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

Office Use Only
Application Number:

Application for change or cancellation of resource consent condition (S.127)

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) 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**

If yes, who have you spoken with? _____

2. Type of Consent being applied for

◉ **Change of conditions (s.127)**

3. Consultation:

Have you consulted with Iwi/Hapū? ○ **Yes** ◉ **No**

If yes, which groups have you consulted with?

Who else have you consulted with?

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

4. Applicant Details:

Name/s: Totara North School Board of Trustees

Email: [redacted]

Phone number:

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

Office Use Only
Application Number:

5. Address for Correspondence

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

Name/s: Joshua Cuming

Email: [redacted]

Phone number:

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

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

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: Ministry of Education for Totara North School

Property Address/ Location: [redacted]

7. Application Site Details

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

Name/s: Ministry of Education for Totara North School

Site Address/ Location: [redacted]

Legal Description:

Certificate of title:

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**

7. Application Site Details (continued)

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.

Report to school office prior to entering site.

8. Detailed description of the proposal:

This application relates to the following resource consent: 2250393-RMADIS

Specific conditions to which this application relates:

Consent conditions 1 and 4.

Describe the proposed changes:

An updated wastewater design report has been prepared by Haigh Workman. The updated report has a maximum daily discharge of 3000 litres. It is proposed that consent condition 1 is changed to reference the revised report.

The revised report states a minimum of 1000 lineal metres of irrigation line is required. It is proposed to change condition 4 to reflect this.

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** EBC-2025-802/0
◯ **Regional Council Consent (ref # if known)** Ref # here (if known)
◯ **National Environmental Standard consent** Consent here (if known)
◯ **Other (please specify)** Specify 'other' here

11. 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 (including consultation from iwi/hapū).

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

12. Draft Conditions:

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

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

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 in full) Ministry of Education c/o Totara North School Board

Email: c/o pipbolton@avail.co.nz

Phone number: Work 027 4078908 Home

Postal address: (or alternative method of service under section 352 of the act)
32 Totara North School Road
Totara North
Postcode 0479

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

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

Name: (please write in full) Jenny Williams

Signature: (signature of bill payer) J Williams Date 23/7/25

MANDATORY

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

PrivacyInformation:
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 withthis application is true and complete to the best of my knowledge.

Name: (please write in full) Joshua Cuming

Signature: [redacted]

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

Checklist (please tick if information is provided)

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

Please refer to chapter 4 (Standard Provisions) of the Operative District Plan for details of the information that must be provided with an application. This contains more helpful hints as to what information needs to be shown on plans.

Northland REGIONAL COUNCIL
Te Kaunihera ā rohe o Te Taitokerau

Part B: Assessment of Environmental Effects

Discharge Treated Sewage Effluent to Land

This application is made under Section 88/Section 127 of the Resource Management Act 1991

To: Consents Department
Northland Regional Council
Private Bag 9021
Te Mai
Whangārei 0143

Whangārei office: 09 470 1200
0800 002 004
Email: info@nrc.govt.nz
Website: www.nrc.govt.nz

PART B – ASSESSMENT OF ENVIRONMENTAL EFFECTS

Your application must include an Assessment of Effects on the Environment. This form is a guide to help you prepare one.

An assessment of effects is required so that you and others can understand what happens to the environment when you discharge domestic wastewater ("treated sewage effluent") to land. This will help you to propose ways to minimise those effects to the council's satisfaction.

The degree of detail required is in proportion to the scale of the environmental effects of your proposal. If you are required to apply for a consent to discharge sewage effluent into or onto land, then you will most probably need a qualified engineer (or similar) to design your on-site system. The information requested below is the minimum detail that your engineer must supply.

Please note that the word *"environment"* includes the surrounding waterways and groundwater, surrounding coastal water, adjoining land, any surrounding resource users, and local iwi.

It is advised that you make an appointment with an appropriate council officer to discuss your application prior to lodging it. This will help you to supply all the required information at the onset and ensure the efficient processing of your application.

A. Description of the Proposed Activity

A.1 What is the intended water supply?

- ☑ Rainwater collection
- ☐ Community or bore water supply
- ☐ Other *(please specify)* : _____

A.2 What is the source of the wastewater? *(please tick the appropriate box and answer those questions)*

☐ **Domestic House**

How many bedrooms are there in the house? _____

Will the house be permanently occupied? ☐ Yes ☐ No

☐ **Small Motel/Campground/Hostel/Marae/Sports Club**

What is the maximum number of occupants that your facility can accommodate? _____

How frequently does this maximum occupancy occur and for what length of time? _____

What is the typical number of occupants during the other periods of the year? _____

☐ **Shared On-site Systems/Subdivisions**

How many individual lots are/will the treatment and disposal system be servicing? _____

What will be the average number of bedrooms per house? _____

What is the area of the lot on which the discharge will occur? _____

☑ **Other**

Provide details of the source of effluent, the number of persons contributing to the wastewater and the source of water supply for the facility.

60 school students and staff, 30 kindergarten students and staff and the school house.

A.3 What is the likely maximum daily volume of wastewater to be discharged? 3000 litres

The Wastewater Treatment System

A.4 What is your Proposed Wastewater Treatment System?
(please tick appropriate box and answer the associated questions)

☐ **Septic Tank**

What is the capacity of the tank? _____ litres

Will an effluent filter be fitted on the outlet? ☐ Yes ☐ No

☐ **Aerated Wastewater Treatment System (AWTS)**

What brand is the AWTS? TBC following tender

Will a programmed maintenance contract be entered into with the treatment systems manufacturer or agent? ☑ Yes ☑ No

☐ **Other,** what level of treatment do you consider the wastewater receives through your *"other"* treatment system?

☐ Primary

☐ Secondary

Describe the proposed *"other"* treatment system

The Wastewater Disposal System

A.5 What is your proposed disposal system?
(please tick the appropriate box and answer the associated questions)

☐ **Soakage Trench/Bed System**

What are the dimensions of the proposed soakage trenches/beds?

Width _____ m
Depth _____ m

What is the total length of all the soakage trenches/beds? _____ m

How will the soakage trench/bed system be loaded?

☐ Trickle
☐ Pump
☐ Dose loaded via a syphon

Has a 100% reserve area of undeveloped land been allowed for in the disposal system design?

☐ Yes
☐ No, what percentage has been allowed for and why?

_____
_____
_____

What is the proposed loading rate to the trenches/beds? _____ mm/day

☑ **Irrigation Lines**

What area will the irrigation lines cover? 1000 m²

What is the distance between adjacent irrigation lines? 1 m

What is the distance between adjacent drip emitters along the irrigation line? 0.5 m

What brand is the irrigation line? TBC

What is the proposed aerial loading rate to the disposal area? 3 mm/day

Has a 30% reserve area of undeveloped land been allowed for in the disposal system design?

☑ Yes
☐ No, what percentage has been allowed for and why?

_____
_____
_____

☑ **Other** *(please describe)*

_____
_____
_____

A.6 **What is the intended ground cover within the disposal area after the disposal system is operational?** *(i.e. what plant species do you intend to plant, if any)*

Native vegetation in already established vegetation area.

B. Site Details

B.1 You **must** attach a map that shows the following:

- The location of your lot in relation to the nearest town.
- The legal property boundaries of your lot and the distance of your disposal system (including reserve area) from those boundaries.
- The layout of your disposal system (including reserve area) within your lot boundaries.
- The location of any groundwater bores within 20 metres of your disposal system (including reserve area).
- The location of any surface water (i.e. streams, roadside drains, lakes and rivers) within 20 metres of your disposal system (including reserve area).

B.2 **What is the map reference of the proposed disposal system?** *(if known)*

NZMS 260 Series map number:

Easting -35.038989 (seven digit number)

Northing 173.711615 (seven digit number)

B.3 **Which District Council is the property administered under?**

☐ Kaipara ☑ Far North ☐ Whangārei

B.4 **What is the slope of the proposed disposal area?**

☐ Flat

☑ Slightly sloping (5°–15°)

☑ Steep (>15°)

B.5 **Are any drainage controls required?**

☑ Yes, describe

Cut off drain

☐ No, state why not

B.6 **Was a soakage test (percolation test) performed at the location of the proposed disposal system?** *(please tick the appropriate box and answer those questions)*

☐ Yes

What was the date of the test? _____

What were the weather conditions prior to the soakage test? _____

What is the average soakage rate of the disposal area? _____ mm/hr
(please ensure the individual soakage test results are included with this application)

Are the locations of the soakage tests marked on the map that shows the layout of the disposal system?

