Horowhenua
DISTRICT COUNCIL

Wastewater Bylaw

2015

Pursuant to sections 145 and 146 of the Local Government Act 2002, the Horowhenua District Council makes the following bylaw.

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HOROWHENUA DISTRICT COUNCIL
WASTEWATER BYLAW 2015

1. INTRODUCTION

(1) This bylaw regulates:

(a) the discharge of wastewater into the wastewater system, except for discharges of trade waste, which are subject to the Trade Waste Bylaw; and

(b) works which may be carried out on behalf of property owners on or near the wastewater system.

Note: Discharges of wastewater to on-site wastewater systems are not covered by this bylaw and are regulated by the Horizons Regional Council.

1.2 Commencement and application

(1) This bylaw comes into force on 6 August 2015.

(2) This bylaw applies to the Horowhenua District.

1.3 Compliance with other Acts

(1) Compliance with the requirements of this bylaw does not remove the need to comply with all other applicable Acts, regulations, bylaws, and rules of law.

1.4 Purpose

The purpose of this bylaw is to:

(a) provide a safe and efficient wastewater system.

(b) protect the wastewater system from damage, misuse and interference.

(c) protect the environment and the health and safety of persons from adverse effects of harmful substances discharged to the wastewater system.

(d) ensure that private drains operate in an acceptable way.

1.5 Interpretation

(1) In this bylaw, unless the context requires otherwise:

acceptable wastewater characteristics means those characteristics listed in Appendix 1

approval means approval in writing by the Council, either by resolution of the Council or by an officer of the Council authorised for that purpose

certificate of title means a certificate registering the freehold ownership of land available to any owner(s) under the Land Transfer Act 1952 or a computer register created under the Land Transfer (Computer Registers and Electronic Lodgement) Amendment Act 2002

common private drain means a private drain which serves more than one lot

connection means the physical connection of a private drain to the Council wastewater system and **connect** has the equivalent meaning

Council means the Horowhenua District Council or any person delegated or authorised to act on its behalf

Council wastewater system means all pipes, sewers, pumping stations, storage tanks, wastewater treatment plants, outfalls and other related structures operated by the Council and used for the receiving, treating or disposing of wastewater

disconnection means the physical cutting and sealing of a private drain from the [Council] wastewater system and **disconnect** has a similar meaning

groundwater includes all water bodies below the ground surface, namely subsoil water and artesian water

HN-HO-72 wheel or axle load has the meaning given by section 3.2.2 of the Transit New Zealand Bridge Manual, September 2004

Horowhenua District means the area delineated on S.O. Plan No. 36025 deposited with the Chief Surveyor of the Wellington District

non-structural faults means faults to a private drain caused by non-structural elements, for example by foreign objects or tree roots originating from a premises

owner means the person who owns premises from which wastewater originates or on which wastewater is located

person includes an individual, a corporation sole and an unincorporated body, and includes any successor of a person

point of discharge means the point at which a private drain connects with the Council wastewater system

premises means:

(a) a property or allotment which is held under a separate certificate of title or for which a separate certificate of title may be issued and in respect to which a building consent has been or may be issued; or

(b) a building that has been defined as an individual unit by a cross-lease, unit title or company lease and for which a certificate of title is available; or

(c) land held in public ownership (e.g. reserve) for a particular purpose; or

(d) an individual unit in a building which are separately occupied and/or leased

private drain means any pipe or drain system through which wastewater flows from a premises before entering the Council wastewater system,

prohibited characteristics means those characteristics listed in Appendix 2

stormwater means all surface water run-off resulting from precipitation

trade waste means any liquid, with or without matter in suspension or solution, that is or may be discharged from a trade premises to the wastewater system in the course of any trade or industrial process or operation, or in the course of any activity or operation of like nature

Trade Waste Bylaw means the bylaw of the Council regulating wastewater discharges from trade premises to the wastewater system

wastewater means water or other liquid waste, including sewage and waste matter in solution or suspension, discharged to the wastewater system

wastewater system means the Council wastewater system and all private drains and common private drains connecting to that system.

(2) The Interpretation Act 1999 applies to this bylaw.

(3) Additional information appended to this bylaw and the explanatory notes are included for information purposes only, do not form part of this bylaw and may be made, amended or revoked without formality.

2. SAFE AND EFFICIENT WASTEWATER SYSTEM

2.1 Acceptance of wastewater discharge

(1) A person may introduce or discharge any wastewater from any premises into the wastewater system if the discharge:

(a) has physical and chemical characteristics that are within the acceptable wastewater characteristics; and

(b) does not contain any prohibited characteristics; and

(c) is in accordance with the provisions of this bylaw.

(2) If any of the above requirements cannot be complied with, the discharge must be authorised under the Trade Waste Bylaw.

2.2 Approval to connect

(1) No person may connect to the Council wastewater system without prior approval from the Council.

(2) An application for approval to connect to the Council wastewater system must be:

(a) made in the prescribed form; and

(b) accompanied by:

(i) payment of the application fee; and

(ii) such further supporting information as the Council requires to process the application.

(3) Having received and considered an application, the Council may:

(a) grant the application subject to such conditions as the Council considers appropriate; or

(b) decline the application in accordance with clause 2.2(4).

(4) The Council may decline an application if:

(a) the applicant has not paid fees or charges associated with the connection that have been required by the Council, or has refused to provide any information relating to the application that has been requested by the Council; or

(b) the Council has a documented record of the applicant's non-compliance with this bylaw or any previous wastewater bylaws, codes of practice or approvals granted under such bylaws or codes of practice; or

(c) in the Council's reasonable opinion, there is insufficient capacity in the wastewater system to accommodate the connection; or

(d) in the Council's reasonable opinion, the connection could compromise its ability to maintain levels of service in relation to the wastewater system; or

(e) the connection is outside the area currently served by the Council wastewater system, regardless of its proximity to any specific component of the Council's wastewater system; or

(f) in the Council's reasonable opinion, refusal is necessary to protect the wastewater system, the health and safety of any person or the environment; or

(g) connection would or may give rise to wastewater overflows.

(5) If the Council grants the application, it may also require the applicant to pay the cost of providing the connection. This cost must be paid in full prior to commencement of the new service connection works.

(6) Only Council approved contractors may make any connection to, or otherwise access, any part of the Council's wastewater system, unless otherwise approved by Council.

2.3 Prescribed charges

(1) The Council may prescribe the following fees and charges under this bylaw that apply at the time of connection:

(a) an application fee, and

(b) a charge for providing the connection.

Note: Other fees and charges, for example development contributions or financial contributions, may also be charged at the time of connection in accordance with the provisions of the Resource Management Act 1991, the Local Government Act 2002 and the Council's development contributions policy. Wastewater rates must also be paid in accordance with the Local Government (Rating) Act 2002. The Council may impose penalties on and recover all unpaid wastewater rates in accordance with sections 57 to 76 of the Local Government (Rating) Act 2002.

(2) The Council may also, from time to time, recover any other costs incurred relation to any of its activities and functions under this bylaw.

(3) Fees and charges for wastewater services may be amended by the Council following the procedures in the Local Government Act 2002 for setting fees and charges.

2.4 Point of discharge

(1) There may only be one point of discharge for each premises unless prior written approval is given by the Council.

Responsibility for maintenance

(2) The owner, occupier, or manager of a premises must ensure that:

(a) those parts of a private drain within their premises are maintained in a good operating condition, free from blockages (whatever the cause); and

(b) any part of the private drain in public land is clear of blockages resulting from non-structural faults.

(3) Any work undertaken to clear blockages under clause 2.4(2)(b) that involves the disturbance of any part of public land may only be undertaken by a Council approved contractor.

(4) The Council may inspect the private drain at suitable intervals and notify the owner, occupier or manager of a premises if maintenance must be carried out. Maintenance must be carried out within the advised timeframe and to the standard specified by the Council.

(5) The owner, occupier, or manager of a premises is responsible for the following costs, unless otherwise required by the Council:

(a) any costs of maintenance required by clause 2.4(1);

(b) any costs of inspection by the Council under clause 2.4(4); and

(c) any costs of maintenance required by the Council under clause 2.4(4).

(6) The Council may restrict or prohibit the discharge of wastewater from one or more premises and for any specified period, subject to the provisions of the Local Government Act 2002. Such restrictions will be advised by public notice, or without notice when it is not practical to provide prior notice. The Council will not make any allowance or compensation if the wastewater system is restricted, disrupted or stopped for any reason.

Location of point of discharge

(8) The point of discharge of wastewater from any premises must be located in accordance with figures 1, 2, 3, 4, 5, 6, 7, 8 or 9, whichever is appropriate, or at the closest practical alternative in accordance with clause (9).

