

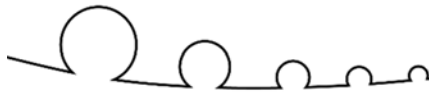


WasteWater - Trade Waste Guideline

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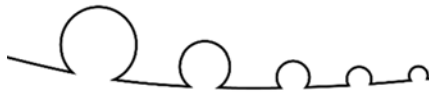
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Scope

This guideline has been developed to provide information for business and industry on trade waste management methodology and requirements. It is applicable across Redland City Council (Council).

Purpose

The purpose of this document is to ensure that the management of commercial and industrial wastewater discharged into the sewerage system is in accordance with the principles of environmental sustainability, and is in a manner which safeguards public health and employee safety, and is consistent with Council's legal responsibilities and obligations.

Definitions

Term	Definition
Act	Act means the <i>Water Supply (Safety & Reliability) Act 2008</i> .
Additional load	A waste discharge that exceeds the Sewer Admission Limits Agreement - see "Trade waste agreement".
Act	Act means the <i>Water Supply (Safety & Reliability) Act 2008</i> .
Additional load	A waste discharge that exceeds the Sewer Admission Limits Agreement - see "Trade waste agreement".
Allowance	A factor that is determined by Council and which is subject to change when required.
Approval / Approved	Means approved by Council.
Arrestor waste	Refer "Regulated waste".
Arrestor	An apparatus designed to intercept and retain silt, sand, oil, grease, sludge and other substances in a waste discharge.
BCCMA	<i>Body Corporate and Community Management Act 1997</i>
Biosolids	The treated solids (sludge), mainly organic, produced by sewage treatment.
BOD	Biochemical oxygen demand. Test to determine oxygen requirement for biochemical degradation of organic and inorganic material.
BUGTA	<i>Building Units and Group Titles Act 1980</i>
Cleaner production	Methods used to remove pollutants before they can enter the trade waste stream. For example, pre cleaning plates with paper towels before washing.
COD	Chemical oxygen demand. Test to determine organic and inorganic material that is subject to oxidation by a strong chemical oxidant.
Council	Redland City Council. In this guideline a reference to Council means any person appointed or authorised by Council to act on behalf of Council as the case may require.

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Term	Definition
Domestic sewage	The liquid or liquid borne waste discharged to sewer from a toilet, shower, sink, bath, or similar fixtures designed for use in private dwellings.
Effluent	The liquid discharged following a wastewater treatment process.
FFOG	Food particles, fats, oil and grease
FOG	Fat, oil and grease
Generator charge	A utility charge for the cost to Council of the administration of the trade waste service and the inspection and testing of premises.
Generator identification number	On application by a person on the approved form, Council assigns a generator identification number.
Grease trap waste	Refer "Regulated waste".
Grease trap	Refer "Arrestor".
Human wastes	Human faecal substances and urine.
Inspection chamber	An access constructed in a drainage system to facilitate inspecting, testing or the clearance of obstructions.
Interceptor trap	Refer "Arrestor".
Interceptor waste	Refer "Regulated waste".
Premises	A lot as defined in the <i>Land Title Act 1994</i> .
Prohibited substance	Any object or substance that is not approved by Council, in writing, that is thrown, deposited or discharged into the sewer or an opening, pipe or receptacle connected to sewer, other than domestic sewage.
Regulated waste	Non-domestic waste as detailed in the <i>Environmental Protection Act 1994</i> and related regulations.
Sewage	Household and commercial wastewater that contains, or may contain, faecal, urinary or other 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.
Stormwater	Stormwater as defined in the <i>Environmental Protection Act 1994</i> .
Surfactants	The key ingredient of detergents, soaps, emulsifiers, wetting agents and penetrants. Anionic surfactants react with a chemical called methylene blue to form a blue-chloroform-soluble complex; the intense colour is proportional to concentration.
Trade waste	The water-borne waste from business, trade or manufacturing premises,

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Term	Definition
	other than: waste that is a prohibited substance; or human waste; or Stormwater.
Trade waste approval	Written approval by Council for a person to discharge trade waste to Council's wastewater system. It states the terms and conditions to be met by the property owner and business with respect to the discharge of trade waste into Council's wastewater system.
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 holding appointment as an Authorised Person under the <i>Local Government Act 2009</i> , with responsibilities for trade waste.

Actions and Responsibilities

1. Commitment to trade waste quality management

1.1 Introduction

Under the *Water Supply (Safety and Reliability) Act 2008*, trade waste is defined as: "water-borne waste from business, trade or manufacturing premises, other than –

- waste that is a prohibited substance
- human waste
- stormwater

For the purposes of this guideline, trade waste refers to water-borne waste discharged into sewer.

The options for producers of trade waste are to have it treated at an approved treatment facility, obtain approval from Council to discharge into the sewerage system, or to obtain an environmental authority to treat the waste themselves before discharge to the environment.

Council provides a sewerage system primarily for the transport and treatment of domestic sewage. Payment for this service is collected through wastewater charges on each rateable property. This sewerage 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, additional trade waste charges are applied.

Council is required to meet the conditions of its environmental authority for the disposal and reuse of treated effluent and biosolids. Council is also required by the *Water Supply (Safety & Reliability) Act 2008* to fully assess the effect of trade waste on the sewerage system and the environment before issuing a trade waste approval.

Trade waste may have an organic strength many times that of domestic sewage and may overload the treatment facility. Trade waste may also contain a variety of 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

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- damage the infrastructure of the sewerage system
- inhibit biological processes at the treatment plant
- accumulate in biosolids, making their reuse difficult or impracticable
- pass through the plant untreated resulting in environmental contamination

Council accepts, subject to conditions, trade waste into the sewerage system provided that:

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

1.2 Objectives

This guideline details requirements for the management of trade waste:

- 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
 - cause the treatment process to fail
 - render effluent or biosolids unacceptable for reuse or disposal
 - cause physical damage to infrastructure
 - 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 of waste; and the maintenance of the system.
- to provide operational data on the volume and composition of industrial and commercial effluent to assist the operation and design of the sewerage system, and waste management reporting.
- to encourage waste minimisation and cleaner production.
- to promote water conservation.
- to assist Council meet its statutory obligations.
- to conform with the Australian Sewage Quality Management Guidelines 2012

1.3 Process

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

1.4 Policy instruments

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

- sewer admission limits (acceptable concentration limits for sewerable wastes)
- monitoring and control systems
- charging systems
- non-compliance processes

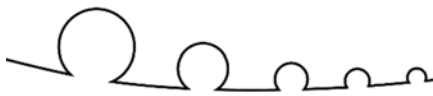
A list of legislation relevant to trade waste control is given in Reference Documents.