☐ Yes

☐ No, state why not

_____

_____

☑ No, what are the reasons for not performing a soakage test?

Soakage based on AS/NZS1547 using observatons from site investigation. _____

_____

_____

B.7 **Was any groundwater encountered during the site investigation?**

☑ No ☐ Yes, at what depth? _____ metres

B.8 **What is the estimated winter groundwater level for the disposal area?** over 3m _____ metres

How was this winter groundwater level determined?

Disposal area is well elevated. _____

_____

_____

B.9 **Has a detailed soil profile been included with this application form?**

☑ Yes

☐ No, state why not _____

B.10 **What is the estimated soil category of the disposal area?**

☐ 1: Gravel and sands, Rapidly draining

☐ 2: Sandy loams, Well drained

☐ 3: Loams, Moderately well drained

☐ 4: Clay loams, Imperfectly drained

☑ 5: Light clays, Poorly drained

☐ 6: Medium to heavy clays, Very poorly drained

Please state the criteria used for selecting the above soil category.
Soil description from investigation

C. Assessment of Effects on the Environment

An assessment of effects should be proportional to the scale and significance of the proposed activity. Where your discharge could have an adverse effect on the environment, a detailed environmental assessment is required.

C.1 Affected Parties

Note: If you are proposing to dispose of your wastewater using a deep soakage system the determination of affected parties can be more complex, especially with relation to groundwater users. It is recommended that you contact the council to help determine who the affected parties from your proposal may be.

Are there any groundwater bores within 20 metres of any part of the disposal system (including reserve area) that are not owned by the applicant?

☐ Yes ☑ No

If you have answered **Yes**, then you will need to gain the written approvals of all the owners of neighbouring groundwater bores identified by the above question.

If written approvals cannot be obtained from all affected parties, describe what effect your discharge may have on the neighbouring groundwater bore and the steps you propose to take to minimise (i.e. mitigate) these effects *(attach a separate sheet if necessary)*

C.2 Given the estimated winter groundwater level (see Question B8) and your proposed treatment and disposal system, what is the risk of groundwater contamination occurring and why?

The risk of groundwater contamination is low. The base of the disposal system is estimated to be more than 1.2 m above the winter ground water table. This is in accordance with TP58's recommended groundwater separation for secondary treated effluent. The effluent will be treated to secondary level.

C.3 What is the smallest horizontal separation distance between the disposal system (including reserve area) and any nearby watercourse, including roadside water table drains?

18+ _____ metres

C.4 Given the smallest horizontal separation distance to the nearest surface watercourse and your proposed treatment and disposal system (including reserve area), what is the risk of surface water contamination occurring and why?

Low because the slope of the ground from the bottom of the disposal area is reletively flat. ____

C.5 Consultation

Have you consulted with any of the following potentially affected parties?

	Yes	No
Neighbours	☐	☑
Department of Conservation *(if relevant)*	☐	☑
Fish and Game Council *(if relevant)*	☐	☑
District Council *(if relevant)*	☐	☑
Local iwi *(specify)*: _____	☐	☑
Other *(specify)*: _____	☐	☑

Please ensure all of the relevant questions on this form have been answered fully.

If you have any queries relating to information requirements or wish to meet with a council consents officer, please contact a Duty Planner at the Northland Regional Council.

Northland Regional Council offices:			
Whangārei Office 36 Water Street Whangārei 0110 **P** 0800 002 004 **E** info@nrc.govt.nz www.nrc.govt.nz	**Dargaville Office** Ground Floor 32 Hokianga Road Dargaville 0310 **P** 09 439 3300	**Kaitāia Office** 192 Commerce Street Kaitāia 0410 **P** 09 408 6600	**Waipapa Office** Shop 9 12 Klinac Lane Waipapa 0295 **P** 0800 002 004

24 162

11 June 2025

Totara School Board of Trustees
32 Totara School Road, Totara North, Kaeo

Attention Totara North School Board of Trustees

To whom it may concern

Re: Onsite Wastewater System for Totara North School Revision 2

Haigh Workman Limited has been engaged to design an on-site wastewater system to service Totara North School and the kindergarten that operates onsite. This design is to replace the existing system onsite that no longer operates as intended and does not have capacity for future school roll growth. This design has been carried out in general accordance with *AS/NZS1547:2012 On-site domestic wastewater management*.

A resource consent is required under the Proposed Regional Plan for wastewater disposal exceeding 2000 litres per day and having a downslope buffer of less than 10m.

Site Description

The site is legally described as Pt Allotment 6A PSH OF Totara. It is irregular in shape and covers an area of 1.0990 hectares. The site generally slopes gently to steeply to the south and southeast. A stream is present to the south of the site.

Flood modelling commissioned by NRC indicates that a very small area in the southeast of site is within coastal flood hazard zone 0 and 1. However, the proposed disposal areas and treatment tank are located on elevated ground, away from the flood susceptible land.

Site Investigations

A representative of Haigh Workman visited the site on 14 August 2024 to investigate features and ground conditions. One borehole was advanced to 1.2m, with a further four boreholes to establish topsoil thickness only The topsoil thicknesses observed is 50 – 100mm deep.

The soil onsite is mapped as Marua brown clay loam (MRrH) which is classified as 'well to moderately well drained'.

No evidence of groundwater seepage was observed at the soil investigation location.

Based on our site investigations the soils encountered were categorised as AS/NZS1547:2012 Category 5: Light clay – poorly drained.

Hand Auger Borehole Summary

GEOLOGICAL UNIT	TEST I.D. WW01
Topsoil, *SILT, brown, moist, trace rootlets*	0.0 – 0.05 m
Tupou Complex, *CLAY and SILT, light brown, firm to stiff, moist.*	0.05 – 1.2 m

Groundwater Level	NE

NE = Not encountered.
Depth (m) measured below existing ground level.

Wastewater Generation

Water supply is from tank supply from roof collection. Design wastewater flows have been calculated using the guidelines in table H4 in AS/NZS1547:2012.

Wastewater generation is tabulated below:

	Number of people	Typical wastewater flows (l/p/d)	Daily flow (litres per day)
School students and staff	60	20	1200
Kindergarten students and staff	30	30	900
3 bedroom school house	5	180	900
Total			**3000**

The number of school students and staff used to calculate wastewater generation above is the future projected maximum provided by the client. The existing roll is 29 students and five staff members.

The standard wastewater flow per person at the school is estimated to be 20 litres per day. This estimate accounts for the ongoing redevelopment of some bathroom facilities, which are being equipped with modern water-saving fixtures. Future plans include upgrading the remaining facilities with similar water-saving fixtures. Currently, the number of students and staff at the school is 34. Consequently, the system is designed with sufficient capacity until the redevelopment is completed.

No food is prepared at the school or kindergarten. The kindergarten does laundry twice weekly. A typical wastewater flow 30 litres per person per day has been adopted for the kindergarten. This is the upper end of the range for schools stated in AS/NZS 1547.

On occasion the school will hold events with up to 100 guests. Examples of these events include sports days and end of year events. The wastewater generated from these events has been estimated by allowing 10 litres per person that uses a toilet (plus handwashing). Assuming 90 uses of the toilet this would result in 900 litres being generated.

As the school operates Monday to Friday the weekly total of wastewater generated will be 16,800 litres. An event hosted at the school would generate an additional 900 litres, resulting in a peak wastewater generation of 17,500 litres per week (2,500 litres per day over 7 days).

A resource consent is required under the Proposed Regional Plan for wastewater disposal exceeding 2000 litres per day.

The adopted per person wastewater flows are considered appropriate.

Treatment System

A secondary treatment system shall be installed. The treatment plant is to meet the quality output of AS/NZS 1546.3:2003 and be capable of producing effluent having less than 20 g/m³ of BOD5 and 30 g/m³ TSS when consistently loaded with 3000 litres/day and a peak of 3900 litres/day.

The treatment system shall be accessible for regular maintenance and servicing and be set back more than 3m from buildings.

Disposal System

AS/NZS 1547 recommends a design irrigation rate (DIR) of 3mm/day for the soil category present on site.

The necessary disposal area of 1000 m² has been determined based on the daily wastewater output from the school and kindergarten (2100 litres) from Monday through Friday and the 7 day a week output from the school house (900 litres), using an irrigation rate of 3 mm/day. Given that minimal wastewater is produced over the weekend, the effective 7-day average irrigation rate is 2.4 mm/day. This reduced effective irrigation rate ensures that the disposal field can accommodate occasional peak loads associated with school events involving guests.

