New Plymouth District Council Bylaw

Trade Waste Bylaw 2025

NPDC

DOCUMENT HISTORY

Meeting	Date	Decision	Next Review
Council	24 June 2025	Adopt Bylaw	1 July 2030

New Plymouth District Council

Trade Waste Bylaw 2025

The purpose of this bylaw is to protect public health and the security of the public wastewater system as well as protect the Council's investment in existing and future infrastructure, treatment plants and disposal facilities.

Introduction 3

1 Title and commencement 3
2 Authority 3
3 Purpose and scope 3
4 Definitions 4

Trade waste application, classification and consent variation 8

5 Requirement to submit/vary an application for the discharge of trade waste 8
6 Trade waste classification 9
7 Consideration of application 10
8 Assessment of criteria 10

Compliance with this bylaw 12

9 General conditions 12
10 Control of discharges 13
11 Duration and consent review 14
12 Variation of consent 14
13 Cancellation of consent or right to discharge 15
14 Transfer or termination of rights and responsibilities 16

Specific conditions 16

15 Pre-treatment and mass limits 16
16 Grease traps 17
17 Unroofed wash pad facility 18
18 Storage tank bunds 18

Tankered trade waste 19

19 Tankered trade waste consent specific conditions 19
20 Tankered trade waste disposal 19

Other 20

21 Limitation of coverage 20
22 Water used in the repair and construction of water mains 20
23 Storage, transport handling and use of hazardous waste 20

Sampling, testing and monitoring 21

24 Flow metering 21
25 Sampling and monitoring 22

Administration 22
26 Power of entry 22
27 Serving documents 22
28 Dispute resolution 23
29 Accidents to be reported 23
30 Transitional provisions 23
31 Officers to continue in office 24
32 Revocation and savings 24
33 Offences and penalties 24
SCHEDULE 1A: Acceptable Discharge Characteristics 25
SCHEDULE 1B: Prohibited Characteristics 32
SCHEDULE 1C: Sampling Procedure 34
SCHEDULE 1D: Trade Waste Fees and Charges 39
APPENDIX 1: Related Documents 44

Introduction

1 Title and commencement

1.1 This bylaw is the New Plymouth District Council Trade Waste Bylaw 2025.

1.2 This bylaw comes into force on 1 July 2025.

2 Authority

2.1 This bylaw is made under sections 145 and 146 of the Local Government Act 2002.

3 Purpose and scope

3.1 The purpose of this bylaw is to control trade waste discharges to protect:

a) The wastewater system.

b) Public health, and the health and safety of Council personnel and agents working with the wastewater system.

c) The environment, and assist the Council to comply with its obligations under the Resource Management Act 1991.

d) Council's investment in existing and future wastewater infrastructure.

3.2 This bylaw also:

a) Sets out responsibilities for both the Council and users of the wastewater system.

b) Provides a basis for consenting, monitoring and enforcement in relation to the wastewater system and networks, including industrial and trade activities.

c) Provides for the recovery of the Council's costs associated with conveying and treating trade waste to ensure the equitable sharing of costs between domestic and trade discharges.

d) Assists the Council to meet its obligations under the Resource Management Act 1991 and the Health and Safety at Work Act 2015.

3.3 This bylaw provides for**:**

a) Acceptable discharges of trade waste to the wastewater system.

b) The four trade waste classifications: permitted, controlled, conditional and prohibited.

c) Evaluation of individual trade waste discharges against specified criteria.

d) Correct storage of materials in order to protect the wastewater system from spillage.

e) Installation of meters, samplers or other devices to measure flow and quality of the trade waste discharge.

f) Pre-treatment of trade waste before it is accepted for discharge to the wastewater system.

g) Sampling and monitoring of trade waste discharges to ensure compliance with this bylaw.

h) Acceptance or refusal of a trade waste discharge.

i) Breaches of the bylaw that are offences.

j) Procedure to resolve disputes.

k) Administrative mechanisms that support the operation of this bylaw.

4 Definitions

4.1 In this bylaw, unless the context otherwise requires:

Act means the Local Government Act 2002.

Acceptable discharge means wastewater with physical and chemical characteristics which do not exceed the characteristic levels as defined in Schedule 1A.

Access point means a location where entry may be made to a private drain for inspection (including sampling or measurement), cleaning or maintenance.

Analyst means a testing laboratory approved by an authorised officer.

Approval or approved means written authorisation by the Council, either by resolution of the Council or by an authorised officer.

Authorised officer means any employee appointed by the Council to perform duties relating to trade waste under this bylaw and any other legislation.

Biosolids means wastewater sludge treated sufficiently to the extent that it is able to be safely and beneficially applied to land, as described in "Guideline for Beneficial Use of Biosolids on Land" or subsequent amendments.

Bylaw means the New Plymouth District Council Trade Waste Bylaw.

Cleaner production means operational methods and processes used to reduce or eliminate the quantity and toxicity of wastes discharged to the wastewater system.

Characteristic means any physical or chemical properties of trade waste referred to in Schedules 1A and 1B of this bylaw.

Chief Executive means the person appointed as Chief Executive of the Council under the Act.

Condensing water or cooling water means any water used in any trade, industry, or commercial process or operation in such a manner that it does not take up matter into solution or suspension.

Conditional trade waste means trade waste derived from a trade activity and/or process of such complexity or size; or employing such chemicals, raw materials, or feed stock; that the risk and/or consequences of the trade waste exceeding acceptable discharge characteristics are considered significant by the Council.

Consent means any written authorisation granted by the Council allowing the consent holder to discharge trade waste to the wastewater system.

Consent holder means the person who has obtained a consent to discharge or direct the manner of discharge of trade waste to the Council's wastewater system, and includes anyone who works on behalf of or with the express or implied consent of the consent holder (whether for reward or not) and any licensee of the consent holder.

Connection means the physical location where the private wastewater pipe joins to the wastewater system.

Contaminant means any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat:

a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or

b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

Contingency management procedures mean those methods developed and used to avoid, remedy, or mitigate the actual and/or potential adverse effects of trade activities on the environment from an unexpected or unscheduled event resulting in discharge, or potential discharge of contaminants of concern into the wastewater system.

Controlled trade waste means trade waste derived from a trade activity and/or process where the risks and/or consequences of it exceeding acceptable discharge characteristics are considered to be of low to medium risk by the Council.

Customer means an occupier or owner of a premises that discharges or wishes to discharge trade waste into the wastewater system.

Disconnect or disconnection means the physical cutting and sealing of a private wastewater network, utilities, drains from the wastewater system.

Domestic waste and wastewater means wastewater (with or without matter in solution or suspension) discharged from a premises used solely for residential

purposes, or waste of the same character discharged from other premises which has been approved by the Council.

Enforcement officer means a person appointed by the Council as an enforcement officer under the Act.

Explanatory note: are used to explain the intent of a clause in less formal language and/or to include additional helpful information.

Grease trap means a container that allows the discharged wastewater to cool and the fat, oil and grease to separate from the discharge to the wastewater system.

Hazardous waste means waste that is a hazardous substance as defined in section 2 of the Hazardous Substances and New Organisms Act 1996.

Management plan means a strategy covering the management of operations on a premises from which trade wastes originate, and may include the provision for cleaner production, waste minimisation, discharge, contingency management procedures, and any relevant industry code of practice.

Mass limit means the total mass of any characteristic that may be discharged to the Council wastewater system over any specified period, e.g. 24 hours, from any single point of discharge or collectively from several points of discharge.

Maximum concentration means the instantaneous peak concentration that may be discharged at any instant in time.

Meter means any instrument or device that is used for recording trade waste volumes.

Occupier means the person occupying the property from which a trade waste discharge is made and includes the owner if the premises is unoccupied.

Operator means an individual that is appointed or deemed to be in control of tankered trade waste or the discharge of trade waste from a premises.

Owner means the person who is the legal owner of the property from which a trade waste discharge is made.

Permitted trade waste means trade waste derived from a trade activity and/or process that has been assessed to have a low risk to the wastewater system. The customer is permitted to discharge trade waste without holding a trade waste consent.

Person includes a corporation sole, a body corporate, and an unincorporated body.

Point of discharge means the boundary between the wastewater system and a private drain.

Pre-treatment means any processing of trade waste designed to reduce or vary any characteristic in a trade waste before discharge to the wastewater system in order to comply with this bylaw or a consent.

Private drain means that section of drain between the premises and the point of connection to the wastewater system.

Prohibited characteristics means those characteristics described in Schedule 1B of this bylaw.

Prohibited trade waste means trade waste that exceeds the characteristics as defined in Schedule 1A or is listed in Schedule 1B. Any characteristic not detailed within Schedules 1A or 1B may still not be acceptable for discharge into the wastewater system unless specifically approved by the Council as a conditional trade waste.

Refuse or solid waste means any solid material that is not wastewater and that is typically discharged to a landfill.

