

ROCKHAMPTON REGIONAL COUNCIL



TRADE WASTE ENVIRONMENTAL MANAGEMENT PLAN

September 2010

Rockhampton Regional Council

Trade Waste Environmental Management Plan

Table of Contents

1.	INTRODUCTION	1
2.	DEFINITIONS	2
3.	TRADE WASTE POLICY	5
4.	CONTROL OF TRADE WASTE	6
4.1	SUSPENSION OR CANCELLATION OF TRADE WASTE APPROVAL.....	6
4.2	PENALTIES AND RECOVERY OF COSTS.....	6
5.	SEWER ADMISSION LIMITS	7
5.1	EFFLUENT IMPROVEMENT PROGRAMS.....	7
6.	DISCHARGE CATEGORIES	8
7.	TRADE WASTE CHARGES AND FEES	9
7.1	TRADE WASTE CHARGES.....	9
7.1.1	GENERAL TRADE WASTE CHARGES.....	9
7.1.2	ADDITIONAL CHARGES FOR OVER LIMIT DISCHARGE (PENALTY CHARGE).....	11
7.1.3	EQUIVALENT ARRESTOR CHARGES.....	12
7.2	TRADE WASTE FEES.....	12
7.2.1	INSPECTION AND ANALYSIS FEES.....	12
7.2.2	APPLICATION FEES.....	12
7.2.3	SEPTIC TANK AND OTHER LIQUID WASTE FEES.....	12
8.	APPLICATION AND RENEWAL PROCEDURES	12
8.1	APPLICATION PROCEDURE	12
8.2	RENEWAL PROCEDURE.....	14
9.	PERMITS AND AGREEMENTS	14
9.1	PERMITS.....	14
9.2	AGREEMENTS.....	15
10.	OBLIGATIONS	16
10.1	TRADE WASTE GENERATORS.....	16
10.2	COUNCIL.....	16
11.	INSPECTION AND MONITORING	17
11.1	INSPECTION CHAMBERS AND/OR GAUGING FACILITY.....	17
12.	DETERMINATION OF DISCHARGE QUANTITY	18
12.1	CATEGORY 1 AND 2.....	18
12.2	CATEGORY 3.....	18
13.	DETERMINATION OF DISCHARGE QUALITY	18
13.1	CATEGORY 1 AND 2.....	18
13.2	CATEGORY 3.....	19
14.	SPECIFIC REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL WASTES	19
14.1	REMOVING REGULATED WASTE FROM PREMISES.....	19
14.2	ARRESTOR INSTALLATIONS.....	20

14.2.1	GREASE ARRESTORS.....	20
14.2.2	MINERAL OIL ARRESTORS.....	21
14.2.3	OTHER ARRESTOR APPLICATIONS.....	21
14.3	ENZYMES / BIOLOGICAL ADDITIVES.....	21
14.3.1	ENZYME AND BACTERIAL CULTURES.....	21
14.3.2	GENETICALLY MODIFIED ORGANISMS (GMOs).....	22
14.4	FOOD WASTE DISPOSAL UNITS.....	22
14.5	COMMERCIAL SWIMMING POOLS / ORNAMENTAL PONDS.....	22
14.6	MEDICAL, CLINICAL, VETERINARY AND INFECTIOUS WASTES.....	22
14.7	CONTAINMENT OF TOXIC / HAZARDOUS SUBSTANCES.....	23
14.8	DISCHARGE OF LIQUID WASTES FROM VESSELS, VEHICLES AND AIRCRAFT ...	23
14.8.1	VESSELS.....	23
14.8.2	BUSES, AIRCRAFT, RECREATIONAL VEHICLES.....	23
14.9	LANDFILL LEACHATE & DISPOSAL FACILITY WASTEWATER.....	23
14.10	DISCHARGE FROM OPEN AREAS.....	23
15.	DISCRETIONARY POWER.....	24
16.	IMPLEMENTATION.....	24
17.	RECORDS AND REPORTS.....	24
APPENDIX 1	26
	SELECTED LEGISLATION AND STANDARDS RELEVANT TO TRADE WASTE.....	26
APPENDIX 2	27
	SEWER ADMISSION LIMITS.....	27
APPENDIX 3	30
	MINIMUM PRE-TREATMENT REQUIREMENTS FOR TRADE WASTE GENERATING PROCESSES GUIDE.....	30

1. INTRODUCTION

Liquid wastes are produced by a variety of industrial, commercial and domestic activities. The *Environmental Protection Act* provides a general prohibition against the pollution of the environment by the discharge of such wastes, except where the person or agency holds an environmental authority permitting such discharge.

All discharges to receiving waters are required to be treated to a standard that will maintain or enhance receiving water quality and environmental values.

Liquid waste generated by industry, small business and commercial enterprises is referred to as trade waste. The *Water Supply (Safety and Reliability) Act* prohibits the unauthorised discharge of wastes, other than domestic sewage, into the sewerage system. The options for producers of trade waste are to have it treated at an approved treatment facility, obtain approval from Council to discharge to the sewerage system, or to obtain an environmental authority under the *Environmental Protection Act* to treat the waste themselves before discharge to the environment.

Rockhampton Regional Council provides a sewerage system primarily for transporting and treating domestic sewage. Payment for this service is collected through sewerage charges on each rateable property. This system may also be used, with the approval of Council, for the acceptance and treatment of trade waste. As trade waste imposes an additional load on the sewerage system, trade waste charges apply.

Council is required to meet the conditions of the environmental authority (licence), issued by the Department of Environment and Resource Management (DERM), for its sewerage system including the disposal and reuse of treated effluent and biosolids. Council is also required by the *Water Supply (Safety and Reliability) Act* and the *Environmental Protection (Water) Policy* (EPP (Water)) to fully assess the effect of trade waste on the sewerage system and the environment before issuing a trade waste approval.

The discharge of trade waste to stormwater drainage is prohibited under the *Local Government Act*. The stormwater system must only be used for the disposal of uncontaminated stormwater runoff. Under the *Environmental Protection Act*, Council is responsible for the investigation and where appropriate legal action against individuals and organisations that pollute waterways or stormwater systems.

Domestic sewage consists mostly of water which, after treatment to reduce biodegradable material, suspended solids and nutrients, can be disposed of in accordance with its environmental authority requirements. Council is actively seeking opportunities to reuse and recycle treated effluent and biosolids.

Trade waste may have an organic strength many times that of domestic sewage and may overload the treatment facility. Trade waste may also contain other substances such as high levels of fats and grease, heavy

metals, organic solvents and chlorinated organic substances which sewerage systems are not designed to treat. These substances may:

- pose a serious risk to the safety and health of sewerage workers;
- damage the infrastructure of the sewerage system;
- inhibit biological processes at the treatment plant;
- accumulate in biosolids, making their reuse difficult or impracticable; or
- pass through the plant untreated resulting in environmental contamination.

To ensure the continued protection of our environment and waterways, Council's policy is to accept, subject to conditions, biodegradable waste into the sewerage system provided that:

- the system is of adequate capacity to effectively collect, transport and treat the waste; and
- all practicable waste minimisation, recycling and reuse options have been applied by the trade waste generator.

Discharge of waste containing substances in amounts liable to be toxic or hazardous to the sewerage system, treatment process, personnel or the environment is prohibited. Council may consider the acceptance of trade waste containing toxic or hazardous substances and non-degradable pollutants to sewer only after the waste has been pre-treated by on site "best practicable treatment" to ensure sewer admission limits are not exceeded.

2. DEFINITIONS

Agreement

See *trade waste agreement*

Arrestor

An apparatus designed to intercept and retain silt, sand, oil, grease, sludge and other substances in a waste discharge.

Council

In this plan a reference to Council means the Rockhampton Regional Council or any person appointed or authorised by the Rockhampton Regional Council to act on behalf of Council as the case may require.

Biosolids

The treated solids (sludge), mainly organic, produced by sewage treatment.

Discharge Factor

The percentage of the water supplied to the property, as measured by the water meter, which is discharged to the sewerage system. The discharge factor includes all domestic, commercial and industrial sewage that enters the sewerage system from a property. Discharge factors may range from 0 to 100% and in exceptional circumstances may be greater than 100% if additional material is added to the waste stream as part of the production process.

