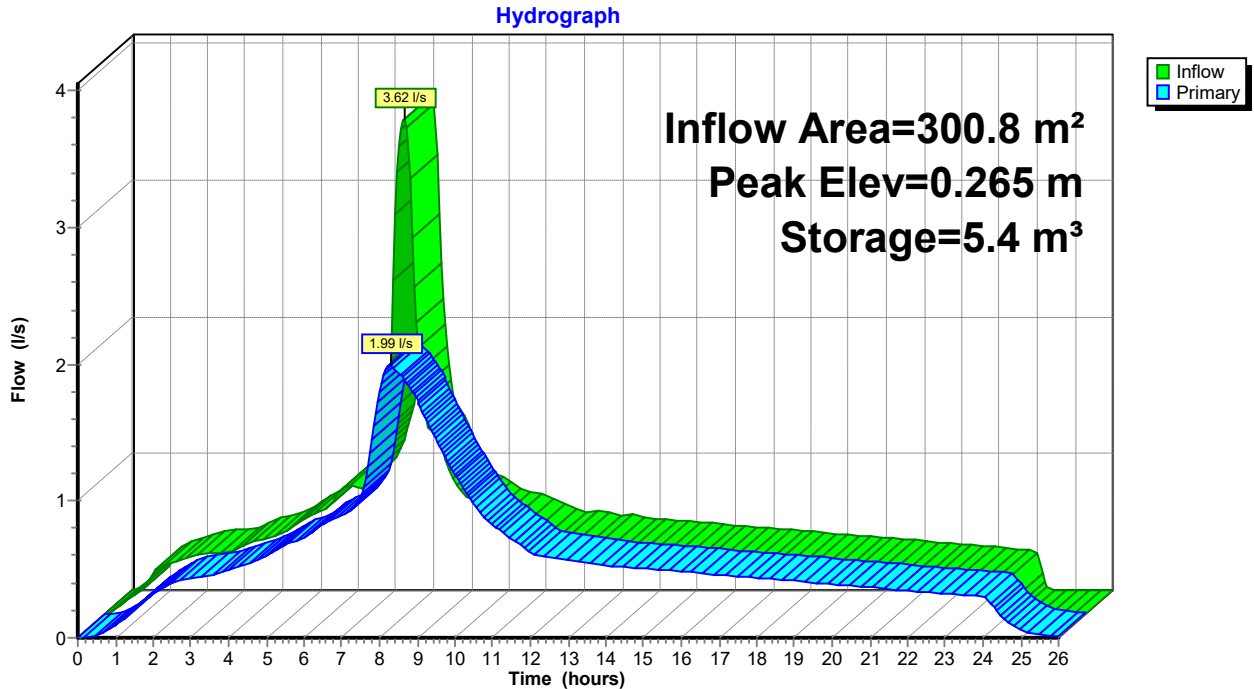
Plug-Flow detention time= 30.5 min calculated for 53.3 m³ (100% of inflow)
 Center-of-Mass det. time= 30.4 min (680.4 - 650.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	44 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.270 m	40 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=1.99 l/s @ 8.29 hrs HW=0.265 m (Free Discharge)
 1=10% AEP Neutrality Orifice (Orifice Controls 1.99 l/s @ 1.31 m/s)
 2=1% AEP Neutrality Orifice (Controls 0.00 l/s)

Pond 26P: Detention Volume in New Rainwater Tanks 3



Summary for Pond 31P: Detention Volume in New Rainwater Tanks 1

Inflow Area = 100.3 m², 100.00% Impervious, Inflow Depth = 178 mm for 10% AEP + CC event
 Inflow = 1.21 l/s @ 7.94 hrs, Volume= 17.8 m³
 Outflow = 0.64 l/s @ 8.31 hrs, Volume= 17.8 m³, Atten= 47%, Lag= 22.5 min
 Primary = 0.64 l/s @ 8.31 hrs, Volume= 17.8 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.104 m @ 8.31 hrs Surf.Area= 20.4 m² Storage= 2.1 m³