2. Assessment of trade waste hazards

2.1 Application and approval process

2.1.1 Preliminary requirements

Under the *Water Supply (Safety and Reliability) Act 2008*,



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- A sewerage service provider may give a person approval (a trade waste approval) to discharge trade waste into the sewerage infrastructure. Refer s.180.
- A sewerage service provider may give a trade waste approval on conditions. Refer s.181.

A trade waste approval is a written approval stating the requirements and conditions under which a discharge is allowed. Trade waste generators are classified according to the waste load imposed on the sewer.

Any plumbing and drainage work associated with trade waste requires a plumbing application to be submitted to Council, and all work must be carried out by a licensed plumber and drainer.

Advice on treatment and disposal options for non-sewerable waste may be obtained from the Queensland Government, licensed liquid waste disposal contractors or private consultants.

2.1.2 Application process

Any person or business wishing to discharge trade waste into sewer must make written application for an approval to discharge. Refer to FS508 Trade Waste Fact Sheet and the Trade waste approval application form. Either the property owner, the business owner, or their representative may submit the application.

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

- during the processing of a plumbing application
- the establishment of a new trade waste business on a property
- purchase of an existing trade waste premises
- where a change in process technology occurs

2.1.3 What businesses are registered

Any business owner or operator who discharges sewage from the business operations into sewer is discharging trade waste and must apply for trade waste approval. Some very low risk businesses may not require formal trade waste approval. If you are unsure whether your business produces trade waste, contact Council's customer service centre.

2.1.4 Separate trade waste businesses

Where several trade waste businesses operate on a property, a separate application must be submitted for each business.

Separate businesses are identified as ones which are operating:

- at separate locations on the property or under separate lease agreements with the property owner; and
- under different business names.

Separate businesses typically have separate staff structures, financial structures and operational activities. However they may have the same business owner.

An area within the premises of one business which is sub-leased to another business is not regarded as a separate trade waste generator. The major lease holder must accept final responsibility for the trade waste activities of the sub-leased area.

2.1.5 Issue of trade waste approval

A trade waste approval is specific to the property and is not transferable. The property owner is the approval holder and is the primary point of contact, with responsibility for ensuring compliance with conditions and payment of charges.

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The full approval document is issued to the property owner. Where possible Council will provide a copy to the business owner, but in any case, the property owner is primarily responsible for providing the information to the business owner. If there are several businesses on a property, only relevant information is provided to each business.

Refer to standard trade waste approval document for standard clauses. These may be varied for particular businesses.

2.2 Risk categories

All trade waste accepted to sewer is classified according to the business type for the purposes of a trade waste approval and charging.

Category 1	
Business type	Small to medium business, either retail or wholesale activity.
Wastewater description	Low risk, typically at or below domestic strength. Some may require pre-treatment.
Charging	Charged at fixed low rate.
Category 2	
Business type	Medium to large business, either retail or wholesale activity.
Wastewater description	Medium risk, above domestic strength without pre-treatment, and with moderate to high risk to Council if pre-treatment fails.
Charging	Charged at fixed moderate rate.
Category 3	
Business type	Generally a manufacturing or industrial activity.
Wastewater description	High risk, where Council has agreed to accept wastewater which is above the sewer acceptance limits.
Charging	Charged according to test results.

Acceptance of any waste is conditional on compliance with the sewer admission limits or unless otherwise approved. It is the responsibility of the trade waste generator to ensure limits are not exceeded.

In the event of any significant change in discharges by a generator, Council may amend the trade waste category.

2.3 Sewer admission limits

Any waste discharged into Council's sewer shall comply at all times with its sewer admission limits, which are based on relevant legislation and standards. These limits are subject to periodic review. Refer Appendix 1.

Where Council agrees to accept trade waste above the sewer admission limits, additional conditions are included in the trade waste approval which may involve the installation of pre-treatment infrastructure, discharge volume limits and additional charges.

2.4 Discharge requirements

Trade waste streams that are not compatible in character may not be combined.

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

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Trade waste generators are encouraged to implement waste minimisation practices and install best practice pre-treatment processes to reduce both the volume and the contaminant load of wastes discharged to sewer.

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 may impose an additional charge or limit for additional discharges to sewer.

2.5 Home businesses

Home businesses are considered to be trade waste dischargers and normal charges apply. They are required to install and maintain pre-treatment in the same way as required in a commercial location.

Home businesses should submit a trade waste application, for inspection and assessment by Council.

2.6 Changes to the use of premises

The owner of premises subject to a trade waste approval shall notify Council in writing within 20 working days of any change to the premises that affects the trade waste approval.

When the owner of premises the subject of the trade waste approval notifies Council of a change to the premises caused by the cessation of business, the owner of the premises shall also give council verification that any pre-treatment apparatus, no longer being used, has been cleaned out and/or serviced.

3. Trade waste risk assessment and control

3.1 Identification tags

Where a business installs a pre-treatment system, flow meter, flow diversion valve or other device which requires maintenance, Council reserves the right to install tags near the device for the purposes of identification and service tracking.

3.2 Genetically modified organisms

The use of genetically modified organisms (GMOs) is regulated under the Commonwealth *Gene Technology Act 2000* and the *Gene Technology (Queensland) Act 2016*.

Any person wishing to discharge commercial products containing GMOs to sewerage must first obtain all required approvals under these Acts. Council may then grant approval to discharge into sewer. 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 sewerage.

3.3 Food waste disposal units

Food waste disposal units which discharge into sewer are not approved for commercial premises.

Where installation has been approved in the past, the business may be required to remove the unit at the next kitchen modification.

3.4 Devices that macerate or pulverise waste

Discharge from devices that macerate or pulverise solid waste, such as used by aged care facilities, is not accepted into sewer.

Where a macerator has previously been approved:

- It may only be used for cellulose bedpan and urine containers. It may not be used for sanitary napkins, placenta, surgical waste, or disposable nappies.
- Council reserves the right to order removal if it is deemed an unacceptable risk to the sewer infrastructure.

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3.5 Food waste digestion systems

Food waste digestion systems which discharge into sewer are not approved, unless they are followed by an advanced treatment system.

3.6 Containment of toxic/hazardous substances

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

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

Accidental spills or discharges into sewer must be immediately reported to Council's emergency number. Refer Trade Waste Fact Sheet.

3.7 Medical, clinical, dental, veterinary and infectious wastes

Clinical and related waste should be managed in accordance with the requirements of the National Guidelines for Waste Management in the Health Care Industry, National Health and Medical Research Council, 1999.

The discharge to sewer of liquid wastes including faeces and body fluids from any health care or health transport facility is permitted subject to approval.

Solid wastes from any health care or health transport facility; such as 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 tissue; shall not be discharged to the sewer.