(9) The point of discharge may be located at the closest practicable alternative to a point shown in figures 1, 2, 3, 4, 5, 6, 7, 8 or 9 (whichever is appropriate) if fences, walls, or other permanent structures make it impractical to locate the point of discharge at the required location. Prior approval of other positions must be sought from the Council and any such approval must be recorded on the drainage plan.

(10) No property may connect to an existing private drain, by pipe or any other means, except where the lateral is protected by an appropriate easement.

(11) Common private drains less than 100mm in diameter may serve a maximum of five single dwelling units, and may have one common point of discharge and must be located in accordance with Figure 6

Note: The responsibilities for maintenance and the location of point of discharge are shown in Figures 1 to 7 below. Figures 8 and 9 show the typical layout at a point of discharge.

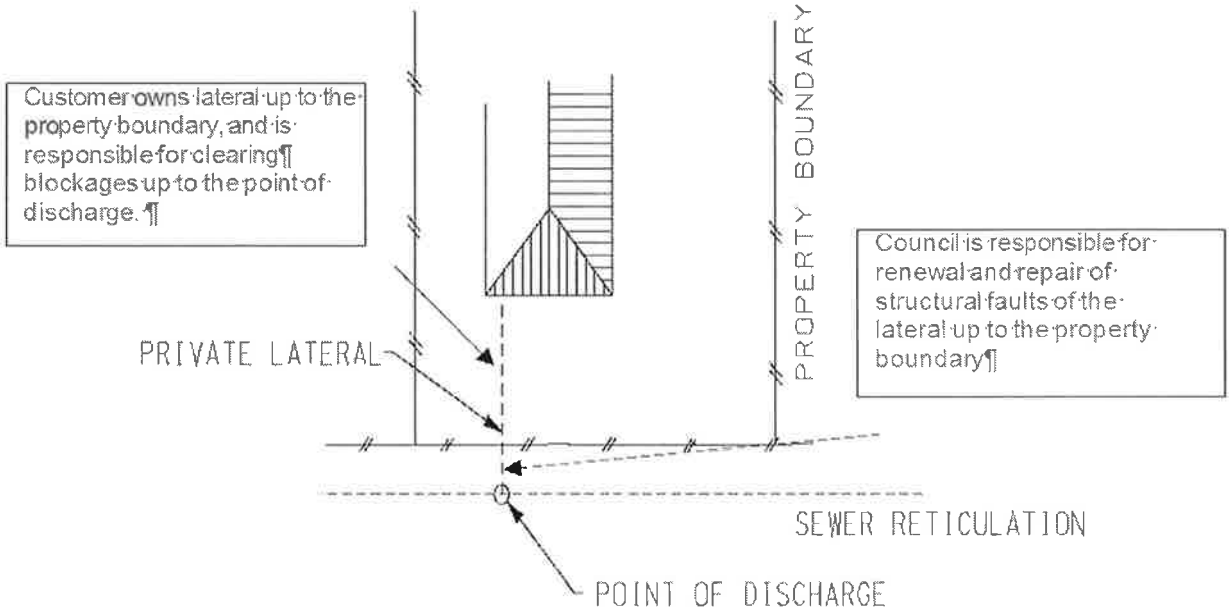

Figure 1: Single point of connection

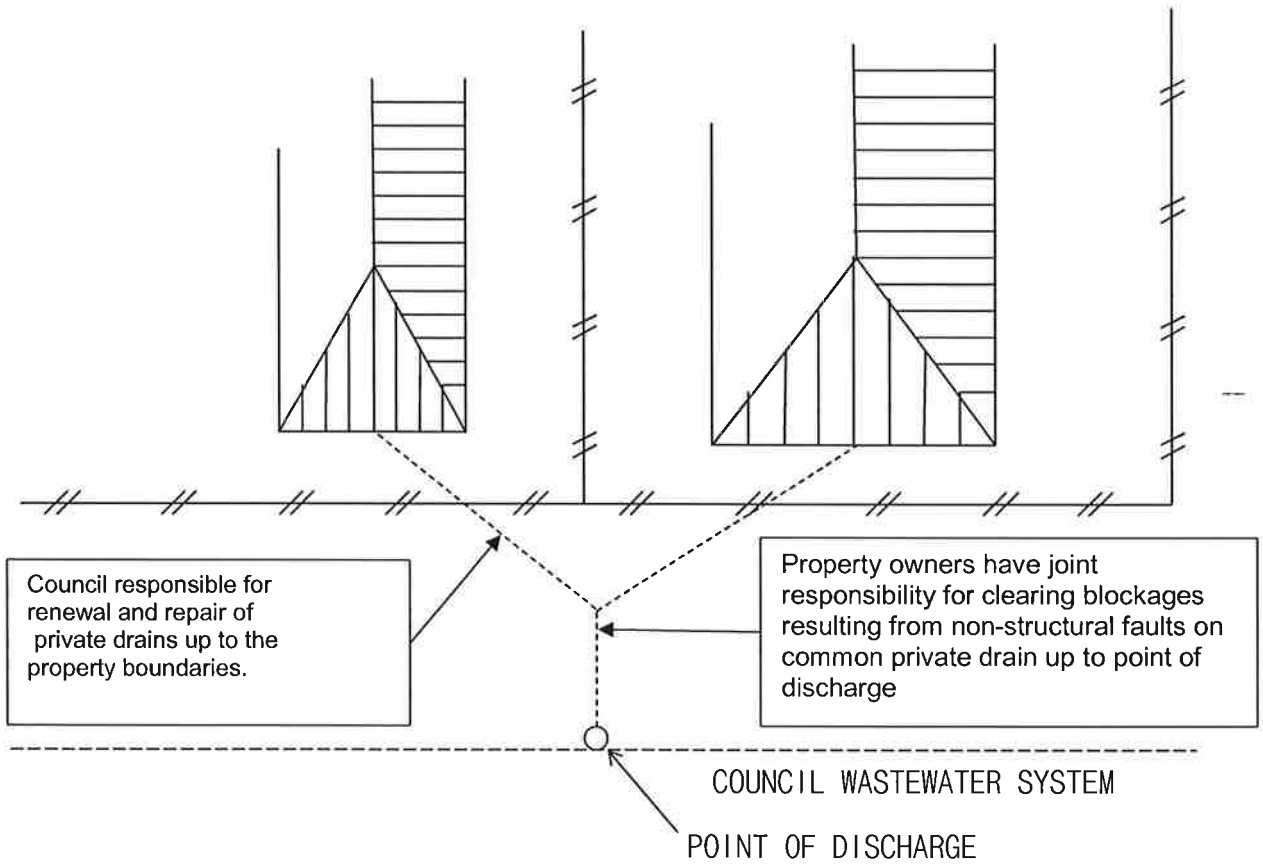

Figure 2: Multiple point of connections on Y junction

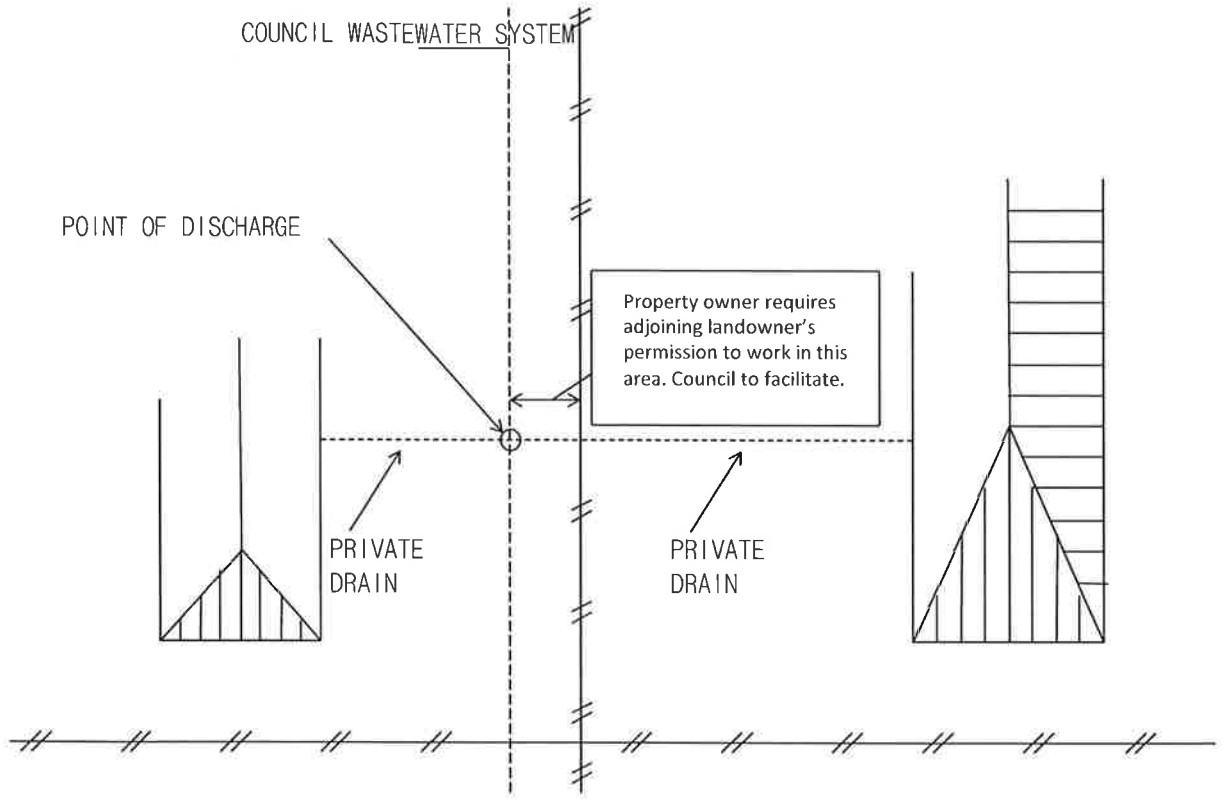

Figure 3: Point of discharge on private property

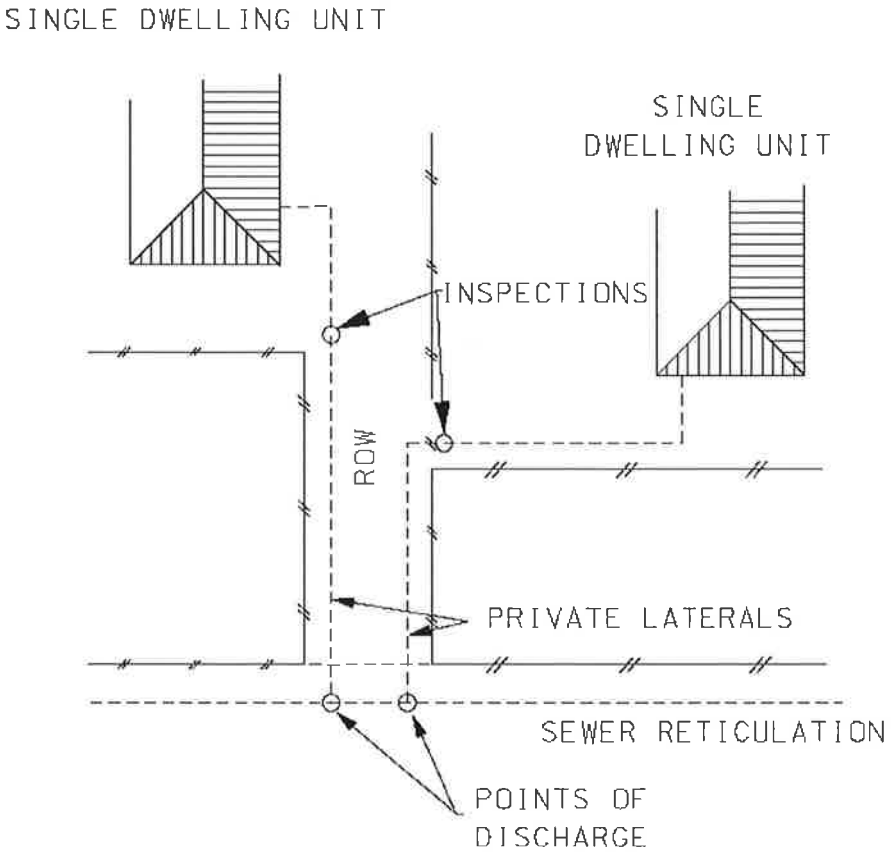

Figure 4: Single point of connection with common access way

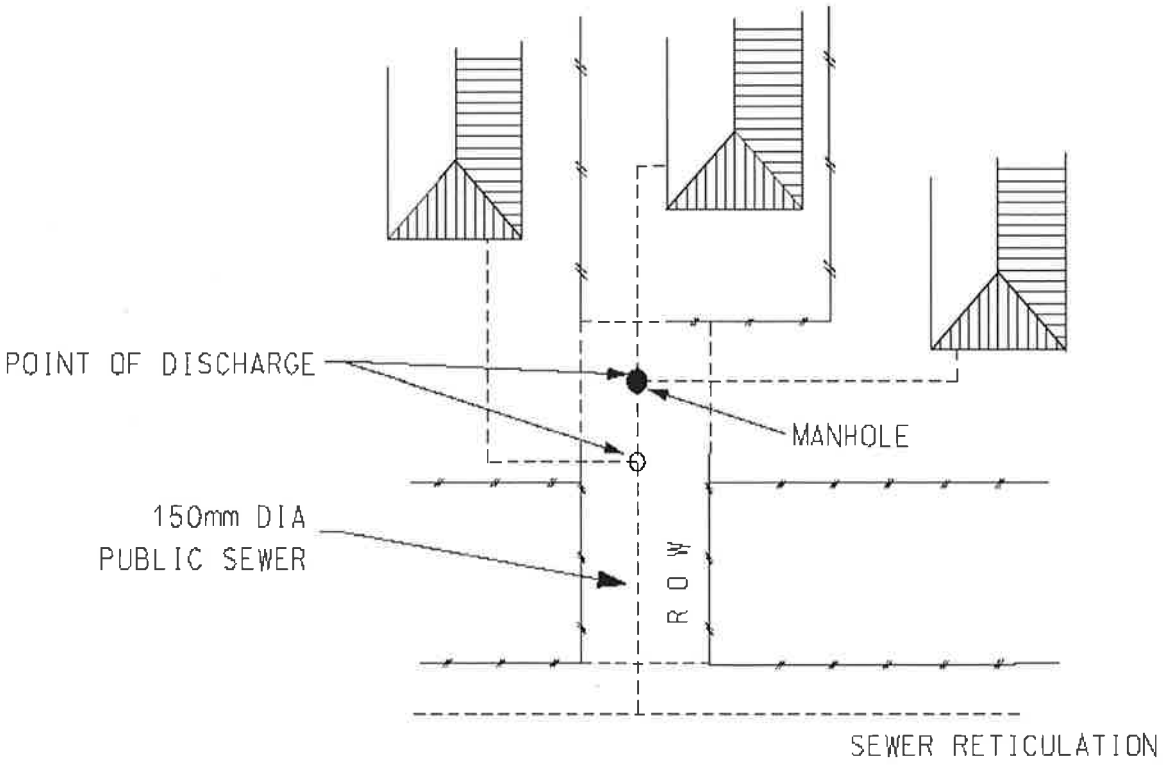

Figure 5: Multiple connections on Right of Way - Easement required

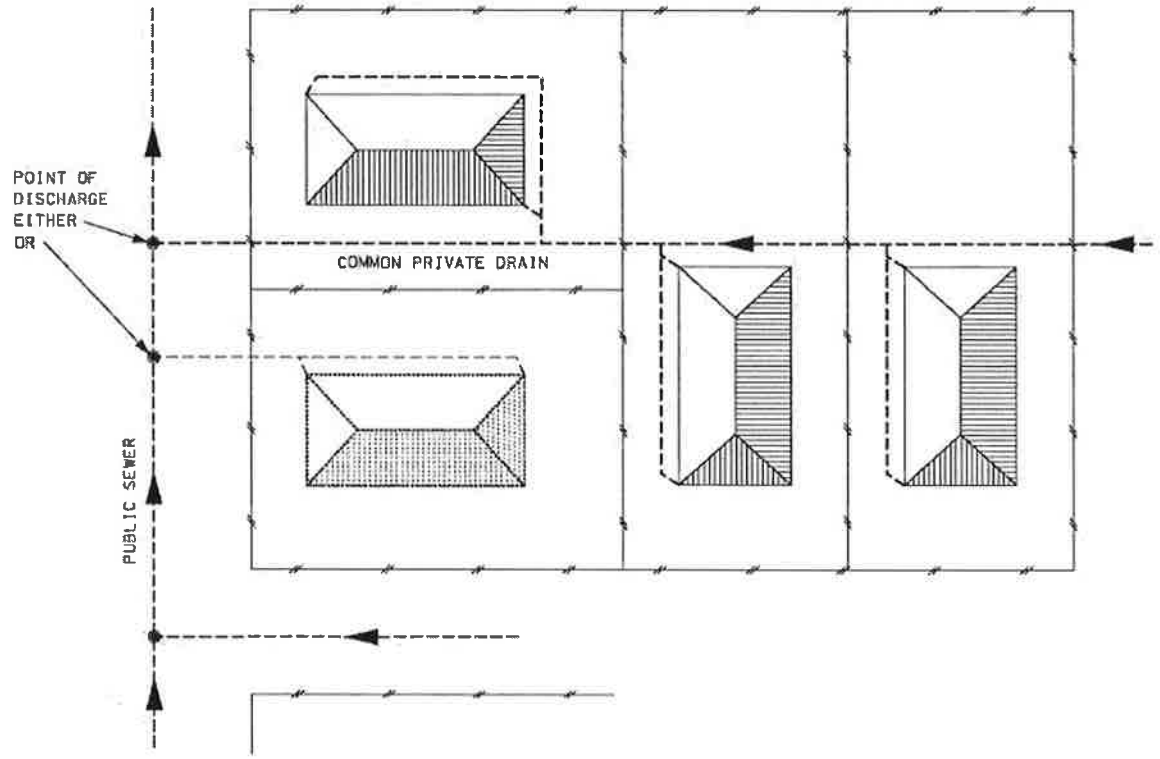