Domestic sewage

Faecal matter and urine of human origin and liquid household wastes from water closet pans, sinks, baths, basins and similar fixtures designed for use in private dwellings.

Effluent

The liquid discharged following a sewerage treatment process.

Generator

See *trade waste generator*.

Human wastes

Human faecal substances and urine.

Owner of land

As defined in the Local Government Act.

Permit

See *trade waste permit*.

Premises

A lot as defined in the *Sustainable Planning Act*, or for a lot under the *Body Corporate and Community Management Act* or the *Building Units and Group Titles Act* – the common property for the lot.

Prohibited substances

A substance prescribed in Schedule 1 of the Water Supply (Safety and Reliability) Act.

Regulated waste

Non-domestic waste as mentioned in Schedule 7 of the *Environmental Protection Regulation* (whether or not it has been treated or immobilised) and includes:

- a) for an element – any chemical compound containing the element; and
- b) anything that has contained the waste.

Septage

Refers to the entire contents of a septic tank, including the liquid and sludge.

Sewage

All faecal matter, urine, household and commercial waterborne discharges that contain human waste.

Sewerage or Sewerage System

A sewer, access chamber, vent, engine, pump, structure, machinery, outfall or other work used to receive, store, transport or treat sewage.

Sewer Admission Limits

The upper limits for the quality of trade waste discharge to the sewer (see Appendix 2)

Stormwater Drainage

A drain, channel, pipe, chamber, structure, outfall or other work used to receive, store, transport or treat stormwater.

Trade waste

The waterborne waste from business, trade or manufacturing premises, other than:

- a) waste that is a prohibited substance; or
- b) human waste; or
- c) stormwater.

Trade Waste Agreement (Agreement)

Trade waste approval for the discharge of liquid waste classified as Category 3. It states the terms and conditions to be met by the trade waste generator and the owner with respect to the discharge of trade waste into Council's sewerage system.

Trade waste approval

Written approval by Council for a person to discharge trade waste to Council's sewerage system. See *trade waste agreement* and *trade waste permit*.

Trade waste generator

Any person, owner, occupier, company or body whose activity produces or has the potential to produce trade waste.

Trade Waste Officer

Trade waste officer means a person appropriately delegated by the Rockhampton Regional Council.

Trade Waste Permit (Permit)

Trade waste approval for the discharge of liquid waste classified as Category 1 or 2. It states the terms and conditions to be met by the trade waste generator and the owner with respect to the discharge of trade waste into Council's sewerage system.

3. TRADE WASTE POLICY

Purpose

To provide a liquid waste disposal service for domestic, commercial and industrial waste in accordance with the principles of environmental sustainability and in a manner which safeguards public health and is consistent with Council's responsibilities and obligations under Queensland legislation.

Objectives

- To safeguard public health and the environment.
- To prevent harm or injury to sewerage employees.
- To safeguard the sewerage system against damage, blockage or surcharging.
- To exclude non-biodegradable and potentially harmful substances that may:
 - lead to non-compliance with the conditions of Council's environmental authority issued by DERM;
 - cause the treatment process to fail;
 - render effluent or biosolids unacceptable for reuse or disposal;
 - cause physical damage to infrastructure; or
 - cause any other detriment to the environment.
- To equitably recover the cost of services to commerce and industry including the cost of conveyance, treatment and disposal and, maintenance and repair of damage to the sewerage system.
- To provide operational data on the volume and composition of industrial and commercial effluent to assist in the operation of the sewerage system, the design of augmentations or new sewerage systems, and waste management reporting.
- To encourage waste minimisation and cleaner production, including waste prevention, recycling, and pre-treatment.
- To promote water conservation.
- To assist Council to meet its statutory obligations.

Process

Council aims to achieve these objectives by a process which is transparent, equitable, accountable, consistent with best practice, and responsive to changing community needs and concerns.

Policy instruments

The objectives will be achieved using a combination of policy instruments, including:

- sewer admission limits (acceptable concentration/mass limits for sewerable wastes);
- conditional trade waste approvals (permits and agreements);
- "user pays" pricing;
- effluent improvement programs; and
- prohibition of discharge of substances and/or treatment devices.

4. CONTROL OF TRADE WASTE

A list of legislation relevant to trade waste control and acceptance to sewerage system is given in Appendix 1. This is not a complete listing of all legislation pertaining to the control of trade waste.

It is an offence to discharge trade waste to the sewerage system unless a trade waste approval has been issued by Council under the *Water Supply (Safety and Reliability) Act*. Any person wishing to discharge trade waste to the sewerage system must apply for a trade waste approval (see section 8).

A trade waste approval is the written approval from Council that states the requirements and conditions under which discharge to sewerage system is allowed. Two types of approval are referred to in this plan – a Trade Waste Permit (Permit) for Category 1 and 2 discharges and a Trade Waste Agreement (Agreement) for Category 3 discharges.

It is an offence for a person to discharge waste (including trade waste) other than uncontaminated stormwater to stormwater drainage.

4.1 SUSPENSION OR CANCELLATION OF TRADE WASTE APPROVAL

Grounds and procedures for suspension or cancellation of a trade waste approval are defined in the *Water Supply (Safety and Reliability) Act*.

Terms and conditions of a trade waste approval in respect of any matter occurring before the suspension or cancellation, including the payment of charges owing, will continue to have force and effect after the suspension or cancellation of the trade waste approval.

4.2 PENALTIES AND RECOVERY OF COSTS

Council may prosecute any person who commits a breach of the appropriate provisions of the *Water Supply (Safety and Reliability) Act*, *Local Government Act* or the *Environmental Protection Act* and its subordinate legislation, or who refuses or neglects to comply with any direction or requirement by Council pursuant to the above legislation. Penalties are set out in the above legislation, and include substantial fines.

Council may recover costs of repairing the damaged sewerage or stormwater system from a person causing damage to the system by discharging a prohibited substance or acting in a manner contrary to the relevant legislation.

5. SEWER ADMISSION LIMITS

Any waste discharged to Council's sewerage system must comply with the Trade Waste Sewer Admission Limits as set out in Appendix 2 unless otherwise specified in the trade waste approval. These limits are subject to periodic review.

The sewer admission limits, unless otherwise specified in the trade waste approval, are absolute maximums.

The trade waste stream and domestic sewage stream should, wherever practicable, discharge separately to the sewerage system. Where there is a common sanitary drain, an allowance for the domestic component will be made to estimate the actual trade waste component strength.

Council requires that trade waste generators implement waste minimisation practices and install best practice pre-treatment processes to reduce both the volume and the contaminant load of discharges to the sewerage system.

The dilution of trade waste with water to achieve compliance with the sewer admission limits is prohibited. Council has obligations to avoid sewer overflows and consequently will impose limits on the rate and timing of trade waste discharges.

5.1 EFFLUENT IMPROVEMENT PROGRAMS

For Category 1 and 2 discharges, the installation of a properly sized, approved best practicable pre-treatment device, together with an acceptable maintenance program in accordance with the trade waste approval conditions will be deemed to provide a satisfactory effluent with respect to the Sewer Admission Limits.

Council may, at its discretion, negotiate with a Category 3 trade waste generator to accept discharges to the sewerage system that exceeds any of the Sewer Admission Limits. Additional charges may apply for such parameters.

Where such an agreement is made, Council may require the trade waste generator to undertake an effluent improvement program. This program should include:

- a description of the effluent quantity and quality;
- provision for monitoring and reporting waste quantity and quality;
- an examination of waste prevention and recycling options;
- an examination of options for the conservation of water;
- a program involving the development of waste reduction and pre-treatment aimed at reducing contaminant levels over a period of not more than three years to the prescribed admission limits with an action program including expected outcomes, timelines and milestones; and
- a report for Council, including a summary of achievements and options.

Category 3 trade waste generators will be advised, in writing, if Council requires them to develop an effluent improvement program. If, at the time the trade waste approval falls due for renewal, the holder of the approval has not completed a satisfactory effluent improvement program, the approval holder is required to request in writing from Council an extension of time and provide an explanation as to why the effluent improvement program has not been completed.