Sampling point means the location where the trade waste sample is obtained from as detailed in the consent holders trade waste consent.

Schedule of fees and charges means the list of items, terms and prices for services and consents associated with the discharge of trade waste as approved by the Council.

Significant discharge is when the volume or any characteristic load discharged to the wastewater system is deemed to be of a substantial volume or mass that has the potential to have an adverse effect on the wastewater system if not controlled by the Council.

Stormwater means surface water run-off resulting from precipitation.

Tankered trade waste means any liquid waste which is transported to and disposed of directly into the wastewater system or at approved disposal sites where the treated wastewater is then disposed of to the wastewater system.

Toxic pollutants means any substances which may impact on health or the environment and includes but is not limited to those substances listed in Table 1A.2 of Schedule 1A of this part.

Trade premises means:

a) any premises used or intended to be used for any industrial or trade purpose;

b) any premises used or intended to be used for the storage, transfer, treatment, or disposal of wastewater to the wastewater system;

c) any other premises from which a contaminant is discharged into the wastewater system in connection with any industrial or trade process; or

d) any other premises discharging other than domestic wastewater to the wastewater system, and includes any land or premises wholly or mainly used for agricultural or horticultural purposes.

Trade waste means:

a) any liquid, with or without matter in suspension or solution, that is or may be discharged from a trade premises to the Council's wastewater system during any commercial or industrial process or operation, or during any activity or operation of a like nature; and

b) includes tankered trade waste, condensing or cooling waters, stormwater, and domestic wastewater which cannot be practicably separated.

Trade waste discharger means the consent holder, or person that discharges trade waste to the wastewater system.

Wastewater means water or other liquid, including sewage and waste matter in solution or suspension, discharged from a premises to the wastewater system.

Wastewater pipe means any pipework that conveys wastewater.

Wastewater sludge means the solid material settled out and removed from wastewater during the treatment process.

Wastewater system means all network assets operated by the Council and used for the receiving, treating or disposal of wastewater and trade waste.

Working day has the same meaning as defined in the Legislation Act 2019.

The following standards are defined in Appendix 1 of this bylaw:

a) **AS/NZS** – Australian/New Zealand Standards.

b) **BS** – British Standards.

c) **AWWA** – America Water Works Association.

4.2 Part 2 of the Legislation Act 2019 applies to the interpretation of this bylaw.

4.3 Every schedule to this bylaw forms part of the bylaw.

4.4 Explanatory notes are not part of the bylaw, and the Council may add, amend or delete explanatory notes at any time without amending the bylaw.

Trade waste application, classification and consent variation

5 Requirement to submit/vary an application for the discharge of trade waste

5.1 Every person who proposes to discharge any trade waste into the wastewater system must submit a completed trade waste application to the Council.

> *Explanatory note: Before submitting an application under this clause, a person can make initial contact with an authorised officer for guidance.*

5.2 An application made under clause 5.1 will be evaluated by an authorised officer to determine the classification of the trade waste discharge under clause 6 of this bylaw, and if a consent is required it will be considered in accordance with clauses 7 and 8 of this bylaw.

5.3 Every person who proposes to:

a) vary the characteristics or conditions of a trade waste discharge that has previously been granted consent; or

b) change the method or means of pre-treatment for the discharge of trade waste under an existing consent;

must submit an application to vary the consent to the Council.

5.4 An application made under clause 5.3 will be evaluated by an authorised officer and a decision made on whether the request will be granted or refused.

5.5 The consent holder will be notified in writing within 20 working days of the decision under clause 5.4, and where the request is granted the consent holder will be issued a trade waste consent variation document which replaces the previous consent.

5.6 Where the applicant is an occupier and not the owner of the trade premises, the applicant must provide evidence that the owner consents to an application being made under this clause. The Council may discuss the application with the owner of the premises in addition to the occupier.

6 Trade waste classification

6.1 An authorised officer will classify trade waste discharges as either permitted, controlled, conditional or prohibited and each classification is subject to the following:

a) Permitted - A trade waste discharge may be registered as a permitted trade waste discharge subject to the customer complying with all relevant general conditions in clause 9 of this bylaw. Permitted discharges do not have an expiry date. However should the discharge breach any relevant condition in clause 9 of this bylaw then the Council will review the permitted discharge status and may reclassify the discharge as a controlled discharge.

> ***Explanatory note:*** *If the discharge is reclassified, the customer will then need to apply for a consent under clauses 5 and 7 of this bylaw.*

b) Controlled - A trade waste discharge, including tankered trade waste discharges, will require a controlled trade waste consent. The discharge will be subject to the general conditions in clause 9 of this bylaw, and any other specific conditions as determined by an authorised officer.

c) Conditional – A trade waste discharge will require a conditional trade waste consent if it is a significant discharge. The discharge will be subject to the general condition in clause 9 of this bylaw, and any other specific conditions as determined by an authorised officer.

d) Prohibited – An authorised officer will not grant a trade waste consent where the discharge is classified as prohibited as detailed in Schedule 1B of this bylaw.

7 Consideration of application

7.1 On receipt of any application for a trade waste consent to discharge from any premises or to vary an existing consent under clause 5 of this bylaw, an authorised officer may require:

a) additional information which it considers necessary to reach an informed decision on the application; and

b) an independent report/statement completed by a suitably experienced and external auditor to verify any or all information supplied by the applicant, and this may include a management plan; and

c) whenever appropriate, to have the discharge investigated in accordance with this bylaw.

7.2 The authorised officer will use all reasonable efforts to notify the applicant of any requirement under clause 7.1 within 10 working days of receipt of the application.

7.3 Within 20 working days of receipt of an application which meets all requirements of this part, or 20 working days after all requirements under clause 7.1 have been addressed, whichever is the later, the authorised officer will, after considering the information provided in the application and in clause 7.1 and the assessment criteria in clause 8 of this bylaw, do one of the following:

a) decline the application and notify the applicant of the decision in writing, giving a statement of the reasons for refusal; or

b) register the application as a permitted trade waste and inform the applicant of the decision by issuing the appropriate notice of registration; or

c) grant the application as a controlled or conditional trade waste consent, inform the applicant of the decision by issuing a draft consent for consideration by the applicant and after consultation any amendments agreed to with the applicant will be applied to the final consent; or

d) grant the application as a conditional trade waste consent and inform the applicant of the decision and the conditions imposed on the discharge by issuing a draft consent for consideration by the applicant and entering into consultation with the applicant as to the final form of the conditions to be applied.

8 Assessment of criteria

8.1 When assessing any application for the discharge of controlled or conditional trade waste the authorised officer will consider the quality, volume, and rate of discharge of the trade waste in relation to:

a) The health and safety of Council staff, contractors and the public.

b) The limits and/or maximum values for characteristics of trade waste as specified in Schedule 1A of this bylaw.

c) The extent to which the trade waste may react with other trade waste or domestic wastewater to produce an undesirable effect, e.g. settlement of solids, production of odours, accelerated corrosion and deterioration of the wastewater system etc.

d) The capacity and the material or construction of the wastewater system.

e) The nature of any wastewater treatment process and the degree to which the trade waste is capable of being treated.

f) The timing and balancing of flows into the wastewater system.

g) Statutory requirements relating to the discharge of raw or treated wastewater to receiving waters, the disposal of wastewater sludge, the use or disposal of biosolids, and any discharge to air (including the necessity for compliance with any regional plan or any proposed regional plans, resource consent, discharge permit or water classification).

h) The effect of the trade waste discharge on the receiving environment.

i) The conditions associated with resource consents for the wastewater system itself.

j) The possibility of unscheduled, unexpected or accidental events and the degree of risk these could cause to humans, the wastewater system or the environment.

k) Consideration of existing users or future developments.

l) Amenability of the trade waste to pre-treatment.

m) Any existing pre-treatment works on the premises and the potential for their future use.

n) Cleaner production techniques and waste minimisation practices.

o) Requirements and limitations related to wastewater sludge disposal and reuse.

p) Control of stormwater.

q) Management plans for the proposed trade waste discharge.

r) Tankered trade waste being discharged at an approved location(s).