Figure 6: Common private drains

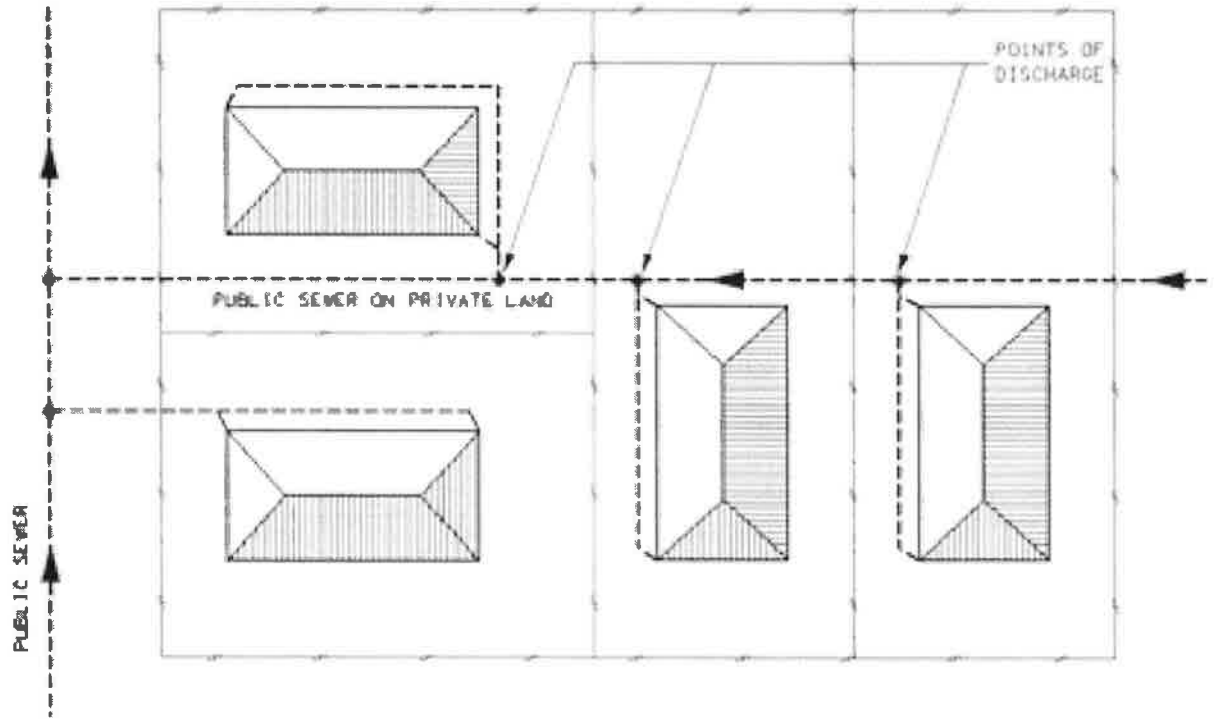

Figure 7: Council wastewater system on private land

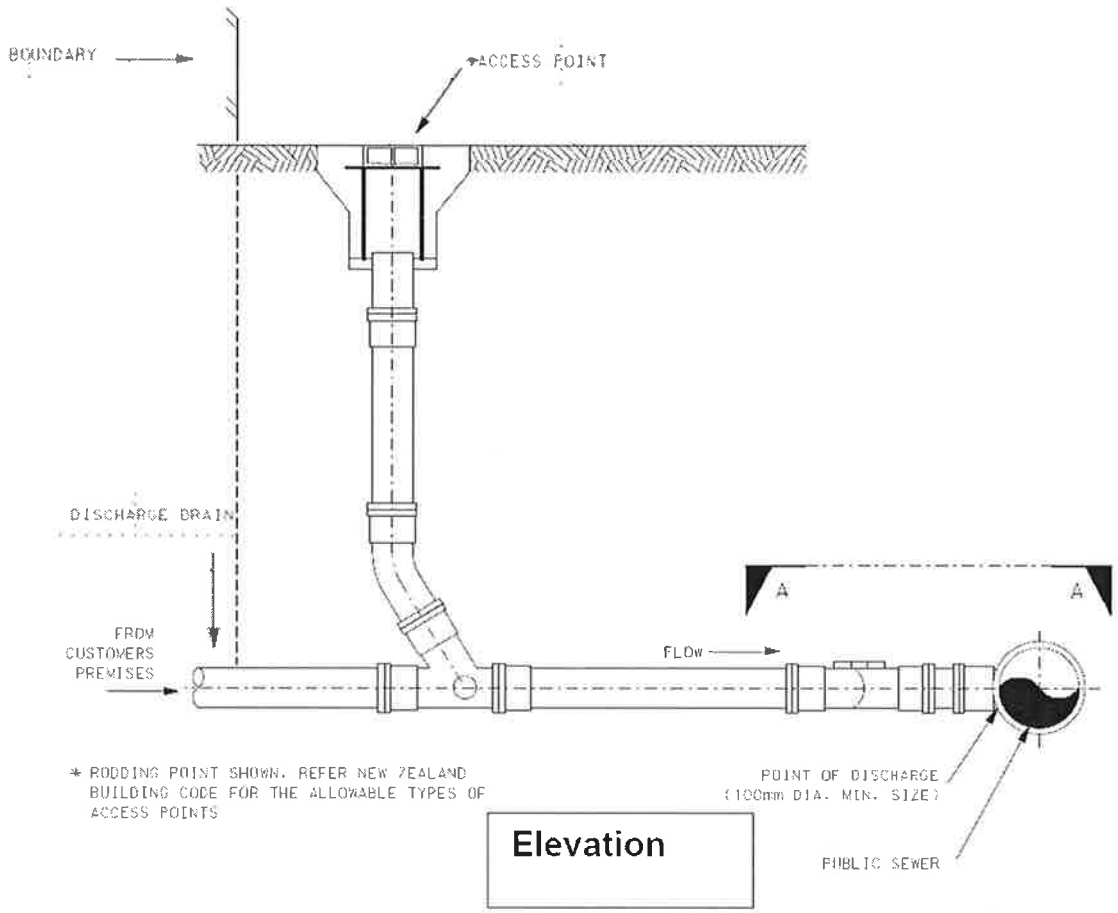

Figure 8: Typical layout at a point of discharge

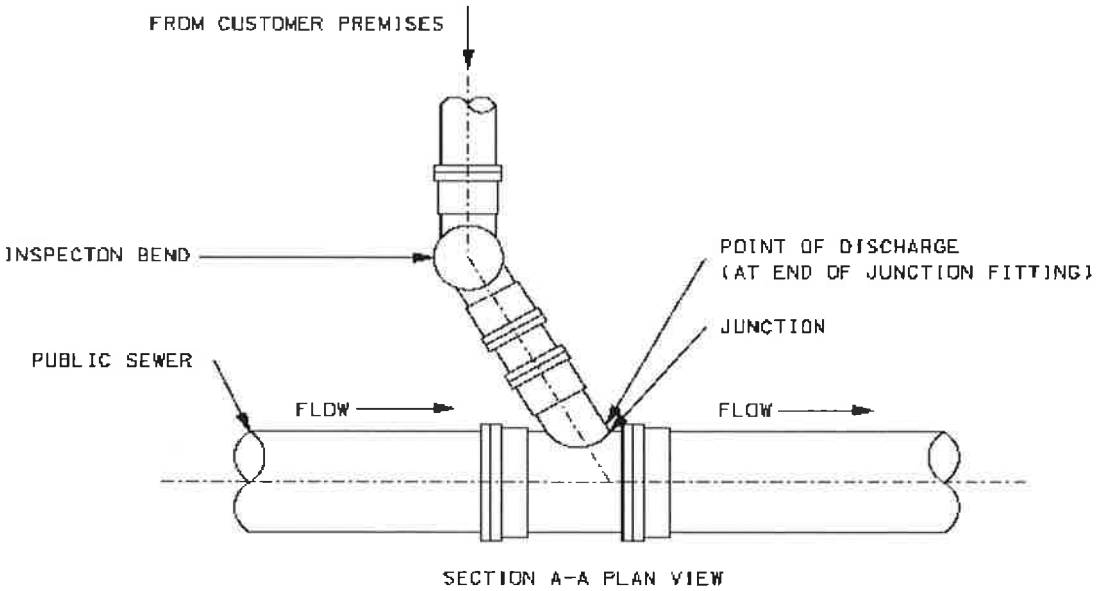

Figure 9: Typical layout at a point of discharge

2.5 Access

Rights of access

(1) The owner, occupier or manager of a premises must give the Council unimpeded access to their premises to enable inspection of any part of the wastewater system and any mains, manholes,

access points on that premises, including to determine whether non-complying connections have been made and for carrying out monitoring, testing, maintenance and capital works on the wastewater system.