Council may issue a new trade waste approval, subject to conditions that:

- a) a satisfactory effluent improvement program be submitted within 60 days; and
- b) the trade waste approval may be varied after submission of the effluent improvement program as necessary to enforce the implementation of the program.

6. DISCHARGE CATEGORIES

All trade waste accepted to the sewerage system will be classified according to the following three categories for the purposes of a trade waste approval and charging.

Parameter	Category 1 low strength / low volume	Category 2 low strength / high volume	Category 3 high strength / any volume
Biochemical Oxygen Demand (BOD ₅), mg/L	< 300	< 300	>300
Chemical Oxygen Demand (COD), mg/L	< 600	< 600	> 600
Suspended Solids, mg/L	< 300	< 300	> 300
Total Kjeldahl Nitrogen, mg/L N	< 80	< 80	> 80
Total Phosphorus, mg/L P	< 15	< 15	> 15
Volume, kL/annum	< 250	> 250	Any volume
Trade waste approval	Permit	Permit	Agreement
Charges	Annual Charge (see section 7.1.1)	<ul style="list-style-type: none"> • Quantity based charge (see section 7.1.1) • Minimum charge applies 	<ul style="list-style-type: none"> • Quantity/ Quality charge on total annual load (see section 7.1.1) • Minimum charge applies

Acceptance of waste under any category is conditional on the discharge meeting Council's Sewer Admission Limits (Appendix 2) unless otherwise specified in the trade waste approval.

It is the responsibility of the trade waste generator to install, operate and maintain best practicable pre-treatment devices or processes to ensure sewer admission limits are not exceeded.

In the event of a significant change in the strength or volume of a waste approved under Category 1 or Category 2, the waste will be treated as a Category 3 waste for the purposes of charging and monitoring.

7. TRADE WASTE CHARGES AND FEES

Trade waste fees are levied under sections 92 and 97 of the *Local Government Act*. Trade Waste Charges and associated fees will be as contained within Council's Fees and Charges as set by Council resolution.

Trade waste charges and fees as applicable from time to time are listed in the Schedule of Fees and Charges on the FRW website (www.frw.com.au) and are also available from Council's Customer Service Centre on request.

7.1 TRADE WASTE CHARGES

Trade waste is divided into three categories for charging purposes (section 6). Charges cover the cost of treatment and recurring administration and overhead costs associated with trade waste control.

Accounts for trade waste discharged to sewer will be:

- a) forwarded annually for Category 1;
- b) forwarded quarterly for Category 2 and Category 3;
- c) if not paid within 30 days, thereafter bear interest at such rate per centum per annum as will be fixed by the Council; and
- d) recoverable as a debt to Council.

7.1.1 GENERAL TRADE WASTE CHARGES

Charges are based on the actual quality and quantity of discharge for the period, not on figures described in the trade waste approval.

Where there is no flow monitoring device in place, measurement of flow will be inferred from other information including pump run hours. An agreed factor will be defined in each case to take in to account the specifics of the infrastructure at individual sites in order to calculate the flow measurement.

Charges will be determined as follows:

Category 1:

- An annual charge to cover the cost of administration, compliance inspections and overhead costs associated with trade waste control will apply.

Category 2:

- A quantity charge on the total annual volume of trade waste discharged to the sewer to be calculated as follows:

Calculating Trade Waste Fees (including BOD)

$$VR + \text{BOD Rate} = C$$

Where:

$$VR = Q \times a$$

$$\text{BOD Rate} = ((Q \times \text{BOD}) / 1000) \times \text{BOD Charge}$$

VR = Volumetric Rate

Q = Volume (Quarterly Consumption)

a = Current Fees and Charges Rate for Volumetric Rate

BOD = Self-assessed by Permit holder

BOD Charge = Current Fees and Charges BOD Rate

C = Charged amount

Calculating Trade Waste Fees (excluding BOD)

$$VR = Q \times a = C$$

Where

VR = Volumetric Rate

Q = Volume (Quarterly Consumption)

a = Current Fees and Charges Rate for Volumetric Rate

C = Charged amount

- A minimum charge will be established and listed in the Schedule of Fees and Charges on the FRW website (www.frw.com.au) and are also available from Council's Customer Service Centre on request.

Category 3:

- A quantity and quality charge on the total annual discharge of trade waste to the sewer to be calculated as follows:

Calculating Trade Waste Fees (including BOD)

$$VR + \text{BOD Rate} = C$$

Where:

$$VR = Q \times a$$

$$\text{BOD Rate} = ((Q \times \text{BOD}) / 1000) \times \text{BOD Charge}$$

VR = Volumetric Rate

Q = Volume (Quarterly Consumption)

a = Current Fees and Charges Rate for Volumetric Rate

BOD = Self-assessed by Permit holder

BOD Charge = Current Fees and Charges BOD Rate

C = Charged amount

Calculating Trade Waste Fees (excluding BOD)

$$VR = Q \times a = C$$

Where

VR = Volumetric Rate

Q = Volume (Quarterly Consumption)

a = Current Fees and Charges Rate for Volumetric Rate

C = Charged amount

- A minimum charge will be established and listed in the Schedule of Fees and Charges on the FRW website (www.frw.com.au) and are also available from Council' Customer Service Centre on request.

7.1.2 ADDITIONAL CHARGES FOR OVER LIMIT DISCHARGE (PENALTY CHARGE)

This penalty charge applies:

- a) Where Council agrees to accept to sewerage, discharge which has properties in excess of the Sewer Admission Limits and these conditions of acceptance are defined in the trade waste approval.
- b) Where a trade waste generator continually discharges to sewerage system in excess of the limits defined in the trade waste approval or the Sewer Admission Limits (Appendix 2) without approval to exceed the limits.

This penalty charge will apply to each non-complying parameter in addition to the general charges under section 7.1.1.

The formula for calculation is:

$$\text{Charge} = (\text{actual/approved}) \times d \times \text{charge rate (\$/kg)} \times \text{kg pollutant}$$

Where

- d is a constant to be determined by Council;
- the minimum ratio for actual/approved (as it refers to any volume or concentration) is 1.0; and
- approved means the sewer admission limit value or other negotiated value defined in the trade waste approval.

The period of the charge will be the time period, based on the sampling frequency, between the identification of the exceedance and the rectification of that exceedance. The type and frequency of sampling will be specified in the Trade Waste Permit or Agreement.

7.1.3 EQUIVALENT ARRESTOR CHARGES

This charge applies where an existing waste stream requires the installation of an arrestor to provide best practice pre-treatment for Category 1 or Category 2 discharges, but site-specific conditions do not allow for appropriate devices to be installed.

In addition to the normal Category 1 or Category 2 charges, a charge equal to the average cost paid by other trade waste generators of similar discharge type and quantity, to have arrestors regularly cleaned, will apply.

7.2 TRADE WASTE FEES

7.2.1 INSPECTION AND ANALYSIS FEES

The trade waste charges in all categories allow for compliance inspections and auditing analyses conducted by Council. Where additional inspections and laboratory analyses are required because of non-compliance with trade waste approval conditions, full costs will be recovered from the trade waste generator who is the holder of the approval.

The cost of inspection is as listed in the Schedule of Fees and Charges on the FRW website (www.frw.com.au) and are also available from Council's Customer Service Centre on request.

7.2.2 APPLICATION FEES

Applications for approval to discharge trade waste must be accompanied by the prescribed application fee.

7.2.3 SEPTIC TANK AND OTHER LIQUID WASTE FEES

Licensed bulk waste transporters and other persons disposing of septic tank, portable toilet or other approved liquid waste to the sewer or sewerage treatment plant under approved conditions will be charged on a calculated volume basis (\$/kL) which takes account of both the volume and concentration of the waste.

8. APPLICATION AND RENEWAL PROCEDURES

8.1 APPLICATION PROCEDURE

Any person wishing to discharge trade waste to sewerage system must make written application for an approval to discharge. Applicants should contact Council's Customer Service Centre for information on trade waste applications.