A reserve area of 300m² is also available on-site, as per the appended site plan. Pressure-compensating dripperlines are to be laid generally across the slope at spacings of 1.0m in the location shown on the attached site plan. The dripperlines should be buried in 50mm of topsoil.

Although the upper part of slope exceeds 10˚ in the disposal area, the downslope portion of the disposal field is less than 10˚. Therefore, it is considered that a downslope buffer is not required as it is effectively present within the disposal area. This is considered a technical breach of the Proposed Regional Plan and will require resource consent.

An upslope interception drain is required.

The existing tank overflow spreader bars must be relocated downslope of the disposal area.

A Davey 42A/B pump or equivalent with three sequencing valves to split the field into three approximately equal areas each is required to adequately pressurize the field and ensure long life. One flush valve is required per lateral for maintenance flushing of the field.

Design Summary

ITEM	DESCRIPTION
Design Occupancy	*60 school students and staff.* *30 kindergarten students and staff.* *Allowance for occasional school events with 90 guests using the bathroom.* *3 Bedroom school house*
Water fixtures	*Standard water fixtures to be replaced during future redevelopment with water reduction fixtures.*
Wastewater generation	*3000 litres/day 5-day average and peak of 3900 litres/day.*
Treatment system	*Secondary treatment plant*
Location of effluent disposal	*As per drawings*
Effluent disposal system	*Buried dripperline*
Maximum length of dripper line per flush valve	*100 m*
Irrigation pump	*Davey 42A/B or equivalent with two sequencing valves*
Soil type	*AS/NZS1547 category 5*
Application rate	*3 mm/day*

Land application area	*1000 m^2*
Reserve area (30%)	*300 m^2*
Total area required	*1300 m^2*
Slope of land application area	7-16°

A resource consent is required under the Proposed Regional Plan for wastewater disposal exceeding 2000 litres per day.

Disclaimer

This report has been prepared for the sole use of our Client, Totara North School Board of Trustees with respect to the particular brief outlined to us. It may not be used or relied on (in whole or part) by anyone else, or for any other purpose or in any other contexts, without our prior written agreement. This report may not be read or reproduced except in its entirety.

Prepared by:

Joshua Cuming
Environmental Geologist
BSc Geol and EnvStu., CEnvP.

Review & approved by:

John Papesh
Senior Civil Engineer / Director
BE Civil, CPEng, CMEngNZ

Appendices:
A – Site Plan
B – Onsite Wastewater Disposal Investigation (FNDC Engineering Standards 2023)
C – Summary of Regulatory Requirements
D – Suitable plants for Evapo-transpiration Systems
E – Operation and Maintenance Guidelines
F – Borehole Logs
G – Producer Statement – Design (PS1)

Legend

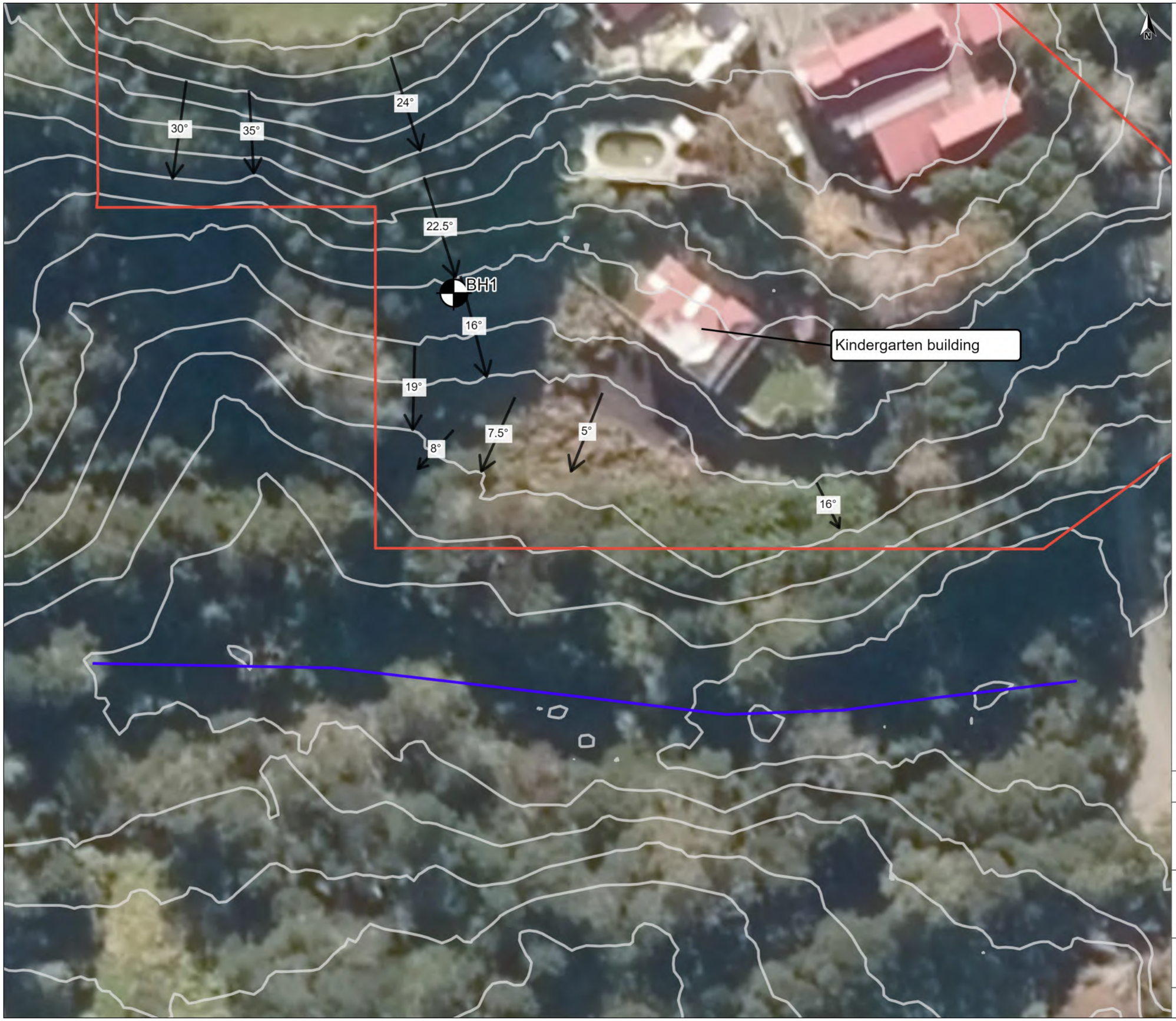
Site Boundary

0 10 m 20 m

HAIGH WORKMAN Ltd Civil & Structural Engineers

Produced by **Datanest.earth**

Title: Site Location Plan		
Client: Totara North School Board of Trustees		Size: A3
Project: Totara North School	Drawn: JCum	Drawing No.: 1
Date: 29-08-2024	Checked: JP	
Proj No: 24 162	Scale: 1:1000	Version: REV1



Legend

- Site Boundary
- Borehole location
- Slope
- Stream
- 2m Contour (LINZ)

0 5 m 10 m

HAIGH WORKMAN Ltd Civil & Structural Engineers

Produced by **Datanest.earth**

Title: Site Investigation Plan		
Client: Totara North School Board of Trustees		Size: A3
Project: Totara North School	Drawn: JCum	Drawing No.: 2
Date: 29-08-2024	Checked: JP	
Proj No: 24 162	Scale: 1:500	Version: REV1