Compliance with this bylaw

9 General conditions

9.1 The following general conditions may apply to any trade waste discharge. The type of consent will determine which of these conditions are appropriate.

a) The location of the trade waste discharge to the wastewater system.

b) The maximum daily volume of the discharge, the maximum rate of discharge and the duration of maximum discharge.

c) The maximum limit or permissible range of any specified characteristics of the discharge, including concentrations and/or mass limits determined in accordance with Schedule 1A of this bylaw.

d) The period or periods of the day during which the discharge, volume or a particular characteristic of discharge may be made or have limitations against.

e) An acceptable pH level at the time of the discharge.

f) The temperature of the trade waste at the time of discharge.

g) The requirement of the customer, at the customers expense, to supply screens, grease traps, silt traps or other pre-treatment works to prevent or control trade waste discharge characteristics to the consented levels.

h) The provision and maintenance, at the customers expense, of inspection chambers, manholes or other apparatus or devices to provide reasonable access to drains for sampling and inspection.

i) The provision and maintenance of a sampling, analysis and testing programme and flow measurement requirements, at the consent holder's expense.

j) The methods chosen, set out in clauses 24.1 to 24.3, to be used for measuring flow rates and taking samples of the discharge to determine the amount of any trade waste charges applicable to that discharge.

k) The provision and maintenance, by and at the expense of the customer, of devices required to measure the volume or flow rate of any trade waste being discharged from the trade premises and for the testing of such meters.

l) The provision and maintenance, at the customers expense, of such services (e.g. electricity, water, compressed air etc), which may be required to operate meters or similar devices.

m) The provision, by the customer to an authorised officer, of all flow and/or volume records, results of analyses and chain of custody records of disposal to third parties of by-product (e.g. spent electroplating solutions and wastewater sludge's).

n) A requirement to undertake a risk assessment of damage to the environment due to an accidental discharge of a chemical.

o) Requirements to implement trade waste minimisation and management procedures.

p) The provision and implementation of a "Cleaner Production Programme".

q) The provision and implementation of a "Trade Waste Management Plan".

r) Remote control of discharges.

s) Third party treatment, cartage, discharge or disposal of by-products of pre-treatment of trade waste (including wastewater sludge disposal).

t) A requirement to provide a bond or insurance in favour of the Council where failure to comply with the consent could result in damage to the Council's wastewater system or could result in the Council being in breach of any statutory obligations or consenting requirements.

10 Control of discharges

10.1 A person must not:

a) Discharge, or allow to be discharged, any unauthorised trade waste to the wastewater system.

b) Discharge, or allow to be discharged, any unauthorised tankered trade waste or components of tankered trade waste after a separation process to the wastewater system.

c) Add or permit the addition of unauthorised condensing or cooling water to any trade waste which discharges into the wastewater system.

d) Add or permit the addition of unauthorised stormwater to trade waste which discharges into the wastewater system.

e) Add or permit the addition of water to trade waste in order to vary the level of any characteristic discharged as trade waste.

f) Discharge from a trade premises wastewater from industrial garbage grinders or macerators that does not meet the general conditions in clause 9 of this bylaw, except where specific authorisation is given in a consent.

10.2 A person must not discharge, or allow to be discharged, a prohibited trade waste into the wastewater system.

11 Duration and consent review

11.1 Trade waste consents will not be granted for a duration that exceeds five years, except where the trade waste discharge is deemed to be extremely low risk.

11.2 Where the term of a trade waste consent exceeds five years a consent review requirement at five years will be imposed as a condition.

11.3 A consent review will consider, but not be limited to, the following:

a) the nature of the trade activity, or the process design and/or management of the premises, and whether the occupier has a demonstrated an ability to meet the conditions of the trade waste consent during its term;

b) whether cleaner production techniques are successfully being utilised, or that significant investment in cleaner production equipment or techniques is being made;

c) the overall trade waste compliance and maintenance performance over the consent period;

d) the assessment criteria in clause 8.1 of this bylaw; and

e) any other matter relevant to the operation of the current consent.

11.4 Following the review an authorised officer will determine if the consent will:

a) continue in its current form unchanged;

b) be varied in accordance with clause 12 of this bylaw; or

c) will expire.

11.5 If the decision under clause 11.4 is that the consent will expire, and the trade waste discharger wants to continue discharging trade waste, then the trade waste discharger must submit an application under clause 5 of this bylaw to renew the consent before the expiry date.

12 Variation of consent

12.1 An authorised officer may, at any time during the term of a trade waste consent, by written notice to the consent holder vary any condition as the authorised officer considers necessary:

a) to change the quantity, nature, and characteristics of the discharge;

b) to optimise the wastewater system's performance;

c) as a result of a change in circumstances that result in condition(s) becoming inappropriate or unnecessary;

d) as a consequence of any breach of any consent condition or of this bylaw;

e) in order to address changes in the Council's environmental policies or outcomes;

f) due to changes in or to the Council's resource consent(s) for the wastewater system; or

g) due to changes in the Council's legal obligations arising under any contract, statute or otherwise.

Explanatory note: Clause 28.2 of this bylaw sets out the process to object to a decision made by an authorised officer under this bylaw.

13 Cancellation of consent or right to discharge

13.1 A trade waste consent or right to discharge may be cancelled 20 working days after a written notice is sent by an authorised officer to the customer if one or more of the following applies:

a) Failure to comply with any condition of the consent.

b) There has been a failure to maintain effective control over the discharge, which may involve a continued breach of consent conditions.

c) Failure to limit, in accordance with the requirements of a consent, the volume, nature, or composition of trade waste being discharged.

d) Any act of the occupier which threatens the safety of or causes damage to any part of the wastewater system or threatens the health or safety of any person.

e) If an uncontrolled discharge has taken place that had the potential to impact the environment.

f) If the discharge is causing or has caused a breach of a resource consent held by the Council.

g) Failure to provide or update a management plan as required for a conditional consent.

h) Failure to follow the management plan provisions at the time of an unexpected, unscheduled or accidental occurrence.

i) Failure to pay any charges incurred under this bylaw.

j) If any other circumstances arise which render it necessary in the public interest to cancel the consent or right to discharge.

13.2 The authorised officer has the discretion to grant a longer notice period where 20 working days may not be sufficient for the customer to remedy any non-compliance or other issue set out in this clause.

13.3 Further to clause 13.1 a trade waste consent and the right to discharge may be cancelled immediately by an authorised officer on giving the customer written notice if one or more of the following applies:

a) The Council is lawfully directed to withdraw or terminate the trade waste consent as soon as practicably possible.

b) The customer discharges any prohibited substance or characteristic (as defined in Schedule 1B).

c) If the continuance of discharge is an immediate threat to the environment or public health.

d) If the continuance of discharge puts at immediate risk the ability of the Council to comply with the conditions of our resource consents and/or requires identified treatment measures or costs to seek to avoid a breach of any such resource consent.

13.4 If a trade waste consent or the right to discharge has been cancelled and domestic wastewater cannot be separated from the trade waste production area, then an authorised officer may enter the trade premises to plug the trade waste pipeline. This will be done if the occupier continues to discharge trade waste without a current trade waste consent.

14 Transfer or termination of rights and responsibilities

14.1 Unless approval in writing is obtained from an authorised officer the consent holder must not:

a) Transfer to any other party the rights and responsibilities of their consent;

b) Allow the point of discharge as detailed in the consent to be changed or allow a discharge to enter a discharge point which is not approved in the consent;

c) Allow wastewater from another party to be discharged at their point of discharge.

14.2 The consent holder must give two working days notice in writing to the Council of a requirement for disconnection of the discharge connection and/or termination of the discharge consent. Where demolition or relaying of the discharge drain is required the notice period is seven working days.

Specific conditions

15 Pre-treatment and mass limits

15.1 When setting mass limit allocations for a consent application for a particular characteristic the following factors will be considered by an authorised officer:

a) The operational requirements of, and risk to, the wastewater system, and risks to occupational health and safety, public health, and the ultimate receiving environment.

b) Whether the levels proposed pose a threat to the planned beneficial reuse of biosolids or wastewater sludge.

c) Conditions in the wastewater system after the trade waste discharge point.

d) Available industrial capacity used in the last financial period and expected to be used in the forthcoming period.

e) Proposals to implement cleaner production techniques that are satisfactory to an authorised officer.

f) Net benefits associated with the increase of any one characteristic when tied with the decrease of another to justify any increased application for industrial capacity.

g) Council requirements to reduce the pollutant discharge of the wastewater system.

h) Proportion of the mass flow of a characteristic when compared to the total mass flow of that characteristic in the wastewater system.

i) Total mass of the characteristic allowable in the wastewater system, and the proportion (if any) to be reserved for future allocations.

j) Interactions with other characteristics that would effect any characteristic on the wastewater reticulation, treatment process, or the receiving environment.

16 Grease traps

16.1 For existing trade waste dischargers, the minimum grease trap size must be no less than 200 litres, unless specific written approval is granted by an authorised officer.

16.2 For new trade waste dischargers or upgrades to an existing trade premises, where the trade waste discharge requires grease trap pre-treatment, the grease trap must be sized appropriately. No passive grease trap can be less than 500 litres unless specific written approval is granted by an authorised officer.

16.3 If a trade waste discharger self-cleans the passive or mechanical grease traps, then they are required to submit to an authorised officer proof of cleaning bi-annually, e.g. dated photo.

16.4 If a trade waste discharger fails to clean the grease traps regularly then the discharge will be classified as a controlled trade waste and the customer will be required to apply for, or will be issued with, a controlled trade waste consent.