Infectious or hazardous liquid wastes deemed to pose a threat to public health and safety may not be discharged to the sewer without trade waste approval. Such wastes shall require treatment to render them non-infectious or non-hazardous prior to discharge.

3.8 Enzymes and micro-organisms

Enzyme and mutant or natural bacterial cultures may be permitted for use in certain biological pre-treatment systems. Applicants will need to demonstrate the product does not adversely impact on the sewerage system, the environment.

3.9 Landfill leachate and disposal facility wastewater

Leachate from landfill sites and wastewater from waste treatment or disposal facilities may not be discharged to sewer without trade waste approval.

3.10 Discharge from open areas

3.10.1 Wash Bays

Wash bays in open areas must be roofed and bunded to prevent the ingress of stormwater into sewer.

3.10.2 Contaminated areas

The discharge to sewer from any potentially contaminated open area that is raised or bunded may be considered providing the potential quality and quantity requirements are acceptable. A plan detailing potential discharges and servicing is required to be developed for consideration.

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 too that all appropriate measures to keep runoff water away from the potentially contaminated open area have been taken.

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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 ensure that:

- sewage discharge, overflows or backflow is prevented from entering the stormwater system
- waste discharge point is above flood, overflow relief gully, and finished surface level
- all effluent is pumped to sewer at an approved rate
- all discharge to sewer ceases automatically after a predetermined level of rainfall volume (mm) and/or intensity (mm/hr)
- the "first flush" volume is collected and segregated during wet weather with additional runoff directed to the storm water system. Applicants should seek advice 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 hour after the cessation of rain
- an approved device for the determination of sewer discharge flow and volume is installed
 - An approved maintenance and cleaning program is in place;
 - Work in cleaning the apparatus must be carried out by an approved operator.

3.11 Discharge of liquid wastes from vessels, vehicles and aircraft

3.11.1 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 the facilities must hold a trade waste approval for discharge to sewer.

Any discharge of sewage must be in accordance with the *Transport Operations (Marine Pollution) Act 1995*.

The discharge of untreated bilge water to the sewer is prohibited. Accidental spills and discharges must be immediately reported to Council's emergency number.

3.11.2 Buses, aircraft, recreational vehicles

The discharge of toilet waste from buses, aircraft or recreational vehicles may be permitted at approved discharge locations such as bus or transport depots, terminals, caravan parks. The owner of the premises or facility must hold a trade waste approval and discharge and disposal must be in accordance with the approval conditions. Accidental spills or discharges must be immediately reported to Council's emergency number. Refer Trade Waste Fact Sheet.

3.12 Regulated, arrestor and tankered wastes

Council does not accept wastewater from on-site treatment plants, septic tanks, portable chemical toilets, holding tanks, arrestors or from any liquid waste transport vehicle without a trade waste approval. Advice on the disposal of non-sewerable liquid waste may be obtained from the Queensland Government.

3.13 Pre-treatment requirements for specific generators

The table below shows the pre-treatment requirements for some businesses. Each operation is assessed according to risk, which includes consideration of the discharge quality and volume, relative to Council's sewer admission limits and the effect on the sewerage system and treatment plant.

Major industries are not included here. Any industry not listed should liaise with Council.

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Industry	Discharge	Typical Risk Category	Minimum pre-treatment
Engineering industries			
Automotive businesses discharging to sewer including: Automotive dismantlers; wreckers; mechanical workshop. Service stations; refuelling bay.	Grease, oils, petroleum hydrocarbons, suspended solids, metals, solvents, detergents	1	Minimum 1000L holding pit with dry basket arrestor and minimum 1000L mineral oil arrestor. Units will be sized according to influent flow.
Vehicle wash-bay; car detailing, commercial vehicle washing, equipment washing;	Grease, oils, petroleum hydrocarbons, suspended solids, metals, solvents, detergents	1	Minimum 1000L holding pit with dry basket arrestor and minimum 1000L mineral oil arrestor. Units will be sized according to influent flow.
Heavy duty wash-bay Example Waste depot, heavy plant and equipment washing.	Grease, oils, petroleum hydrocarbons, suspended solids, metals, solvents, detergents	1	Heavy duty solids screen Minimum 1000L silt arrestor Holding tank Mineral oil arrestor
Panel beater; spray painting	Grease, oils, suspended solids	1	Minimum 1000L pit with dry basket arrestor and minimum 1000L mineral oil arrestor. Units will be sized according to influent flow. Discharge from a spray booth area is not permitted. Paint solvents, thinners are not permitted into the sewer.
Radiator repairs	Suspended solids, pH, heavy metals	1	Silt arrestor. Metal removal and pH adjustment may be required before discharge to sewer. * Capture the radiator fluid in a tray or container before removing the radiator from the vehicle. Radiator fluid may not be discharged to sewer. * Floor must be bunded to prevent spillage draining to sewer.
Bin wash	Suspended solids, BOD, grease	1	Dry basket arrestor in floor waste. A minimum 1000L silt arrestor may be required.

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Industry	Discharge	Typical Risk Category	Minimum pre-treatment
Food industries			
Food preparation but with: * no greasy waste; * no onsite cooking; * combined capacity of fixtures are < 250L; * no commercial dishwasher; and * process water used <500L/day. Examples: * Ice cream parlour. * Juice bar.	BOD, suspended solids	1	No pre-treatment required
Food preparation with: * extensive washing of utensils or equipment; or * cooking and baking of food; or * any generation of greasy wastewater. Examples: * doughnut or pizza cooking; * restaurants, food takeaways; * child-care centres.	BOD/COD, grease, suspended solids	2	* Dry basket arrestor for floor waste if installed * Minimum 1000L silt/grease arrestor
Butcher, chicken processing with no onsite cooking	BOD/COD, grease, suspended solids	2	* All drainage from sinks and floor waste to pass through a dry basket arrestor * Dry basket arrestor for floor waste if installed * Minimum 1000L silt/grease arrestor