Legend

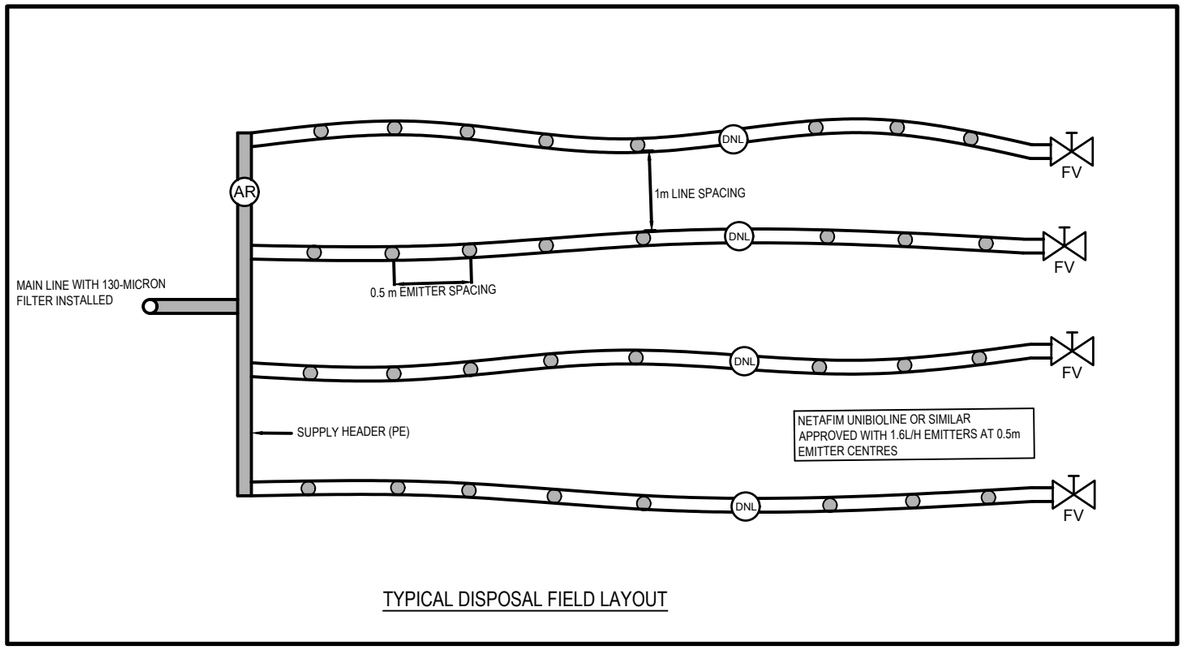
- 1.5m Boundary offset
- Treatment system
- Site Boundary
- Disposal area 1000m²
- Reserve area 300m²
- Slope

0 5 m 10 m

HAIGH WORKMAN Civil & Structural Engineers

Produced by **Datanest.earth**

Title: Wastewater Design Plan		
Client: Totara North School Board of Trustees		Size: A3
Project: Totara North School	Drawn: JCum	Drawing No.: 4
Date: 04-06-2025	Checked: JP	
Proj No: 24 162	Scale: 1:500	Version: REV1



TYPICAL DISPOSAL FIELD LAYOUT

LEGEND:

AIR / VACUUM RELEASE VALVE

FV FLUSHING VALVE

DNL NON-LEAKAGE VALVE

NOTE:

1. WHERE DRIPPERLINE LATERALS ARE NOT LAID AT THE SAME ELEVATION, DRIPLINE NON LEAKAGE VALVES ARE REQUIRED ALONG THE LENGTH OF EACH LATERAL.

Rev	Date	Description	By	Checked
A	30/08/2024	Issued for Approval	JC	JP

DWG Disposal area layout

A3 Scale: NTS | Date 30/08/2023

Drawn JCum | Checked JP | Approved JP

File

HAIGH WORKMAN Ltd
Civil & Structural Engineers
6 Fairway Drive
Kerikeri, BOI
T: 09 407 8327
F: 09 407 8378
E: info@haighworkman.co.nz

Project 32 Totara School Road, Totara North
Pt Allotment 6A PSH OF Totara

Client Totara North School Board of Trustees

Project No. 24 162

RC no.

Stage 01

Dwg No. 04

Sheet No. 4 of 4

Appendix B: Onsite Wastewater Disposal Investigation (FNDC Engineering Standards 2023)

This form is to be read in conjunction with AS/NZS 1547:2012 (or any amendments as applicable), and, in particular with Part 4: Means of Compliance

Part A – Contact Details

1 - Applicant

Name: *Totara North School Board of Trustees*

Property Address: *32 School Road, Totara North, Kaeo*

Lot/DP Number: *Pt Allotment 6A PSH OF Totara*

2 – Consultant / Site Evaluator

Site Evaluator Name: *Joshua Cuming*

Company Name: *Haigh Workman Ltd*

Postal Address: *PO Box 89, Kerikeri*

Business Phone: *09 407 8327* Mobile:

Email: *info@haighworkman.co.nz*

SQEP Registered[1]: ☑ Yes q No If no, details of suitably registered SQEP who will countersign the report are to be supplied below.

Name of SQEP: *John Papesch*

Company Name: *Haigh Workman Ltd*

Postal Address: *PO Box 89, Kerikeri*

Business Phone: *09 407 8327* Mobile:

Email: *johnp@haighworkman.co.nz*

[1] It is a requirement that the Evaluator be SQEP registered to carry out on-site effluent investigations/designs. If not, then evaluation/design will need to be counter-signed by a suitably registered SQEP

HAIGH WORKMAN LTD
Civil & Structural Engineers

Part B - Site and Soil Evaluation

1: Desk Study

Requirements (✓ appropriate box) Please complete **all** options. (*If more than one option applies to land under consideration, please clarify with supporting information)*

☐	*FNDC REQUIREMENT*	*APPLIES TO LOT(S)*	*COMMENTS*
1	**Hazard maps/GIS Hazard layer - stability**		
	Low instability risk		
✓	Medium instability risk		*Moderate slopes*
	High instability risk		
2	**GIS Hazard layer - effluent on slope stability**		
	Low disposal potential		
✓	Moderate disposal potential		*Moderate slopes*
	High disposal potential		
3	**GIS Hazard Layer - effluent suitability**		
	Medium unsuitability		
✓	High unsuitability		*Cat 5 soils*
4	**GIS Hazard Layer - Flood susceptibility**		
	Is flood susceptible		
	Is partially flood susceptible		
✓	Is not flood susceptible		*See flood hazard section*
5	**GIS land resources layer - Streams**		
Are there streams on or adjacent to land under investigation?	✓ Yes		*Stream located approximately 15m south of site.*
	No		
6	**GIS land resources layer – aquifers at risk**		
Is land situated over or adjacent to aquifer?	Yes		
	✓ No		
7	**Annual Rainfall (HIRDS)**	*1596 mm (Kaeo)*	

Note: It is to be noted that all information obtained off FNDC GIS/Hazard Maps is to be taken as a guide only.

Note: All information obtained from the above sites is to be confirmed by a specific site investigation as localised conditions could vary substantially. However, should the above data checks indicate the potential for a hazard/non-complying activity etc., this must be further investigated to confirm/deny the indicated situation.

2: On-Site Evaluation

a. Determination of Soil Category *(refer table 4.1.1* AS/NZS 1547:2012*)* (✓ appropriate box)

SOIL CATEGORY		STRUCTURE	APPLIES TO LOT(S)	COMMENTS
1 Gravels & Sands		Structureless (massive)		
2 Sandy loams		Weakly Structured		
		Massive		
3 Loams		High/Moderate structured		
		Weakly structured or Massive		
4 Clay loams		High/moderate structured		
		Weakly structured		
		Massive		
5 Light clays		Strongly structured		
	✓	Moderately structured		*See site investigation*
		Weakly structured or massive		
6 Medium to heavy clays		Strongly structured		
		Moderately structured		
		Weakly structured or massive		

Note: Refer 4.1 A4 – Soil Assessment AS/NZS 1547:2012 for assessment criteria.

Note: Details of the method used to determine soil type etc. are to be clearly stated, along with positions of boreholes/test pits etc. clearly marked on a site plan. Bore logs are to be provided. Photos should be included.

Note: The site plan should also clearly show the intended area for effluent disposal, along with any site features such as drains, water bores, overland flows etc., along with separation distance achieved.

On-Site Evaluation Continued

b. Site Characteristics for Proposed Disposal Area: (if there is a marked difference between sites, please fill in a separate form for each site and clearly note which site the assessment applies to) (ü appropriate box)

□	*DETAILS*	*APPLIES TO SITE(S)*
1	**Flooding potential to proposed field and reserve field (refer note 1 below)**	
✓	Fields will not flood, or	
	Fields will flood in	
	20% AEP event	
	5% AEP event	
	1% AEP event	
2	**Surface water separation to proposed field and reserve field (refer note 2 below)**	
✓	*Main/reserve disposal field comply with NRC rules*	
	Main/reserve disposal field do not comply with NRC rules	

3	**Surface water separation to proposed field and reserve field (refer note 2 below)**	
✓	*Main/reserve disposal field comply with NRC rules*	
	Main/reserve disposal field do not comply with NRC rules	
4	**Winter ground water separation to proposed field and reserve field (refer note 3 below)**	
✓	*Main and reserve disposal field comply with NRC rules*	
	Main and reserve disposal field do NOT comply with NRC rules	
5	**Slope of ground of proposed field and reserve field (refer note 4)**	
Description	*7-16°*	
6	**Shape of ground of proposed field and reserve field (Refer note 5 below)**	

	Waxing divergent		*Linear divergent*		*Waning divergent*
	Waxing planar		*Liner planar*	✓	*Waning planar*
	Waxing convergent		*Linear convergent*		*Waning convergent*

Comments	

☐	***DETAILS***	***APPLIES TO SITE(S)***
7	**Intended water supply source**	
	Public supply	
✓	*Rainwater*	
	Bore	
8	**Proposed method of disposal and recommended Daily Loading rate (DLR) (refer note 6 below)**	
Description		
Dripperlines. DIR 3 mm/day		

Peak loading factored in (refer not 6 below)	✓	Yes	No

Comments	The necessary disposal area of 1000 m² has been determined based on the daily wastewater output from the school, kindergarten and school house (3000 litres) from Monday through Friday, using an irrigation rate of 3 mm/day. Given that minimal wastewater is produced over the weekend, the effective 7-day average irrigation rate is 2.4 mm/day. This reduced effective irrigation rate ensures that the disposal field can accommodate occasional peak loads associated with school events involving guests.