17 Unroofed wash pad facility

17.1 An unroofed wash pad facility requires the following:

a) a sump of minimum capacity to capture stones and grit;

b) a first flush trade waste/stormwater system installed between the wash pad's sump and the oil interceptor;

c) a control box/panel that has a non-resettable counter triggered by either the diversion system's open or closed relay. The counter is required to count each time the diversion cycle occurs;

d) a minimum of a single stage oil interceptor on the stormwater line after the diversion system; and

e) the control programs logic be programmed to stay diverted to the stormwater system continually after a first flush has occurred until the next cleaning event occurs.

17.2 Variations to the above requirements can be proposed as part of the application process for a trade waste discharge and can be granted at the discretion of an authorised officer.

18 Storage tank bunds

18.1 Bunds containing storage tanks which, if breached, may cause a negative effect on the Councils stormwater, wastewater systems or the environment must comply with the following conditions:

a) Where a two-valve manual system (trade waste/stormwater) is fitted, the contents of the bund must be checked by the consent holder prior to draining to ensure compliance with the bylaw.

b) Manual valve systems must be monitored during the controlled discharge.

c) Manual valve systems must remain in the closed position when the bund is not being drained of the build-up of captured rain water.

18.2 All new storage tank bunds are required to fit an automatically controlled valving system which will automatically close after a defined time period e.g. after one hour of being opened. The valving must be fail-safe to close.

18.3 Existing storage tank bunds, with manual valve systems, found to be non-compliant with clause 18.1 will, after assessment, be required to upgrade to automatically controlled valving within 12 months.

Tankered trade waste

19 Tankered trade waste consent specific conditions

19.1 The Council will only accept tankered trade waste for discharge at locations which have been approved by an authorised officer.

19.2 In addition to any general conditions imposed under clause 9, the following specific conditions may be imposed for tankered trade waste:

a) The Council may, after consultation with affected parties, require all tankered trade waste operators discharging directly or indirectly into the Council wastewater system to be compliant with an NZ approved code of practice.

b) All tankered trade waste consents be accompanied by a completed "Trucked Trade Waste Discharge Manifest" or alternative Council adopted tracking system, which includes:

i) description of waste stream, source and type; and

ii) generator of waste stream; and

iii) hauler of waste stream and relevant consent number.

c) Safety data sheets (SDS) must be supplied to an authorised officer detailing the characteristics of the trade waste.

d) All tankered trade waste must be tested to determine its characteristics prior to disposal if the contents of the waste are not known. Specialist advice on pre-treatment or acceptance may be required. The cost of all testing and advice is borne by the consent holder.

e) Due to plant requirements 24 hours' notice must be given to the wastewater treatment plant duty operator prior to the proposed disposal of any trade waste at the New Plymouth Wastewater Plant.

f) Tankered trade waste is not to be picked up or transported to the disposal site until appropriate arrangements and methods for disposal have been determined by an authorised officer.

g) Each tank must be thoroughly washed prior to collecting a load for disposal into the wastewater system to prevent cross-contamination between tanker loads.

20 Tankered trade waste disposal

20.1 An operator must not:

a) Falsely disclose the discharge characteristics or volume of tankered trade waste.

b) Discharge tankered trade waste into the wastewater system in either a diluted or undiluted form without a controlled waste consent.

c) Dispose of tankered trade waste into the wastewater system at any place other than at prescribed locations.

d) Dispose of tankered trade waste in contravention of a consent.

Other

21 Limitation of coverage

21.1 Trade waste received from outside the district may, at the discretion of an authorised officer, be discharged at an authorised discharge facility. It may also be subject to a separate contractual agreement between the Council and the discharger covering the cost of disposing the trade waste.

22 Water used in the repair and construction of water mains

22.1 A person must not dispose of any water used during the repair and construction of water mains into the wastewater system without:

a) obtaining a trade waste consent to authorise the discharge; and

b) ensuring that such waste is de-chlorinated prior to disposal unless the total discharge is less than $5m^3$ or the repair is reactive.

22.2 When the total discharge is less than $5m^3$ an authorised officer must be notified before discharging.

22.3 When the work is reactive an authorised officer must be notified as soon as practicably possible.

23 Storage, transport handling and use of hazardous waste

23.1 All operators on a trade premises must take all reasonable steps to prevent the accidental discharge into the wastewater system of any hazardous waste entering as a result of leakage, spillage or other mishap.

23.2 A consent holder must not store, transport, use or handle, or alternatively cause any hazardous waste to be stored, transported, handled in a manner that may cause the material to enter the wastewater system and cause harmful effects.

23.3 An authorised officer may refuse to grant a consent under clause 7.3 or may cancel an existing consent under clause 13 where there are reasonable grounds to believe that incorrect storage of hazardous waste on site poses a threat to the wastewater system in accordance with clauses 23.1 and 23.2.

Sampling, testing and monitoring

24 Flow metering

24.1 Flow meters are required at a trade premises when:

a) they are the best solution for recording the volumetric discharge;

b) there is an inconsistent ratio between a metered water supply to the premises, and the discharge of trade waste;

c) the consent holder and an authorised officer cannot agree on a suitable method of flow determination; or

d) the discharge represents a significant proportion of the total flow/load received at the Wastewater Treatment Plant.

24.2 Approval of the meter must be given by an authorised officer, but the meter and maintenance remains the property and responsibility of the occupier. Measurement of flow must be carried out by the occupier in accordance with the most recent edition and section of BS 3680.

24.3 Records of flow and/or volume must be available for viewing at any time by an authorised officer and must be submitted to an authorised officer at intervals prescribed in the consent.

24.4 Meters must be located in a position which is readily accessible for reading and maintenance, and as close as practicable to the point of discharge and be installed in accordance with the manufacturer's installation instructions.

24.5 The consent holder must arrange for validation or calibration of the flow metering equipment and instrumentation by a company with appropriate accreditation in accordance with the latest version of NZS 10012 upon installation and at least once a year thereafter if requested by the authorised officer to ensure performance remains within ±10% of its reading. A copy of independent certification of each calibration result must be submitted to the authorised officer.

24.6 Should any meter, after being calibrated, be found to register a greater or lesser discharge than the quantity of wastewater actually passed, an authorised officer may make an adjustment in accordance with the results shown by such tests backdated for a period at the discretion of an authorised officer but not exceeding 12 months, and the occupier will be required to pay a greater or lesser charge under the consent according to such adjustment.

24.7 Where no meter or similar apparatus is warranted, an authorised officer may require that a percentage of the water supplied to the premises, or other such basis as seems reasonable, be used for estimating the rate or quantity of flow for the purposes of charging.

24.8 Should any meter be out for repair or cease to register or be removed, an authorised officer will estimate the discharge for the period since the previous reading of such meter (based on the average of the previous four billing periods charged to the occupier) and the occupier must pay according to such an estimate. Provided that when by reason of a large variation of discharge due to seasonal or other causes, the average of the previous four billing periods would be an unreasonable estimate of the discharge, the authorised officer may take into consideration other evidence for the purpose of arriving at a reasonable estimate, and the occupier will pay according to such estimate.

24.9 Where a meter has been tampered with an authorised officer, without prejudice to any other remedies available, may declare the reading void and estimate the discharge as provided in clause 24.8.

25 Sampling and monitoring

25.1 An authorised officer is entitled to monitor, sample and audit any trade waste discharge in accordance with this bylaw and the Act.

25.2 Sampling and monitoring, as detailed within Schedule 1C, may include the following:

a) an authorised officer or agent will take the sample with appropriate preservation and arrange for the sample to be analysed using approved analytical methods;

b) an authorised officer will audit the sampling and analysis carried out by an analyst. Analysis will be performed by an IANZ approved laboratory. Inter-laboratory checks are to be part of this process; and

c) an authorised officer will audit the trade waste consent conditions including any management plans.

25.3 Any trade waste discharge may be monitored and audited for compliance no matter the type of classified approved trade waste discharge. All costs of monitoring will be met by the customer.

Administration

26 Power of entry

26.1 Except where provided for under any other enactment, sections 172, 173, and 182 of the Act apply in relation to any power of entry under this bylaw.

27 Serving documents

27.1 If under this bylaw, any notice or other document is to be given or served on any person, that notice, or document may be:

a) given by hand to that person;

b) sent by post to the person at their last usual or known place of business or residence; or

c) sent by electronic mail or other similar means of communication.

28 Dispute resolution

28.1 Where a dispute arises as to the validity of the methods or procedures used for sampling or analysis; the dispute may be submitted to a mutually agreed independent arbitrator. The arbitrator's ruling is final.

28.2 If any person is dissatisfied with any decision of an authorised officer made under this bylaw, except a dispute under clause 28.1, they may, by notice delivered to the Chief Executive not later than 20 working days after the decision of the authorised officer is served upon that person, request the Chief Executive to review any such decision. The Chief Executive's decision is final.