Note: the Council may access premises in accordance with sections 171 to 174 of the Local Government Act 2002. These provisions give the Council powers of entry, in most cases following notice to the owner.

2.6 Works and activities in close proximity to the wastewater system

(1) No person may, except with the prior written approval of the Council:

(a) excavate to a depth of greater than 0.5 metres and within 2 meters of any part of the wastewater system; or

(b) build over any part of the wastewater system; or

(c) divert any part of, or build within 2 metres of the centreline of the wastewater system; or

(d) load over the Council wastewater system.

(2) If the Council grants approval for any of the works described in clause 2.6(1) above, the Council may impose such conditions as it considers necessary. Such conditions may be applied by the Council for the protection of the wastewater system after consideration of proposed work methods, depth of excavation, soil physical properties, and other relevant factors.

(3) The Council will not grant consent for any works which cause the crushing load imposed on any part of the wastewater system to exceed that which would arise from the soil overburden plus a HN-HO-72 wheel or axle load.

(4) All costs arising from such work must be met by the person seeking to undertake the building work or diversion prior to such work commencing.

(5) Any damage or disruption to the Council wastewater system must be reported to Council immediately.

2.7 Prevention of groundwater and stormwater infiltration

(1) The owner, occupier, or manager of any premises must ensure that all reasonable measures are taken to prevent groundwater or stormwater from entering the wastewater system.

(2) For the purpose of clause 2.7(1), "reasonable measures" includes, but is not limited to, the following measures:

(a) stormwater pipes or drains must not be connected to the wastewater system;

(b) gully trap surrounds must be set to prevent the ingress of stormwater (the Gully trap must be set a minimum of 100mm above the surrounding ground or 25mm above the surrounding sealed area);

(c) inspection covers must not be permanently removed and must be appropriately sealed;

(d) large impervious areas greater than $10m^2$ (such as stock yards or truck washing facilities), must be managed to prevent water from outside the facility entering the wastewater system by the installation of a nib wall, speed humps appropriately graded surrounds, or using other appropriate methods subject to prior written approval of the Council; and

(e) private drains must be maintained in a good state of repair and free from cracks and other defects which may allow infiltration.

2.8 Blockages

(1) Gully traps must be kept clear and free of obstructions and in accordance with the New Zealand Building Code.

(2) If, however, the breach of this bylaw is such that public health, or safety considerations, or risk of consequential damage to Council assets is such that delay would create or be likely to create unacceptable results, the Council may take immediate action to rectify the defect, and recover the costs of such action from the person who committed the breach.

(3) At any time after the specified period in clause 3.1(1) has elapsed the Council may:

(a) inspect whether the breach has been remedied, and may charge a fee for that inspection; and

(b) carry out any remedial work required in order to make good the breach, and recover from the person who committed the breach the costs of such remedial works.

(4) If any breach of this bylaw causes damage to the Council wastewater system, or otherwise causes the Council to incur a loss, the Council may recover the cost of repairing the damage and/or the full extent of its loss from the person responsible for the breach.

3.2 Offences and penalties

(1) A person who fails to comply with this bylaw commits an offence under section 239 of the Local Government Act 2002 and is liable on conviction to a fine not exceeding $20,000 pursuant to section 242 of the Local Government Act 2002.

4. REVIEW OF BYLAW

(1) This bylaw shall be reviewed by 5 August 2020.

(2) This bylaw can be reviewed at any time before 5 August 2020 at the discretion of the Council.

Attestation

The foregoing Bylaw was duly made at an ordinary meeting of the Horowhenua District Council held in the Council Chambers, 126 Oxford Street, Levin, on 5 August 2015 following use of the Special Consultative Procedure used in the consideration of and subsequent adoption of the Horowhenua District Council Wastewater Bylaw 2015 (effective 6 August 2015).

The Common Seal of the)
HOROWHENUA DISTRICT COUNCIL)
was hereunto affixed pursuant to a resolution)
of the said Council in the presence of:)

HOROWHENUA DISTRICT COUNCIL THE Common Seal OF

..... His Worship the Mayor

..... Chief Executive Officer

(2) Any person who causes a blockage in the Council wastewater system, by discharge of wastewater that does not meet the requirements in Appendix 1, or by forcing a blockage downstream into the Council wastewater system in the course of clearing a private drain, is liable for the full cost of unblocking the Council wastewater system and any associated costs.

2.9 Disconnection

(1) An owner, occupier or manager of a premises must obtain approval from the Council before disconnecting from the Council wastewater system.

(2) An application to disconnect from the Council wastewater system must be:

(a) made no fewer than seven working days before the person seeks that the disconnection be made; and

(b) made in the prescribed form.

Note: It will be a condition of building consent that any demolition or removal of a building may not commence until the property has been disconnected from the Council wastewater system and inspected by the Council.

(3) If the Council grants the application, it may require the applicant to pay the cost of undertaking the disconnection works. This cost must be paid in full prior to commencement of the disconnection works.

(4) The disconnection may be at the property boundary or at the Council main, at the Council's discretion.

(5) Only Council approved contractors may make any disconnection from the Council wastewater system, unless otherwise approved by Council.

2.10 Damage or obstruction of the wastewater system

(1) Manholes must not be covered or obstructed in any way unless approved by the Council in writing. The owner, occupier, or manager of the premises is liable for the removal of any unauthorised covering material or repair of a manhole that Council determines is necessary

(2) Any tree that causes or is likely to cause damage or nuisance to the wastewater system originating from a premises must be removed as soon as practicable following notice from the Council, at the expense of the owner, occupier, or manager of the premises.

2.11 Spillages and adverse events

(1) The owner, occupier or manager of premises at which wastewater is spilt, or where any other event occurs which may have an adverse effect on the wastewater system, must notify the Council immediately.

2.12 Storage of hazardous materials

(1) No person may store, transport, handle or use, or cause or allow to be stored, transported, handled or used, any hazardous materials in a way which results or may result in the materials entering the Council wastewater system or causing nuisance, unless the Council approves otherwise or that person is expressly authorised by an operative resource consent, licence, permit or other approval issued under the Resource Management Act 1991 or the Hazardous Substances and New Organisms Act 1996.

3. ENFORCEMENT, OFFENCES AND PENALTIES

3.1 Enforcement

(1) The Council may, by prior written notice, require the owner, occupier or manager of a premises to remedy any breach of this bylaw, advising the nature of the breach and the steps to be taken within a specified period to remedy it.

APPENDIX 1 - ACCEPTABLE WASTEWATER CHARACTERISTICS

Introduction

1. The nature and levels of the characteristics of any wastewater discharged to the wastewater system must comply at all times with the following requirements, except where the nature and levels of such characteristics are varied by the Council as part of a consent to discharge wastewater, in accordance with the Trade Waste Bylaw.

2. The Council shall take into consideration the combined effects of wastewater discharges and may make any modifications to the following acceptable characteristics for individual discharges that Council considers are appropriate.

3. The nature and levels of any characteristic may be varied to meet any new resource consent or other legal requirement imposed on the Council.

Physical Characteristics

1. Flow

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
The 24-hour flow volume shall be less than 5 m^3 The maximum instantaneous flow rate shall be less than 2.0 L/s. Swimming pools and spa pool drains must be fitted with a flow limiting device to ensure the discharge does not exceed this limit.	Flows larger than the Guideline values should be under a 'controlled' or a 'conditional' Trade Waste Consent. Consents will be dependent on the contaminant concentration/mass load.

2. Temperature

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
The temperature shall not exceed 40°C.	Higher temperatures: • cause increased damage to wastewater reticulation structures; • increase the potential for anaerobic conditions to form in the wastewater; • promote the release of gases such as H_2S and NH^3; • can adversely affect the safety of operations and maintenance personnel; • reflect poor energy efficiency; and • a lower maximum temperature may be require for large volume discharges.