9	**Site exposure (refer note 7 below)**	***Description***	***Applies to Site(s)***

Site(s) aspect	*South*	
Pre-dominant wind direction	*South-west*	
Presence of shelter belts	*NA*	
Presence of topographical features or structures	*Very few*	

10	**Proximity of water bores (include adjacent to properties) (refer note 9 below)**
None close	
11	**Visible evidence of slips / instability (refer not 8 below)**
No	
12	**Total suitable area available for type of effluent disposal proposed (including reserve area)**
1300 m^2	
13	**Setback areas proposed (if any) (refer note 10 below)**
Exclusion areas and setback distances are provided in Table 9 of the Regional Plan and presented herein	

Notes

1. *If the FNDC hazard maps/GIS indicate a flooding susceptibility on the site being evaluated, an on -site evaluation is to be carried out to determine the effects from 20%, 5% and 1% AEP storm events. This evaluation is to include all calculations to substantiate conclusions drawn. If necessary, include a detailed contour plan and photos.*
2. *NRC Water & Soil plan defines surface water as 'All water, flowing or not, above the ground. It includes water in continually or intermittently flowing rivers, artificial watercourses, lakes and wetlands, and water impounded by structures such as dams or weirs but does not include water while in pipes, tanks, cisterns, nor water within the Coastal Marine Area'. By this definition, separation (complying with NRC rules) is to be maintained by both the proposed disposal and reserve areas from any overland flowpaths and/or swale drains etc. or R/C will be required from NRC. Surface water is to be clearly marked on each site plan, showing the extent of a 1% AEP storm event, and detailing separation distances to main/reserve disposal areas.*
3. *Positions of test borehole/s to be shown and bore logs to be provided. Separation (complying with NRC rules) is to be maintained by both the proposed disposal and reserve areas from winter ground water level or R/C will be required from NRC. If the investigation is done outside of the winter period, allowance is to be made in determining the likely winter level.*
4. *Slopes of ground are to be compared with those recommended maximums for type of system proposed (refer Appendix 4.2B AS/NZS 1547:2012). Designs exceeding those maximums will require specific design to justify the proposal and may also need Resource Consent from NRC.*
5. *Shape of ground is important as it will determine whether there is potential for concentrated overland flows from the upper slopes and also if effluent might be concentrated at base of slope if leeching occurs. Refer Figure 4.1B2 AS/NZS 1547:2012.*
6. *The proposed system (for residential developments) should be sized to accommodate an average 3 bedroom house with 5 people. Sites in holiday areas need to take peak loading into effect in determining daily volumes. The design must state what DLR was used to determine area necessary (including reserve area). If ground conditions are marginal for type of disposal proposed, then a soil permeability test utilising the constant head method is to be carried out across the proposed disposal area. Refer Appendix 4.1F AS/NZS 1547:2012.*
7. *The site aspect is important as a north-facing site that is not sheltered from wind and sun by shelterbelts or other topographical features or structures will perform far better than a south-facing site on the lee of a hill that is shaded from wind and sun etc.*
8. *If any effluent disposal area (including any reserve area) proposed has or is adjacent to areas that show signs of instability, then a full report from a CPEng (Geotech) will be required to justify the viability of the area for effluent disposal.*
9. *If there are any water bores on the subject property or adjacent properties then a site plan will be required showing bore positions in relation to any proposed effluent field(s).*
10. *If setback areas are proposed to mitigate effects, the extent and position/s need to be shown on a site plan.*

Appendix C: Summary of Regulatory Requirements

Proposed Regional Plan

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:

CRITERION	SUBJECT SITE
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	We have designed in general accordance with this standard. We have adjusted the wastewater generation rate for the school to account for the installation of waster saving fixtures during planned redevelopments.
2) The volume of wastewater discharged does not exceed two cubic metres per day, and	Consent required as peak discharge of 3,900 litres / day proposed.
3) The discharge is not via a spray irrigation system or deep soakage system, and	Complies (drip irrigation proposed).
4) The slope of the disposal area is not greater than 25 degrees, and	Slope of ground in disposal area is less than 16 degrees.
5) For wastewater that has received secondary treatment or tertiary treatment, it is discharged via: a) a trench or bed system 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 b) an irrigation line system that is dose loaded and covered by a minimum of 50 millimetres of topsoil, mulch, or bark, and	Complies. The irrigation system will be dose limited. The dripperlines will be covered in mulch where a canopy cover of at least 80% is not present.
6) for the discharge of wastewater **<u>onto the surface of slopes greater than 10 degrees:</u>** a) the wastewater, excluding greywater, has received at least secondary treatment, and b) the irrigation lines are firmly attached to the disposal area, and c) where there is an up-slope catchment that generates stormwater runoff, a diversion system is installed and maintained to divert surface water runoff from the up-slope catchment away from the disposal area, and d) a minimum 10 metre buffer area down-slope of the lowest irrigation line is included as part of the disposal area, and e) the disposal area is located within existing established vegetation that has at least 80 percent canopy cover, or f) the irrigation lines are covered by a minimum of 100 millimetres of topsoil, mulch, or bark, and	a) Wastewater will be secondary treated. b) Irrigation lines will be pinned to surface. c) A cut off drain above the disposal area is required. d) Although the slope exceeds 10˚ in the disposal area, the downslope areas have slopes of less than 10˚. Therefore, it is considered that a downslope buffer is not required as it is effectively present within the disposal area. This is a technical breach of the Proposed Regional Plan and will require resource consent. e) The dripperlines will be buried

7) the disposal area and reserve disposal area are situated outside the relevant exclusion areas and setbacks in Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems, and	Surface water setbacks are compliant.
8) for septic tank treatment systems, a filter that retains solids greater than 3.5 millimetres in size is fitted on the outlet, and	NA
9) the following reserve disposal areas are available at all times: a) one hundred percent of the existing effluent disposal area where the wastewater has received primary treatment or is only comprised of greywater, or b) thirty percent of the existing effluent disposal area where the wastewater has received secondary treatment or tertiary treatment, and	30% Reserve area provided
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	Proposed per Maintenance recommendations
11) the discharge does not contaminate any groundwater water supply or surface water, and	Will comply given provided design parameters
12) there is no surface runoff or ponding of wastewater, and	Will comply given provided design parameters
13) there is no offensive or objectionable odour beyond the property boundary.	Will comply given provided design parameters

Table 9: Exclusion areas and setback distances for on-site domestic wastewater systems

FEATURE	OFFSET REQUIREMENTS (METERS)			SUBJECT SITE
	PRIMARY	SECONDARY	GREYWATER	
Exclusion Areas				
Floodplain	5% annual exceedance probability	5% annual exceedance probability	5% annual exceedance probability	Disposal area and treatment are outside of mapped flood areas.
Horizontal Set Back Distances				
*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	5	5	Complies
River, lake, stream, pond, dam or natural wetland	20	15	15	Complies
Coastal marine area	20	15	15	Complies
Existing water supply bore	20	20	20	Complies
Property boundary	1.5	1.5	1.5	Complies
Retaining Walls	3	3	3	Complies
Residential Dwelling	3	3	3	Complies

Vertical setback distances

Winter groundwater table	1.2	0.6	0.6	Complies

Far North District Plan

12.7.6.1.4 Land Use Activities Involving Discharges of Human Sewage Effluent

Land use activities which produce human sewage effluent (including grey water) are permitted provided that:

CRITERION	SUBJECT SITE
(a) the effluent discharges to a lawfully established reticulated sewerage system; or	NA
(b) the effluent is treated and disposed of on-site such that each site has its own treatment and disposal system no part of which shall be located closer than **30m** from the boundary of any river, lake, wetland or the boundary of the coastal marine area.	Complies

Note: The discharge may also require consent under the Regional Water and Soil Plan.