28.3 On the receipt of a notice under clause 28.2 the decision of an authorised officer is suspended however the person must comply with their consent, or permitted discharge conditions, and any other relevant clauses of this bylaw that apply to their discharge.

28.4 A decision by the Chief Executive on a request under clause 28.2 must be made within 20 working days in accordance with the relevant provisions of this bylaw. Where a decision imposes a time limit the time does not begin until the Chief Executive notifies the customer of his or her decision.

28.5 The Council may deal with the owner of a trade premises in any dispute rather than, or in addition to, the trade waste discharger or the consent holder.

28.6 Nothing in this section limits the powers of the Council to bring enforcement action under this bylaw or any enactment as it considers appropriate in the circumstances.

29 Accidents to be reported

29.1 The occupier must inform the Council immediately by phone or email on discovery of any occurrence, accident, spill or process mishap which may alter the quality or quantity of the trade waste discharged to the Council's wastewater system which could cause a breach in their trade waste consent conditions, this bylaw or the environment.

30 Transitional provisions

30.1 Any application for a consent to discharge trade waste made under the New Plymouth District Council Consolidated Bylaw 2008 Part 11 Trade Waste (as amended and re-adopted 2013) for which a consent has not been granted at the time of coming into force of this bylaw is deemed to be an application made under clause 5.2 of this bylaw.

31 Officers to continue in office

31.1 Authorised officers and enforcement officers appointed by the Council and holding office at the time this bylaw comes into force are deemed to be appointed under or for the purpose of this bylaw.

32 Revocation and savings

32.1 Part 11 of the New Plymouth District Council Bylaw 2008 (Trade Waste) including all amendments is revoked.

32.2 The revocation of bylaws under clause 32.1 does not prevent any legal proceedings, criminal or civil, being taken to enforce those bylaws and any such proceedings will continue to be dealt with and completed as if those bylaws had not been revoked.

32.3 Any resolution, approval, permit or other decisions made under the bylaws revoked under clause 32.1 remain in force until such resolution, approval, permit or other decision is repealed or revoked, has expired or is replaced.

Explanatory note: *All charges payable under this bylaw are recoverable as a debt in accordance with section 252 of the Act.*

33 Offences and penalties

33.1 Any individual who fails to comply with or acts in contravention of the requirements of this bylaw, including a failure to comply with the condition of any consent, commits an offence and may be liable to a penalty under the Act.

Explanatory note: *In addition to offences in the Act, section 175 of the Act provides that anyone who wilfully or negligently destroys, damages, stops, obstructs, or otherwise interferes with any council works or property, which includes the wastewater system, is liable and the Council may recover costs from that person.*

SCHEDULE 1A: Acceptable Discharge Characteristics

1A.1 Introduction

The nature and levels of the characteristics of any wastewater discharged to the Council's wastewater system will always comply with the following requirements, except where the nature and levels of such characteristics are varied by the authorised officer as part of an approval to discharge wastewater.

The authorised officer will take into consideration the combined effects of all wastewater discharges and will make any modifications to the following acceptable characteristics for individual discharges as deemed appropriate.

The nature and levels of any characteristic may be varied to meet any new resource consents or other legal requirements imposed upon the Council - refer clause 12.1.

If the wastewater characteristic is not covered under these Acceptable Discharge Characteristics, then it is determined to be not permitted unless the authorised officer approves the discharge in writing.

1A.2 Physical Characteristics	Explanation
1A.2.1 Flow	
a) The 24-hour flow volume must be less than $5m^3$.	Flows larger than $5m^3$ will be a "controlled" or "conditional" trade waste consent.
b) The maximum instantaneous flow rate must be less than 2.0 l/s.	
1A.2.2 Temperature	
The temperature shall not exceed 50^oC.	Higher temperatures: - Cause increased damage to wastewater 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. A lower maximum temperature may be required for large volume discharges.
1A.2.3 Solids	
a) Non-faecal gross solids shall have a maximum dimension which shall not exceed 15mm and gross solids shall have acquiescent settling velocity which shall not exceed 50mm/minute.	Gross solids can cause wastewater blockages.
b) The suspended solids content of any wastewater shall have a maximum concentration which shall not exceed $2000g/m^3$. For significant industry this may be reduced to $600g/m^3$.	High suspended solids contents can cause wastewater blockages and overload the treatment processes.
c) The settleable solids content of any wastewater shall not exceed 50mL/L.	

1A.2 Physical Characteristics	Explanation
d) The total dissolved solids concentration in any wastewater shall be subject to the approval of the authorised officer having regard to the volume of the waste to be discharged, and the suitability of the drainage system and the treatment plant to accept such waste. In general, any discharge with a total dissolved solids concentration of 10,000g/m^3 will not be accepted.	High total dissolved solids reduce effluent disposal options and can contribute to soil salinity.
e) Fibrous, woven, or sheet film or any other materials which may adversely interfere with the free flow of wastewater in the drainage system or treatment plant shall not be present.	
1A.2.4 Oil and grease	
a) There shall be no free or floating layer.	Oils and greases can cause wastewater blockages, may adversely affect the treatment process, and may impair the aesthetics of the receiving water.
b) Trade waste containing fat, oil or grease of animal or vegetable origin, shall not exceed 500g/m^3.	
c) Trade waste containing fat, oil or grease of other than animal and vegetable origin, shall not exceed 200g/m3.	If quick break detergents are being used, it will be a requirement that proper separation systems are being used by the occupier. If not used, oil will reappear in drainage systems as a free layer.
d) Emulsified oil, fat or grease must not exceed 100g/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 sewage throughout the range pH 4.5 to pH 10.0.	
1A.2.5 Solvents and other organic liquids	
There must be no free layer (whether floating or settled) of solvents or organic liquids. Refer Table 1A.2 of this part for information on dissolved solvents and other organic liquids.	Some organic liquids are denser than water and will settle in wastewater systems and traps.
1A.2.6 Emulsions of paint, latex, adhesive, rubber, plastic	
For the purposes of this sub-clause: 'Emulsion' means an emulsion containing paint, adhesive, rubber, plastic, or similar material.	'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 which matches the Council's treatment system.
a) Where such emulsions are not treatable these may be discharged into the wastewater system subject to the total suspended solids not exceeding 1000g/m^3 or the concentration agreed by the authorised officer.	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 latex to be treated.
b) The Council may require pre-treatment of such emulsions if the emulsion wastewater	

1A.2 Physical Characteristics	Explanation
unreasonably interferes with the operation of the Council's treatment plant. c) Such emulsions, of both treatable and non treatable types, shall be discharged to the wastewater system only at a concentration and pH range that prevents coagulation and blockage at the mixing zone in the wastewater system.	Emulsions will coagulate when unstable and can sometimes cause wastewater blockage. Latex emulsions are stable when dilute or in the correct pH range.
1A.2.7 Radioactivity 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.
1A.2.7 Colour 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 final effluent discharge consent.	Colour may cause aesthetic impairment of receiving waters, and adverse affects on the treatment processes.

1A.3 Chemical Characteristics	Explanation
	In the setting of restrictions for chemical characteristics the Council is mindful of the production of harmful or noxious waste streams from some tests, such as chemical oxygen demand and total Kjeldahl nitrogen. The need to set such restrictions and therefore the requirement to undertake the associated testing will be determined by the authorised officer.
1A.3.1 pH value All trade waste discharged shall not exceed the pH range of between 6.0 and 10.0 at all times. Grease trap waste discharged may at the discretion of the Council have a pH range of between 4.5 and 10.0.	Extremes of pH: - Can adversely affect biological treatment processes. - Can adversely affect the safety of operations and/or maintenance personnel. - Cause corrosion of wastewater structures. - Increase the potential for the release of toxic gases such as H_2S and HCN.- The grease trap process encourages acidic bacteria; therefore they commonly discharge a low pH.

1A.3 Chemical Characteristics

1A.3.2 *Organic strength*

The Biochemical Oxygen Demand (BOD_5) of any waste may need to be restricted where the capacity for receiving and treating BOD_5 is limited. A BOD_5 restriction may be related to mass limits.

1A.3.3 *Maximum concentrations*

Introduction
The maximum concentrations permissible for the chemical characteristics of an acceptable discharge are set out in the following tables:

General chemical characteristics ..... Table 1A.1
Toxic Pollutants..... Table 1A.2

Explanation

The loading on a treatment plant is affected by Biochemical Oxygen Demand (BOD) rather than Chemical Oxygen Demand (COD). For any particular waste type there is a fixed ratio between COD and BOD. For domestic wastewater it is about 2.5:1 (COD : BOD), but can range from 1:1 to 100:1 for trade waste. Therefore BOD 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 must 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 and COD can be established the discharge may be monitored using the COD test with the approval of the Council.

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.

