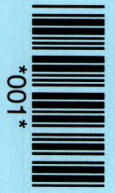

APPLICATION

FAR NORTH DISTRICT COUNCIL

Appendix E

TP58

On-site Wastewater Disposal Site Evaluation

FAR NORTH DISTRICT COUNCIL
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Investigation Checklist

APPLICANTS NAME
Jill & Brendan Nichols

PRODUCED BY
GERRY WHITE
BOI PLUMBING & DRAINAGE LTD
PO BOX 878
KERIKERI

TP 58 TABLE OF CONTENTS

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PS1 PRODUCER STATEMENT

DESIGN: ON-SITE EFFLUENT DISPOSAL DESIGN SYSTEMS (T.P58)

ISSUED BY: GERRY WHITE (approved qualified design professional)
REGISTERED DRAINLAYER NO: 14631
DATE:

TO: BRENDAN NICHOLS (owner)

TO BE SUPPLIED TO: Far North District Council.

As an independent approved design professional covered by a current policy of Professional indemnity insurance (Design) to a minimum value of $200.000.00 I BELIEVE ON REASONABLE GROUNDS that subject to:

1. The Site verification of the soil types
2. All proprietary products met the performance requirements.

The proposed design will meet the relevant provisions for the Building code and 8.15 of the Far North District Council Engineering standards.

2nd June 2014

Signature of approved professional

GERRY WHITE BOI PLUMBING & DRAINAGE LTD
REGISTERED DRAINLAYER (PROFESSIONAL QUALIFICATION)
No: 14631 Licence number professional Registration number
Address: 482 PUKETOTARA ROAD
PO BOX 878 KERIKERI
09-407-8591
021716681
FAX: 09-407-8492

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PROPERTY LOCATION: 7849 State Highway 12 Waimamaku

LOT NO: One DP: 184898 VALUATION NO: CT NO: NA 115B/969

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

THE DESIGN: Has been in accordance with G13(foulwater) G14 (industrial Liquid Waste) B2(durability 15 years) of the Building regulations 1992.

EVAPO TRANSPIRATION BED SYSTEM – CALCULATIONS & INSTALLATION COMPLIANCE CRITERIA
FOR THIS DOCUMENT IS DATED: 3/06/2014
UNDER F.N.D.C TP58 WASTEWATER DESIGN FLOW-RATES & LAND APPLICATION CALCULATIONS

WASTE WATER DRIPLINE SYSTEM DESIGN FOR (APPLICANTS DETAILS)

NAME: JILL & BRENDAN NICHOLS
ADDRESS: 7849 STATE HIGHWAY 12, WAIMAMAKU, NORTHLAND
DP NO: 184898 LOT NO: ONE

DESIGN RATE FLOW
ALLOWING FOR THE FOLLOWING - 3 X BEDROOM MAXIMUM 5 X PERSON OCCUPANCY DWELLING. 1X TANK WATER SUPPLY ALLOWING FOR 180 LITRES PER PERSON = TOTAL DAILY RATE OF 900 L/DAY:
PLUS 1X BEDROOM SLEEPOUT ALLOWING FOR 2 PERSONS MAXIMUM OCCUPANCY @ 180 LITRES PER PERSON PER DAY OR AN ADDITIONAL 360 LITRES TOTAL DAILY FLOW RATE = **TOTAL DAILY FLOW RATE @ 1260 LITRES.**

SOIL CATEGORY 4
TYPE FOR THIS PROPERTY HAS BEEN DETERMINED BY MEANS OF AN EXCAVATED TEST PIT WITH SITE PHOTOGRAPHS SUPPLIED SUPPORTING THE SOIL TYPE STRUCTURE TO BE IN A CATEGORY 4.

TREATMENT LEVEL
~~TO BE TYPE TWO OR SECONDARY AEROBIC TREATMENT PLANT CHOSEN BY THE OWNER/DEVELOPER – TO BE AN ECONO TREAT TREATMENT SYSTEM OR SIMILAR.~~

DESIGN LOADING RATE (D.L.R)
IS A 10 MM PER SQUARE METRE PER DAY.