Appendix D: Suitable Plants for Evapo-transpiration Systems

SUITABLE PLANTS FOR EVAPO-TRANSPIRATION SYSTEMS

Native Shrubs and Trees

Coprosma	*Coprosma propinqua*
Hebe	*Hebe*
Manuka	*Leptospermum Scoparium*
Weeping Mapou	*Myrsine Divaricata*
Flax (fast)	*Phormium Tenax*
Pokaka (slow)	*Elaeocarpus Hookerianus*
Cabbage Tree (fast)	*Cordyline Australias*
Rangiora (fast)	*Brachyglottis Repanda*
Lacebark (fast)	*Hoheria Populnea*
Ribbonwood (fast)	*Plagianthus Regius*
Poataniwha	*Melicope Simplex*
Heketara	*Olearia Rani*
Poataniweta	*Carpodetus Serratus*
Kohuhu (fast)	*Pittosporum Tenufolium*

Grasses

Jointed Twig Sedge	*Baumea Articulata*
Longwood Tussock	*Carex Comans*
Pukio	*Carex Secta*
Toetoe (use native species- not invasive Pampas Grass)	*Cortaderia Fulvida*
Umbrella Sedge	*Cyperus Ustulatus*
Oioi	*Leptocarpus Similis*
Hooksedge	*Uncinia Unciniata*

Introduced Species

Canna Lilies, Taro, Aralia, Fuschia, Philodendrons, and Begonias

NORTHLAND REGIONAL COUNCIL

CARING FOR NORTHLAND AND ITS ENVIRONMENT

WHANGAREI: 36 Water Street, Private Bag 9021, Whangarei; Phone 09 438 4639, Fax 09 438 0012.

OPUA: Unit 10, Industrial Marine Park, Opua; Phone 09 402 7516, Fax 09 402 7510.

DARGAVILLE: 61B Victoria Street, Dargaville; Phone 09 439 3300, Fax 09 439 3301.

KAITAIA: 192 Commerce Street, Kaitaia; Phone 09 408 6600, Fax 09 408 6601.

Freephone: 0800 002 004 Environmental Hotline: 0800 504 639 Website: www.nrc.govt.nz

Appendix E: Operation and Maintenance Guidelines

ON-SITE WASTEWATER SYSTEMS

Maintenance Guidelines For Homeowners

PROTECTING YOUR HEALTH, YOUR ENVIRONMENT, YOUR INVESTMENT

PRODUCED BY: SWANS-SIG
The Small Wastewater And Natural Systems Special Interest Group of Water New Zealand

Contact Details:

SWANS-SIG
Water NZ PO
Box 1316
WELLINGTON 6140

Telephone: 64-4-472 8925
Fax: 64-4-472 8926

Web-site: www.waternz.org.nz/swans.html

WHY MAINTENANCE OF YOUR ON-SITE WASTEWATER SYSTEM IS IMPORTANT

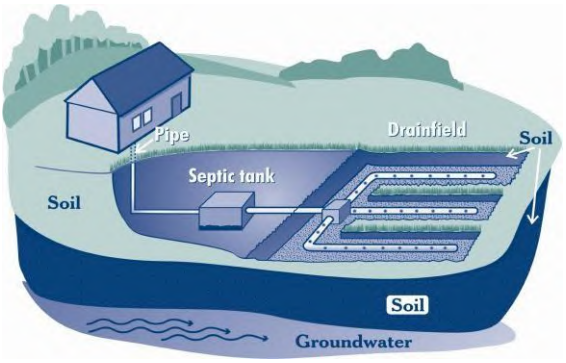
Whether you have a new "high-tech" treatment unit and drip irrigation system or an older "low-tech" septic tank and soakage trench system, regular attention to system inspection and maintenance is important. Effective regular maintenance of the wastewater servicing system on your property is essential for:

(a) protecting family health by ensuring a high level of sanitary performance;
(b) maintaining environmental values both within and beyond your property
(c) protecting the investment in your wastewater system; and
(d) enhancing amenity values in your neighbourhood through contributing to a high level of environmental performance for local on-site wastewater systems.

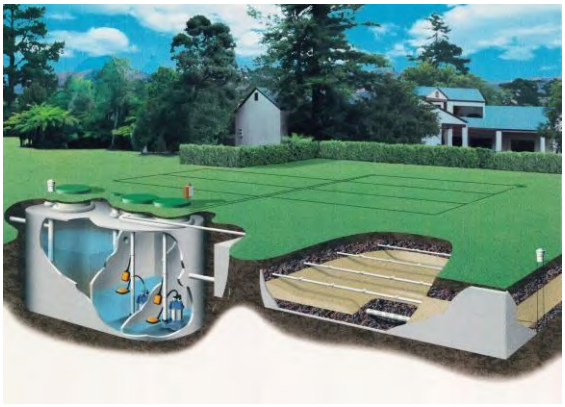
WHAT TYPE OF SYSTEM IS INSTALLED ON YOUR PROPERTY?

You are likely to have one of four types of system on your property:

- an old unknown system about which you have no information;
- an older style septic tank and soakage trench or soak hole system;
- a new modern septic tank and land application system (such as dosed trenches, or shallow planted evapo-transpiration beds, or a mound, or a low pressure dosed irrigation area);
- a new advanced treatment unit (such as an aerobic treatment plant, sand filter, or packed bed reactor) plus drip irrigation land application system.



Older style septic tank and soakage trench system



Modern septic tank, sand filter and drip irrigation field

Before you can attend to the maintenance requirements for your system you will have to establish the system type and capacity. This will require a detailed site inspection and/or a check of building records held by council. You may be able to do some of this yourself, but if a site investigation is needed, it is best to engage a drainage contractor or on-site wastewater servicing professional to investigate as follows:

(a) For an older unknown system

- Carry out a field inspection to locate and identify the treatment unit and soakage field area.
- Excavate or probe as appropriate to identify system components, their size and condition.
- Prepare a loading certificate based on an assessment of system capacity and its performance potential.
- Identify a suitable reserve area for extending the

stem if need be.

(b) For an older style septic tank and soakage trench or soak hole system	• If necessary, carry out a field inspection to locate the septic tank and soakage field area. • Check the maintenance record for the tank, and/or pumpout and inspect tank condition. • Evaluate the capacity and current performance of the soakage system. • Prepare a loading certificate based on an assessment of system capacity and its performance potential. • Identify a suitable reserve area for extending the system if need be.
(c) For a new modern septic tank and land application system	• Check council building consent records. • Check designer/installer reports and as-built records. • Obtain the designer's loading certificate (see box below). • Check availability of operation and maintenance instructions as provided by the designer. • Confirm the availability of a suitable reserve area for extending the system if need be.
(d) For a new advanced treatment unit and land application system	• Check council building consent records. • Check designer/installer reports and as-built records. • Obtain the designer's loading certificate. • Check availability of operation and maintenance instructions as provided by the designer. • Check if a maintenance contract is in place, and if not investigate options for and commission such a contract. Ensure the maintenance contract is renewed annually.

Checking scum and sludge levels in a septic tank

Servicing an advanced wastewater treatment unit

Whatever system is installed on your property, it is important that you understand the capabilities of the system. These are best identified and summarised in the preparation of a loading certificate. The loading certificate will enable you to understand the limitations or constraints of your system; however, the most important thing is to know your system type so that the right sort and frequency of maintenance can be carried out. This can simply be done through an inspection by a wastewater servicing specialist who will prepare the loading certificate.

LOADING CERTIFICATE

This should set out the following information:

(a) System type (obtained from the as-built details provided by the designer/installer};
(b) System capacity (number of persons and daily flow volume);
(c) Summary of design criteria;
(d) The location of and use of the 'reserve area';
(e) Use of water efficient fittings, fixtures and appliances;
(f) Allowable variation from design flows (peak loading events);
(g) Consequences of changes in loading (due to varying wastewater characteristics);
(h) Consequences of overloading the system;
(i) Consequences of underloading the system;
(j) Consequences of lack of operation, maintenance and monitoring attention; and
(k) Any other relevant considerations related to use of the system.

It is also essential that if you have an advanced treatment and land application system subject to a maintenance contract, this contract is renewed annually.

DO YOU HAVE A SET OF USER GUIDELINES?