Applications should be lodged prior to commencement of trading. Examples of appropriate times for lodging applications may include:

- during the processing of a building application for new premises or extensions intended for industrial and/or commercial usage;
- change in tenancy of such premises;
- change of ownership of such premises;
- shop fit-outs of such premises;
- during the processing of an application to strata title such premises;
- existing premises where trade waste is generated and no trade waste approval has been issued; or
- where a change in process technology occurs.

Liquid waste disposal contractors wishing to discharge septic tank, portable toilet waste or other approved holding tank or liquid waste to the sewer or sewerage treatment plant must be licensed and must apply for an approval.

An application form and advice on how to complete the form may be obtained in person from:

- Council's Customer Service Centres in Gracemere, Mt Morgan, Rockhampton or Yeppoon;
- The website: www.frw.com.au; or
- can be forwarded on request by telephoning 1300 225 577, or by email request to admin@frw.com.au.

Failure to provide all required information will result in delays in approvals.

Applications for approval to discharge Category 3 waste are subject to an Agreement being negotiated and must be accompanied by the application fee.

Applications should include details of the proposed method of pre-treatment to be used to ensure discharge meets sewer admission limits. One (1) copy of treatment plans should be forwarded with the application.

Any plumbing and drainage work associated with installing any treatment process must be in accordance with the *Plumbing and Drainage Act*, the *Standard Plumbing and Drainage Regulation*, the National Plumbing and Drainage Codes (AS/NZS 3500) and the approved sewerage drainage plan for the premises. The plumbing and drainage work must be carried out by a licensed plumber and drainer.

Applicants are referred to Minimum Pre-Treatment Requirements for Trade Waste Generating Processes Guideline (Appendix 3) for further guidance.

Where a discharge is deemed to be unacceptable, an approval will **not** be issued and alternative arrangements for disposal will have to be made. Detailed advice on treatment and disposal options for unacceptable discharge should be sought from appropriately qualified private consultants.

Where a trade waste generator is found to be discharging to Council's sewerage system without approval, Council will respond in accordance with approved procedures.

8.2 RENEWAL PROCEDURE

Council will issue a renewal notice not less than four (4) weeks prior to the expiry of a trade waste approval.

A review of trade waste discharge will be undertaken during the renewal. Where details have changed and/or discharge quantity or quality have changed to the point of category, the renewal will be treated as a new application and new application fees will apply.

A renewal must be properly made, failure to provide all required information will result in delays in renewal approval.

Where a trade waste generator fails to renew their application by the due date, Council will respond in accordance with approved procedures.

9. PERMITS AND AGREEMENTS

9.1 PERMITS

A trade waste generator producing waste assessed as suitable for sewer discharge and classified as Category 1 or Category 2 may be issued with a written trade waste approval in the form of a Permit which will remain in force for the specified period unless cancelled sooner.

Permits are not transferable.

The Permit states the terms and conditions which the trade waste generator must comply with in order to discharge trade waste to Council's sewerage system. These include, but are not limited to:

- expiry/renewal date;
- the location of the premises and nature of the occupancy;
- the type and composition of trade waste that may be discharged;
- a statement that the quality of waste will comply with Council's sewer admission limits as specified in Appendix 2 of the Trade Waste Environmental Management Plan (or attached to the permit) and details of any allowed variations;
- the quantity of trade waste that may be discharged;
- the rate of discharge, including maximum rate of discharge;
- the time when trade waste may be discharged;
- the period for which trade waste may be discharged;
- the method for estimating or measuring discharge volume;
- provisions for measuring and sampling discharge (including type and frequency of sampling) prior to entry to sewer;
- details of any pre-treatment required;
- conditions for maintenance of and removal of waste from pre-treatment equipment including the frequency of cleaning and nominated waste transporter;

- records to be kept concerning the cleaning and maintenance of pre-treatment equipment; and
- reporting requirements related to the above.

9.2 AGREEMENTS

A trade waste generator producing waste assessed as suitable for sewer discharge and classified as Category 3 may be issued with a written trade waste approval in the form of an Agreement. The Agreement will remain in force for the specified period unless terminated by either party in accordance with the Trade Waste Environmental Management Plan.

Agreements are not transferable.

The Agreement states the terms and conditions which the trade waste generator must comply with, in order to discharge trade waste to Council's sewerage system. These include but are not limited to:

- expiry/renewal date;
- the location of the premises and nature of the occupancy;
- the type and composition of trade waste that may be discharged;
- a statement that the quality of waste will comply with Council's sewer admission limits as specified in Appendix 2 of the Trade Waste Environmental Management Plan (or attached to the permit) and details of any allowed variations;
- the quantity of trade waste that may be discharged;
- the rate of discharge, including maximum rate of discharge;
- the time when trade waste may be discharged;
- the period for which trade waste may be discharged;
- the method for estimating or measuring discharge volume;
- provisions for measuring and sampling discharge (including type and frequency of sampling) prior to entry to sewer;
- details of any pre-treatment required;
- conditions for maintenance of and removal of waste from pre-treatment equipment including the frequency of cleaning and nominated waste transporter;
- records to be kept concerning the cleaning and maintenance of pre-treatment equipment; and
- reporting requirements related to the above.

10. OBLIGATIONS

Both Council and the trade waste generator have legal obligations and obligations under the trade waste approval. Key obligations are highlighted below.

10.1 TRADE WASTE GENERATORS

The trade waste generator is responsible for requesting approval to discharge trade waste to the sewerage system and to comply with relevant legislation, approval conditions and this Trade Waste Environmental Management Plan.

Once Council approves the discharge of trade waste into the sewerage system, the trade waste generator is responsible for installing, operating and maintaining best practice pre-treatment devices and processes to reduce the volume and the contaminant load of wastes discharged to sewer.

The trade waste generator must advise Council of any change to the quality and/or quantity of trade waste generated.

Upon request, the trade waste generator must supply the following documents:

- trade waste approval;
- record of maintenance;
- disposal docket;
- MSDS documents; and
- any other relevant documents and notices.

10.2 COUNCIL

Where unauthorised discharge of trade waste to the sewerage system is detected, it is Council's responsibility to ensure that the unauthorised discharge is responded to in accordance with Council policy and procedures.

It is Council's responsibility for receiving and processing applications to discharge trade waste to the sewer and where appropriate, issue trade waste approvals and renewals in accordance with adopted procedures.

It is Council's role to monitor trade waste generator(s) compliance with trade waste approval(s), manage trade waste in accordance with Policy and to respond to breaches of approvals as per Council policy and procedures.

Council will communicate changes to policy, procedures and other documentation that may impact on trade waste generators through appropriate communication media.

11. INSPECTION AND MONITORING

It is the responsibility of the trade waste generator to ensure that they comply with the trade waste permit or agreement conditions. For the purpose of monitoring and auditing the conditions of discharge, Council may routinely and randomly inspect all premises occupied by the holder of a trade waste approval.

Inspections may include, but not be limited to, the following:

- Inspection of maintenance records;
- Inspection of sampling and discharge data records (if relevant);
- Check of all chemical storage areas to ensure that they are appropriately bunded and connected to sewer;
- Check to ensure that there are no stormwater connections to the trade waste system or sewerage system;
- Check to ensure that there are no illegal trade waste connections to stormwater or sewer and there is no potential for trade waste discharge to overflow improperly to sewer, stormwater or waterways;
- Check to ensure that pre-treatment facilities are regularly and properly serviced and standby equipment is available where necessary; and
- Assessment of work practices to ensure that they do not result in a breach of the trade waste approval.

11.1 INSPECTION CHAMBERS AND/OR GAUGING FACILITY

Category 3 discharges will be permitted to enter Council's sewerage system through a suitable inspection chamber and/or gauging facility. The inspection chamber and/or gauging facility will be located on the trade waste discharge line in an area accessible at all times to Council, allowing for sampling and/or monitoring equipment to be installed and operated.

A suitable 240 volt power outlet and a standard water supply outlet with a back-flow prevention device, installed in accordance with AS 3500 Part 1 and AS 2845., is required at all gauging facility sites.

For new Category 2 and 3 discharges the trade waste discharge line must be separate from the domestic waste discharge line.

For existing approved facilities retrofitting is not required except where it may be done during any proposed upgrading or alterations.

