Cook Shire COUNCIL

TRADE WASTE PLAN

Table of Contents

1. INTRODUCTION

Purpose

The purpose of this plan is to ensure the effective management of commercial and industrial trade waste discharge to the Cook Shire Council (CSC) sewerage infrastructure. The details outlined in this plan will assist generators to apply best practice principles of trade waste treatment in a manner that safeguards public health, employee safety and the environment, consistent with Council's responsibilities and obligations under relevant Queensland Legislation.

Scope

This plan has been developed to provide information to business and industry on trade waste management methodology and requirements. This plan is applicable across the CSC area.

References

See Appendix A for Relevant Legislation

Definitions

Agreement
See trade waste agreement

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

Biosolids
Organic solids, derived from sewage treatment processes, appropriate for reuse.

CSC
In this plan, a reference to CSC means Cook Shire Council.

Effluent
The liquid discharged following a wastewater treatment process.

Generator
See *trade waste generator*

Human wastes
Human faecal substances and urine.

Licensed Waste handler
Means a generator, transporter or receiver of regulated, trackable waste.

Lot—as defined in Planning Act 2016 Schedule 2
Lot means—
(a) A lot under the Land Title Act; or
(b) A separate, distinct parcel of land for which an interest is recorded in a register under the Land Act; or
(c) Common property for a community titles scheme under the *Body Corporate and Community Act 1997*; or
(d) a lot or common property to which the *Building Units and Group Titles Act 1980* continues to apply; or
(e) A community or precinct thoroughfare under the *Mixed Use Development Act 1993*; or
(f) A primary or secondary thoroughfare under the *Integrated Resort Development Act 1987* or the *Sanctuary Cove Resort Act 1985*.

Occupier
As defined in the Local Government Act.

Permit
See trade waste permit.

PIN
Penalty infringement notices (PINs) are issued under the *State Penalties Enforcement Act 1999* (Qld) ('the SPE Act') and impose "on-the-spot" fines. A PIN may only be issued for an offence that is prescribed as an infringement notice offence under the SPE Regulation.

Premises as defined in the Planning Act 2016 Schedule 2
premises means—
(a) a building or other structure; or
(b) land, whether or not a building or other structure is on the land.

Prohibited substances
A substance prescribed in Schedule 1 of the *Water Supply (Safety and Reliability) Act 200*8.

Regulated waste
(1) *Regulated waste* is waste that is defined in the *Environmental Protection Act 1994*
(a) Is commercial or industrial waste, whether or not it has been immobilised or treated; and
(b) is of a type, or contains a constituent of a type, mentioned in schedule 7, part 1 of the EP Act 1994.
(2) Waste prescribed under subsection (1) includes—
(a) For an element—any chemical compound containing the element; and
(b) Anything that contains residues of the waste.
(3) However, waste is not regulated waste if it is mentioned in schedule 7, part 2 of the EP Act 1994.

Sewage – As defined in the Water Supply (Safety and Reliability) Act 2008 Schedule 3
Means household and commercial wastewater that contains, or may contain, faecal, urinary or other human waste**.**

Sewerage or Sewerage System
Infrastructure used to receive, transport and treat sewage or effluent, and consisting of some or all of the following:
a) sewers;
b) access chambers;
c) vents;
d) engines;
e) pumps;
f) structures;
g) machinery;
h) outfalls;
i) Works not mentioned in (a) to (h).

Stormwater Drainage
Means infrastructure used to receive, store, transport or treat stormwater, and consisting of some or all of the following
(a) drains;
(b) channels;
(c) pipes;
(d) chambers;
(e) structures;
(f) outfalls;
(g) Works not mentioned in paragraphs (a) to (f).

Trade waste
The water-borne 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 trade waste classified as Category 3. It states the terms and conditions to be met by the approval holder with respect to the discharge of trade waste into CSC's sewerage system.

Trade waste approval (Approval)
Written approval by CSC for a person to discharge trade waste to CSC's sewerage system. Trade waste approval for the discharge of trade 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 CSC's sewerage system.

Trade waste generator (Generator)
Any person, owner, occupier, company or body whose activity produces or has the potential to produce trade waste.

Trade Waste Officer / Inspector
Trade waste Officer / Inspector means a person holding appointment as a trade waste Officer / Inspector of CSC.