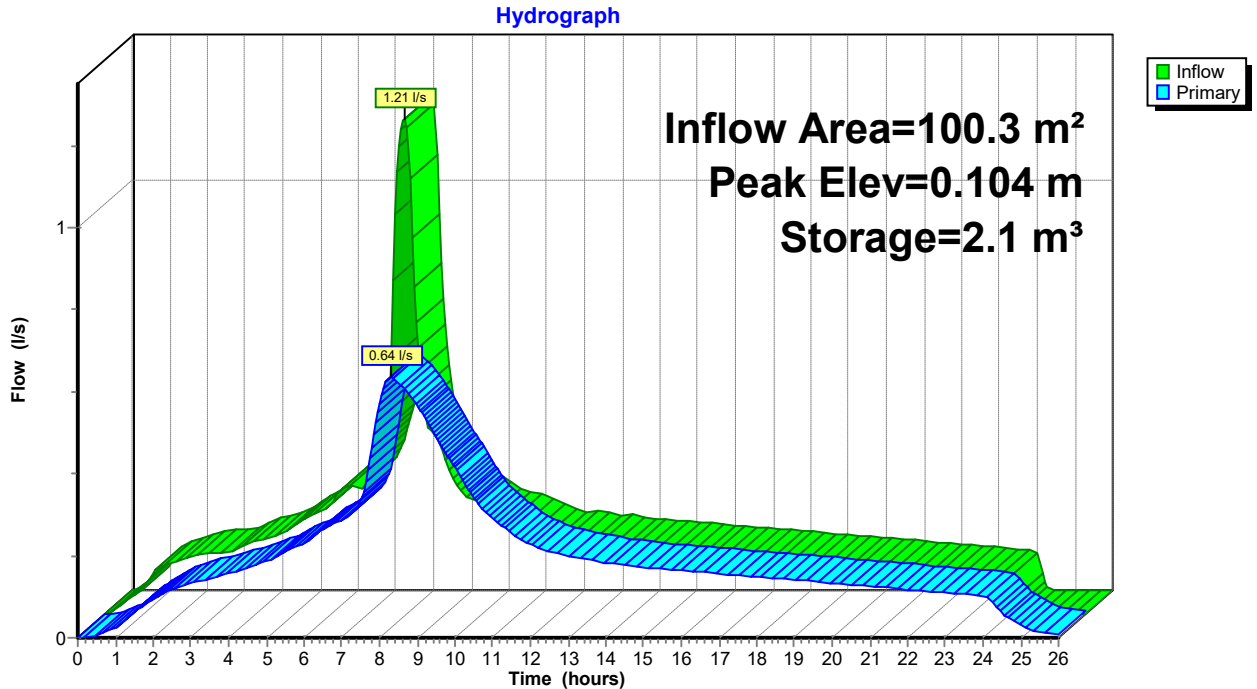
Plug-Flow detention time= 44.2 min calculated for 17.8 m³ (100% of inflow)
 Center-of-Mass det. time= 43.4 min (693.4 - 650.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

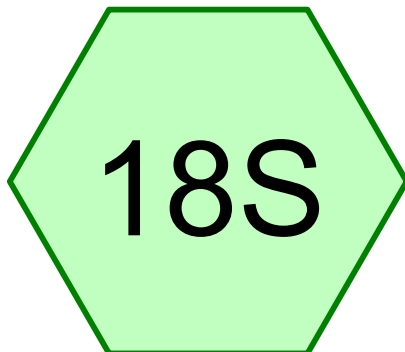
Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	32 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.110 m	32 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=0.64 l/s @ 8.31 hrs HW=0.104 m (Free Discharge)
 1=10% AEP Neutrality Orifice (Orifice Controls 0.64 l/s @ 0.79 m/s)
 2=1% AEP Neutrality Orifice (Controls 0.00 l/s)

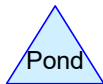
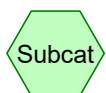
Pond 31P: Detention Volume in New Rainwater Tanks 1



Proposed Lot 2



Permitted Coverage
Exceedance (323.3m²) -
Greenfields



Summary for Subcatchment 18S: Permitted Coverage Exceedance (323.3m²) - Greenfields