Table 1A.1 General chemical characteristics

Characteristic	Maximum concentration	
MBAS (Methylene blue active substances)	500 g/m^3	MBAS is a measure of anionic surfactants. High MBAS can: - Adversely affect the efficiency of activated sludge plants. - Impair the aesthetics of receiving waters.
Ammonia (measured as N) - free ammonia - ammonium salts	 50 g/m^3 200 g/m^3	High ammonia: - May adversely affect the safety of operations and maintenance personnel. - May significantly contribute to the nutrient load to the receiving environment.
Kjeldahl nitrogen	500 g/m^3	High Kjeldahl nitrogen may significantly contribute to the nutrient load of the receiving environment.
Total phosphorus (as P)	150 g/m^3	High phosphorus may significantly contribute to the nutrient loading of the receiving environment.
Sulphate (measured as SO_4)	500 g/m^3	Sulphate: - May adversely affect wastewater structures. - May increase the potential for the generation of sulphide in the wastewater system, if it is prone to become anaerobic.
Sulphite (measured as SO_2)	15 g/m^3	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 g/m^3	Sulphide in wastewater may: - Cause corrosion of the reticulation system and wastewater structures, particularly the top non-wetted part of a wastewater network. - Generate odours in the wastewater system which could cause public nuisance. - Release the toxic H_2S gas which could adversely affect the safety of operations and maintenance personnel.

Characteristic	Maximum concentration	
Chlorine (measured as Cl_2) - free chlorine - hypochlorite	 3 g/m^3 30 g/m^3	Chlorine: - Can adversely affect the safety of operations and maintenance personnel. - Can cause corrosion of wastewater pipes and structures.
Dissolved aluminium	300 g/m^3	Aluminium compounds, particularly in the presence of calcium salts, have the potential to precipitate as a scale which may cause a reticulation blockage.
Dissolved iron	300 g/m^3	Iron salts may precipitate and cause a reticulation blockage. High concentrations of ferric iron may also present colour problems depending on local conditions.
Boron (as B)	25 g/m^3	Boron is not removed by conventional treatment.
Bromine (as Br_2)	5 g/m^3	High concentrations of bromine may adversely affect the safety of operations and maintenance personnel.
Fluoride (as F)	30 g/m^3	Fluoride is not removed by conventional wastewater treatment, however pre-treatment can easily and economically reduce concentrations to below 20g/m^3.
Cyanide - weak acid dissociable (as CN)	5 g/m^3	Cyanide may produce toxic atmospheres in the wastewater system and adversely affect the safety of operations and maintenance personnel.

Table 1A.2 Toxic Pollutants

Toxic Pollutant	Maximum Concentration g/m³	
Antimony as Sb	10	**Inhibitory chemicals** At the choice of the Council no waste being diluted at a fixed ratio to wastewater, nominated by the Council, shall inhibit the performance of the wastewater treatment process such that the Council is significantly at risk or prevented from achieving its environmental statutory requirements.
Arsenic as As	5	
Barium as Ba	10	
Beryllium as Be	0.005	
Cadmium as Cd	0.05	
Chromium as Cr	5	
Cobalt as Co	10	
Copper as Cu	10	
Lead as Pb	10	
Manganese as Mn	20	
Mercury as Hg	0.01	
Molybdenum as Mo	10	
Silver as Ag	2	
Nickel as Ni	10	
Selenium as Se	10	
Thallium as Th	10	
Tin as Sn	20	
Zinc Zn	10	
Formaldehyde (as HCHO)	50	
Phenolic compounds (as phenol)	50	
Petroleum hydrocarbons	30	
Monocyclic aromatic hydrocarbons	5	
Polycyclic aromatic hydrocarbons	0.05	
Halogenated aliphatic compounds	1	
Chlorinated phenols	0.02	
Halogenated aromatic hydrocarbons (HAHs)	0.002	
Polychlorinated biphenyls (PCBs)	0.002	
Polybrominated biphenyls (PBBs)	0.002	
Pesticides, general (includes insecticides, herbicides, fungicides and excludes organophosphate, organochlorine and any pesticide not registered for use in New Zealand)	0.2 in total	
Organophosphate pesticides	0.1	

SCHEDULE 1B: Prohibited Characteristics

1B.1 Introduction

Prohibited characteristics are considered present if their concentration exceeds background levels. The background level in relation to any substance means the extent to which that substance is present (if at all) in the water supply used at the trade premises, or in an alternative water supply that is approved by the Council for the purpose of discharging waste.

1B.2 Prohibited Characteristics

1B.2.1 Any discharge has prohibited characteristics if it has any solid, liquid or gaseous matter 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 will:

a) interfere with the free flow of the wastewater in the wastewater system; or

b) damage any part of the wastewater system; or

c) directly or indirectly, cause the quality of the effluent or residual biosolids and other solids from any wastewater treatment plant in the catchments 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; or

d) prejudice the occupational health and safety risks faced by wastewater workers; or

e) after treatment is toxic to fish, animals or plant life in the receiving waters; or

f) cause foul-smelling gases or substances to form which are of a nature or sufficient quantity to create a public nuisance; or

g) have a colour or colouring substance that causes the discharge of any wastewater treatment plant to be coloured.

1B.2.2 A discharge has prohibited characteristics if it has any characteristic which exceeds the concentration or other limits specified in Schedule 1A unless the characteristic is specifically approved by an authorised officer within a consent.

1B.2.3 A discharge has a prohibited characteristic if it has any amount of:

a) harmful solids, including dry solid wastes and materials which combine with water to form a cemented mass;

b) liquid, solid or gas which could be flammable or explosive in the wastes, including oil, fuel, solvents (except as allowed for in Schedule 1A), calcium carbide, and any other material which is capable of giving rise to fire or explosive hazards either spontaneously or in combination with wastewater;

c) asbestos;

d) the following organo-metallic compounds:

   i) Mercury (as an organic compound);

   ii) Cadmium (as an organic compound);

   iii) Tin (as tributyl or other organotin compounds);

   iv) Chromium (as an organic compound);

e) any organochlorine pesticides;

f) genetic wastes, as follows:

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

g) any health care waste prohibited for discharge to a wastewater system by NZS 4304:2002 Management of Healthcare Waste or any pathological or histological wastes; or

h) whose radioactivity levels are in excess of national radiation laboratory guidelines.

SCHEDULE 1C: Sampling Procedure

1C.1 Sampling Equipment

1C.1.1 Sample containers

The laboratory responsible for analysing the samples should be consulted prior to sampling to confirm the types of containers that should be used for sample collection and subsequent storage and transportation.

Plastic containers are recommended for most characteristics though some exceptions exist. For example, where glass containers are to be used to sample for:

a) Oil and grease.

b) Hydrocarbons.

c) Detergents.

d) Pesticides.

1C.1.2 Apparatus

Both manual and automatic sampling equipment should be made of inert materials which will not influence the analyses that will be carried out on the samples.

Before sampling, the equipment should be cleaned with detergent and water, or as directed by the equipment manufacturer, and then rinsed with water.

In some cases sampling equipment may be washed in the wastewater stream from which the sample is to be taken to minimise the risk of contamination. Sampling equipment cannot be washed in the waste stream where it will influence the analysis carried out later (e.g. analysis of oil and grease, and microbiological analysis).

Special attention must be made to rinsing after cleaning if detergents have been sampled.

1C.2 Sampling Location

1C.2.1 Safety precautions

When selecting sampling locations health and safety aspects should always be considered.

1C.2.2 The sampling location will be as specified in the consent holders trade waste consent. This will normally be the first manhole or an access point upstream of the discharge point unless, due to poor mixing or some other reason, a location giving more representative sample can be found.

1C.2.3 The sampling location must be kept clean. Remove scale, sludge, bacterial film etc from the walls.

If turbulent flow conditions do not exist at the sampling location, they shall be induced by restricting the flow using a baffle or weir. The restriction should be made so that sedimentation upstream of the restriction does not occur. The sampling intake point should be located downstream of the restriction. The inlet of the sampling equipment should face the direction of flow but may face downstream if too many blockages result.

If mixing is good upstream of the obstacle then the sampling point should be located at this point, taking care that sediment is not sampled and ensuring that the intake remains below liquid level.

1C.2.4 The sampling point shall be one-third of the wastewater depth below the surface.

1C.2.5 It may be necessary to sample the surface by skimming so that qualitative information about emulsified and floating material can be obtained. Guidance on the choice of suitable containers for this sampling technique should be sought before sampling from the receiving laboratory.

1C.3 Choice of Sampling Method

1C.3.1 Sampling types

There are three different methods for taking samples:

a) spot (or grab) samples;

b) composite samples; or

c) instantaneous composite sample, which is a combination of both spot and composite samples.

a) **Spot sample**

Spot samples are essential when the objective of a sampling programme is to estimate the compliance with standards not related to average quality. In cases where quality compliance is judged on the basis of average effluent quality, composite samples should always be used.

Spot samples are useful for determining the wastewater composition at a specific time, the entire sample volume is taken at once. In cases where small variations in the volume and composition of the waste stream exist a spot sample can be representative of the composition during a longer period.