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TRENCH SIZE & LAY-OUT

- BASE AREA IS DAILY FLOW RATE DIVIDED BY/D.L.R= 1260 LITRES DIVIDED BY / 10MM = 126 SQUARE METRES
- EVAPO TRENCH WIDTH IS 7 METRES.
- TOTAL TRENCH LENGTH = BASE AREA DIVIDED BY WIDTH = 126 M2 / 7 METRES = 18 LINEAL METRES OF TRENCH
- THIS DESIGN HAS ALLOWED FOR A TOTAL LINEAL EVAPO TRENCH LENGTH OF 18 METRES LONG WITH 4X DISTRIBUTION PIPES @ 1.4 METRE SPACINGS & CONTROLLED BY A DISTRIBUTION CHAMBER, TO ENSURE EVEN STAURATION OVER TH ENTIRE BED FLOOR AREA

TRENCH DEPTH

- IS 650MM – ALLOWING FOR 450mm OF CLEAN 40/60 GRADE SOAKAGE METAL, COVERED BY A TEXTILE CLOTH PRIOR TO 200mm MINIMUM SOIL COVER.
- THE MINIMUM CUBIC QUANTITY OF SOAKAGE METAL REQUIRED FOR THIS INSTALLATION WOULD BE 31.5 CUBIC METRES.

ALL GROUND SURFACE WATER IS TO BE DIRECTED AWAY FROM THE DISPOSAL AREAS WHERE EVER NECESSARY AND OR POSSIBLE. A COMMISSIONING STATEMENT IS TO BE SUPPLIED BY THE MANUFACTURER & A MAINTENANCE CONTRACT TO BE ENTERED TO ENSURE GOOD OPERATION OF THE TREATMENT SYSTEM.

DISCLAIMER

BOI PLUMBING AND DRAINAGE LTD STATES THE FOLLOWING DISCLAIMER

IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT ALL DIMENSIONS & CUBIC METAL QUANTITIES ARE ADHERED TO WITH THIS TP58 WASTE WATER DISPOSAL DESIGN, INCLUDING ANY SURFACE WATER/CUT-OFF DRAINAGE OR STOCK PROOFING REQUIRED TO PREVENT PREMATURE FAILURE.

IF FOR ANY REASON AT THE TIME OF INSTALLATION IF THESE DESIGN STANDARDS IN THIS TP58 DOCUMENTATION CANNOT BE ACHIEVED, THE DESIGNER OF THIS DOCUMENT-BOI PLUMBING & DRAINAGE LTD MUST BE NOTIFIED IMMEDIATELY.BOI PLUMBING & DRAINAGE LTD RESERVES THE RIGHT TO REVISE THIS DOCUMENT FOR ON-SITE EFFLUENT DISPOSAL TO COMPLY WITH F.N.D.C & N.R.C REQUIREMENTS AT THE TIME OF INSTALLATION.

PLEASE NOTE (OWNER/DEVELOPER)

THIS TP58 ONSITE WASTE WATER DISPOSAL DESIGN CALCULATION ARE BASED ON THE MINIMUM REQUIREMENTS OF THE F.N.D.C TECHNICAL PAPER TP58.

SHOULD THE OWNERS PREFER TO USE AN INDEPENDENT LICENSED DRAINAGE CONTRACTOR OTHER THAN BOI PLUMBING & DRAINAGE TO INSTALL THIS INSTALLATION DESIGN THE WARRANTY OF THIS DESIGN WILL THEN BECOME THE RESPONSIBILITY OF THAT CONTRACTOR – WHO WILL THEN NEED TO PROVIDE THE F.N.D.C AUTHORITY WITH A P.S.3 PRODUCER STATEMENT STATING THEIR COMMITMENT TO THEIR INSTALLATION OF THE MINIMUM DESIGNED CRITERIA.