Runoff = 3.97 l/s @ 7.98 hrs, Volume= 57.4 m³, Depth= 177 mm

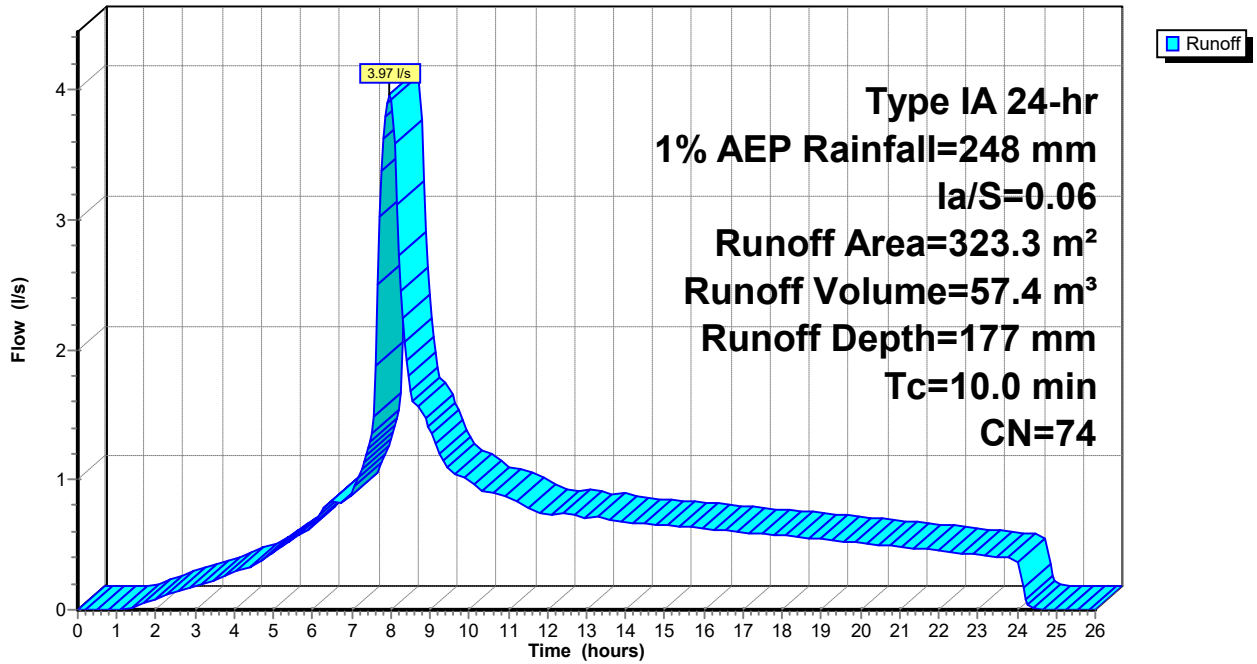
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP Rainfall=248 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 323.3	74	Greenfields Conditions
323.3		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 18S: Permitted Coverage Exceedance (323.3m²) - Greenfields

Hydrograph



Summary for Subcatchment 18S: Permitted Coverage Exceedance (323.3m²) - Greenfields