For certain determinations only spot samples can be used. For example, cases with oil and grease, dissolved oxygen, chlorine or sulphides. If the analyses are not carried out (or started) immediately after collection of the sample and if the whole sample volume is not all used the results will differ over time.

Spot samples are usually taken manually but may also be taken by automatic sampling equipment.

b) **Composite sample**

Composite samples are prepared by mixing a number of spot samples or by collection of a continuous fraction of the waste stream. There are two types of composite samples:

i) time-weighted samples,

ii) flow-weighted samples.

Time-weighted composite samples consist of spot samples of equal volume taken at constant intervals during the sampling period.

Time-weighted composite samples are appropriate when the average wastewater or effluent quality is of interest (e.g. when determining compliance with a standard based on average quality or when determining the average strength of wastewater for process design purposes, or for cases with a constant wastewater flow).

Flow-weighted composite samples consist of spot samples taken and mixed in such a way that the sample volume is proportional to the effluent flow or volume during the sampling period. Flow-weighted composite samples should be used when the determination of loadings of pollutants is the objective of the sampling, e.g. biochemical

oxygen demand (BOD5) load to a wastewater treatment plant, percentage removal of solids, loading of nutrients and other determinants to the environment.

A flow-weighted composite sample can be taken either at constant intervals but with varying sample volumes that are proportional to the flow at the sampling time or as spot samples of equal volume that are taken at the time when fixed amounts of effluent have passed the sampling point.

In both flow-weighted and time-weighted sampling each spot sample should be greater than 50ml in volume. It is advisable that spot samples are 200ml to 300ml in volume in order to be able to collect representative samples.

c) **Instantaneous composite sample**

An instantaneous sample is a composite sample taken using the following method:

i) Three spot samples of the discharge shall be taken at intervals of not less than one minute or more than five minutes apart.

ii) The three spot samples must be combined using equal volumes of all three samples to obtain the instantaneous sample.

An instantaneous sample shall be used for all routine compliance monitoring unless otherwise specified in the consent.

1C.4 Frequency, Number and timing of Samples

1C.4.1 Frequency and number of samples

Sampling must be taken at regular intervals over the control period at the frequency and in the manner specified in the occupier's consent to discharge trade waste.

1C.4.2 Sampling programme

The objective of a sampling programme often dictates when and how a sample is collected. When sampling trade waste allowance should be made for the following sources of variation in quality:

a) Diurnal variations (i.e. within-day variability).

b) Variations between days of the week.

c) Variations between seasons (if applicable).

If the identification of the nature and magnitude of peak load are important sampling should be restricted to those periods when peak loads are known to occur.

The most appropriate type of sampling method (grab or composite) may be dependent on the magnitude of the variation in quality.

Relating the times of sampling to the particular process being monitored may be very important when considering discharges that are either seasonal or operated on a batch basis. In either case the discharge will not be continuous, and the sampling programme will need to take this fact into account.

If taking more than one sample the samples should normally be taken at fixed intervals during the whole control period. The control period shall normally be one quarter.

It should be ensured that the sampling does not lead to any risk of systematic error, for example by always taking samples on one particular day or by systematically omitting particular working days.

1C.4.3 Sampling period

The overall sampling period may vary from a few hours, where tracing studies on volatile organics are being monitored, to several days, where stable inorganic species are being monitored.

This sub-clause deals with the selection of the period over which a composite sample has to be taken. When selecting the period the following two factors should be considered:

a) The objective of the sampling. For example, it may be necessary to assess the average organic load in a flow over several 24-hour periods, in which case diurnal flow proportional composite samples will be adequate.

b) The stability of the sample. In the example given in (a), it would not necessarily be practical to extend the compositing period for longer than 24 hours, since the organic component in the sample under study may deteriorate.

c) The stability of the sample may often limit the duration of the sampling period. In such cases, reference should be made to the specific analytical techniques to be employed, and the receiving laboratory should be consulted, in order that correct preservative measures can be used. AS/NZS 5667.10:1998 (see Schedule1) gives further details on the preservation and storage of samples.

1C.5 Sample Preservation, Transportation and Storage

The most common way of preserving wastewater samples is to cool to a temperature between 0°C and 4°C. When cooled to this temperature and stored in the dark, most samples are normally stable for up to 24 hours. For some determinants, long-term stability may be obtained by deep freezing (below -18°C).

When collecting composite samples during extended periods, preservation should be an integral part of the sampling operation.

It may be necessary to use more than one sampling device, to allow both preserved and unpreserved samples to be taken.

The laboratory responsible for analysing the samples should always be consulted with regard to the selection of the preservation method and subsequent transport and storage.

Note: Further details may be found in AS/NZS 5667.10:1998.

1C.6 Sample Identification and Records

The laboratory sampling report should include the following information:

a) name of the trade premises;

b) sample identification number;

c) sampling point;

d) date, start and stop of sampling;

e) time, start and stop of sampling;

f) details of the sampling method;

g) preservation method;

h) details of any field tests; and

i) name of the person who carried out the sampling.

1C.7 Sample Splitting

If required by the occupier all independent samples made by an enforcement officer shall be split as follows:

a) on completion of sampling each of the samples or the composite sample(s) as the case may be, shall be divided into three equal parts; and

b) the first portion of each sample or composite sample shall be delivered to the occupier; and

c) the second and third portions of each sample or composite sample shall be delivered to an authorised officer.

Where any portion of a sample or composite sample is to be delivered in accordance with this bylaw it shall be delivered within four hours of the sampling being completed.

The third portion of any sample or composite sample delivered to an authorised officer in accordance with this bylaw shall be retained in the custody of the Council for a period of not less than 20 working days from the date of receipt and in such a manner which preserve's as far as is reasonably possible, the characteristics of the sample being tested.

SCHEDULE 1D: Trade Waste Fees and Charges

1D.1 Monitoring Costs

Under the Local Government Act 2002 the Council may only recover the reasonable costs incurred by the Council in respect of the matters for which the fee is charged. Therefore, Trade Waste Premises will be charged at cost for sample collection, analyses, and data reporting. Upon request all copies of laboratory analysis will be provided in accordance with the Local Government Official Information and Meetings Act 1987.

1D.2 Fees

1D.2.1 Reticulation

Item	*Description*
a) Connection fee	A fee payable on application for connection to discharge.
b) Reinspection fee	A fee payable for each reinspection visit by an authorised or enforcement officer where a previously issued non-compliance notice requirements have not been remedied by the occupier.
c) Disconnection fee	A fee payable on disconnection from collection system following occupier request for disconnection.

1D.2.2 Trade wastes

a) Trade waste application fee	A fee payable on an application for a trade waste discharge.
b) Inspection fee	A fee payable after a site inspection has taken place by the Council.
c) Sampling fee	A fee payable after a sampling event has been undertaken of the trade waste discharge.
d) Late fee	A fee applied to overdue trade waste accounts.
e) Annual trade waste licence fee	An annual management fee for holders of trade waste consents to cover the Council's costs associated with: – administration; and – inspection of the premises.
f) Non-compliance reinspection fee	Payable for each reinspection visit by an enforcement officer where a notice served under this bylaw has not been complied with by the Trade Waste discharger.

1D.3 Charging for Characteristics (Quality)

Quality charging shall be based on results from monitoring as detailed Schedule 1C.2.

The monitoring results may cover a period extending prior to the current quarterly period. The amount of monitoring results used will be determined by the authorised officer with the agreement between parties as per the draft trade waste consent process.

Note: The toxic pollutant treatment charge is determined by dividing the annual proportioned disposal cost plus a risk factor for the toxin as determined by compliance issues related to the application of biosolids to land "Guideline for Beneficial Use of Biosolids on Land" by the proportion of total mass of toxic pollutants received at the Wastewater Treatment Plant

(WWTP) on an annual basis Where possible the disposal costs will be averaged over a three year period. However, should the method of disposal of sludge be changed then the Council reserves the right to change the term over which disposal costs are calculated.

1D.4 Unit (characteristic) Cost for Wastewater

Fair and equitable charging for trade waste premises means charges can be no more nor less than that paid by domestic users.

Therefore, trade waste charges are calculated the same way domestic charges are with the total wastewater operational costs being apportioned (ratio of total costs) between the following characteristics:

a) WWTP total Volume (m^3).

b) WWTP total Biochemical Oxygen Demand (kg).

c) WWTP total Suspended Solids (kg).

d) WWTP total Toxic metals for each metal targeted (kg).

Adjustments to the ratio's may be made annually to ensure trade waste charges are consistent, fair and do not penalise industrial trade waste improvements.