If commercial or industrial premises generate trade waste but do not discharge trade waste to Council's sewerage system, a suitable inspection point must be installed on the sanitary drain. It must be in an accessible location within the property boundary prior to the Council sewerage system connection. This is to enable checks to be made to ensure that trade waste is not being discharged to sewer.

Arrestor trap installations and other pre-treatment devices on premises discharging Category 1 and 2 discharge must have an inspection opening

provided externally to the building, within the premises, at finished ground level.

12. DETERMINATION OF DISCHARGE QUANTITY

12.1 CATEGORY 1 AND 2

In the absence of an approved trade waste flow meter, the volume of trade waste discharged will be estimated from total metered water consumption, less an allowance for domestic waste based on 136 kL/annum per pedestal and an allowance for water consumed on the property, based on a discharge factor.

Investigations have established a basis for estimating the proportion of water consumption discharged as trade waste by various types of trade and manufacturing processes. This estimated proportion will be used to determine the volume of discharge considered when a permit is issued unless the trade waste generator can provide justification for another volume to be considered.

Category 2 trade waste generators may, and are encouraged to, install an approved flow measurement device.

12.2 CATEGORY 3

The volume of trade waste discharged to the sewerage system must be measured by an approved flow measurement device. This should be located on the trade waste discharge stream, which should be separate from the domestic waste discharge stream.

Where the flow measured includes domestic waste, an allowance as determined by Council per pedestal shall be made.

Trade waste generators exempt from installing a flow measurement device will have the volume of discharge estimated as under section 12.1.

13. DETERMINATION OF DISCHARGE QUALITY

13.1 CATEGORY 1 AND 2

Measurements relating to discharge quality for Category 1 and 2 discharges are required for compliance checks only and in accordance with the Permit. It is the responsibility of the trade waste generator to undertake measurements and analysis and provide the results as detailed in the Trade Waste Permit or upon request.

Where additional inspection and testing is required because of a suspected non-compliance that is later substantiated, the additional costs incurred must be met by the trade waste generator. Council will provide indicative cost estimates to the trade waste generator prior to completion of the testing.

13.2 CATEGORY 3

Measurements relating to discharge quality for Category 3 discharges are required for compliance checks, charging and in accordance with the Agreement.

Council will inspect the premises and collect and analyse samples for overall assessment of compliance with sewer admission limits and agreement conditions as part of its inspection and monitoring program.

Where additional inspection and testing is required because of a suspected non-compliance that is later substantiated, the additional costs incurred must be met by the trade waste generator. Council will provide indicative cost estimates to the generator prior to completion of the testing.

14. SPECIFIC REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL WASTES

14.1 REMOVING REGULATED WASTE FROM PREMISES

Removal of over 250kg of regulated waste in a single load from a premises must only be carried out where the transportation is undertaken on a commercial basis, by waste transporters licensed in accordance with the Environmental Protection Act and the Environmental Protection Regulation and transported, stored, treated or disposed of in accordance with the requirements of the Environmental Protection Regulation Act and the Environmental Protection (Waste Management) Regulation.

No person will discharge or cause to be discharged directly or indirectly to the sewerage system, waste from any waste transport vehicle, without a trade waste approval.

Removing and disposing of septic tank waste, portable toilet waste and holding tank waste will only be done by a licensed waste transporter. Such waste may be disposed of to the sewerage system in accordance with approval conditions.

Waste from grease and oil arrestors, other than treated effluent from approved installations (section 14.2), must not be disposed of to the sewerage system. Such wastes must be disposed of in a manner and/or at a site approved in accordance with requirements of the Environmental Protection Act and the Environmental Protection Regulation and the Environmental Protection (Waste Management) Regulation.

All waste transporters will be required to maintain records as prescribed by Council, to account for all waste collected and disposed of within or outside Council's local government area.

Trade waste charges will apply to all transported liquid and sludge waste approved for discharge to the sewerage system.

14.2 ARRESTOR INSTALLATIONS

Where arrestor installations are required to pre-treat waste before discharge to sewer they must be of a design and capacity approved by Council.

14.2.1 GREASE ARRESTORS

The maximum capacity of an individual grease arrestor will be 5000 litres subject to approval. Where the capacity requirement for premises is greater than 5000 litres, additional arrestors will be used, with each arrestor to be a discrete installation separately treating a defined waste stream.

Where possible, multiples of smaller sized grease arrestors are recommended.

Where it is intended that several trade waste generators share the use of a grease arrestor, the following information is required to be clearly tabled on the plan submitted with the application for approval:

- the size of the arrestor;
- details of the loading to be discharged by each trade waste generator; and
- the names of the businesses and shop number(s) sharing the arrestor.

Grease arrestors must be located so as to allow appropriate access for inspection, pump out and cleaning. Where practicable, a hose cock with suitable backflow prevention is to be provided for cleaning. The location must be approved by Council prior to installation.

All grease arrestors will be fitted with full length and width opening, gas tight covers and frames.

The use of solvents, enzymes, mutant or natural bacterial cultures, odour control agents or pesticides in grease arrestors is prohibited unless specifically approved by Council. Conditional approval may be given to allow the trade waste generator to demonstrate to Council that the product to be used does not adversely impact on the sewerage system or the environment.

Maintenance and cleaning of grease arrestors must be carried out on a regular basis in accordance with conditions of the trade waste approval by a waste transporter licensed under the Environmental Protection Act and the Environmental Protection Regulation.

In a situation where a grease arrestor is required for pre-treatment but cannot be installed because of specific site constraints an equivalent arrestor charge will apply.

14.2.2 MINERAL OIL ARRESTORS

Appropriately sized mineral (petroleum) oil arrestors for the treatment of oily discharge will be approved in most circumstances. Acceptable methods include:

- coalescing plate separators;
- membrane technology;
- dissolved air flotation (DAF);
- chemical precipitation;
- hydrocyclones;
- triple stage interceptors; and
- other apparatus /methods.

Each application will be assessed on the nature of the oily discharge to be treated, the proposed treatment method and site location.

Subject to recommendations by the manufacturers of plate separators, “Quick Break Detergents” may be used with plate separation units.

Maintenance and cleaning of mineral oil arrestors must be carried out on a regular basis in accordance with conditions of the trade waste approval. Removal of oily discharge must be carried out by a waste transporter licensed under the *Environmental Protection Act* and the *Environmental Protection Regulation*.

14.2.3 OTHER ARRESTOR APPLICATIONS

Arrestor installations may be used for other trade waste treatment applications such as:

- silt separation;
- oil and grease (non petroleum);
- cooling;
- neutralisation; and
- other specific applications approved by Council.

Each application will be assessed on the nature of the discharge to be treated, the proposed treatment method and site location.

Maintenance and cleaning of arrestors must be carried out on a regular basis in accordance with conditions of the trade waste approval by a waste transporter licensed under the *Environmental Protection Act* and the *Environmental Protection Regulation*.

14.3 ENZYMES / BIOLOGICAL ADDITIVES

14.3.1 ENZYME AND BACTERIAL CULTURES

Enzyme and mutant or natural bacterial cultures may be permitted for use in certain biological pre-treatment systems by way of specific application to Council.

Applicants will need to demonstrate to Council that the product to be used does not adversely impact on the sewerage system or the environment.

14.3.2 GENETICALLY MODIFIED ORGANISMS (GMOs)

Any person wishing to discharge commercial products containing genetically modified organisms to sewerage must first obtain approval for release to coastal and inland waters from the Office of the Gene Technology Regulator, Canberra. Council may then grant approval for discharge to the sewerage system.

Laboratories and other facilities which culture, package or transport GMOs should have in place sufficient procedures and pre-treatment equipment to ensure that no live GMOs are discharged to the sewerage system.

14.4 FOOD WASTE DISPOSAL UNITS

Food waste disposal units (garbage grinders / sink-to-sewer disposal units) may be approved for non-domestic use by specific application to the Council. Where installation is approved, the annual charge shall be based on motor power for Category 1 and 2 approvals.

14.5 COMMERCIAL SWIMMING POOLS / ORNAMENTAL PONDS

Filter backwash water and water from commercial and public swimming pools and ornamental ponds may not be discharged to sewer without approval through the issue of a trade waste approval. Trade waste charges in accordance with the discharge category will apply.