Runoff = 2.16 l/s @ 7.99 hrs, Volume= 32.3 m³, Depth= 100 mm

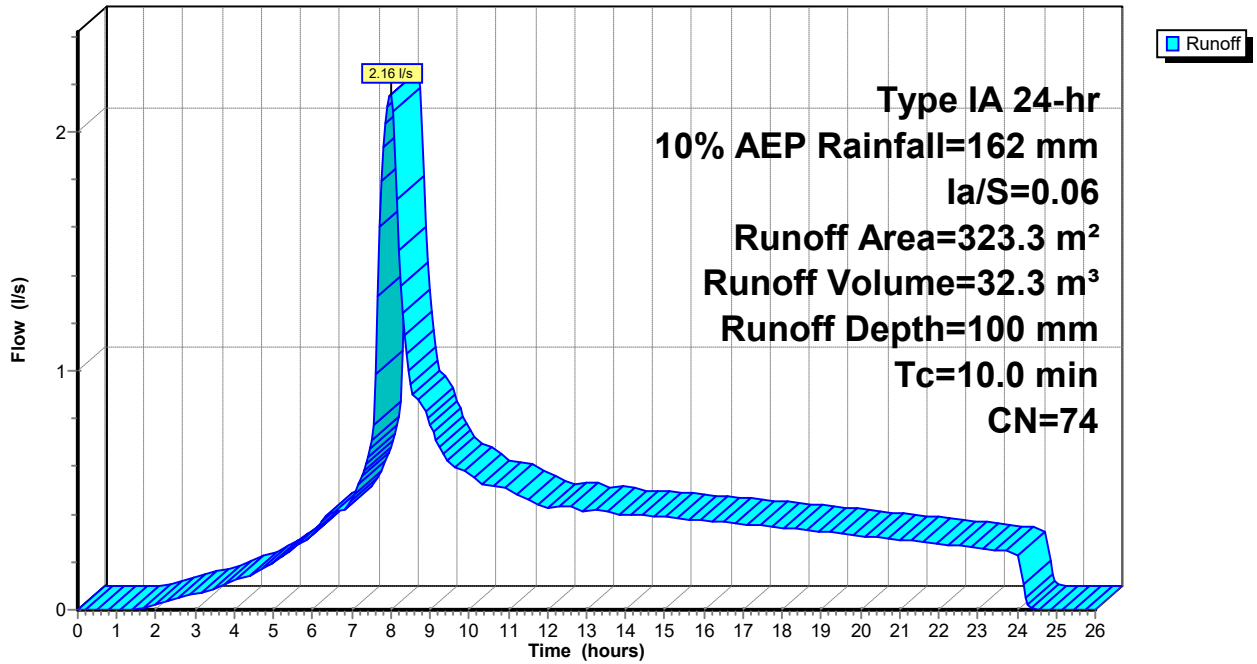
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 10% AEP Rainfall=162 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 323.3	74	Greenfields Conditions
323.3		100.00% Pervious Area

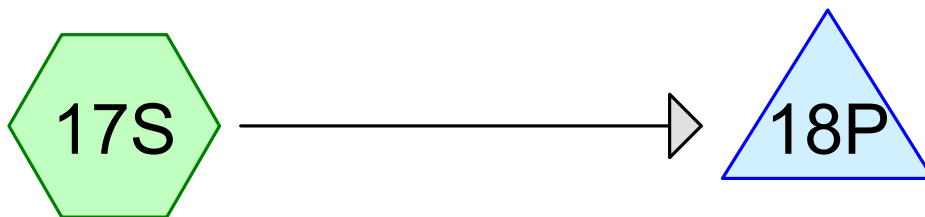
Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 18S: Permitted Coverage Exceedance (323.3m²) - Greenfields

Hydrograph

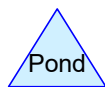
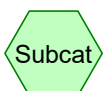


Proposed Lot 2



Permitted Coverage
Exceedance via
Dwelling & Shed Roof

Detention Volume in
Exist Rainwater Tanks



Summary for Subcatchment 17S: Permitted Coverage Exceedance via Dwelling & Shed Roof