Trade waste permit (Permit)
Equivalent term used for "trade waste approval" referenced in the previous Trade Waste Environmental Plan versions and any associated documentation.

2. TRADE WASTE PLAN

2.1 CONTROL OF TRADE WASTE

A list of legislation relevant to trade waste control and acceptance to sewer is outlined in Appendix A. Appendix A may not be a complete list of all legislation relating to the control of trade waste.

Any person requiring to discharge trade waste to sewerage must first apply for a trade waste approval (section 8).

A trade waste approval is the written approval from CSC that states the requirements and conditions under which discharge to sewer is permitted. Two types of approvals are referred to in this plan – a trade waste approval for Category 1 and 2 wastes and a trade waste agreement for Category 3 wastes.

It is an offence to discharge trade waste to the sewer unless a trade waste approval has been issued by CSC, under the *Water Supply (Safety and Reliability) Act 200*8.

It is an offence for a person to discharge waste (including trade waste) other than uncontaminated storm water to storm water drainage (*Local Government Act 2009*).

2.2 SUSPENSION OR CANCELLATION OF TRADE WASTE APPROVAL

Grounds and procedures for suspension or cancellation of a trade waste approval are defined in section 183 -184 of the *Water Supply (Safety and Reliability) Act 200*8.

Terms and conditions of a trade waste approval in respect to 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.

2.3 PENALTIES AND RECOVERY OF COSTS

CSC may prosecute any person who commits a breach of the relevant Acts and Regulations, or who refuses or neglects to comply with any direction or requirement by CSC pursuant to the relevant Acts and Regulations. Penalties are set out in the appropriate Acts and Regulations and include substantial fines.

CSC may recover repair costs from a person causing damage to the sewerage system by discharging unauthorised material, making an unauthorised connection or interfering with infrastructure.

3. APPROVAL OF PRE-TREATMENT DEVICES

All new to the market Pre-treatment Devices must have prior approval from CSC before installation is carried out. Evidence must be provided to CSC with confirmation that three major Queensland sewerage service providers have approved these devices within their jurisdiction.

This evidence must include three out of the four following service providers; Queensland Urban Utilities, Unity Water, Gold Coast City Council and Logan City Council.

If any of these service providers suspends an approval, this suspension will apply to CSC. CSC will not consider any products to be installed for testing purposes.

CSC accepts no responsibility for the efficiency or performance of the infrastructure. By approving the device in no way removes the responsibility for the structural integrity, plumbing compliance and effective installation of the pre-treatment device from the manufacturer, the supplier and the installer of the pre-treatment device.

This assessment does not include an engineering assessment of the structural integrity of the pre-treatment device, its installation or compliance.

4. SEWER ADMISSION LIMITS

Any waste discharged to CSC's sewer must comply with the Trade Waste Sewer Admission Limits as set out in (Schedule 1) 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. CSC 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 wastes discharged to sewer.

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

4.1 EFFLUENT IMPROVEMENT PROGRAMS

For Category 1 and 2 waste, the installation of a properly sized, approved best practice pre-treatment device, together with an acceptable maintenance program in accordance with the trade waste approval conditions will, in most cases, be deemed to provide a satisfactory effluent with respect to the General Limit Parameters (Schedule 1).

CSC may, at its discretion, negotiate with a trade waste generator to accept waste to sewerage that exceeds the Sewer Admission Limit(s) for certain General Limit Parameter(s) (Schedule 1). Additional charges (section 6) may apply for such parameters.

Where such an agreement is made, CSC 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;
- An action program must be provided, including expected outcomes, timelines and milestones and
- A report to CSC, including a summary of achievements and options.

Trade waste generators will be advised in writing if CSC 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 write to CSC requesting an extension of time with reasons.

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

(a) a satisfactory effluent improvement program to be submitted within 14 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.

CSC reserves the right to not grant a trade waste approval if a satisfactory effluent improvement program is not received within the stipulated timeframe.