Each characteristic proportioned value (above) is divided by that total characteristic mass, e.g. WWTP Volume proportioned cost ($) divided by the total WWTP characteristic will determine what the charge out rate for that characteristic e.g.

a)	Volume charge rate	C_V in $/m^3$
b)	BOD5 charge rate	CBOD5 in $/kgs
c)	Suspended solids charge rate	Css in $/kgs
d)	Specific Toxic charge rate	TP1 in $/kgs

For customers where the domestic and trade waste discharges are unable to be separated a portion of the targeted wastewater rates will be subtracted from trade waste charges to ensure the occupier is not being double charged for the domestic portion of their discharge.

1D.5 Definitions of Variables Used in Calculating Trade Waste Charges

Item	Units	Definition
a	ratio	Proportion of WWTP cost of processing attributed to volume.
b	ratio	Proportion of WWTP cost of processing attributed to BOD5.
c	ratio	Proportion of WWTP cost of processing attributed to SS.
d	ratio	Proportion of WWTP cost of processing attributed to toxic pollutants.
$B	$	Average WWTP treatment costs for BOD5 over the last three completed years. $B= b x $WWTP *
[BOD5]	g/m^3	Biochemical oxygen demand analytical result from sampling.
C_V	$/m^3$	Volumetric charge rate.
C_{BOD5}	$/kg$_{BOD5}$	Biochemical oxygen demand treatment charge rate.

Item	Units	Definition
C_{SS}	$/kg$_{SS}$	Suspended solid treatment charge rate.
C_{TPi}	$/kg$_{TPi}$	Specified toxic pollutant treatment charge rate.
kg_{BOD5}	kg	Biochemical oxygen demand mass.
kg_{SS}	kg	Suspended solids mass.
kg_{TPi}	kg	Toxic pollutant mass. ***
NTP_i	%	Normalised variation for the specified toxic pollutant. $NTP_i = (100/TPT) \times TP_{var\ i}$ ***
Q	m^3	Average wastewater volume into the WWTP. **
$R	$	Average cost of providing, financing, operating and maintaining the wastewater drainage network including wastewater pumping stations for the previous three years.*
$S	$	Average WWTP treatment costs for SS over the last three completed years. $S= c x $WWTP *
[SS]	g/m^3	Suspended Solids concentration.
SV	m^3	Calculated Stormwater Volume.
T_{BOD5}	kg	Average biochemical oxygen demand mass. **
[TP]	g/m^3	Toxic Pollutant concentration.
$TP	$	Average WWTP treatment costs for Toxic Pollutant over the last three completed years. $TP= d x $WWTP. *
TP_i	$	Total disposal cost for a specified toxic pollutant. $TP_i= $TP x ($NTP_i$/100) ***
$TP_{max\ i}$	mg/kg	Maximum level set for the detailed toxic pollutant disposal. Units as dry wt. ***
$TP_{w\ i}$	mg/kg	The actual level of a toxic pollutant in dry wastewater biosolids for period over which calculation applies. ***
TPT	%	Sum of $TP_{var\ i}$ for all applicable toxic pollutants.
$TP_{var\ i}$	%	Percentage variation from $TP_{max\ i}$ for a toxic pollutant. $TP_{var\ i} = TP_{w\ i} / TP_{max\ i} \times 100$ ***
TR	m^3	Targeted rate allowance.
TR$	$	Actual targeted rate for wastewater charged in rates.
T_{ss}	kg	Average suspended solids mass. **
TTP_i	kg	Total mass of a specific toxic metal pollutant. ***
TV	m^3	Chargeable Volume.
V	m^3	Customer Measured or Agreed Volume.
$V	$	Previous three-year average reception and disposal costs for all wastewater in the district calculated as $V= a x $WWTP + $R. *
WL	%	Allowance for water loss, e.g. evaporation.
WWTP		Wastewater Treatment Plant.

Item	Units	Definition
$WWTP	$	The average of the last three completed years of providing, financing, operating and maintaining the Council's wastewater treatment plant and the outfall. *

Notes

* Inflation adjusted – the previous years' values are adjusted to present day based on the annual percentage increase applied to fees, as agreed by Council.

** Average mass is calculated as the average of the previous three completed years.

*** Combination of ** plus Toxic pollutant at targeted metals that are recorded as TP_i.

1D.6 Calculating Trade Waste Charges

Following on from clause 1D.4 trade waste charges are calculated as a sum of the following four parts:

1. **Volume charge** = TV x C_V is a unit charge for capital and operational costs associated with reticulation, treatment and disposal of wastewater.

2. **BOD5 charge** = kg_{BOD5} x C_{BOD5} is a unit charge for capital and operational costs associated with the treatment and disposal of biochemical oxygen demand.

3. **SS charge** = kg_{SS} x C_{SS} is a unit charge for capital and operational costs associated with the treatment and disposal of suspended solids.

4. **TP charge** = kg_{TPi} x CTP_i is a unit charge for each nominated toxic pollutant and is derived from operational costs associated with the treatment and disposal of biosolids contaminated with toxic pollutants designated by applicable standards such as the Ministry of Health guidelines or described in resource consent conditions. The specific toxic pollutants (TP_i) for which it is intended to charge shall be nominated at the time of setting trade waste charges.

Where the charge rates are calculated as:

C_V = $\$V / Q$

C_{BOD5} = $\$B / T_{BOD5}$

C_{SS} = $\$S / T_{SS}$

C_{TPi} = $\$TP_i / TTP_i$

Note. The toxic pollutant treatment charge is determined by dividing the annual proportioned disposal cost plus a risk factor for the toxin as determined by compliance issues related to the application of biosolids to land "Guideline for Beneficial Use of Biosolids on Land" by the proportion of total mass of the specified toxic pollutant received at the WWTP on an annual basis Where possible the disposal costs will be averaged over a three year period. However, should the method of disposal of sludge be changed then the Council reserves the right to change the term over which disposal costs are calculated.

Mass calculations

The characteristic masses are calculated as follows:

kg_{BOD5} **=** TV x BOD5 g/m^3 /1000

kg_{SS} = TV x SS g/m^3 /1000

kg_{TPi} = TV x $[TP_i]g/m^3$ /1000

Normally characteristic values are measured as g/m^3 therefore, to convert to kg, must divide by 1000. The specific toxic pollutants (TP_i) for which it is intended to charge shall be nominated at the time of setting trade waste charges.

1D.7 Method of Determining Chargeable Volume (TV)

Chargeable volume is calculated using the following formula:

TV = V + SV -TR-WL

Where:

a) Volume (V)

V = m^3 of trade waste measured by flow meter or by any other agreed method as detailed in an occupier's trade waste consent:

Stormwater infiltration (SV)

SV = The calculated unavoidable stormwater discharge into the trade waste system based on the surface area of catchment multiplied by the annual average rainfall (1600mm/year) divided by four quarters.

b) Water Loss Allowance (WL)

WL = Water loss allowance e.g. evaporation, use in product.

c) Targeted Rate Credit (TR)

TR = Wastewater Targeted Rate Allowance: Only applicable when the domestic waste stream cannot be separated from the trade waste stream and when the occupier pays wastewater targeted rates for the property.

The portion charged to the occupier as targeted rates is back calculated, the calculation ensures the targeted wastewater rate is accurately back calculated which reflects the actual concentration of the characteristics in the waste streams, the following formula is used:

$TR=TR\$ / (C_V +(([BOD5] \times C_{BOD5}) + ([SS] \times C_{SS}))) / 1000$

The default characteristic values are [BOD5] = $240g/m^3$ and [SS] = $240g/m^3$ if the waste stream is off a lower or higher strength then actual average analysed sampling results may apply.

APPENDIX 1: Related Documents

NEW ZEALAND STANDARDS

NZS 4304:2002	Management of Healthcare Waste
NZS 9201:Part.23:2004	Model general bylaws Part 23: 2004 Trade Waste
AS/NZS 10012-1:2004	Quality assurance requirements for measuring equipment

BRITISH STANDARDS

BS 3680	Measurement of liquid flow in open channels
Part 11A:1992	Free surface flow in closed conduits - methods of measurement
Part 11B:1992	Free surface flow in closed conduits - specification for performance and installation of equipment for measurement of free surface flow in closed conduits
BS 5728	
Part 3:1997	Measurement of flow of cold potable water in closed conduits
Part 3:1984	Methods for determining principal characteristics of meters
AS/NZS 5667.1:1998	Water quality sampling
Part 1	Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
Part 10	Guidance on sampling waste waters

NEW ZEALAND LEGISLATION

Local Government Act 2002

Local Government Act 1974

Resource Management Act 1991

Hazardous Substances and New Organisms Act 1996

Health and Safety at Work Act 2015

OTHER PUBLICATIONS

AWWA Standard methods for the examination of water and wastewater.

Code of safe practice for the use of unsealed radioactive materials, NRL.C1; National Radiation Laboratory.

Public Health Committees for the safe use of sewage effluent and sewage sludge on land. Ministry of Health, New Zealand 1992.

Guideline for Beneficial Use of Biosolids on Land.