Runoff = 6.03 l/s @ 7.94 hrs, Volume= 89.7 m³, Depth= 278 mm

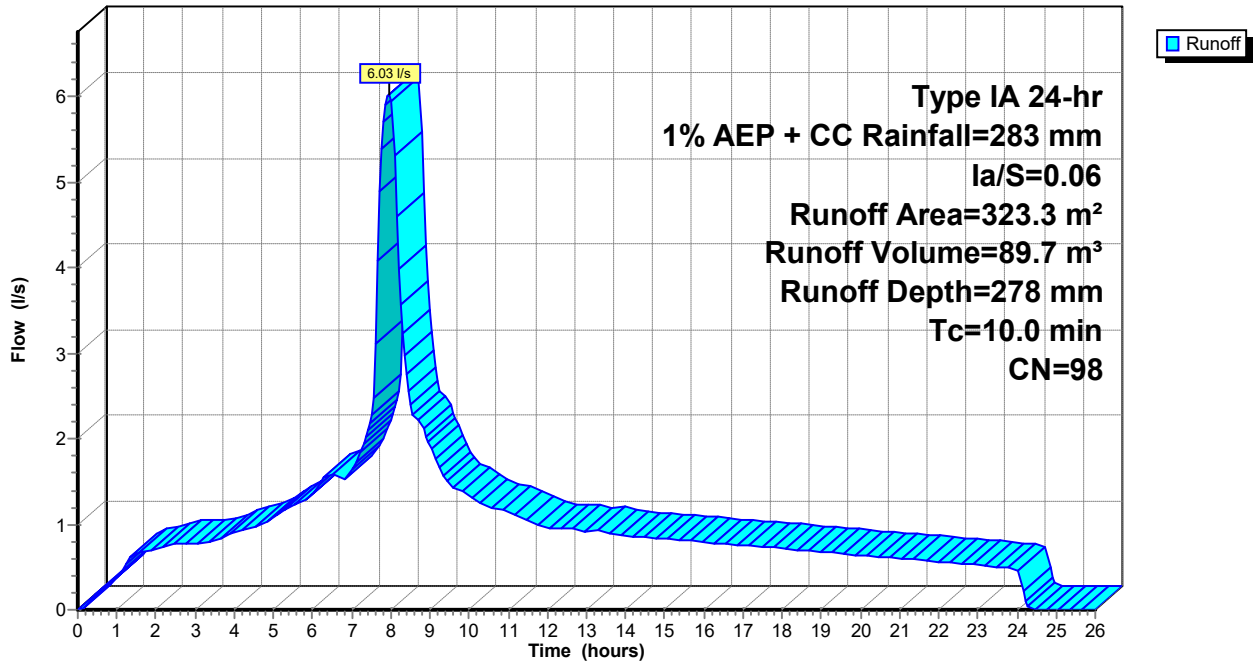
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + CC Rainfall=283 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 323.3	98	Impermeable Roof Area
323.3		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 17S: Permitted Coverage Exceedance via Dwelling & Shed Roof

Hydrograph



Summary for Pond 18P: Detention Volume in Exist Rainwater Tanks

Inflow Area = 323.3 m², 100.00% Impervious, Inflow Depth = 278 mm for 1% AEP + CC event
 Inflow = 6.03 l/s @ 7.94 hrs, Volume= 89.7 m³
 Outflow = 3.89 l/s @ 8.21 hrs, Volume= 89.7 m³, Atten= 36%, Lag= 16.6 min
 Primary = 3.89 l/s @ 8.21 hrs, Volume= 89.7 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.456 m @ 8.21 hrs Surf.Area= 20.4 m² Storage= 9.3 m³

Plug-Flow detention time= 32.7 min calculated for 89.7 m³ (100% of inflow)
 Center-of-Mass det. time= 32.5 min (677.8 - 645.3)