5. DISCHARGE CATEGORIES

All trade waste accepted to the sewer 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	< 600	< 600	>600
Chemical Oxygen Demand (COD), mg/L	< 1200	< 1200	> 1200
Suspended Solids, mg/L	< 600	< 600	> 600
Total Kjeldahl Nitrogen, mg/L N	< 150	< 150	> 150
Total Phosphorus, mg/L P	< 50	< 50	> 50
Volume, kL/annum	< 500	> 500	Any
Trade waste approval	Approval	Approval	Agreement
Charges	Annual Charge (see section 6)	Quantity based charge (see section 6) Minimum charge applies	Quantity/Quality charge on total annual load (see section 6) Minimum charge applies

Table 1: Discharge Categories and Parameter Limits

Acceptance of trade waste under any category is conditional on the trade waste meeting CSC's Sewer Admission Limits (Schedule 1) unless otherwise specified in the trade waste approval.

It is the responsibility of the trade waste generator to install, operate and maintain pre-treatment devices and/or processes to ensure sewer admission limits as approved 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.

6. TRADE WASTE FEES AND CHARGES

Trade waste fees and charges are levied under Sections 97 (1) and 262 (3)(c) of the *Local Government Act 2009.* Fees and Charges to be levied for the ensuing financial year will be determined by CSC resolution passed before or at the same time as the Budget in any financial year.

6.1 TRADE WASTE CHARGES

Trade waste is divided into three categories for charging purposes (section 5). Charges cover the cost of treatment and recurring administration and overhead costs associated with trade waste control.

Trade Waste Accounts for discharge to sewer will be
a) Charged an Approval fee with an annual renewal fee;
b) for category 2 and category 3, volume charges billed four (4) monthly;
c) a debt due by the generator; and/or
d) recoverable as per Council's Debt Recovery Processes.

6.1.1 CATEGORY 2 AND 3 DETERMINATION OF DISCHARGE QUANTITY AND QUALITY

In the absence of an approved trade waste discharge meter or water meter installed specifically to measure the town water inflow for the trade waste activity, the volume of trade waste discharged shall be estimated from total metered water consumption, less an allowance for domestic waste based on

136kL per annum per pedestal. An allowance for water consumed on the property will be determined based on a discharge percentage.

Investigations have established a basis for estimating the proportion of water consumption discharged as trade waste by various types of trade and manufacturing processes. These will form the basis of the initial percentage applied when an approval is issued. Where there is no percentage available, 100 percent discharge will be assumed (Schedule 4).

Where individual trade waste generators have information that would indicate a departure from these bases, application may be made for reconsideration of the percentage used. Council will consider the installation water meters installed specifically to measure the town water inflow for the trade waste activity if the generator identifies this installation will give a more accurate capture of the trade waste discharge.

High volume Category 2 trade waste generators may, and are encouraged to, install an approved flow measurement device to be calibrated as specified in the Approval conditions.

6.1.2 GENERAL TRADE WASTE CHARGES

Charges are based on the actual quality and quantity of discharge for the period.
Charges will be determined as follows:

Category 1, 2 and 3:

- An annual non-refundable and non-transferable, flat charge to cover the cost of treatment, recurring administration, inspections and overhead costs associated with trade waste control shall apply.

Category 2 and 3:

- Where the water consumed for the property exceeds 1.36 kilolitres per day a quantity charge shall apply.

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

  $C = Qa + Qx_1n_1/1000 + Qx_2n_2 /1000 +$..... where
  - C is the total annual charge ($),
  - Q is the total annual discharge volume (kL),
  - a is the unit charge for volume ($/kL),
  - x_1, x_2 are the average concentrations of pollutants N_1, N_2 (mg/L),
  - n_1, n_2 are the unit charges for pollutants N_1, N_2 ($/kg),
  - N_1, N_2 are the pollutants to be charged for.

- Charges shall be made for BOD_5 (or alternatively COD) and suspended solids, oil and grease, TKN (Total Kjeldahl Nitrogen), TP (Total Phosphorus) and sulphates.

6.1.3 ADDITIONAL CHARGES FOR OVER LIMIT DISCHARGE

This charge applies:

a) Where CSC agrees to accept to sewerage waste which has properties in excess of those defined in the General Limits (Schedule 1) 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 trade waste to sewer in excess of the limits defined in the trade waste approval or the Sewer Admission Limits (Schedule 1) without approval to exceed the limits.

This charge shall apply to each non-complying parameter in addition to the general charges under section 6.

The formula for calculation is:

Charge = (actual/approved)^{d} × charge rate ($/kg) × kg pollutant where

- d is a constant to be determined by CSC;
- the minimum ratio for (actual/approved) 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, over which the limits are considered by CSC to have been exceeded.