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COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA115B/969**
Land Registration District	**North Auckland**
Date Issued	17 October 1997

Prior References
NA69A/393

Estate	Fee Simple
Area	15.8360 hectares more or less
Legal Description	Lot 1 Deposited Plan 184898

Proprietors
Brendan Nichols, Jill Kathleen Nichols and Nicholbee Trust Company Limited

Interests

Subject to a right of way over part marked A on DP 184898 specified in Easement Certificate D206204.3 - 17.10.1997 at 1.05 pm

The easements specified in Easement Certificate D206204.3 are subject to Section 243 (a) Resource Management Act 1991

D616625.1 Gazette Notice (NZ Gazette 9.11.2000 No 152 p 3942) declaring part of State Highway 12 in Northland commencing at its intersection with the northern end of Waiotemarama Gorge Road at Pakanae and proceeding in a Southerly direction to its intersection with the southern end of Waiotematara Gorge Road at Waiotemarama to be a limited access road - 27.6.2001 at 9.01 am

D616772.1 Crossing plance notice pursuant to Section 91 Transit New Zealand Act 1989 - 27.6.2001 at 9.01 am

8701857.3 Mortgage to ANZ National Bank Limited - 8.4.2011 at 4:39 pm

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Transaction Id
Client Reference chpublicc1

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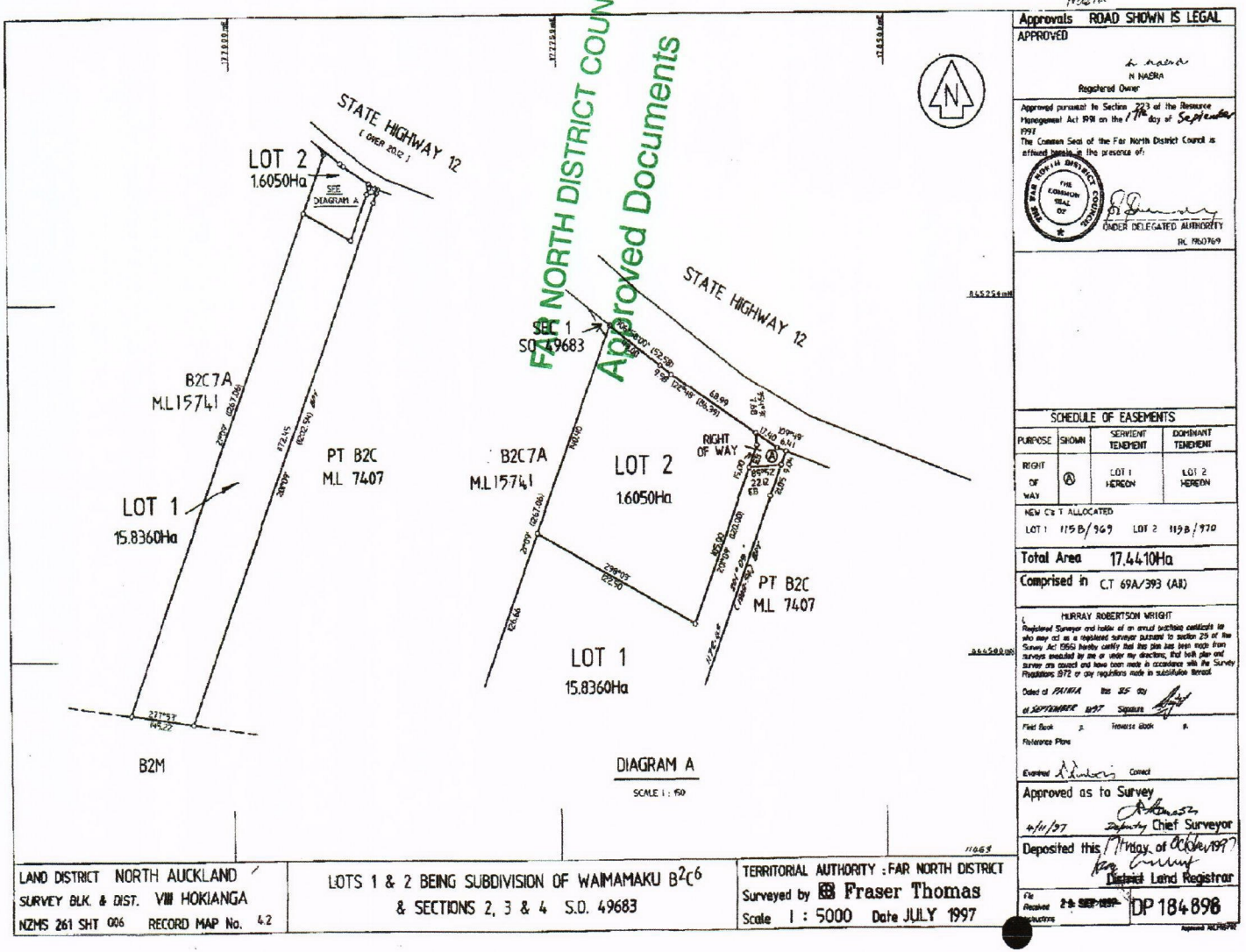