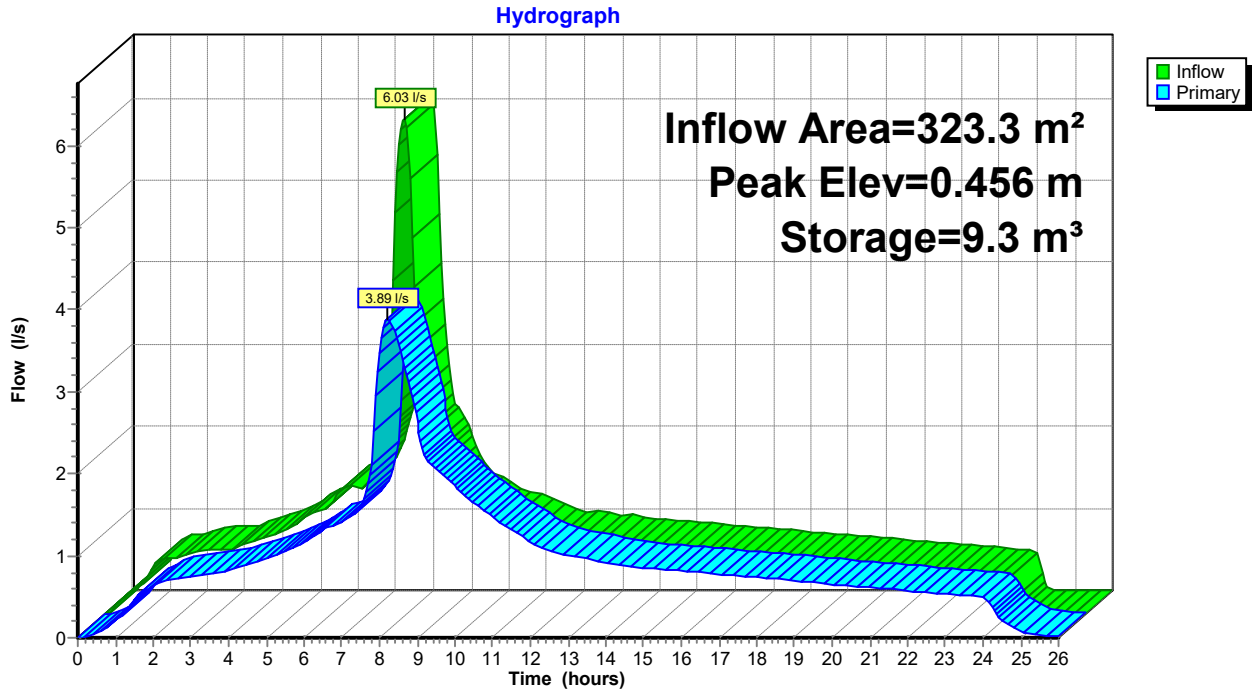
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	44 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.300 m	40 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=3.89 l/s @ 8.21 hrs HW=0.455 m (Free Discharge)

- 1=10% AEP Neutrality Orifice (Orifice Controls 2.66 l/s @ 1.75 m/s)
- 2=1% AEP Neutrality Orifice (Orifice Controls 1.23 l/s @ 0.98 m/s)

Pond 18P: Detention Volume in Exist Rainwater Tanks



Summary for Subcatchment 17S: Permitted Coverage Exceedance via Dwelling & Shed Roof

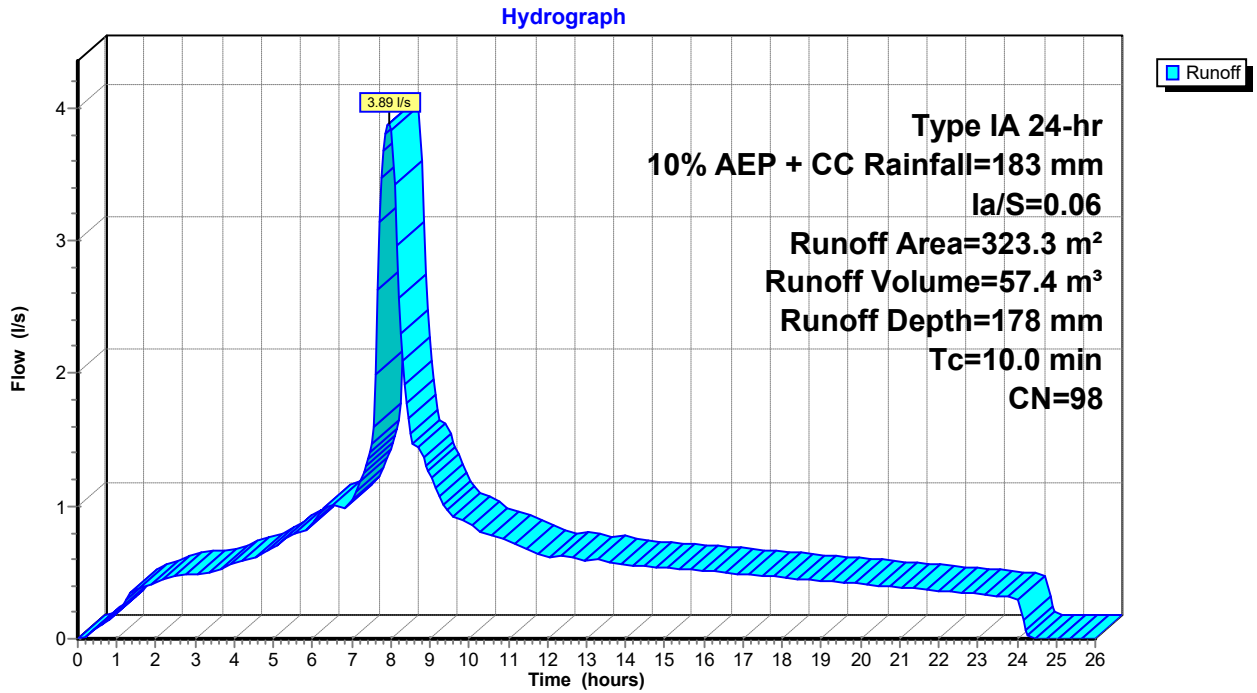
Runoff = 3.89 l/s @ 7.94 hrs, Volume= 57.4 m³, Depth= 178 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10% AEP + CC Rainfall=183 mm, Ia/S=0.06