Your Regional, City or District Council is likely to have available a set of user guidelines for owner/occupiers of dwellings serviced by on-site wastewater systems. Such guidelines may be based on the provisions of the joint Australia New Zealand Standard AS/NZS 1547:2012 "On-site Domestic Wastewater Management", and will typically set out 'dos' and 'don'ts' related to household activities which generate wastewater flows (see box below).

USER ADVICE for a PROPERTY OWNER/OCCUPIER (from AS/NZS 1547:2012)

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

(a) To reduce sludge building up in the tank:
- (i) Scrape all dishes to remove fats, grease, and so on before washing
- (ii) Keep all possible solids out of the system
- (iii) Don't use a food waste disposal unit unless the wastewater system has been specifically designed to carry the extra load, and
- (iv) Don't put sanitary napkins and other hygiene products into the system;

(b) To keep the bacteria working in the tank and to maintain soil condition in the land application area:
- (i) Use biodegradable soaps
- (ii) Use a low-phosphorus detergent (less than 1 gram per wash – very good; "no phosphorus" labelled product – best)
- (iii) Use a low-sodium detergent in erosive or clayey soil areas (less than 20 grams per wash – OK; less than 10 grams per wash – best)
- (iv) Use detergents in the recommended quantities
- (v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants
- (vi) Don't put chemicals or paint down the drain, and
- (vii) Check potential for effects from antibiotic and other medication use.

(c) Conservation of water will reduce the volume of effluent requiring disposal to the land application area, make it last longer and improve its performance. Conservation measures include:
- (i) Installation of water conservation fittings
- (ii) Taking showers instead of baths
- (iii) Washing clothes only when there is a full load, and
- (iv) Using the dishwasher only when there is a full load;

(d) Avoid overloading the system by spacing out water use as evenly as possible. For example:
- (i) Do not do all the washing on one day, and
- (ii) Do not run the washing machine and dishwasher at the same time.

MAINTENANCE INSPECTION REQUIREMENTS

Once you know the details and operating capacity of your on-site wastewater system then you can check out the maintenance inspection and servicing requirements from the table below. Note that your system will include a distribution device to convey the treated effluent to each element of your land application system so as to provide uniform use of the soil in further treating the wastewater flow.

Treatment System Type	Inspection and Maintenance Requirements
Older style septic tank	• Pumpout at 3-year intervals • Alternatively, check scum and sludge levels and pumpout on demand (around half full of scum and sludge)
Modern septic tank with effluent outlet filter	• Check scum and sludge levels (2-yearly) and pumpout on demand (around 6 to 8 years) • Check and hose down effluent outlet filter during pumpout
Aerobic treatment unit (aerated system)	• Periodic effluent quality "sniff and look" inspection (6-months) • Check power consumption (3-months) • Carryout equipment service check at 6-months (as specified in the supplier/installer maintenance contract)
Septic tank/sand filter system	• Periodic effluent quality "sniff and look" inspection (6-months) • Confirm sand is draining satisfactorily and not clogging (12-months) • Replace upper sand layer if draining slowly (as required) • Carryout equipment service check at 6-months (as specified in the supplier/installer maintenance contract)
Packed bed reactor unit	• Periodic effluent quality "sniff and look" inspection (6-months) • Carryout equipment service check at 6-months (as specified in the supplier/installer maintenance contract)

Distribution System	Inspection and Maintenance Requirements
Gravity distribution box	• Check distribution evenly balanced to all outlets (12-months) • Remove any accumulated solids in base of box (12-months)
Flood load gravity dosing system	• Check distribution is evenly balanced to all outlets (12-months) • Remove any accumulated solids in base of dose chamber (12-months)
Siphon dosing system	• Check siphon operation (ensure system not dribbling following 'shut-off') (6-months) • Remove any accumulated solids in base of siphon chamber (6-months)
Pump chamber and manifold distribution to dosing lines	• Check pump start and stop level controllers (clean off grease and solids) (6-months) • Check pump power use (6-months) • Carryout equipment service check at 6-months (as specified in the supplier/installer maintenance contract)
Pump chamber and automatic sequencing valve distribution to dosing lines	• Check pump start and stop level controllers (clean off grease and solids) (6-months) • Check pump power use (6-months) • Check sequencing valve operation (6-months) • Carryout equipment service check at 6-months (as specified in the supplier/installer maintenance contract)

Land Application System Type	Inspection and Maintenance Requirements
Soakage trenches (or beds)	• Inspect soakage field area for signs of wetness, surface seepage and/or excess grass growth (6-months) • Check level of standing effluent in trenches using vent pipes for liquid depth observation (6-months) • Add extra trenches in reserve area if overload (wetness or flooded system) becomes apparent
ETS (evapo-transpiration seepage) beds (or trenches)	• Inspect space between ETS beds/trenches for signs of wetness, surface seepage and/or excess grass growth (12- months) • Trim grass and/or ET plantings to avoid rank overgrowth • Check level of standing effluent in beds/trenches using vent pipes for liquid depth observation (12-months) • Add extra beds/trenches in reserve area if overload (wetness or flooded system) becomes apparent
Mounds (for septic tank effluent)	• Inspect edges (toe) of mound for signs of wetness, surface seepage and/or excess grass growth (6-months) • Install and plant a 1 metre wide by 400mm deep topsoil layer around mound perimeter if toe seepage becomes apparent • Install extra mound in reserve area if toe seepage not managed by supplementary soil and ET plantings.
LPED (low pressure effluent distribution) irrigation field	• Inspect soakage field area for signs of wetness, surface seepage and/or excess grass growth (6-months) • Trim grass and/or ET plantings to avoid rank overgrowth • Check level of standing effluent in LPED trenches using vent pipes (6-months) • Add extra LPED trenches in reserve area if overload (wetness or flooded system) becomes apparent
Drip irrigation field	• Inspect irrigation field area for signs of wetness, surface seepage and/or excess grass growth (6-months) • Trim grass and/or ET plantings to avoid rank overgrowth • Check air release valves are operating effectively (6-months) • Operate irrigation line flush valves (6-months) • Add extra drip lines in reserve area if overload (wetness or flooded system) becomes apparent • Carryout service check at 6-months (as specified in the supplier/installer maintenance contract)
NOTE: Where your wastewater system is subject to a resource consent from your Regional Council, you should note and follow the maintenance conditions imposed by the consent.	

DIY MAINTENANCE TASKS

As homeowner (or occupier) there are several inspection and maintenance tasks which you can carry out yourself. However, your must remember at all times that you are dealing with unsanitary waste material which may potentially be infectious, and hence in handling equipment and effluent samples you must take adequate precautions to prevent contamination of yourself and your equipment.

The following simple tasks involve a commonsense approach to on-site wastewater system homeowner/occupier DIY inspection and maintenance requirements (see tables above).

- Check septic tank scum and sludge levels (organise pumpout if required).
- Check drainage lines for evidence of 'backup' (slow draining).
- If backup due to outlet filter blockage, lift and hose down filter into septic tank.
- Check distribution box for even distribution of flow to trenches.
- Inspect land application system (trenches, beds, mounds, LPED and drip irrigation fields) for

signs of wetness, seepage, excess grass growth.

- Carry out “sniff and look” assessment of advanced treatment plant effluent quality (if a glass container full of effluent does not appear cloudy, and smells only slightly musty and not offensive, effluent quality is good).
- Check treatment unit and pumping system power consumption (if increases over time, need system check by servicing personnel).
- Check operation of irrigation line flush valves.
- If need be, call in drainage contractor, servicing specialist or maintenance contract service provider to undertake servicing and/or remedial works.

Healthy worm activity in septic tank scum layer

Septic tank pumpout

Backup to gully trap from clogged tank

Lifting and hosing down effluent outlet filter

Distribution box

Automatic sequencing valve

SERVICING AGENT MAINTENANCE TASKS

If you as owner/occupier wish to have no role in maintaining your system, this is fine, but you will need to engage a drainage contractor, servicing specialist or maintenance contract service provider to undertake servicing and/or remedial works.

Even if you do carry out DIY maintenance tasks as outlined above engaging servicing personnel will be essential to carrying out mechanical and electrical servicing as well as specialist servicing tasks such as effluent quality sampling and testing. In addition, servicing specialists are best fitted to undertake tasks such as:

- Checking scum and sludge levels in tanks.
- Lifting and hosing down effluent outlet filters.
- Checking distribution effectiveness from distribution boxes and automatic sequencing valves.
- Checking power consumption and adjusting treatment plant controls and pumping cycles to achieve better efficiency.
- Checking distribution effectiveness and flushing drip irrigation lines.
- Undertaking remedial works and system extensions.