3. Solids

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
(a) Non-faecal gross solids shall have a maximum dimension that shall not exceed 15 mm and gross solids shall have a quiescent settling velocity which shall not exceed 500 mm/minutes.	Gross solids can cause wastewater reticulation blockages. In case of conditional consents fine screening may be appropriate.
(b) The suspended solids content of any wastewater shall have a maximum concentration that shall not exceed 200 g/m^3.	High suspended solids contents can cause wastewater reticulation blockages and overload the treatment processes. Where potential for such problems is confirmed, a lower limit appropriate to the risk may be set. A lower limit may be set between 2000 g/m^3 and 600 g/m^3.
(c) The settleable solids content of any wastewater shall not exceed 50mL/L.	The ANZECC Guidelines recommend a limit of 600 g/m^3.
(d) The total dissolved solids concentration in any wastewater shall be subject to the approval of Council, having regard to the volume of the waste to be discharged, and the suitability of the wastewater Treatment Plant to accept such waste.	High total dissolved solids reduce effluent disposal options and may contribute to soil salinity. Where potential for such problems exists, a limit of 10,000 g/m^3 may be used as a guideline.
(e) Fibrous, woven, or sheet film or any other materials which may adversely interfere with the free flow of wastewater in the wastewater network of Wastewater treatment Plant shall not be present.	

4. Oil and Grease

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
There shall be no free or floating layer. Wastewater with mineral oil, fat or grease unavoidably emulsified, which in the opinion of Council is not biodegradable, shall not exceed 200 g/m^3 as petroleum ether extractable matter when the emulsion is stable at a temperature of 15°C and, when the emulsion is in contact with and diluted by a factor of 10 by raw wastewater, throughout the range of pH 6.0 to pH 10.0.	Oils and greases can cause wastewater reticulation blockages, may adversely affect the treatment process, and may impair the aesthetics of the receiving water. Where the Wastewater Treatment Plant discharges to a sensitive receiving water lower values should be considered.
Wastewater with oil, fat or grease unavoidably emulsified, which in the opinion of Council is biodegradable, shall not exceed 500 g/m^3 when the emulsion is stable at a temperature of 15°C, and when the emulsion is in contact with and diluted by a factor of 10 by raw wastewater throughout the range of pH 4.5 to pH 10.0.	If the Council only has screening and/or primary treatment prior to discharge, it is recommended that oil and grease be reduced to 100 g/m^3.

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
Emulsified oil, fat or grease shall not exceed 100 g/m^3 as petroleum ether extractable matter when the emulsion is unstable at a temperature of 15°C and when the emulsion is in contact with and diluted by a factor of 10 by raw wastewater throughout the range of pH 4.5 to pH 10.0.	In the terms of oil and greases, biodegradable refers to the bio-availability of the oil and greases and the biochemicals thereby produced, and means the oil and grease content of the waste decreases by 90% or more when the wastewater is subjected to a simulated wastewater treatment process which matches the WWS treatment system. If quick break detergents are being used, it should be ensured that proper separation systems are being used by the Consent Holder. If not, oil will reappear in drainage (wastewater) systems as a free layer.

5. Solvents and other organic liquids

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
There shall be no free layer (whether floating or settled) of solvents or organic liquids.	Some organic liquids are denser than water and will settle in wastewater reticulations and traps.

6. Emulsions of paint, latex, adhesive, rubber, plastic

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
(a) Where such emulsions are not treatable these may be discharged into the wastewater network subject to the total suspended the concentration agreed with Council.	'Treatable' in relation to emulsion wastewater, means the Total Organic Carbon content of the waste decreases by 90% or more when the wastewater is subjected to a simulated wastewater treatment process that matches the Council treatment system.
(b) Council may determine that the need solids not exceeding 1000 g/m3 or exists for pre-treatment of such emulsions if they consider that Trade Waste containing emulsions unreasonably interferes with the operation of Council's Wastewater Treatment Plant, e.g. reduces % UVT (ultra violet transmission).	Emulsions vary considerably in their properties and local treatment works may need additional restrictions depending on the experience of the specific treatment plant and the quantity of emulsion to be treated.
(c) Such emulsions of both treatable and non-treatable types, shall be discharged to the wastewater network only at a concentration and pH range that prevents coagulation and blockage at the mixing zone in the public wastewater network.	Emulsion may colour the Council treatment plant influent such that % UVT is unacceptably reduced. Emulsions will coagulate when unstable and can sometimes cause wastewater reticulation blockage. Emulsions are when dilute or in the correct pH range.

7. Radioactivity

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
Radioactivity levels shall not exceed National Radiation Laboratory Guidelines.	Refer National Radiation Laboratory Code of safe practice for the use of unsealed radioactive materials NRL C1.

8. Colour

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
No waste shall have colour or colouring substance that causes the discharge to be coloured to the extent that it impairs wastewater treatment processes or compromises the treated wastewater discharge Consent.	Colour may cause aesthetic impairment of receiving waters, and adverse effects on lagoon treatment processes and ultra-violet disinfection. Where potential for such problems exists, a level of colour that is rendered not noticeable after 100 dilutions may be used as a Guideline. Where UV disinfection is used special conditions may apply.

Chemical Characteristics

1. pH value

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
The pH shall be between 6.0 and 10.0 at all times.	Extremes in pH: • can adversely affect biological treatment processes; and • can adversely affect the safety of operations and/or maintenance personnel; and • cause corrosion of wastewater reticulation structures and Increase the potential for the release of toxic gases such as H2S and HCN.
	Relaxation of these limits to 5.5 and 11.0 is of these limits to 5.5 and 11.0 is into a large flow. Significant industries may need to be restricted to limits between 6.0 and 9.0.

2. Organic Strength

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
The Biochemical Oxygen Demand (carbonaceous BOD_5) shall be less than10 kg/day.	The loading on a treatment plant is affected by Biochemical Oxygen Demand BOD_5 rather than Chemical Oxygen Demand (COD). For any particular waste type there is a fixed ratio between COD and BOD_5. For domestic wastewater it is about 2.5:1 (COD: BOD_5), but can range from 1:1 to 100:1 for Trade Waste. Therefore, BOD_5 is important for the treatment process and charging, but because of the time taken for testing, it is often preferable to use COD for monitoring. However, the use of COD testing shall be balanced by the possible environmental effects of undertaking such tests due to the production of chromium and mercury wastes. Where a consistent relationship between BOD_5 and COD can be established the discharge may be monitored using the COD test. If the treatment plant BOD_5 capacity is not limited, and sulphides are unlikely to cause problems, there may be no need to limit BOD_5. High COD may increase the potential for the generation of sulphides in the wastewater. A BOD_5 limit which is too stringent may require the installation of Pre-treatment systems by some Consent Holders, imposing unnecessary costs because the most cost effective treatment method may be the Council treatment plant. The concentration and mass loads of BOD_5 may be set to reflect Council treatment plant capacity e.g. ARMCANZ/ANZECC Guidelines for wastewater reticulation use a concentration of 600 g/m^3.

3. Maximum concentrations

Bylaw Requirements	Commentary from NZS 9201: Part 23: 2004
The maximum concentrations permissible for the chemical characteristics of an acceptable discharge are set out in the following tables: Table 1 - General Chemical Characteristics Table 2 - Heavy Metals Table 3 - Organic Compounds and Pesticides	Where appropriate, maximum daily limits (kg/day) for mass limit Permitted Discharges may also be given.

Table 1 - General Chemical Characteristics

Characteristic	Maximum concentration (g/m^3)	Mass Limits (kg/day)	Reason for Limit
MBAS (Methylene blue active substances)	500	1.5	MBAS is a measure of anionic surfactants. High MBAS can: • adversely affect the efficiency of activated wastewater sludge plants and impair the aesthetics of receiving waters. • for Wastewater Treatment Plants that suffer from the effects of surfactants the maximum concentration could be reduced significantly, e.g. Sydney Water utilise a level of 100 g/m^3.
Ammonia (measured as N) • free ammonia • Ammonium salts	 50 200	 0.25 1.0	High ammonia: • may adversely affect the safety of operations and maintenance personnel, and • may significantly contribute to the nutrient load to the receiving environment.
Kjeldahl nitrogen	150	1.0	High Kjeldahl nitrogen may significantly contribute to the nutrient load of the receiving environment. A value of 50 g/m^3
Total phosphorus (as P)	50	0.75	High phosphorus nitrogen may significantly contribute to nutrient load of the receiving environment. A value of 10 g/m^3 should be used as a guideline for sensitive receiving waters.
Sulphate (measured as SO_4	500 1500 (with good mixing)		Sulphate • may adversely affect the wastewater network; and • may increase the potential for the generation of sulphides in the wastewater, if the wastewater network is prone to becoming anaerobic.
Sulphite (measured as SO_2)	15	0.075	Sulphite has potential to release SO_2 gas and thus adversely affect the safety of operations and maintenance personnel. It is a strong reducing agent and removes dissolved oxygen thereby increasing the potential for anaerobic conditions to form in the wastewater.
Sulphide - as H_2S on acidification	5	0.025	Sulphides in wastewater may: • cause corrosion of the wastewater network, particularly the top non-wetted part of wastewater reticulation; • generate odours in wastewater reticulations which could cause public nuisance; and • release the toxic H2S gas that could adversely affect the safety of operations and maintenance personnel. Under some of the conditions above sulphide should be <2.0 g/m^3.