Area (m ²)	CN	Description
* 323.3	98	Impermeable Roof Area
323.3		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m ³ /s)	Description
10.0					Direct Entry,

Subcatchment 17S: Permitted Coverage Exceedance via Dwelling & Shed Roof



Summary for Pond 18P: Detention Volume in Exist Rainwater Tanks

Inflow Area = 323.3 m², 100.00% Impervious, Inflow Depth = 178 mm for 10% AEP + CC event
 Inflow = 3.89 l/s @ 7.94 hrs, Volume= 57.4 m³
 Outflow = 2.10 l/s @ 8.30 hrs, Volume= 57.4 m³, Atten= 46%, Lag= 21.8 min
 Primary = 2.10 l/s @ 8.30 hrs, Volume= 57.4 m³

Routing by Stor-Ind method, Time Span= 0.00-26.00 hrs, dt= 0.05 hrs
 Peak Elev= 0.291 m @ 8.30 hrs Surf.Area= 20.4 m² Storage= 5.9 m³

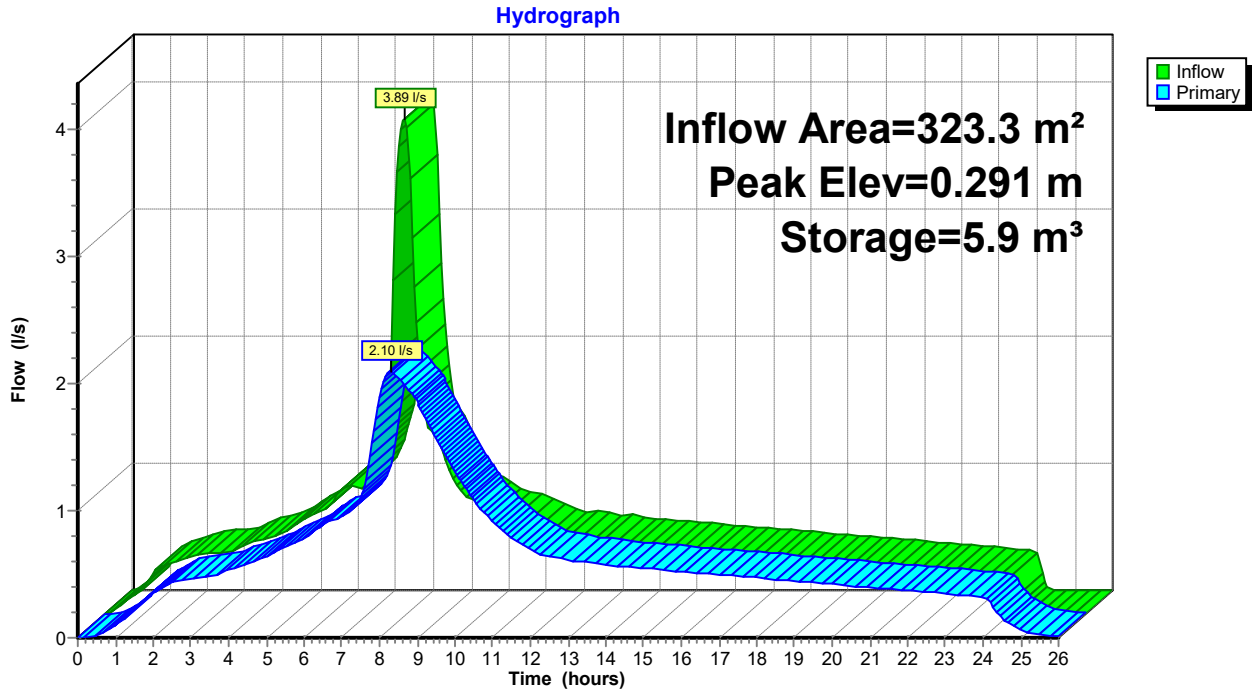
Plug-Flow detention time= 31.1 min calculated for 57.4 m³ (100% of inflow)
 Center-of-Mass det. time= 30.8 min (680.8 - 650.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	52.9 m ³	3.60 mD x 2.60 mH Vertical Cone/Cylinder x 2