14.6 MEDICAL, CLINICAL, VETERINARY AND INFECTIOUS WASTES

Clinical and related waste should be managed in accordance with the requirements of the Environmental Protection (Waste Management) Regulation.

Solid wastes from any hospital, clinic, office or surgery of a medical or veterinary facility or laboratory, convalescent or nursing home or health transport facility including, but not limited to, hypodermic needles, syringes, instruments, utensils, swabs, dressings, bandages, or any paper or plastic item of a disposable nature, or any portions of human or animal anatomy, shall not be discharged to the sewer.

Infectious or hazardous liquid wastes deemed to pose a threat to public health and safety must not be discharged to the sewer without approval from Council. Such wastes will require treatment to render them non-infectious or non-hazardous prior to discharge. When approved for discharge, trade waste charges will apply.

14.7 CONTAINMENT OF TOXIC / HAZARDOUS SUBSTANCES

Any potentially toxic or hazardous substances must be stored in banded areas where leaks, spillage, or overflows cannot be drained by gravity or by any automated mechanical means to the sewerage system or the stormwater drainage system.

Banding of toxic or hazardous substances must meet recommendations of applicable best practice guidelines, standards, or codes of practice.

14.8 DISCHARGE OF LIQUID WASTES FROM VESSELS, VEHICLES AND AIRCRAFT

14.8.1 VESSELS

Depending on the quality, the discharge of certain galley and toilet wastes from vessels may be permitted via approved "pump out" facilities at ports and marinas. The operator of such facilities must hold an approval for discharge to the sewerage system.

Charges will apply.

The discharge of untreated bilge water to the sewer is prohibited.

14.8.2 BUSES, AIRCRAFT, RECREATIONAL VEHICLES

The discharge of toilet waste from buses, aircraft or recreational vehicles may be permitted at approved discharge locations. The owner of the premises on which such facilities are located must hold an approval for discharge to sewerage and discharge must be in accordance with the approval conditions.

Charges will apply.

14.9 LANDFILL LEACHATE & DISPOSAL FACILITY WASTEWATER

Leachate from landfill sites and effluent from waste treatment/disposal facilities constitutes a trade waste and must not be discharged to sewer without approval through the issue of a trade waste approval.

Charges in accordance with the discharge category classification will apply.

14.10 DISCHARGE FROM OPEN AREAS

The discharge of rainwater and stormwater to the sewerage system is prohibited.

The ingress of surface water from a potentially contaminated open area to sewerage can cause severe operational problems for Council. However, there may be circumstances when it is environmentally beneficial to accept these wastes to the sewer under strict controls.

The discharge to sewer from any potentially contaminated open area that is raised or banded may be considered, provided the quality and quantity requirements of this plan are met.

Applicants should note that an open area approval is not an alternative to the appropriate management of polluted areas such as roofing or other methods to keep water away from the open area. Applicants must demonstrate to Council that all appropriate measures to keep runoff water away from the potentially contaminated open area have been taken.

A trade waste approval is required to discharge such waste.

All applications for sewer discharge from open areas must have controls incorporated in the design that will, in the opinion of Council ensure that:

- all contaminated liquid waste is pumped to sewer at a rate acceptable to Council;
- all discharge to sewer ceases automatically after a predetermined level of rainfall volume (mm) and/or intensity (mm/hour) to be set by Council;
- the "first flush" volume is collected and segregated during wet weather with additional runoff directed to the stormwater system. Applicants should seek advice from Council on the required "first flush" volume to be collected;
- the "first flush" volume collected is pumped to sewer, after any necessary pre-treatment, no sooner than one (1) hour after the rain stops; and
- a suitable device for the determination of sewer discharge flow and volume to be installed.

Charges in accordance with the discharge category classification will apply.

15. DISCRETIONARY POWER

Notwithstanding the provisions of this plan, due to the complexity of many industrial wastes and the need to protect Council's sewerage system, employees, and the environment, acceptance of any given trade waste to sewer will always be at the discretion of Council.

16. IMPLEMENTATION

This plan will become effective from the date adopted by Council. Businesses commencing after the plan being adopted will be required to fully comply with the policy from their date of commencement.

Businesses that generate trade waste, operating prior to the adoption of this plan, will be required to comply as per approved Council policies and procedures.

17. RECORDS AND REPORTS

Council will capture and record details of quality and quantity of trade waste discharge from each trade waste generator and report annually on the implementation of its Trade Waste Environmental Management Plan to DERM.

APPENDIX 1

SELECTED LEGISLATION AND STANDARDS RELEVANT TO TRADE WASTE

Water Supply (Safety and Reliability) Act
Environmental Protection Act
Environmental Protection (Water) Policy
Environmental Protection Regulation
Environmental Protection (Waste Management) Policy
Environmental Protection (Waste Management) Regulation
Local Government Act
Plumbing and Drainage Act
Standard Plumbing and Drainage Regulation
Sustainable Planning Act

AS 3500.1 2003 Plumbing and Drainage - Water Services
AS 2845.3 Water Supply—Backflow Prevention Devices

APPENDIX 2

SEWER ADMISSION LIMITS

The upper limits for the quality of trade waste discharged to the sewer for all categories are set out below.

Schedule I GENERAL LIMITS

Parameter	Concentration - mg/L
Temperature	45°C
pH	6-10
Biochemical Oxygen Demand (BOD5)	600 mg/L
Chemical Oxygen Demand (COD)	1500 mg/L
Total Organic Carbon (TOC)	1200 mg/L
Total Suspended Solids (TSS) #	600 mg/L
Total dissolved solids (TDS) #	10000 mg/L
Total oil/grease	200 mg/L
Gross solids	non faecal gross solids shall have a maximum linear dimension of less than 20 mm and a quiescent settling rate of less than 3 m/hr
Colour	limited such as not to give any discernible colour in treatment works discharge
Odour	not detectable in 1% dilution or causing an odour problem in Council's sewerage system
Chlorine (as Cl ₂)	10 mg/L
Sulphate (as SO ₄ -)#	1500 mg/L
Sulphite (as SO ₃)	15 mg/L
Surfactants - Anionic (MBAS)	500 mg/L
Aluminum (as Al)	100 mg/L
Iron (as total Fe) #	100 mg/L
Ammonia plus ammonium ion (as NH ₃)	100 mg/L
Total Kjeldahl Nitrogen (as N)	150 mg/L
Phosphorus (total P) #	50 mg/L

Council may in some circumstances accept waste containing higher concentrations of these substances. Additional charges for treatment will apply.

Schedule II PROHIBITED DISCHARGES

- Prohibited substances as defined in the *Water Supply (Safety and Reliability) Act*.
- Flammable/explosive substances.
- Radioactive substances except as allowed for under the *Queensland Radioactive Substances Act 1958*.
- Pathological and infectious waste and Cytotoxic waste.
- Genetically modified (engineered) organisms other than as provided for in this Plan.
- Rainwater, stormwater and uncontaminated water.

Schedule III SPECIFIC LIMITS - INORGANIC

Parameter	Concentration
Boron (B)	100 mg/L
Bromine (Br ₂)	10 mg/L
Fluoride (F)	30 mg/L
Cyanide (CN ⁻)	5 mg/L
Sulphide (S ⁻⁻)	5 mg/L

Schedule IV SPECIFIC LIMITS - METALS

Parameter	Maximum Concentration mg/L	Maximum Mass Load g/day ⁺⁺
Arsenic (As)	5	15
Cadmium (Cd)	2	6
Chromium (Total Cr)	10	30
Cobalt (Co)	10	30
Copper (Cu)	10	30
Lead (Pb)	10	30
Manganese (Mn)	100	30
Mercury (Hg)	0.05	0.15
Nickel (Ni)	10	30
Selenium (Se)	5	15
Silver (Ag)	5	15
Tin (Sn)	10	30
Zinc (Zn)	10	30

⁺⁺ Either the concentration or mass load method may be utilised, however once the mass load is exceeded only the concentration is to be used.

Schedule V SPECIFIC LIMITS - ORGANIC

Council may request specific demonstrable evidence based on degradability and toxicity concerning substances listed below.