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Industry	Discharge	Typical Risk Category	Minimum pre-treatment
Fish and shellfish processing with no onsite cooking	BOD/COD, suspended solids	1	* All drainage from sinks and floor waste to pass through a dry basket arrestor * Dry basket arrestor for floor waste if installed * Minimum 1000L silt/grease arrestor
Micro brewery	pH, BOD/COD, suspended solids	1	* Minimum 1000L silt arrestor * possible pH control.
Medical industries			
Dental surgery	Amalgam silver, suspended solids.	1	Standard filters required on spittoons.
Hospital, Nursing home, Aged care	Suspended solids, food waste	2	Plaster arrestor, grease arrestor, silt arrestor where required.
Medical facility preparing plaster products. Examples * Dental prosthesis	Suspended solids, chemicals	1	Plaster arrestor Minimum 1000L silt arrestor may be required.
Optical glass manufacturing	Suspended solids	1	Silt arrestor
Funeral parlour, morgue, autopsy table	Suspended solids	1	Dry basket arrestor in floor waste. Screens at the table drainage outlet.
Animal industries			
Animal wash bay	Chemicals, Suspended solids,	1	Dry basket arrestor
Animal housing	BOD, suspended solids	1	* Minimum 1000L silt arrestor
Textile industries			
Dry cleaning	Dry cleaning fluids/solvents	1	* No pre-treatment required * Dry cleaning fluids must not be discharged to sewer.
Laundromat	Lint, high temperatures	1	* 1mm mesh lint screens internal or external to machines

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Industry	Discharge	Typical Risk Category	Minimum pre-treatment
Commercial laundry	Lint, high temperatures	1	* 1mm mesh lint screens internal or external to machines * Minimum 1000 L cooling pit.
Industries discharging chemicals			
Laboratory (school)	Chemicals	1	1000L dilution tank
Laboratory (commercial)	Chemicals	1	Liaise with Council
Non-digital photographic processing and developing, X-ray processing, or graphic arts Printing Screen printing	Silver, thiosulphate, sulphite, ammonia	1	* Settling tank may be required * Neutralising tank may be required * Metal recovery unit * Flammable solvents must not be discharged to sewer
Swimming pools (municipal and commercial), hydrotherapy installations, ornamental ponds, recreational lakes	High flow rate, corrosion inhibitors, biocides	1	Settling tank may be required. Discharge flow restrictions may apply.
Cooling towers	Biocides, corrosion inhibitors	1	No pre-treatment is required.

Table 1 Trade waste requirements

3.14 Installation of devices

- 3.14.1 Where arrestor installations are required to pre-treat wastewater before discharging to sewer, they must be of an approved design and capacity. Each installation is assessed on the nature and size of the business.
- 3.14.2 A plumbing application must be submitted to Council for the installation of all trade waste fittings and pre-treatment devices. Plans will be assessed by Council plumbing inspectors who may consult with council trade waste officers on specific matters.
- 3.14.3 Each arrestor is to be a discrete installation separately treating a defined waste stream.
- 3.14.4 The owner may be required to provide a condition assessment report, completed by a registered plumber or liquid waste transporter. Typically the first report is required when the device is 10 years old.
- 3.14.5 Trade waste drainage and wastepipes are to be installed using trade waste approved materials. Refer AS/NZS 3500 Plumbing and Drainage.
- 3.14.6 All concrete grease, acid and silt arrestors shall be protected by an internal acid resistant protective coating that is installed:

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- during the manufacture of the arrestor; and
- prior to the delivery and installation of the arrestor; and comprised of:
 - a spray-on protective coating; or
 - an epoxy protective coating; or
 - a liner made from a durable material.

3.14.7 Domestic waste, rain and stormwater must not be directed through the device.

3.15 Passive grease arrestor specifications

Council requirements for the sizing, installation and maintenance of passive grease arrestors are based on the National guideline for Managing Food, Fats, Oil and Grease from food premises, and relevant plumbing standards.

3.15.1 Sizing

- (a) The minimum capacity for a grease arrestor is 1000 litres.
- (b) The maximum capacity of an individual grease arrestor is 5000 litres.
- (c) The grease arrestor is to be sized from fixtures, using a storage factor of 2. Refer Appendix 2.
 - Sizing from seating or meals capacity is not accepted.
 - Sizing from average water consumption may be considered in particular circumstances.

3.15.2 Installation requirements

- (a) Passive grease arrestors must
 - be installed in an accessible position to enable inspection, servicing, and repair;
 - have a gas-tight lid;
 - be fitted with a 100mm inspection outlet as a sample point;
 - be vented in accordance with plumbing regulations;
 - have a hose tap with backflow prevention within 12m of the arrestor.
- (b) The use of solvents, enzymes, mutant or natural bacterial cultures, odour control agents or pesticides in grease arrestors is prohibited unless specifically approved.

3.16 Pre-treatment maintenance

3.16.1 Maintenance and cleaning of devices shall be carried out at the frequency stated in the trade waste approval.

3.16.2 Applications for the extension of the maintenance period may be lodged with Council. The following information is required to assess the request, and Council may collect samples from the device to assess compliance with the Sewer Admission Limits.

- a condition assessment report completed within the last 12 months;
- the size of the device;
- the businesses and shop number(s) discharging to the arrestor;

3.16.3 Where a business closes temporarily or permanently there must be one final clean of the device. Cleaning should re-commence at the required frequency if the business restarts.

3.16.4 Oil Water Separators must be serviced in accordance with the manufacturer's specifications, typically each 3 months, with at least one service per year being done by a qualified external service agent.

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3.17 Liquid waste service agents

A waste transporter must be licensed under the *Environmental Protection Act 1994*.

Any waste transporter or service agent engaged must use Council's electronic tracking system and must be able to provide a regular service report to Council if required. Refer Trade Waste Fact Sheet.

Council reserves the right to obtain information regarding the servicing and maintenance of any device directly from the service company or their representative, and to provide information about current service requirements to the service company.

3.18 Inspection chambers and/or gauging facility

Category 2 waste shall be discharged to the sewerage system via a suitable inspection chamber and/or gauging facility. The inspection chamber and/or gauging facility shall be located on the trade waste discharge line in an area which is accessible at all times to Council's officers thus 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 back-flow prevention device installed within 3 metres of the grease arrestor in accordance with AS3500 Part 1, AS2845.3 and approved at all gauging facility sites.

For new Category 1 and 2 installations, the trade waste discharge line shall be separate from the domestic waste discharge line. For existing installations, retrofitting is not required except where it may be done during any proposed upgrading or alterations to the installation.

Where a commercial or industrial premise generates trade waste but does not discharge trade waste to the sewerage system, suitable inspection access shall be installed on the sanitary drain, in an accessible location, prior to leaving the property and/or connecting into the sewer. This is to enable monitoring of waste discharges.

Arrestor trap installations and other pre-treatment devices on premises discharging Category 1 waste shall have inspection access provided externally to the building, within the premises, at finished ground level.

4. Trade waste monitoring and control points

4.1 Identification of trade waste generators

Council has systems for ensuring that trade waste generators are registered involving:

- Use of trade waste application forms;
- Communication and notifications within Council;
- General property inspections.

4.2 Trade waste inspections

Once registered and approved, for the purpose of monitoring and auditing the conditions of discharge, Council shall routinely and randomly inspect all premises occupied by the approval holder.