Approvals ROAD SHOWN IS LEGAL

APPROVED

N NAERA
Registered Owner

Approved pursuant to Section 223 of the Resource Management Act 1991 on the 17th day of September 1997

The Common Seal of the Far North District Council is affixed hereto in the presence of:

THE COMMON SEAL OF THE FAR NORTH DISTRICT COUNCIL

UNDER DELEGATED AUTHORITY
RC 7607/69

SCHEDULE OF EASEMENTS

PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
RIGHT OF WAY	A	LOT 1 HEREON	LOT 2 HEREON

NEW C/T ALLOCATED
LOT 1 115B/969 LOT 2 115B/970

Total Area 17.4410Ha

Comprised in C.T 69A/393 (All)

MURRAY ROBERTSON WRIGHT

Registered Surveyor and holder of an annual practising certificate (as who may act as a registered surveyor pursuant to section 23 of the Survey Act 1986) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972 or any regulations made in substitution thereof.

Dated at PAIHIA this 25th day of SEPTEMBER 1997 Signature

Field Book p. Traverse Book p.

Reference Plans

Examined Correct

Approved as to Survey
4/11/97 Deputy Chief Surveyor

Deposited this 17th day of October 1997
District Land Registrar

File Reference 28 SEP 1997 DP 184898

Search Copy Dated 26/05/14 8:16 am, Page 2 of 2
Register Only

1. Applicant Details:

Applicant Name	Jill & Brendan Nicols	
Company Name	N/A	
	First Name(s)	Surname
Property Owner Name(s)	Jill Kathleen Brendan Nicolbee Trust Co Ltd	Nicols Nicols

Nature of Applicant*	Existing Owner

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

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	Gerry White			
Site Evaluator Name	Bay of Islands Plumbing & Drainage Ltd			
Postal Address	PO Box 878			
	Kerikeri			
Phone Number	Business	094078591	Private	Same
	Mobile	021716681	Fax	094078492
Name of Contact Person	Gerry			
E-mail Address	boiplumbinganddrainage@xtra.co.nz			

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OFFICE USE ONLY

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

		NO	**YES**

If yes, give Reference Numbers and Description

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

If so, specify Application Details and Consent No.

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

1. Property for which this application relates:

Physical Address of Property	7849 State Highway 12, Waimamuku
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: Controlled: Discretionary:
Relevant Regional Rule(s) (Note 1)	Permitted activity for RURAL production
Total Property Area (m^2)	158'228.51 SQUARE METRES or 15.8360 HECTARES
Map Grid Reference of Property If Known	LAND DISTRICT MAP/ NORTH AUCKLAND

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

Lot No.	ONE	DP No.	184898	CT No.	NA 115B/969
Other (specify)					

Please ensure copy of Certificate of Title is attached

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PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)
Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

			NO √

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

EXISTING HABTIABLE PROPERTY APPLYING FOR BUILDING CONSENT TO UNDERTAKE RENOVATIONS & UPGRADE EXISTING WASTEWATER DISPOSAL DESIGN SYSTEM.

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

			NO

If No, why not?

Gentle sloping property, No visual evident problems existing whatsoever.

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

Author	N/A
Company/Agency	N/A
Date of Report	N/A

Brief Description of Report Findings:- N/A

3. Site Characteristics (See Table 1 attached):

Provide descriptive details below:

Performance of Adjacent Systems:

Adjacent systems working very well-Good ground percolation available onsite

Estimated Rainfall and Seasonal Variation:

Information available from **N.I.W.A MET RESEARCH**

Annual rainfall 1200mm-Annual potential Evapo-Transpiration 250mm

Vegetation / Tree Cover:

Mature Landscaped Property around dwelling with balance in fenced in pasture.

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Slope Shape: (Please provide diagrams)

yes

Slope Angle:

2 to 3 Degrees

Surface Water Drainage Characteristics:

Elevated site falling gently towards the South West Boundary.