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	44 mm Vert. 10% AEP Neutrality Orifice C= 0.600
#2	Primary	0.300 m	40 mm Vert. 1% AEP Neutrality Orifice C= 0.600

Primary OutFlow Max=2.10 l/s @ 8.30 hrs HW=0.291 m (Free Discharge)
 1=10% AEP Neutrality Orifice (Orifice Controls 2.10 l/s @ 1.38 m/s)
 2=1% AEP Neutrality Orifice (Controls 0.00 l/s)

Pond 18P: Detention Volume in Exist Rainwater Tanks



HAND AUGER : HA01

JOB NO.: 134698 SHEET: 1 OF 1

START DATE: 25/06/2024

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL:

ELEVATION: Ground

FACTOR:

DATUM:

CLIENT: Ian McGregor
PROJECT: Stormwater Assessment

SITE LOCATION: 120 Landing Road, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE				COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / mm)	
Topsoil	TOPSOIL - brown, dark brown, occasional rootlets, stiff, moist, non plastic		0.0	Groundwater Not Encountered					
			0.2						
Kerikeri Volcanic Group	Slightly Clayey SILT, orange brown, very stiff, moist, low plasticity (NATURAL) 0.6m: some strongly fused clasts <10mmØ		0.4						
			0.6						
			0.8						
			1.0						
			1.2						
			1.4						
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HAND AUGER : HA02

JOB NO.: 134698 SHEET: 1 OF 1

START DATE: 25/06/2024

NORTHING:

GRID:

DIAMETER: 50mm

EASTING:

SV DIAL:

ELEVATION: Ground

FACTOR:

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SITE LOCATION: 120 Landing Road, Kerikeri

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE				COMMENTS, SAMPLES, OTHER TESTS
					PEAK STRENGTH (kPa)	REMOULD STRENGTH (kPa)	SENSITIVITY	DCP - SCALA (Blows / mm)	
Topsoil	TOPSOIL - brown, dark brown, occasional rootlets, stiff, moist, non plastic		0.0 - 0.2	Groundwater Not Encountered					
	Slightly Clayey SILT, orange brown, very stiff, moist, low plasticity (NATURAL)		0.2 - 1.2						
Kerikeri Volcanic Group	<p>1.0m: becoming silty, trace clay, some fine to medium gravel as weakly to strongly fused clasts</p>	1.2 - 1.4							
		1.4 - 1.6							
		1.6 - 1.8							
		1.8 - 2.0							
		2.0 - 2.2							
		2.2 - 2.4							
		2.4 - 2.6							
		2.6 - 2.8							
		2.8 - 3.0							
		3.0 - 3.2							
	EOH: 1.20m - (Target Depth)								

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: NPN ▼ Standing groundwater level
CHECKED BY: BGS ▽ GW while drilling

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Appendix 4

Site Suitability Report