Inspections may include:

- A check that categorisation and pre-treatment used is appropriate to the business;
- A check that pre-treatment facilities are in adequate condition and properly serviced, and that standby equipment is available where necessary;
- A check that monitoring of strength and flow is undertaken as required under the trade waste approval;
- A collection of discharge samples for testing;
- A check that work practices are not in breach of the trade waste approval.

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- A dye test. A Council officer may need to ascertain whether specific waste streams or processes are connected to the trade waste pre-treatment system. A fluorescent dye is added to the waste stream and the device examined for evidence of dye.

4.3 Routine compliance monitoring

Council may conduct monitoring to determine compliance with sewer admission limits.

Samples may be taken from the outlet of a pre-treatment device to assess whether it is being serviced correctly, and at the appropriate frequency. This cost is covered by the trade waste generator charge.

5. Management of trade waste incidents and emergencies

5.1 Trade waste incidents

A problem with contaminants in the sewer system or at the sewerage treatment plant may lead to a targeted investigation of related businesses.

Additional inspections may be conducted for the purpose of:

- Identifying unregistered trade waste businesses;
- Ensuring that trade waste businesses have appropriate pre-treatment;
- Checking the state of the wastewater in a passive grease arrestor;
- Checking the condition of the arrestor and its effectiveness;
- Ensuring correct servicing of pre-treatment or other devices.

5.2 Amended trade waste approval

Where it is found that the approval conditions are no longer adequate, Council may issue an amended trade waste approval which will state the new conditions.

5.3 Trade waste approval with conditions

If a property or business is found to be non-compliant with Council's Trade Waste Guideline or with the conditions of the existing approval, Council may, at its discretion, accept the wastewater but may impose an additional requirement. A notice is issued which will include a requirement to rectify the non-compliance, and the date when this corrective action is due. Refer Trade waste fact sheet.

6. Powers and delegations

6.1 Legislated powers

6.1.1 Discharge of trade waste without approval

The Water Supply (Safety & Reliability) Act 2008 prohibits the unauthorised discharge of wastes, other than domestic sewage, into the sewerage system. Under s.193(1) of the Act, it is an offence to discharge trade waste into a sewer without a trade waste approval.

6.1.2 Issue of trade waste approval

As outlined in s.180-181 of the *Water Supply (Safety & Reliability) Act 2008*, Council may issue a trade waste approval to discharge trade waste into the sewerage infrastructure. The approval may include conditions.

6.1.3 Powers of Entry

Under the *Local Government Act 2009*, an authorised person may enter a property:

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- to investigate the unauthorised discharge of trade waste; or
- to inspect a property in order to process a trade waste application; or
- to inspect a property in relation to compliance with a trade waste approval.

6.1.4 Suspension or cancellation of trade waste approval

Council reserves the right to suspend or cancel a trade waste approval as outlined in sections 182-184 of the *Water Supply (Safety & Reliability) Act 2008*, if

- The approval holder has contravened a condition of the approval;
- The approval holder has contravened a provision of the Act;
- The approval is no longer appropriate;
- Urgent action is necessary in the interests of public health or safety.

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, shall continue to have force and effect after the suspension or cancellation of the trade waste approval.

6.1.5 Penalties and recovery of costs

Council may fine or prosecute any person who commits a breach of the *Water Supply (Safety & Reliability) Act 2008* or the *Local Government Act 2009* and its subordinate legislation. Penalties are set out in the above legislation.

Council may recover costs of repairing the damaged sewerage system from anyone causing damage to the sewerage system by discharging unauthorised material.

6.2 Delegations and Appointments

6.2.1 The Service Manager, Group Manager and General Manager have delegation to issue and administer a notice under sections 181-185 of the *Water Supply (Safety and Reliability) Act 2008*.

6.2.2 Each trade waste officer has appointment as an authorised person under the *Local Government Act 2009*, giving powers to conduct trade waste inspections and to investigate offences under the *Water Supply (Safety and Reliability) Act 2008*.

6.2.3 Each trade waste officer has delegation under the *Water Supply (Safety and Reliability) Act 2008* to give a person an entry notice.

7. Trade waste fees and charges

7.1 Trade waste charge policy

Under FIN-017-P Revenue Policy, Council has a policy for the making and recovery of rates and charges prepared in accordance with the *Local Government Act 2009* and related Regulations. Charges are reviewed annually, and charges to be levied for the ensuing financial year will be determined by Council resolution passed before or at the same time as the budget in any financial year. Trade waste charges are listed in Council's annual budget document which is available at www.redland.qld.gov.au.

Trade waste charges are in addition to other wastewater charges. Commercial wastewater charges are based on sewer units derived from the number of toilet pedestals and urinals rated on the property. Trade waste charges are based on the volume and quality entering the sewerage system and treatment plants.

A property becomes subject to trade waste charges effective from the trade waste approval start date.

Accounts for trade waste discharged to sewer are:



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- calculated quarterly and billed to the property owner on the rates notice
- a debt due by the owner of the property
- obligations for payment of charges are in accordance with payment of rates
- recoverable in the same manner as general rates

There are two general charges:

- Trade waste generator charge
- Trade waste discharge treatment charge

As well, trade waste fees may be charged in accordance with Council's debtor management policies.

7.2 Trade waste generator charge

A trade waste generator charge is applied to each trade waste business on a property for recurring administration and overhead costs associated with trade waste control. It is a fixed charge, charged in advance and is the same for each category.

7.3 Trade waste discharge treatment charge

A trade waste discharge treatment charge is applied to each trade waste business on a property to cover the cost of treatment. It is a variable charge, dependant on the quantity and quality of the discharge. There are three categories.

7.3.1 Category 1 trade waste generators

Category 1 dischargers are low risk. They are charged a standard volume charge only, with no additional quality-based charge.

$$C = Q \times k$$

where:

- C is the annual charge (\$)
- Q is the annual discharge volume (kL), and
- k is the unit charge rate (\$/kL). The unit charge, k, incorporates both volume and load costs based on domestic strength sewage, is based on the total cost of providing and maintaining the sewerage system for the total annual wastewater flow to the sewerage plant(s).

7.3.2 Category 2 trade waste generators

Category 2 dischargers are medium risk. They are charged a standard volume charge plus a quality charge calculated from standard concentrations.