Parameter	Concentration mg/L
Formaldehyde (HCHO)	50
Phenolic compounds (as Phenol)	100
Pentachlorophenol	5
Petroleum hydrocarbons	30
Halogenated Aliphatic hydrocarbons	5
Halogenated Aromatic Hydrocarbons (HAH)	0.002
- Polychlorinated biphenyls (PCB)	0.002
- Polybrominated biphenyls (PBB)	0.002
Polynuclear Aromatic Hydrocarbons (PAH)	5
Pesticides	
- General (insecticides/ herbicides/ fungicides)	1
- Organophosphates	0.1
- Organochlorines	
Aldrin	0.001
Chlordane	0.006
DDT	0.003
Dieldrin	0.001
Heptachlor	0.003
Lindane	0.1

Schedule VI OTHER

Any substance not listed in the above tables is a prohibited discharge and may not be discharged without prior approval of Council. Council may request specific demonstrable evidence based on degradability and toxicity for any substance when assessing acceptance to the sewerage system.

APPENDIX 3

MINIMUM PRE-TREATMENT REQUIREMENTS FOR TRADE WASTE GENERATING PROCESSES GUIDE

This information has been provided as an indication of minimum pre-treatment requirements that may be required, however you are strongly advised to seek advice from a consulting engineer or ensure strict compliance with guidelines provided by the manufacturer of the arresting device or similar installation.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Abattoir		Trade Waste Consultant Recommended
Adhesives/Latex Manufacture		Trade Waste Consultant Recommended
Auto Dismantling	Oil, Petroleum, Hydrocarbons, Metals, Suspended Solids, Grease	Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer.
Bakery (Retail) – Hot Bread, Cakes. (No pies or sausage rolls cooked on site)	BOD, Suspended Solids, Grease	Dry floor sweeping before washing, basket/bucket trap/arrestor if floor wastes in food preparation area. Written declaration required that no meat products are/will be made.
Bakery (Retail) – Pies, Sausage Rolls (Cooked on site)	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation. ¹
Boarding House/Hostel Kitchen	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		will be related to size of operation.¹
Boiler Blowdown	Total Dissolved Solids, Metals, High Temperature	Cooling pit/tank to reduce wastewater temperature to less than 38°C. If volume of the cooling pit/tank is less than three times the maximum blowdown volume, cooling calculations are to be provided by the applicant/consultant.
Butcher – Retail	BOD, Suspended Solids, Grease	All drainage from sinks and floor wastes to pass through a basket/bucket trap/arrestor. Grease trap 1000L minimum capacity. Grease trap size will be related to size of operation.¹
Butcher – Wholesale (cutting and dismantling pork and poultry)	BOD, Suspended Solids, Grease	Sweep up solids prior to wet cleaning. 3000L grease trap. Basket/bucket trap/arrestor if floor wastes in meat cutting and storage areas.
Butcher – Wholesale (cutting and dismantling not pork or poultry)	BOD, Suspended Solids, Grease	Sweep up solids prior to wet cleaning. 2000L grease trap. Basket/bucket trap/arrestor if floor wastes in meat cutting and storage areas.
Café/Canteen/Cafeteria Hot food cooked and served	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Car Body Repairs		See Panel Beating
Car Detailing	Oil, Grease, Suspended Solids	Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum size 1kL/hour. Consultants/Equipment

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to the Trade Waste Officer.
Carpet Cleaning – Industrial		Trade Waste Consultant Recommended
Chemical Factory		Trade Waste Consultant Recommended
Chicken (BBQ/Charcoal) Cooking on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Chicken (fresh) retail only, with cutting and preparation of fresh meat	BOD, Suspended Solids, Grease	All drainage from sinks and floor wastes to pass through a basket/bucket trap/arrestor. Grease trap 1000L minimum capacity. Grease trap size will be related to size of operation.¹
Coffee Shop/Sandwich Shop No cooking on site	Suspended Solids	Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Written declaration that no hot food is/will be prepared or served.
Coffee Shop Food cooked on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Commercial Kitchen/Caterer	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		operation.¹ If volume of wastewater exceeds 16kL/day a consultant is recommended.
Community Hall Kitchens Food cooked on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Confectionery		Trade Waste Consultant Recommended
Cooling Tower Bleed Off No treatment chemicals containing chromium to be used		Beneficial re-use should be considered. No pre-treatment. Discharge rate to be limited to suit sewer capacity.
Crafts/Hobbies Less than 200L per day	Suspended Solids	No pre-treatment
Crafts (eg clubs, clay, pottery, gem stones, jewellery) 200L to 1000L/day	Suspended Solids	Plaster Arrestor
Crafts (secondary schools, cottage industries, clay pottery, gem stones, jewellery) in excess of 1000L/day	Suspended Solids	1000L General Purpose Pit
Dairy Products including milk, butter, cheese, yoghurt, ice-cream		Trade Waste Consultant Recommended
Day Care Centre With food cooked and served on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Day Care Centre No hot food prepared or served		Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Delicatessen Food cooked on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation. ¹
Delicatessen – no meat cooked on site. No hot food prepared or served.		Written declaration that no food is/will be prepared or served. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas.
Dental Surgery dental chairs, Plaster casts X-rays	Suspended Solids, Amalgam	Amalgam separator built into cuspidor by manufacturer. Plaster Arrestor See Photographic
Dental Technician Plaster casts X-rays	Suspended Solids	Plaster Arrestor See Photographic
Dessert Restaurants		See Restaurants
Doctor's Surgery Plaster casts X-rays		Plaster Arrestor See Photographic
Doughnuts – cooking	Grease	Grease trap 1000L minimum capacity. All floor wastes to drain through the grease trap. Grease trap size will be related to size of operation. ¹
Dry Cleaning		No application required unless boiler blowdown and/or washing machines on site. Any floor drain must be protected by bunding to prevent any dry cleaning fluid entering the sewer.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Engine/Gearbox Reconditioning, Parts Washing	Lead, Kerosene, Oil, Grease, Suspended Solids	Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer. Acid cracking, dissolved air flotation, pH correction, pH monitoring, flow measurement, trade waste sampling facility may be required. Trade Waste Consultant Recommended
Equipment Hire Company	Kerosene, Suspended Solids, Oil, Grease	Gross solids settlement, hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer.
Fast Food Outlets (McDonalds/KFC/Pizza Hut/Dominos/Hungry Jacks)	BOD, Suspended Solids, Grease	Grease trap minimum size 1500L. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Fast Photo Processing (mini lab with wash water for film and paper processors)		See Photographic
Fast Photo Processing		See Photographic

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
(mini lab, waterless film and paper processors)		
Fish – fresh (retail) No cooking on site	Suspended Solids (eg scales and fish gut)	All drainage from sinks and floor wastes to pass through a basket/bucket trap/arrestor.
Fish Shop Cooking on site	Suspended Solids (eg scales)	All drainage from sinks and floor wastes to pass through a basket/bucket trap/arrestor. Grease trap 1000L minimum capacity. Grease trap size will be related to size of operation.¹
Fruit and Vegetable market (retail)	Suspended Solids	Basket/bucket trap/arrestor if floor wastes in food preparation area.
Function Centre	BOD, Suspended Solids, Grease	See Restaurants
Funeral Parlour With food cooked and served on site	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Funeral Parlour No hot food prepared or served		No pre-treatment. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas.
Garbage Can Cleaning Hotels/restaurants/units	BOD, Suspended Solids, Grease	Fixed screen over floor waste. Wastewater to pass via grease trap (if installed)
Glass Cutting and Grinding (Including windscreens)	Suspended Solids	Re-use of wastewater should be considered. A solid settlement pit/tank, maximum of 2 hours retention at maximum flow rate. Cleaning of pit/tank to be carried out before thickness of settled material exceeds 200mm.
Graphic Arts		See Photographic