Surface water easily controlled via open swale drainage

Flooding Potential: NO

If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.

Surface Water Separation:

Minimum 20 metres separation measured horizontally from Disposal Field-
Swale cut-off Drains to be installed above disposal field site.

Site Characteristics: or any other limitation influencing factors

NO

4. Site Geology **Check Rock Maps**

M.R.r.H = Marua Brown Clay Loam

Geological Map Reference Number	N.Z.M.S 290 SHEET P 04/05

5. What Aspect(s) does the proposed disposal system face?

North		**West**	
North-West		**South-West**	**yes**
North-East		**South-East**	
East		**South**	

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

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	1.5METRES MIN SET BACK	Check Council requirements 1.5
Surface water, rivers Creeks drains etc	20 METRES MIN SET BACK	20 METRES
Groundwater	1.2 METRES GAP ABOVE GROUND -	WATER TABLE
Stands of Trees/Shrubs	LANDSCAPED PROPERTY -2METRE SET- BACK FROM TRUNKS	
Wells, water bores	20 METRES MIN SET-BACK	20 METRES
Embankments/retaining walls	3 METRES MIN SET-BACK	3 METRES
Buildings	3METRES MIN SET-BACK	3 METRES
Other (specify):	INCLUDING DECKS	3 METRES

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PART D: Site Assessment - Subsoil Investigation

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

1. Please identify the soil profile determination method:

Test Pit	YES	Depth of 2 metres	No of Test Pits	One
Bore Hole	N/A		No of Bore Holes	N/A
Other (specify):	No water table encountered.			

Soil Report attached?

		YES √	

2. Was fill material intercepted during the subsoil investigation?

			NO √

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

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

Please specify the method ATTACHED SITE PHOTOGRAPHS

Test Report Attached?				YES √

4. Are surface water interception/diversion drains required?

Yes			

If yes, please show on site plan

4a Are subsurface drains required

If yes enter details **NO**

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

Winter	4 metres	m			Estimated	√
Summer	5-6 metres	m			Estimated	√

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

			NO √

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

N/A

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

Is Topsoil Present?	**YES**	If so, Topsoil Depth?	**1200**(m)

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

Reasons for placing in stated category

Soils well to moderately well drained suitable for large Evapo Transpiration bed heavily planted to assist With transpiration.

PART E: Discharge Details

1. Water supply source for the property

Rainwater (roof collection)	YES
Bore/well	NO
Public supply	NO

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available
(Refer TP58 Table 6.1 and 6.2)

3x bedroom dwelling & 1 bedroom sleepout				5 person occupancy in 3 bedroom dwelling and
Design Occupancy				1 bedroom sleepout with 2 person occupancy
Per capita Wastewater Production	140	160	**180**	180 litres per person per day.
Other - specify	200	220		
Total Daily Wastewater Production				1260 LITRES PER DAY TOTAL

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?			YES	√
b) Water Recycling - what %?	**0%**			

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

HOUSEHOLD WITH 11/5.5 OR 6/3 FLUSH TOILET/S & STANDARD FIXTURES-
LOW WATER USE DISHWASHER & NO GARBAGE GRINDER
SAVINGS OF 20 LITRES PER PERSON OR TOTAL SAVING OF 160 LITRES PER DAY

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

No	√

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

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	158'228.51M3	
Total Daily Wastewater Production	1260 LITRES	
Lot Area to Discharge Ratio	125.57818 sq/L	

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

	YES √		

8. Is a Northland Regional Council Discharge Consent Required?

		No	√

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

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

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
ONE – Existing	ANAEROBIC DUAL	
	CHAMBER & FILTERED	
Effluent filter to be fitted.	SEPTIC TANK	
	Total Capacity	4500 LITRES

2. Type of Septic Tank Outlet Filter to be installed?
EXISTING ZABIEL OR SIMILAR AS PER FNDC SPECS

PART G: Secondary and Tertiary Treatment
(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

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

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Secondary Treatment			
Home aeration plant			
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other	YES	Specify	EVAPO GRAVITY TRENCH FIELD SYSTEM

PART H: Land Disposal Method
(Refer TP58 Section 8)