6.1.4 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 wastes, 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 waste type and quantity, to have arrestors installed and regularly cleaned, will apply.

6.1.5 CHARGES FOR FOOD WASTE DISPOSAL UNITS

Trade waste generators in Categories 1 and 2 with food waste disposal units (garbage grinders, fruit and vegetable peelers) shall be charged a fee based on the power of the motor. This charge will apply in addition to general charges.

Rated Power, Watts

- Category A – To 700 watts rating
- Category B – Above 700 watts rating
- Category C – Garbage grinders in public and private hospitals and aged persons homes

The fees and charges for the current financial year are listed on the CSC website.

6.2 TRADE WASTE FEES

6.2.1 APPLICATION/RENEWAL FEES

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

Fees are due annually and is a prescribed fee as defined by CSC.

These fees and charges can be found on CSC's website.

6.2.2 REFUNDS OR TRANSFER ON CESSATION OF DISCHARGE

No refunds nor transfer of approval will be allowed on cessation of discharge or sale of the business.

6.2.3 INSPECTION AND ANALYSIS FEES

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

The cost of inspection shall be based on full cost recovery. The full cost of any laboratory analyses shall be recovered.

6.2.4 SEPTIC TANK AND OTHER REGULATED WASTE FEES

Licensed waste handler and other persons disposing of septic tank, portable toilet or other approved regulated waste to the sewer or sewage treatment plant under approved conditions shall be charged on a calculated volume basis ($/kL) which takes into account both the volume and concentration of the regulated waste.

These fees and charges can be found on the CSC website.

6.2.5 PENALTY CHARGES FOR NON-SERVICING OF ARRESTORS

Penalty charges based on equivalent arrestor charges may be applied in the instance of non-servicing of arrestors or failing to comply with the servicing requirements in the conditions of the Trade Waste Approval.

7. APPLICATION PROCEDURES

Any person wishing to discharge trade waste to sewer must make written application for an approval to discharge. Applicants should contact CSC's Trade Waste Section for advice on the type of application required and the procedures for obtaining approval.

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 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.

Trade waste disposal contractors wishing to discharge septic tank, portable toilet waste or other approved regulated waste to the sewer or sewage treatment plant must be licensed and must apply for an approval.

How to apply for a Trade Waste Approval:

An application can be made by completing an online form that can be found on the CSC website http://www.cook.qld.gov.au/development/building-and-plumbing/trade-waste

Alternatively, CSC's main Customer Service Centre is located at 10 Furneaux Street, Cooktown and is open from 8:45am to 4:45pm Monday to Friday.

✉ PO Box 3, Cooktown, QLD 4895

☎ (07) 4082 0500

mail@cook.qld.gov.au

www.cook.qld.gov.au

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

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

Any plumbing and drainage work associated with installing any treatment process shall be in accordance with the *Plumbing and Drainage Act 2018*, and the approved sewerage drainage plan. It must be carried out by a licensed plumber and drainer.

Specific problem industries will be required to employ the services of a Trade Waste Consultant to report on the type, volume and concentrations of trade waste being discharged and the method that will be adopted to ensure CSC's sewer admission limits are met.

Where a waste is deemed to be non-sewerable, an approval will **not** be issued and alternative arrangements for disposal of wastes will have to be made. General advice on treatment and disposal options for non-sewerable waste may be obtained from CSC; however, detailed advice should be sought from appropriately qualified private consultants.

8. APPROVALS AND AGREEMENTS

8.1 APPROVALS

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

Should more than one trade waste generator exist on a property, then a separate trade waste approval is required for each generator.

Trade waste approvals are neither transferable nor refundable.

The approval states the terms and conditions the holder of the approval must observe to discharge trade waste to CSC's sewer infrastructure. These include, but are not limited to:

- expiry/renewal date (to be renewed annually);
- 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 shall comply with CSC's sewer admission limits as specified in Schedule 1 of this Plan (or attached to the approval) 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 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 waste transporter to be used;
- records to be kept concerning the cleaning and maintenance of pre-treatment equipment;
- a statement that trade waste charges and fees apply and shall be paid in accordance with section 6 of this plan and
- any other conditions considered by CSC to be appropriate.

8.2 AGREEMENTS

A trade waste generator producing waste that has been assessed as suitable for sewer discharge and classified as Category 3 may be issued with a written trade waste approval in the form of a trade waste agreement. The agreement shall remain in force for the specified period unless cancelled sooner.