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Hairdressing Salon	Minor	No pre-treatment. Avoid discharge though grease trap.
Hotel (with counter lunches or restaurant)	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Ice Cream Parlour	Grease	No pre-treatment (pre-wipe utensils with paper towels before washing up)
Ice Cream Parlour (with hot food take away)	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Kennels	Suspended Solids	Screens installed at open drains for gross solids removal. Minimum size 1000L general purpose pit/tank (solids settlement pit/tank).
Laboratory (School)	Chemicals	1000L Balancing Tank/Pit.
Laboratory (other) (including Hospital, University)	Chemicals	To be assessed, after details of operation (including reagents used) are supplied.
Laundry (coin operated) (eg Laundrette, Laundromat)	Suspended Solids (lint), High temperature	Lint screens 1mm mesh (washing machine internal screens acceptable). Cooling pit if temperature exceeds 38°C.
Laundry (Commercial/Industrial)		Trade Waste Consultant Recommended
Laundry (Self-contained) (Boarding House/Hostel/Motel/Hotel)	Suspended Solids (lint), High temperature	Lint screens 1mm mesh (washing machine internal screens acceptable). Cooling pit if temperature exceeds 38°C.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Lawn Mower Repairs	Oil, Grease, Grass Solids	Gross solids removal plus hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer.
Medical Centre Plaster cast area Dental work X-ray	Suspended Solids	Plaster Arrestor See Dental Surgery See Photographic
Mechanical Workshop	Oil, Grease, Kerosene, Solids, Petroleum, Hydrocarbons	Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer.
Motel Kitchen/Restaurant	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Municipal Pool	Suspended Solids, Chlorine	No pre-treatment If a kiosk is on the site, see Take Away Food.
Nightclub	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation. ¹
Nursing Home Kitchen	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation. ¹
Oil Refinery		Trade Waste Consultant Recommended
Open Areas Contaminated Area		Trade Waste Consultant Recommended
Optical Factory (grinding of glass and plastic)	Suspended Solids	Minimum size 1000L general purpose pit/tank (solids settlement pit/tank). Cleaning frequency to be determined to ensure that sludge does not occupy more than a third of pit depth or that thickness of scum does not exceed 80mm.
Optical Services (Retail)	Suspended Solids	No pre-treatment
Panel Beating Spray Painting	Suspended Solids, Grease, Oil	Established premises may use an existing 1000L general purpose pit, providing it is in a satisfactory condition. For a new operation on the site, a hydrocyclone or a triple interceptor (TI) 1kL/hour minimum.
Photographic processing & developing	Silver, Ammonia, Thiosulphate, Sulphite	Silver rich solutions must either be secured for off-site disposal, or pass through a silver recovery unit prior to discharge to sewer.
Pizza Cooking Takeaway/Home Delivery	BOD, Suspended Solids, Grease	Grease trap 1000L minimum capacity.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
No seats – (bakehouse)		Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Potato Peeling (within commercial food preparation area)	BOD, Suspended Solids	Peeling machine to have built in screen in place. Wastewater to pass through a basket/bucket trap/arrestor and the grease trap servicing the kitchen area.
Poultry Abattoir		Trade Waste Consultant Recommended
Printing Presensitised photopolymer printing plate		See Photographic
Radiator Repair	Suspended Solids pH Toxic Metals	pH adjustment to 9-10 prior to solids removal (settling and filtration) and pH adjustment to 7-10 before discharge to sewer. Floor must be bunded to prevent spillage draining to sewer.
Restaurants	BOD Suspended Solids Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Sandwich Bar/Salad Bar/Coffee Lounge No cooking		See Coffee Shop
Sandwich Bar/Salad Bar/Coffee Lounge with hot food cooking/eat in or take-away		See Coffee Shop (hot food cooked and served)
Sea Foods (wholesale) (no hot food cooking)	Suspended Solids	Oyster shucking – general purpose pit, 1000L minimum capacity. Basket/bucket trap/arrestor

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		for fish filleting.
School Home Science Laboratory	BOD Suspended Solids Grease Chemicals	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹ See Laboratory (School)
School Canteen No Cooking		Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas.
School Canteen Cooking	BOD Suspended Solids Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Screen Printing Photographic Stencil Development Stencil Cleaning Stencil Stripping	Silver, Ammonia, Thiosulphate, Sulphite Suspended Solids Suspended Solids, Flammable, Solvents, Chlorinated Solvents Suspended Solids	See Photographic Settling tank/pit No discharge to sewer, surplus ink scraped off for re-use, solvent is filtered and re-used. Settling tank/pit. Minimum size to equal the actual volume from 1 hours of washing. Cleaning schedule required.
Service Station (with mechanical workshop)	Oil, Grease, Petroluem, Hydrocarbons	Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour. Consultants/Equipment Suppliers must provide

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		their sizing calculations and a recommended Maintenance Schedule for the customer to present to Trade Waste Officer.
Service Station Covered forecourt only (no mechanical workshop)	Oil, Grease, Flammables	Covered forecourt discharge/run off is generally permitted – liaise with your Trade Waste Officer. Dry sweeping to be adopted.
Shopping Centre (including food preparation)	BOD Suspended Solids Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Smallgoods Manufacture		Trade Waste Consultant Recommended
Stone Working	Fine Solids	Solids settlement pit/tank.
Supermarket	BOD Suspended Solids Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Swimming Pool		See Municipal Pool
Takeaway Food Outlets (Fish & Chips, Hot Chicken)	BOD Suspended Solids Grease	Grease trap 1000L minimum capacity. Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Grease trap size will be related to size of operation.¹
Takeaway Food No hot food	BOD Suspended Solids Grease	Basket/bucket trap/arrestor if floor wastes in food preparation and handling areas. Written declaration required that no hot food is/will be prepared at the premises.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
<p>Vegetable Cleaning</p> <p>Vegetable Peeling</p>	<p>BOD Suspended Solids</p>	<p>Basket/bucket trap/arrestor, solids settlement pit (wholesale premises), curved screen, proprietary settler, pH adjustment, flow measurement, wastewater sampling facility.</p> <p>Trade Waste Consultant Recommended</p>
<p>Vehicle Washing (Roofed) Including machinery part, etc.</p>	<p>Suspended Solids Oil Grease</p>	<p>Wash area roofed and bunded to exclude rainwater, but include washwater. Basket/bucket trap/arrestor to screen out gross solids. Minimum size 1000L general purpose pit/tank (solids settlement pit/tank) or hydrocyclone or triple interceptor (TI) sized according to the influent flow rate, with an oil collection container and sludge withdrawal system, all within a roofed and bunded area. TI minimum size 1kL/hour. Overflow to sewer only from final compartment of pit/tank.</p>
<p>Vehicle Washing (Open Areas, un-roofed) Including machinery part, etc.</p> <p>NB: Open Areas are not considered as an alternative to roofing</p>	<p>Suspended Solids, Oil, Grease, Rainwater</p>	<p>Basket/bucket trap/arrestor to screen out gross solids. Minimum size 1000L general purpose pit/tank (solids settlement pit/tank) or Hydrocyclone or triple interceptor (TI) sized according to the influent flow rate. TI minimum 1kL/hour.</p> <p>Consultants/Equipment Suppliers must provide their sizing calculations and a recommended Maintenance Schedule for the customer to present to</p>

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
		Trade Waste Officer. Area must be roofed if likely to be used during wet weather.
Veterinary Clinics	Suspended Solids	Basket/bucket trap/arrestor.
Veterinary X-ray		See Photographic

¹All non-residential premises engaged in the cooking and preparation of foodstuffs, are required to install and maintain an adequately sized grease trap. A minimum size of 1000L is required and a minimum 1 hour retention time at maximum flow.

Where possible it would be preferred for total grease trap capacity requirements to be met by at least two grease traps. A guide to the sizing of a grease trap is as follows:

Canteens, Cafeterias, Kitchens, Restaurants, etc Grease Trap Capacity

Discharge up to 1,100 litres/day, typically up to 69 seats	1000 Litres
Discharge up to 3,200 litres/day, typically 70-199 seats	1500 Litres
Discharge up to 6,400 litres/day, typically 200-399 seats	2000 Litres
Discharge up to 9,600 litres/day, typically 400-599 seats	3000 Litres
Discharge up to 12,800 litres/day, typically 600-799 seats	4000 Litres
Discharge up to 16,000 litres/day, typically 800-1000 seats	5000 Litres

Shopping Complex

60% of the sum of the capacities specified for all food outlets.