1. Please indicate the proposed loading method:

Gravity	YES
Dosing Siphon	NO
Pump	NO

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

		N/A √

If not to be installed, explain why

N/A

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

Total Design Head		N/A	(Tick) (m)
Pump Chamber Volume	N/A		(Litres)
Emergency Storage Volume	N/A		(Litres)

4. Please identify the type(s) of land disposal method proposed for this site:

(Refer TP58 Sections 9 and 10)

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

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

Loading Rate	10mm per sq metre		(Litres/m2/day)
Disposal Area	Design	180	(m2)
	reserve	180	(m2)

Explanation *(Refer TP58 Sections 9 and 10)*

LOADING RATE AT 10mm PER SQUARE METRE PER DAY. TOTAL TRENCH LENGTH OF 18 METRES
BY 7 METRES WIDE BY 0.10mm LOADING GIVES 1260 LITRES PER DAY TOTAL TRENCH LOADING.
4 BEDROOM DWELLING WITH 7 PERSONS ON TANK WATER SUPPLY= 1260 LITRES PER CAPITA
PER DAY. CONSERVATIVE LOADING RATE WELL COVERED ON TRENCH INVERT ONLY-
EXTRA. PERCOLATION ALSO AVAILABLE IN SIDE WALLS OF TRENCH

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

Reserve Disposal Area (m^2)	200 sq metres
Percentage of Primary Disposal Area (%)	100%

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

Description and Dimensions of Disposal Field:

18 metres of Evapo Transpiration bed long by 7 metres wide by 450 deep, with 4x distribution pipes @ 1.4
Centres and controlled by a distribution chamber to evenly distribute to all the floor area of the Evapo
Transpiration bed.
The Evapo Transpiration bed is to be heavily planted with shallow rooting plants to assist with transpiration.

Plan Attached?		YES √		

If not, explain why not

N/A

PART I: Maintenance & Management
(Refer TP58 Section 12.2)

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

			N/A

Name of Suppliers

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?
(Refer TP58 section 5. Ensure all issues concerning potential effects addressed)

			NO √

If Yes, list and explain possible effects

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PART K: Is Your Application Complete?

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

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

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

Name Gerry C. White	Signature	
Position Registered Drainlayer	Date	3rd June 2014

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

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 Australis*
Rangiora (fast)	*Brachyglottis Repanda*
Lacebark (fast)	*Hoheria Populnea*
Ribbonwood (fast)	*Plagianthus Regius*
Poataniwha	*Melicope Simplex*
Heketara	*Olearia Rani*
Poataniweta	*Carpodetus Srratus*
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
Begonias

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TEST PIT
SIDE WALL + DEPTH
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Approved Documents

Soil Type
FAR NORTH DISTRICT COUNCIL
Approved Document


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Sub Soil TYPE

Recommended Products.

What products are safe to use in the system?

WASHING POWDERS, LIQUIDS AND SOFTENERS.

Add Soft	Blue Gum	Blue Sno	Care	Castle
Cuddly	Cold Power	Dynamo	Ease	Embassy
Fab	Hurricane	Launda	Love & Care	Lux
More	Purlite	Rinso	Softly	Spree
Sunlight	Surf	Top Wash	Woolmix	

- **Watch out for soap powders with added bleaches and whiteners. These are harmful to the system.**

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DISHWASHING LIQUIDS.

Finish Powder for Dishwashers

Adds	Bushland	Kit	KwitCare	Greenapple
Morning Fresh	Palmolive	Sunlight	Top Wash	Trix

SURFACE CLEANERS.

Jiff Crème Cleanser	Nifty	Spray & Wipe (In limited Quantities)
Shower Power	Swipe	Windex

DO NOT use any anti bacterial solutions (e.g. disinfectant, Handy Andy, Napisan, Toilet Duck etc)
DO NOT use any bleaches (e.g. Domestos, White King, Glade etc)
DO NOT use any toilet cleaners (e.g. Toilet Duck, Harpic, Ajax etc)

In a "Nutshell" – your system works using bacteria so anything that kills bacteria is NOT suitable for your system. When the bacteria is not present the result will be a smelly system.
This can even be caused by a member of the family using Antibiotic medicine.

If anti bacterial solutions need to be used we suggest using them in a bucket and then discarding in the yard

ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Advice to Home Owner/Occupier

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

1. **Use of the System**

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

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

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

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

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

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

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

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