Trade waste agreements are neither transferable nor refundable.

The agreement states the terms and conditions the holder of the agreement must observe to discharge trade waste to CSC's sewerage. These include but are not limited to:

- expiry/renewal date;
- the location of the premises and nature of the occupancy;
- quality of waste that may be discharged;
- a statement that the quality of waste shall comply with CSC's sewer admission limits as specified in Schedule 1 of this Plan (or attached to the agreement) and details of any allowed variations;
- quantity of waste that may be discharged;
- rate of discharge - maximum instantaneous, maximum daily;
- hours of day, days of week discharge is allowed;
- requirements for/details of effluent improvement program;
- details of self-regulation monitoring program including
  - sampling point
  - frequency of sampling
  - method of sample collection and type of sample to be collected
  - analyses required
  - methods of analyses
  - laboratory to be used
  - data transfer and availability to CSC;
- type, design and location of flow measuring equipment and requirements for calibration;
- methods to be used for estimation of data lost due to failure of sampling program or flow measurement instrumentation;
- provision for measurement and sampling of discharge prior to entry to sewer;
- pre-treatment processes to be used;
- conditions for maintenance of, and removal of waste from, pre-treatment equipment including the frequency of cleaning, waste transporter to be used;
- records to be kept concerning the cleaning and maintenance of pre-treatment equipment and disposal of waste;
- the obligation of the trade waste generator concerning any variations to operation or treatment processes that may affect discharge quantity or quality including change of business type;
- a statement that trade waste charges and fees apply and shall be paid in accordance with section 6 of this plan and
- Any other conditions relevant to the discharges as agreed.

9. INSPECTION AND MONITORING

For the purpose of monitoring and auditing the conditions of discharge, CSC shall 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:

- Check of all chemical storage areas to ensure that they are properly bunded and are not improperly connected to sewer.
- Checks to ensure that there are no illegal stormwater connections to the trade waste system or sewerage.
- Check to ensure that there are no illegal trade waste connections to storm water or sewer and that there is no potential for trade waste to overflow improperly to sewer, stormwater or waterways.
- Check to ensure that prohibited substances have been removed by a licenced waste handler and not discharged directly nor indirectly to CSC sewer, stormwater or waterways.
- Checks to ensure that pre-treatment facilities are regularly and properly serviced and standby equipment is available where necessary.
- Monitoring of strength and flow is undertaken as required under the trade waste approval.
- Assessment of work practices to ensure that they do not result in a breach of the trade waste approval or legislation.

- Accessibility to the trade waste facility is maintained for inspection purposes taking into consideration any workplace health and safety requirements.

9.1 INSPECTION CHAMBERS AND/OR GAUGING FACILITY

Category 3 waste shall be discharged to CSC's sewerage system through 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 accessible at all times to CSC's inspector's, 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 in accordance with AS 3500 Part 1 and approved by CSC is required at all gauging facility sites.

For new Category 2 and 3 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.

If any commercial, business or industrial premises generates trade waste but does not discharge trade waste to CSC's sewerage system, a suitable inspection point shall be installed on the sanitary drain. It shall be in an accessible location within the property boundary and before connecting into the CSC sewer. This is to enable checks to be made to ensure that trade waste is not being discharged to sewer.

Arrestors and other pre-treatment devices that are installed and are discharging Category 1 and 2 trade waste shall have an inspection opening provided externally to the building and within the premise's boundary, at finished ground level.

Internal grease arrestor inspection outlets are to be raised to the finished surface level.

10. DETERMINATION OF DISCHARGE QUANTITY

10.1 CATEGORY 1 AND 2

In the absence of an approved trade waste discharge meter or water meter installed specifically to measure the town water inflow for the trade waste activity the volume of trade waste discharged shall be estimated from total metered water consumption, less an allowance for domestic waste based on 136kL per annum per pedestal and an allowance for water consumed on the property, based on a discharge percentage.

Investigations have established a basis for estimating the proportion of water consumption discharged as trade waste by various types of trade and manufacturing processes. These will form the basis of the initial percentage applied when an approval is issued. Where there is no percentage available, 100 percent discharge will be assumed (Schedule 4).