Characteristic	Maximum concentration (g/m^3)	Mass Limits (kg/day)	Reason for Limit
Chlorine (measured as Cl2) Free Chlorine Hypochlorite	330 3	0.015 0.15	Chlorine: • can adversely affect the safety of operations and maintenance personnel; and • can cause corrosion of the wastewater network. ARMCANZ/ANZECC Guidelines for sewerage systems utilise a figure of 10 g/m^3.
Dissolved aluminium	100	1.5	Aluminium compounds, particularly in the presence of calcium salts, have the potential to precipitate on a scale that may cause a wastewater reticulation blockage.
Dissolved iron	100	1.5	Iron salts may precipitate and cause a wastewater reticulation blockage. High concentrations of ferric iron may also present colour problems depending on local conditions.
Boron (as B)	25	0.125	Boron is not removed by conventional treatment. High concentration in wastewater may restrict irrigation applications. Final wastewater use and limits should be taken into account.
Bromine (as Br2)	5	0.025	High concentrations of bromine may adversely affect the safety of operations and maintenance personnel.
Fluoride (as F)	30	0.15	Fluoride is not removed by conventional wastewater treatment, however pre-treatment can easily and economically reduce concentrations to below 20 g/m^3.
Cyanide - weak acid dissociable (as CN)	5	0.005	Cyanide may produce toxic atmosphere in the wastewater reticulation and adversely affect the safety of operations and maintenance personnel.

Table 2 - Heavy Metals

Metal	Maximum Concentration[1] (g/m^3)	Metal	Maximum Concentration (g/m^3)
Antimony	10.0	Manganese	20.0
Arsenic	5.0	Mercury	0.05
Barium	10.0	Molybdenum	10.0
Beryllium	0.005	Nickel	10.0
Cadmium	0.5	Selenium	10.0
Chromium	5.0	Silver	2.0
Cobalt	10.0	Thallium	10.0
Copper	10.0	Tin	20.0
Lead	10.0	Zinc	10.0

[1] It is intended that these maximum concentrations refer to the total metal fraction.

Table 3 - Organic compounds and pesticides

Compound	Maximum concentration[3] (g/m^3)	Mass Limits[4] (kg/day)	Reason for limit
Formaldehyde (as HCHO)	50	0.25	Formaldehyde in the wastewater reticulation atmosphere can adversely affect the safety of operations and maintenance personnel.
Phenolic compounds (as phenols) Excluding chlorinated phenols	50	0.25	Phenols may adversely affect biological treatment processes. They may not be completely removed by conventional treatment and subsequently impact on the environment.
Chlorinated phenols	0.02	0.001	Chlorinated phenols can adversely affect biological treatment process and impair the quality of the receiving environment.
Petroleum hydrocarbons	30	0.15	Petroleum hydrocarbons may adversely affect the safety of operations and maintenance personnel.
Halogenated aliphatic compounds[5]	1	0.001	Because of their stability and chemical properties these compounds may: • adversely affect the treatment process; • impair the quality of the receiving environment; and • adversely affect the safety of operations and maintenance personnel.
Monocyclic aromatic hydrocarbons	5	0.025	These compounds (also known as benzene series) are relatively insoluble in water, and are normally not a problem in Trade Waste. They may be carcinogenic and may adversely affect the safety of operations maintenance personnel.
Polycyclic (or polynuclear) aromatic hydrocarbons (PAHs), including specifically: dibenzo [a,h] anthracene benzo [a] anthracene benzo[a] pyrene benzo [b] fluoranthene benzo [k] fluoranthene chrysene indeno [a,2,3-cd] pyrene	0.05	0.001	Many of these substances have been demonstrated to have an adverse effect on the health of animals. Some are also persistent and are not degraded by conventional treatment processes.

[3] Where several compounds are grouped into a generic type, the sum of individual concentrations is not to exceed the maximum listed.
[4] Where several compounds are group into a generic type, the sum of individual mass quantities is not to exceed the maximum listed.
[5] These compounds shall be accepted up to the given maximum concentration only when specifically approved.

Compound	Maximum concentration[3] (g/m^3)	Mass Limits[4] (kg/day)	Reason for limit
Halogenated aromatic hydrocarbons (HAHs)	0.002	0.0001	Because of their stability, persistence and ability to bioaccumulate in animal tissue these compounds have been severely restricted by health and environmental regulators
Polychlorinated biphenyls (PCBs) Polybrominated biphenyls (PBBs) Including specifically the following congeners using the IUPAC nomenclature: PCB-28 PCB-52 PCB-77 PCB-81 PCB-101 PCB-105 PCB-114 PCB-118 PCB-123 PCB-126 PCB-138 PCB-153 PCB-156 PCB-157 PCB-167 PCB-169 PCB-180 PCB-189	0.002	0.0001	Because of their stability, persistence and ability to bioaccumulate in animal tissue these compounds have been severely restricted by health and environmental regulators
Pesticides (general) (includes insecticides, herbicides, fungicides and excludes organophosphate, organochlorine and any pesticides not registered for use in New Zealand)	0.002 each 0.2 in total	0.0001	Pesticides: • may adversely affect the treatment processes; • may impair the quality of the receiving environment; and • may adversely affect the safety of operations and maintenance personnel.
Organophosphate pesticides[6] excludes pesticides not registered for use in New Zealand. These compounds shall be accepted up to the given maximum concentration only when specifically approved.	0.1	0.0001	

[6] These compounds shall be accepted up to the given maximum concentration only when specifically approved. Excludes pesticides not registered for use in New Zealand.

4. Inhibitor Chemicals

No waste being diluted at a ratio of 100 to 1 of wastewater shall inhibit the performance of the wastewater treatment process, such that Council is significantly at risk, or prevented from achieving its environmental statutory requirements.

After dilution with de-chlorinated water, at a ratio of 15 to 1 of wastewater, a discharge which has an acute result when subjected to the Whole Effluent Toxicity Testing, will be deemed to have inhibitory chemicals. Whole Effluent Toxicity Testing will be undertaken using organisms selected by the Council.

APPENDIX 2 - PROHIBITED CHARACTERISTICS

1. Any discharge has prohibited characteristics if it has any solid, liquid or gaseous matters, or any combination or mixture of such matters, which by themselves or in combination with any other matters, will immediately or in the course of time:

    - interfere with the free flow of wastewater in the wastewater network;
    - damage any part of the wastewater network;
    - in any way, directly or indirectly, cause the quality of the treated wastewater or residual biosolids and other solids from any Wastewater Treatment Plant in the catchment to which the waste was discharged to breach the conditions of a consent issued under the Resource Management Act 1991, or water right, permit or other governing legislation;
    - prejudice the occupational health and safety risks faced by wastewater workers;
    - after treatment be toxic to fish, animals or plant life in the receiving waters;
    - cause malodorous gases or substances to form which are of a nature or sufficient quantity to create a public nuisance; or
    - have a colour or colouring substance that causes the discharge from any Wastewater Treatment Plant to receiving waters to be coloured.

2. Discharge has a prohibited characteristic if it has any amount of the following:

    - harmful solids, including dry solid wastes and materials that combine with water to form a cemented mass;
    - liquid, solid or gas which could be flammable or explosive in the wastes, including oil, fuel, solvents (except as allowed for in Appendix 1 of this Bylaw), calcium carbide, and any other material which is capable of giving rise to fire or explosion hazards either spontaneously or in combination with wastewater; or
    - asbestos.

3. The following organo-metal compounds:

    - tin (as tributyl and other organotin compounds); or
    - any organochlorine pesticides.

4. Genetic wastes, as follows:

    - all wastes that contain or are likely to contain material from a genetically modified organism that is not in accordance with an approval under the Hazardous Substances and New Organisms Act 1996 (HSNO). The material concerned may be from premises where the genetic modification of any organism is conducted or where a genetically modified organism is processed.

5. Any health care waste prohibited for discharge to a Wastewater Network by NZS 4304 or any pathological or histological wastes.

6. Radioactivity levels in excess of the National Radiation Laboratory Guidelines.

ADDITIONAL INFORMATION TO WASTEWATER BYLAW

This document is for information purposes only and does not form part of this bylaw. It contains information to help users understand, use and maintain this bylaw. The document may be updated at any time.