Quality charges shall be made for BOD₅ (or alternatively COD), total suspended solids (TSS), total Nitrogen (TN), total Phosphorus (TP), total oil and grease (TOG). The calculation is as follows:

$$C = Q \times a + \frac{Q \times X_{\text{COD}} \times N_{\text{COD}} + Q \times X_{\text{TSS}} \times N_{\text{TSS}} + Q \times X_{\text{TN}} \times N_{\text{TN}} + Q \times X_{\text{TP}} \times N_{\text{TP}} + Q \times X_{\text{TOG}} \times N_{\text{TOG}}}{1000}$$

where:

- C is the total annual charge (\$);
- Q is the total annual discharge volume (kL);
- A is the category 2 unit charge for volume (\$/kL). This is the unit charge for the volume component only and should not be confused with "k" (Category 1) which is a volume-based charge which reflects the total cost of operation and treatment for the sewerage system for both volume and mass load based on domestic strength sewage;

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- X_{COD} , X_{TSS} , etc, are the average concentrations of the pollutants BOD, TSS, etc (mg/L); and
- N_{COD} , N_{TSS} , etc, are the unit charges for the pollutants BOD, TSS, etc (\$/kg).

All Category 2 customers are charged at “deemed-to-comply” parameters except for customers who were already Category 2 before July 2008. It is assumed that Category 2 customers meet sewer admission limits and are not charged over-limit strength.

Parameter	Strength
Chemical oxygen demand (COD), mg/L	1500
Total suspended solids (TSS), mg/L	600
Total oil and grease (TOG), mg/L	200
Total Nitrogen (TN), mg/L N	50
Total Phosphorus (TP), mg/L P	10

Table 2 Standard Category 2 concentrations for charging.

7.3.3 Category 3 Additional charges for over-limit discharge

Category 3 dischargers are high risk. This charge applies:

- where council agrees to accept to sewerage, waste which has properties in excess of the sewer admission limits and the conditions of such acceptance are defined in the trade waste approval; or
- where a trade waste generator discharges waste to sewer in excess of the limits defined in the trade waste approval or the sewer admission limits (Appendix 1) without approval to exceed the limits; or
- where in a specific case of a Category 1 generator that does not have a grease arrestor, an additional charge based on concentrations of pollutants is added to the volume charge of the generator. The period of this charge is subject to approval.

This charge shall apply to each non-complying parameter in addition to the general charges.

The formula for calculation shall be:

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

where

- d is a constant to be determined by Council;
- the minimum ratio for (actual / approved) is 1.0;
- approved means the sewer admission limit value or other negotiated value defined in the trade waste approval;
- actual means the actual quantity or concentration value which has been admitted to the sewer (same units as approved); and
- an example of the charge rate and kg pollutant is shown in the Category 2 charges calculation where N is the charge rate and $Q \times X \div 1000$ is the kg pollutant.

The period of the charge will be the time period, based on the sampling frequency, over which the limits are considered by Council to have been exceeded. Sampling charges are to be borne by the discharger.

7.4 Food Waste Disposal Unit charge

Trade waste generators with food waste disposal units are charged an additional amount based on the combined power of the motor. This charge will apply in addition to general charges.

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Rated power, watts	Charge Where c is the annual food waste disposal unit charge (\$).
< 400	2c
400-700	6c
700-1000	8c
1000-1500	12c
1500-2000	14c
> 2000	16c

Table 3 Food waste disposal unit charges

7.5 Inspection and analysis fees

The trade waste charges in all categories allow for routine inspections and quality compliance analyses. Where additional inspections and laboratory analyses are required because of non-compliance with trade waste approval conditions, full costs will be recovered from the owner of the property.

7.6 Application fee

No application fee applies.

7.7 Measurement of trade waste discharge volume

7.7.1 In most cases the trade waste discharge volume is measured using consumption as measured by the main water meter.

- A factor is applied according to the portion of the trade waste property, such as in community title schemes.
- An allowance is subtracted for toilet pedestals drawing off the meter.
- A discharge factor may be applied to allow for water not discharged to sewer.
- Where the balance from the main water meter consumption must be allocated to several trade waste businesses, this is done proportionately according to the Trade Waste Volume Allocation.

$$Q = \text{MPPM} \times (\text{C-Pd} \times \text{PA}) \times \text{TWDF} \times \text{TWVA}$$

Where

- Q is the total annual discharge volume (kL)
- MPPM is the multiple property portion, meters
- C is the measured water meter consumption
- Pd is the number of toilet pedestals on the property
- PA is the annual pedestal allowance (kL)
- TWDF is the trade waste discharge factor
- TWVA is the trade waste volume allocation

7.7.2 In most cases 100% discharge factor is assumed. Where individual trade waste generators have information that would indicate a departure from these bases, application may be made for reconsideration of the fraction used.

7.7.3 If a property is known to have been affected by a concealed water leak for a particular quarter, with the leak repaired during the quarter, and an application for a concealed leak remission approved, an adjusted water consumption is used. The adjustment factor is calculated using:

- the daily consumption from when the leak was repaired to the next Council reading;

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- if this is not available, the historic daily consumption for the 12 month period preceding the leak.

7.7.4 Water sub-meters

If required for trade waste billing, a private water sub-meter may be required to be fitted. This will be done at the property owners' expense and in a position where it is easily and safely read.

7.7.5 Trade waste discharge meter

In some cases, the volume of trade waste discharged to the sewer shall be measured by an approved flow measurement device installed and calibrated as specified in the approval. This should be located on the trade waste discharge stream, which should be separate from the domestic waste discharge stream.

Where a private meter is found to have been removed, damaged or reading inaccurately, the property owner is to have this meter replaced or repaired at their cost.

Should this meter affect the calculation of a treatment charge, the reading will not be used. Instead the charge will be calculated using the highest of any historical data calculated over the previous 3 years, or to an industry average, whichever is the highest.

7.8 Determination of discharge quality

7.8.1 Determination of discharge treatment charge rate

(a) Requirement for quality measurements

For large high-risk dischargers, an approved self-monitoring system shall be used to collect data to enable the average mass load for the designated charging period to be calculated.

Where pre-treatment is required to meet sewer admission limits for specified parameters, self-monitoring will be required for those parameters, or a suitable surrogate, to confirm satisfactory pre-treatment. Requirements for self-monitoring and auditing shall be specified in the approval.

The holder of the approval shall arrange monitoring and meet all costs.

(b) Use of quality data

All sample analysis results will be assessed after each sampling event. The contaminant mass load for each charge parameter is calculated and compared to sample analysis data collected over the previous 4 account periods. Additional sampling may be required for the current account period.

(c) Application of quality data

- If the contaminant mass load for a charge parameter is less than the rejection limit, the result is included in the charge calculation.
- If the contaminant mass load for a charge parameter is greater than the rejection limit but less than or equal to the exclusion limit, it is not used for the charge calculation but is included in future statistical calculations.
- If the contaminant mass load for a charge parameter is greater than the exclusion limit, it is not used for the charge calculation and is excluded from future statistical calculations.

(d) Definitions

- Rejection limit: 1.5 standard deviations above the mean of the last 4 billing periods.
- Exclusion limit: 3 standard deviations above the mean of the last 4 billing periods.