MAINTENANCE CERTIFICATE

Where a specialist servicing check is undertaken, including servicing under a maintenance contract, you should be provided with a maintenance certificate (see box below). This certificate should be filed away and provided as required to your District or Regional Council as proof of maintenance. This requirement may be a consent condition.

A maintenance certificate shall include (from AS/NZS 1547:2012)
(a) Certification by a qualified and experienced person that the on-site system is operating and performing effectively;
(b) A note of any specific operation and maintenance attention which is due;
(c) Identification of any operation and maintenance problems, their likely cause and recommended remedial action;
(d) Any evidence of system capacity being exceeded or likely to be exceeded (for example, by extra residents, or by holiday period occupiers);
(e) Results of effluent quality testing where advanced or disinfection treatment is being used;
(f) Note of actions taken and results achieved following recommendations for remedial work after the previous routine inspection;
(g) A recommendation on when next desludge/pumpout should be undertaken; and
(h) Any other relevant matters.

CONTACT DETAILS FOR ADVICE AND SERVICE

To find a wastewater servicing specialist, contact your local council, septic tank pumpout contractor, treatment plant supplier or plumbing/drainlaying company. Enter contact details/phone numbers in the boxes below of those persons whom you may need to call on at some stage to gain advice on issues related to operation, inspection and maintenance of your on-site wastewater system

System Designer	
Council On-site Wastewater Officer	
Maintenance Contract Servicing Agent	
Local Drainage Contractor	

Acknowledgements – Illustrations:

- Marlborough District Council
- US EPA Educational Materials
- Reflection Treatment Systems Ltd
- Ministry for the Environment
- Super-Treat NZ Ltd
- On-Site NewZ
- North Dakota State University
- Inspect*A*Pedia
- Southeast Septic, USA
- Dola Transport, USA

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Borehole Log - BH1

Hole Location: Refer to Site Plan

JOB No. 24 162

CLIENT: Totara North School Board of Trustees
SITE: Totara North School
Date Started: 14.08.2024
DRILLING METHOD: Hand Auger
LOGGED BY: JCum
Date Completed: 14.08.2024
HOLE DIAMETER (mm) 50mm
CHECKED BY: JP

Soil Description (Based on NZGS Logging Guidelines 2005)	Depth (m)	Geology	Graphic Log	Water Level	Sensitivity	Vane Shear and Remoulded Vane Shear Strengths (kPa)	Scala Penetrometer (blows/100mm)
Silty TOPSOIL brown, soft, moist.	0.0	TS		Groundwater Not Encountered			0 5 10 15 20
0.05m CLAY with some silt, light brown, stiff, moist, high plasticity.	0.5						
SILT, light brown, firm, moist, low plasticity.	1.0						
EOH	1.5						
	2.0						
	2.5						
	3.0						
	3.5						
	4.0						
	4.5						

LEGEND

TOPSOIL | CLAY | SILT | SAND | GRAVEL | FILL

Corrected shear vane reading
Remoulded shear vane reading
Scala Penetrometer

Note: UTP = Unable To Penetrate. T.S. = Topsoil.
Scala penetrometer testing not undertaken.
Hand Held Shear Vane S/N:

Building Code Clause(s) G13

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.engineeringnz.org)

ISSUED BY: Haigh Workman Limited (Job number: 24 162)
(Design Firm)

TO: Totara North School Board of Trustees
(Owner/Developer)

TO BE SUPPLIED TO: Far North District Council
(Building Consent Authority)

IN RESPECT OF: On-site wastewater system
(Description of Building Work)

AT: 32 Totara School Road
(Address)

Town/City: Totara North **LOT** PT Allotment 6A **DP** PSH OF Totar **SO**
(Address)

We have been engaged by the owner/developer referred to above to provide:

A design for an onsite wastewater system in accordance with AS/NZS 1547.

(Extent of Engagement)

services in respect of the requirements of Clause(s) G13 (durability 15 yrs) of the Building Code for:

☐ All or ■ Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:

■ Compliance Documents issued by the Ministry of Business, Innovation & Employment G13/VM4 or
(verification method/acceptable solution)

☐ Alternative solution as per the attached schedule

The proposed building work covered by this producer statement is described on the drawings titled:

Wastewater Design Plan and numbered 24 162;
together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:
(i) Site verification of the following design assumptions site verification of the soil type.
(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

■ CM1 ☐ CM2 ☐ CM3 ☐ CM4 ☐ CM5 (Engineering Categories) or ☐ as per agreement with owner/developer (Architectural)

I, John Papesch am: ■ CPEng 224301 # ☐ Reg Arch #
(Name of Design Professional)

I am a member of: ■ Engineering New Zealand ☐ NZIA and hold the following qualifications: BE (Civil) CMEngNZ
The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than $200,000*.
The Design Firm is a member of ACENZ: ☐

SIGNED BY John Papesch (Signature)
(Name of Design Professional)

ON BEHALF OF Haigh Workman Limited Date 10/06/2025
(Design Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $200,000.*

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.

GUIDANCE ON USE OF PRODUCER STATEMENTS

Producer statements were first introduced with the Building Act 1991. The producer statements were developed by a combined task committee consisting of members of the New Zealand Institute of Architects, Institution of Professional engineers New Zealand (now Engineering New Zealand), Association of Consulting Engineers New Zealand in consultation with the Building Officials Institute of New Zealand. The original suit of producer statements has been revised at the date of this form as a result of enactment of the Building Act (2004) by these organisations to ensure standard use within the industry.

The producer statement system is intended to provide Building Consent Authorities (BCAs) with reasonable grounds for the issue of a Building Consent or a Code Compliance Certificate, without having to duplicate design or construction checking undertaken by others.

PS1 Design Intended for use by a suitably qualified independent design professional in circumstances where the BCA accepts a producer statement for establishing reasonable grounds to issue a Building Consent;

PS2 Design Review Intended for use by a suitably qualified independent design professional where the BCA accepts an independent design professional's review as the basis for establishing reasonable grounds to issue a Building Consent;

PS3 Construction Forms commonly used as a certificate of completion of building work are Schedule 6 of NZS 3910:2013 or Schedules E1/E2 of NZIA's SCC 2011[2]

PS4 Construction Review Intended for use by a suitably qualified independent design professional who undertakes construction monitoring of the building works where the BCA requests a producer statement prior to issuing a Code Compliance Certificate.

This must be accompanied by a statement of completion of building work (Schedule 6).

The following guidelines are provided by ACENZ, Engineering NZ and NZIA to interpret the Producer Statement.

Competence of Design Professional

This statement is made by a Design Firm that has undertaken a contract of services for the services named, and is signed by a person authorised by that firm to verify the processes within the firm and competence of its designers.

A competent design professional will have a professional qualification and proven current competence through registration on a national competence based register, either as a Chartered Professional Engineer (CPEng) or a Registered Architect.

Membership of a professional body, such as Engineering New Zealand (formerly IPENZ) or the New Zealand Institute of Architects (NZIA), provides additional assurance of the designer's standing within the profession. If the design firm is a member of the Association of Consulting Engineers New Zealand (ACENZ), this provides additional assurance about the standing of the firm.

Persons or firms meeting these criteria satisfy the term "suitably qualified independent design professional".

*Professional Indemnity Insurance

As part of membership requirements, ACENZ requires all member firms to hold Professional Indemnity Insurance to a minimum level.

The PI Insurance minimum stated on the front of this form reflects standard, small projects. If the parties deem this inappropriate for large projects the minimum may be up to $500,000.

Professional Services during Construction Phase

There are several levels of service which a Design Firm may provide during the construction phase of a project (CM1-CM5 for Engineers[3]). The Building Consent Authority is encouraged to require that the service to be provided by the Design Firm is appropriate for the project concerned.

Requirement to provide Producer Statement PS4

Building Consent Authorities should ensure that the applicant is aware of any requirement for producer statements for the construction phase of building work at the time the building consent is issued as no design professional should be expected to provide a producer statement unless such a requirement forms part of the Design firm's engagement.

Attached Particulars

Attached particulars referred to in this producer statement refer to supplementary information appended to the producer statement.

Refer Also:

1 Conditions of Contract for Building & Civil Engineering Construction NZS 3910: 2013

2 NZIA Standard Conditions of Contract SCC 2011

3 Guideline on the Briefing & Engagement for Consulting Engineering Services (ACENZ/IPENZ 2004)

4 PN Guidelines on Producer Statements

www.acenz.org.nz
www.engineeringnz.org
www.nzia.co.nz