Section 1: History of bylaw

Action	Description	Date of decision	Decision reference	Commencement
Made				

Section 2: Related documents

Title	Description	Location
Community outcomes		
[Any policy on wastewater in the Council?]		
Bylaw reports		
Statement of proposal	HDC Summary of Information	HDC TRIM : D15/31002
Hearings report	HDC Hearings Committee Minutes of Meeting 14 July 2015	HDC TRIM: 15/334
Decision report	HDC Open Minutes of Meeting 5 August 2015	HDC TRIM: 15/493
Legislation (non-exhaustive list)		
Building Act 2004	An Act that provides for the regulation of building work, including by promoting the accountability of owners, designers, builders, and building consent authorities who have responsibilities for ensuring that building work complies with the building code.	www.legislation.govt.nz
Health Act 1956	Provides for local authorities to provide sanitary works.	www.legislation.govt.nz
Land Transfer Act 1952		www.legislation.govt.nz
Property Law Act 1952		www.legislation.govt.nz
Rating Act 2002	An Act that promotes the purpose of local government by providing local authorities with flexible powers to set, assess, and collect rates to fund local	www.legislation.govt.nz

Title	Description	Location
	government activities.	
Resource Management Act 1991	An Act to promote the sustainable management of natural and physical resources. Also regulates subdivision resource consents and financial contributions.	www.legislation.govt.nz
Hazardous Substances and New Organisms Act 1996	An Act to protect the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.	www.legislation.govt.nz
Land Transport Rule Dangerous Goods 2005	Sets out the requirements for the safe transport of dangerous goods on land in New Zealand.	www.legislation.govt.nz
Local Government Act 2002	Provides certain functions, duties, powers, and penalties [relevant to wastewater].	www.legislation.govt.nz
Bylaws Act 1910	Provides for certain matters related to the validity of bylaws.	www.legislation.govt.nz
Interpretation Act 1999	Provides for certain matters related to the interpretation of bylaws.	www.legislation.govt.nz
Standards		
NZS 9201:Model General Bylaws Part 22:1999 Wastewater Drainage		
NZS 9201: Part 23: 2004		
Plans and other documents		
Horizons One plan		
Horowhenua District Council Subdivision and Development Principles and Requirements 2012	Sets design standards for [onsite wastewater disposal systems] - check no broader in relation to wastewater.	
Transit New Zealand Bridge Manual 2004		

Section 3: Delegations

Clause	Function, duty, power to be delegated	Date of delegation decision	Decision reference	Commencement of delegation
	Approval of connections to the Council wastewater system to the Group Manager Infrastructure Services.			

Section 4: Application and Disconnection form

[see attached form]

Application for New Connection / Disconnection

Horowhenua DISTRICT COUNCIL | Horowhenua

To build long term customer confidence based on our competence, expertise, professionalism, pride, integrity and by being great to deal with.

Please read the terms and conditions detailed at the end of this application form and complete all sections.

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1. APPLICATION

Applicant's Name (Please provide your full name, including middle name):

Contact Phone Number(s):

Postal Address:

Email Address:

Site Contact Name *(eg. Plumber, builder or main onsite contact required for confirmation of location)*:

Site Contact Phone Number:

Site Address *(where work is to be carried out)*:

Lot number

DP Number

Is this connection required as part of a subdivision?

◯ Yes ◯ No

If **Yes**, what is the Resource Consent application number?

Number of connections required: Water Sewer

PLEASE NOTE:

A diagram of the desired position/s of the new connection/s relative to the Lot boundaries must be attached to this application. *The location of any connection into or from the Council's underground water and sewer networks shall be ultimately determined at the appropriate time by the Group Manager Infrastructure Services or their representative. Council will not accept any unsigned or incomplete application forms.*

Location Plan Attached: ◯ YES ◯ NO

5. FEES AND PAYMENT DETAILS

This application will incur a non-refundable application fee of $180.00 for up to two (2) connections payable on submission of this signed application. All fees include GST. Payment can be made by cheque, EFTPOS or cash.

It is recommended that payment is made electronically using internet banking. Council's Bank details are:

Name	Bank	Branch	Account Number
Horowhenua District Council	BNZ	Levin	02-0668-0070607-02

Ensure you include your name (e.g. AB SMITH) and the reason for payment (e.g. NEW CONNECT) in the Particulars and Reference sections when making payment. No action will be taken on your application until payment has been receipted by Council and matched to your application. To speed things up send evidence of your payment with your application email.

Should it be necessary for Council to refund part or all of the fee paid, please provide below the details of the bank account you wish this to be paid to.

Account Name | **Bank Account Number**

6. DECLARATION

The information provided in this form is correct at the time of completion. I hereby accept the Terms and Conditions detailed at the end of this application form.

By typing your name in the space provided below, you are 'electronically signing' this form.

Name: **Date:**

HDC is committed to being environmentally sustainable, therefore please submit your application electronically to:
recordsprocessing@horowhenua.govt.nz

If you require further information please contact a member of our Customer Experience team on:
06 366 0999

Horowhenua
you want to go online

OFFICE USE ONLY

Requirements

GPS Required ◯ Yes

Water

Pipe Size

Standard Meter ◯ Yes ◯ No

Combined Meter ◯ Yes ◯ No

RPZ and Cage ◯ Yes ◯ No

Restrictor (0.8) ◯ Yes ◯ No

Sewer

Pipe Size

Reflux Value ◯ Yes ◯ No

Pressurised Line ◯ Yes ◯ No

Isolating Valve ◯ Yes ◯ No

Existing Infrastructure

Water

Pipe Material

Pipe Size

Sewer

Pipe Material

Pipe Size

Authorising Council Officer

Date Authorised

V1

Horowhenua DISTRICT COUNCIL | Horowhenua

Terms and Conditions for Applicants

1. All connections into or from Council's underground water and/or sewer networks must be approved in writing in the correct format by the Group Manager Infrastructure Services, Horowhenua District Council or their representative.

2. All connections/disconnections into Council's underground service mains or within public property shall be undertaken by a Council Approved underground service contractor.

3. Any works carried out in existing road reserve shall be undertaken by a Council Approved contractor.

4. All works undertaken within the property boundary shall be the responsibility of the property owner/applicant and must be undertaken by a private contractor. Applicants are advised that Council's plumbing and drainage staff must be contacted to ensure the proposed work complies with regulations. Additional fees could be payable.

5. There must be no disruption to Council services or other residents as a result of any work undertaken.

6. All new connections will attract the payment of water or sewer rates in the next financial year.

7. For restricted water connections, the supply is limited to 0.8 litres per minute; the recommended minimum on site storage capacity is 25,000 litres. Additional storage should be considered for fire fighting purposes.

8. A quotation will be provided for all work undertaken by Council's approved contractors for connections and will be sent to the address given on the face of this form (normally within fifteen (15) working days).

9. If the quote is not accepted by the applicant before the valid date, a new application will need to be submitted to Council.

10. Payment in full is required prior to commencement of any works.

11. Once approved and payment made to Council, work will normally be completed within fifteen (15) working days depending on availability of materials and other contractual requirements.

Horowhenua DISTRICT COUNCIL | Horowhenua

Council's approved contractors are responsible for:

1. The repair costs for any damage to any existing Council services or facilities.

2. Supplying lateral access chambers, meters, tobies, toby boxes and restrictors, when required. All material, equipment and service provided by Council's contractors shall be chargeable to the applicant.

3. Ensuring any required cleaning eyes must be installed at ground level within 500mm of the property boundary for any gravity sewer laterals.

4. Ensuring any water connections shall be supplied with an approved meter manifold, meter box and base. Boxes shall be installed at ground level with tobies approx. 300mm deep situated approx 300-500mm in road reserve from the property boundary. Rural water connections shall be of a restricted nature (1 litre per min) with the appropriate water meter installed.

5. Ensuring that when required, electronic as-built plans or GPS recorded readings in the specified format for all new connections including water meter numbers must be provided to Council once installation is complete. These must comply with Council's "Minimum as-built requirements".

6. Ensuring that all pipe work must be laid in accordance with the Horowhenua District Council Standards and connected by a suitably qualified person.

7. Providing Council with evidence, prior to the start of work, that they have insurance cover of at least$1,000,000.00 for all risks and $1,000,000.00 for public liability.

8. Ensuring that a traffic management plan (TMP) with a minimum compliance with level 1 is submitted and approved by Council prior to the start of work, as well as having a copy available on site at all times for inspection.

9. Ensuring that a copy of their health and safety plan is supplied to Council for acceptance prior to the start of works.

10. Meeting all of the requirements of the health and safety act when undertaking the work.

11. Reinstating all of the disturbed surfaces within the road reserve to the satisfaction of the Group Manager Infrastructure Services, Horowhenua District Council.