7.9 Community service obligations

Under FIN-008-P Community Service Obligation Policy, Council may provide discounts on trade waste charges to community groups.

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Application for classification as a concessional property is made under this policy and associated guidelines.

For businesses on concessional properties no trade waste discharge treatment charge applies. Payment of the trade waste generator charge is still required.

Regular use of a commercial kitchen (4 times or more per week) is deemed to be commercial use and all trade waste charges apply whether or not the property is classified as concessional.

7.10 Refunds on cessation of discharge

If a holder of an approval ceases to discharge between billing periods, a refund on the generator charge may be provided on a pro rata basis. Should the owner of the premises fail to notify Council in advance of the termination of a business, the closure date is the date on which Council learnt of the change.

7.11 Remissions on trade waste charges

7.11.1 Upon application Council may provide remissions on trade waste discharge treatment charges.

- Either the property owner or the business owner may submit the application.
- The application may be made by writing a letter to Council or by completing the appropriate Council form, and with the provision of all supporting information and documents. The application is forwarded to the trade waste officer for initial assessment.

7.11.2 A remission may be allowed where main water meter consumption is used to estimate trade waste volume and where a water leak occurs on the property such that the leaking water does not enter the sewer system or does not classify as trade waste. Evidence must be provided about the nature of the leak and that it has been fixed.

7.11.3 Where the water consumption volume must be estimated due to a leak:

- After the leak is repaired 2 meter readings 2 weeks apart are taken in order to confirm the leak has been repaired successfully. The first reading is taken immediately after the leak is repaired.

7.11.4 The remission calculation is based on the difference between the actual water consumption and the estimated water consumption. The adjustment factor is calculated using:

- the daily consumption for the 12 months preceding the leak.
- If a quarter is not representative, a shorter period may be used.

7.11.5 The remission will be applied as an adjustment to the customer's property account.

7.11.6 The maximum period for which the remission is calculated is 2 reading periods.

7.11.7 Application for the remission must be made within 4 months of the issue of the charge.

7.11.8 A register will be kept of all charge remissions given.

7.11.9 Situations outside this policy may be considered on a case-by-case basis.

8. Documentation and Reporting

8.1 Trade waste database

8.1.1 Council maintains a database of trade waste information including information about:

- trade waste properties and businesses
- trade waste pre-treatment devices and servicing
- trade waste customer enquiries and communications
- trade waste non-compliance actions

8.1.2 Council maintains records of

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- all trade waste inspections and communications
- Information about trade waste discharge volumes and quality parameters

8.2 Reporting

A summary of trade waste activities is included in Council's monthly reporting.

9. Implementation and review

This guideline will become effective immediately and will be implemented over a phase-in period of 12 months or by an agreed date for existing businesses. New businesses will be required to fully comply with the policy from their date of commencement.

Reference Documents

This guideline has been developed to support the administration of WST-001-P Trade Waste Policy.

Legislation and Standards

- *Queensland Water Supply (Safety & Reliability) Act 2008*
- *Water Supply (Safety & Reliability) Regulation 2011*
- *Queensland Environmental Protection Act 1994*
- *Environmental Protection Regulation 2008*
- *Environmental Protection (Water) Policy 2009*
- Queensland Local Government Act 2009
- *Queensland Plumbing and Drainage Act 2018*
- *Plumbing and Drainage Regulation 2019*
- *Queensland Plumbing and Wastewater Code 2011*
- *Radiation Safety Act 1999*
- *Radiation Safety Regulation 2010*
- *Gene Technology (Queensland) Act 2016*
- *Federal Gene Technology Act 2000*
- Australian Sewage Quality Management Guidelines, Water Services Association of Australia, 2012.
- National Guideline for Managing Food, Fats, Oils & Grease (FFOG) from food premises, Water Services Association of Australia, October 2018.
- National Guidelines for Waste Management in the Health Care Industry, National Health and Medical Research Council, 1999.
- *Transport Operations (Marine Pollution) Act 1995*

Associated Documents

Council trade Waste fact sheets and forms

- FS508 Trade waste fact sheet
- FS509 Trade waste non-compliance
- FS510 Trade waste service agents
- FS675 Correct disposal of oil and greases
- B9151 A guide to trade waste
- Application for approval to discharge trade waste into sewer form
- Trade waste water leak application form

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Other Council documents

- FIN-017-P Revenue Policy ([A209892](#))
- FIN-008-P Community Service Obligation Policy ([A196670](#))

Document Control

Only an ELT member (of the relevant Department/Group) can approve amendments to this document. Any requests to change the content of this document must be forwarded to relevant Service Manager(s). Approved documents must be submitted to the Corporate Meetings and Registers Team for registration.

Appendix 1 Trade waste sewer admission limits

Redland City Council has set Sewer Admission Limits based on the Water Services Association of Australia's Australian Sewage Quality Management Guidelines. Trade waste customers must ensure that the concentrations of substances in their sewage discharges are within these limits at all times, unless an exception is negotiated as part of the trade waste approval process.

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

A1.1 Sewage collection system limits

The assessment of these contaminants is based on:

- Sewer worker / public health and safety
- Headspace gas flammability
- Asset degradation and nuisance odour

Substance	Lower Limit	Upper Limit	Unit
Acetaldehyde		5	mg/L
Acetone		400	mg/L
Ammonia		100	mg/L
Benzene		<0.001	mg/L
Chloroform		0.1	mg/L
Dimethyl sulphide		1	mg/L
Ethylbenzene		1	mg/L
Sulphide - dissolved		1	mg/L
Flammable / explosive substances		5% LEL	
Formaldehyde		30	mg/L
Gross solids – non-faecal Quiescent Settling Rate QSV		13 mm QSV <3m/hr	
Halogenated volatile organic compounds - total		1	mg/L
Methyl mercaptan		1	mg/L
Methyl Ethyl Ketone (MEK)		100	mg/L
Petroleum hydrocarbons C6-C9		5	mg/L
Propionaldehyde		5	mg/L
pH	6	10	pH units
Radioactive isotopes (<i>specific to utility</i>)		Refer below	
Sulphite		15	mg/L
Temperature		38	°C

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Substance	Lower Limit	Upper Limit	Unit
Toluene		0.5	mg/L
Trichloroethylene		0.1	mg/L
Xylene (o)		1	mg/L

Table 4 Sewage collection system limits

A1.2 Sewage treatment system limits

The assessment of these contaminants is based on:

- Sewage treatment process inhibition
- Contamination of sewage by-products
- Contamination of waterways and nuisance odour

Substance	Lower Limit	Upper Limit	Unit
Aluminium		100	mg/L
Arsenic		0.5	mg/L
Barium		5	mg/L
Biochemical oxygen demand (<i>specific to utility</i>)		600	mg/L
Boron		5	mg/L
Bromine – free		5	mg/L
Cadmium		1	mg/L
Chemical oxygen demand (<i>specific to utility</i>)		1500	mg/L
Chlorine – Free		10	mg/L
Chromium (total)		3	mg/L
Cobalt		5	mg/L
Colour		100	Pt-Co
Copper		5	mg/L
Cyanide – weak and dissociable		1	mg/L
Fluoride		30	mg/L
Genetically engineered / modified organisms (<i>specific to utility</i>)		Prohibited	mg/L
Iron		10	mg/L
Lead		1	mg/L
Lithium		10	mg/L
Manganese		10	mg/L
Methylene blue active substances		100	mg/L
Mercury		0.01	mg/L
Molybdenum		5	mg/L
Non-ionic surfactants		100	mg/L
Nickel		1	mg/L
Oil and grease – non hydrocarbon (TOG – TPH)		200	mg/L
Organic nitrogen (TKN-Ammonia)		150	mg/L
Organoarsenic compounds		0.1	mg/L
Organochlorine pesticides		Prohibited	mg/L
Organophosphate pesticides		Prohibited	mg/L
Petroleum hydrocarbons – total		30	mg/L
Phenolic compounds – non-halogenated		1	mg/L

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Substance	Lower Limit	Upper Limit	Unit
Phosphorous – total (<i>specific to utility</i>)		50	mg/L
Polybrominated biphenyls (PBBs)		Prohibited	mg/L
Polychlorinated biphenyls (PCBs)		Prohibited	mg/L
Polynuclear aromatic hydrocarbons		5	mg/L
Selenium		1	mg/L
Silver		50	mg/L
Sulphate as S		2000	mg/L
Suspended solids (<i>specific to utility</i>)		600	mg/L
Temperature		38	°C
Tin		10	mg/L
Total dissolved solids (TDS)		5000	mg/L
Zinc		1	mg/L

Table 5 Sewage treatment system limits

A1.3 Legislated prohibited substances

Prohibited substances are defined in Schedule 1 of the *Water Supply (Safety and Reliability) Act 2008*.

Item	Substance
1	A solid or viscous substance in a quantity, or of a size, that can obstruct sewerage, or interfere with the operation of sewerage.
2	A flammable or explosive solid, liquid or gaseous substance, including petrol.
3	Floodwater, rainwater, roof water, stormwater, subsoil water and surface water.
4	A substance that, given its quantity, is capable alone, or by interaction with another substance discharged into sewerage, of – (a) inhibiting or interfering with a sewage treatment process; or (b) causing damage or a hazard to sewerage; or (c) causing a hazard for humans or animals; or (d) creating a public nuisance; or (e) creating a hazard in waters into which it is discharged; or (f) contaminating the environment in places where effluent or sludge from a sewage treatment plant is discharged or reused.
5	A substance at a temperature of more than – (a) if the local government has approved a maximum temperature for the substance—the approved maximum temperature; or (b) if paragraph (a) does not apply — 38°C.

Table 6 Legislated prohibited substances

A1.4 Radioactive substances

Radioactive substances are prohibited except as allowed under the *Radiation Safety Act 1999* and the *Radiation Safety Regulation 2010*.

A1.5 Pathological and infectious substances

Clinical and infectious waste is prohibited except as allowed under the National Guidelines for Waste Management in the Health Care Industry, National Health and Medical Research Council, 1999.

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Appendix 2 Grease arrestor sizing table

A2.1 Calculation of required grease arrestor size

- Assess all stores discharging into the grease arrestor.
- Record the fittings in each store discharging into the grease arrestor:
- Calculate the contribution of each fitting.

$$\text{Contribution of fitting} = \text{No of fittings} \times \text{Minimum Clear Volume (L)}$$

- For each store, calculate the total Minimum Clear volume by calculating the total of the contributions.
- For each store, calculate the required capacity by multiplying by the storage factor.
- Calculate the total required capacity by summing the required capacity for all stores.

A2.2 Sizing spreadsheet

Contact Council to obtain a spreadsheet for the calculations, or to obtain information about other fittings.

Arrestor number:		Store 1		Store 2	
Storage Factor		2		2	
Fixtures / Fittings	Min Clear Volume L	No of fittings	Min Clear Volume L	No of fittings	Min Clear Volume L
WSAA Fittings					
Domestic dishwasher (under bench)	30				
Commercial dishwasher (door)	120				
Commercial dishwasher (conveyor)	300				
Single sink, standard size	75				
Double sink, standard size	150				
Pot sink	150				
Floor waste, per hose	50				
Cleaner's sink	50				
Hand basin	50				
Traditional wok (per burner)	200				
Waterless wok (per burner)	20				
Combi oven	150				
Bain Marie, plumbed to sewer	50				
Kettle, plumbed to sewer	100				
Bratt Pan, plumbed to sewer	100				
Noodle/pasta cooker, plumbed to sewer	100				
Min Clear Volume for store L					
Required Capacity for store L					
Total Required Capacity L					

Table 1 Grease arrestor sizing table

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Version Information

Version number	Date	Key Changes
4	April 2014	<ul style="list-style-type: none"> Amendment of categories, home businesses and grease arrestors; Definition of powers and responsibilities; Inclusion of Appendices 3, 4 and 5.
5	November 2015	<ul style="list-style-type: none"> Registration as guideline document. Required delegations and appointments. Definition of approval holder and business. Approval of macerators with conditions. Pre-treatment requirements. Community service organisations and remissions. Use of quality data for charging. Legislated powers.
6	January 2016	<ul style="list-style-type: none"> Amendment of process for approval of charges, concessions and remissions.
7	June 2017	<ul style="list-style-type: none"> Amendment of section and legislation references.
8	June 2020	<ul style="list-style-type: none"> Amend title to align with internal document system. Update of chapters and content to align with national guidelines, including an update to Appendix 1 Sewer Acceptance Limits. Removal of advice on practices other than trade waste, such as environmental practices. Ch.2 clarification of risk assessment processes. Ch.2 Clarification of practices for home businesses. Ch.3 Inclusion of right to install tags. Ch.3 Update of practices for various waste disposal products. Ch.3 Update of practices for regulated and other wastes. Ch.3 Update of table for pre-treatment requirements. Ch.3 Update of grease arrestor sizing to align with national guidelines, including an update of Appendix 2. Ch.3 Inclusion of conditions relating to liquid waste service agents. Ch.7 Clarification of charge categories. Ch.7 Removal of septic tank fees. Ch.7 Amendment of remission procedures. Removal of unnecessary appendices.