Where individual trade waste generators have information that would indicate a departure from these bases, application may be made for reconsideration of the percentage used. Council will consider the installation of water meters installed specifically to measure the town water inflow for the trade waste activity if the generator identifies this installation will give a more accurate capture of the trade waste discharge.

High volume Category 2 trade waste generators may, and are encouraged to, install an approved flow measurement device to be calibrated as specified in the Approval conditions.

10.2 CATEGORY 3

The volume of trade waste discharged to the sewer shall be measured by an approved flow measurement device calibrated as specified in the agreement. 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 of 136 kL/annum per pedestal shall be made.

Trade waste generators exempt from installing a flow measurement device shall have the volume of discharge estimated as under section 11.2.

11. DETERMINATION OF DISCHARGE QUALITY

11.1 CATEGORY 1 AND 2

Quality measurements for Category 1 and 2 discharges are required for compliance checks only. This shall be done by CSC as part of the inspection and monitoring program. The cost shall be covered by the annual trade waste charge, except where additional inspection and testing is required because of non-compliance, where CSC shall charge the holder of the approval the prescribed fee as set out in the fees and charges.

Category 1 **Low strength/low volume dischargers**

- BOD5 and suspended solids less than 600 mg/L
- and/or COD less than 1200 mg/L
- Volume less than 500 kL/annum

Approval to discharge required – Trade Waste Approval
Charge – Flat fee

Category 2 **Low strength/high volume dischargers**

- BOD5 and suspended solids less than 600 mg/L
- and/or COD less than 1200 mg/L
- Volume greater than 500 kL/annum

Approval to discharge required – Trade Waste Approval
Charge – Quantity charge on total tri-annual flow (4 monthly). Minimum fee applies.

11.2 CATEGORY 3

Quality measurements are required for both charging and compliance purposes.

For charging purposes, a system of self-monitoring by the trade waste generator shall be used to collect sufficient data to enable the 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 by CSC shall be specified in the agreement.

The holder of the agreement shall meet all costs of self-monitoring.

CSC shall 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. The cost is covered by the annual trade waste charge.

Where additional inspection and testing is required to be done by CSC as a result of non-compliance, CSC shall charge the holder of the agreement the prescribed fee as set out in the fees and charges.

Category 3 **High strength dischargers**

- BOD5 and suspended solids greater than 600 mg/L
- and/or COD greater than 1200 mg/L
- Volume – any

Approval to discharge required – agreement between Council and both the owner (or Authorised Agent) and the trade waste generator when the owner is not the Generator.

Charge – Quantity and Quality charges on total annual load. Minimum fee applies.

12. SPECIFIC REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL WASTES

12.1 REMOVING REGULATED WASTE FROM PREMISES

Removing regulated waste from a premise shall only be carried out by waste handler licensed in accordance with the *Environmental Protection Act 1994* and the *Environmental Protection Regulation 1998* and transported, stored, treated or disposed of in accordance with the requirements of the *Environmental Protection Regulation 1998*.

No person shall discharge or cause to be discharged directly or indirectly to sewerage, wastes from any waste handler tanker without a trade waste approval.

Removing and disposing of septic tank waste, portable toilet waste and other approved regulated liquid waste shall only be done by a licensed waste handler. Such waste may be disposed of into the sewerage system in accordance with approval conditions.

Waste from grease and oil arrestors, other than treated effluent from approved installation, shall not be disposed of into the sewerage system. Such wastes shall be disposed of in a manner and/or at a site approved in accordance with requirements of the *Environmental Protection Act 1994* and the *Environmental Protection Regulation 1998*.

All waste handlers shall be required to maintain records as prescribed by CSC to account for all waste collected and disposed of within or outside CSC's local government area from pre-treatment facilities.

Copies of the collection records are to be forwarded to CSC trade waste unit within 5 days of collecting trade waste and/or regulated waste from the generator.

Trade waste charges in accordance with Section 6.2 and schedule 1 of this Plan, will apply to all transported regulated waste that is approved for discharge to sewerage.

Advice on the disposal of trade waste and regulated waste not suitable for discharge to sewer may be obtained from:

CSC's main Customer Service Centre is located at 10 Furneaux Street, Cooktown and is open from 8:45am to 4:45pm Monday to Friday.

✉ PO Box 3, Cooktown QLD 4895

☎ (07) 4082 0500

mail@cook.qld.gov.au

www.cook.qld.gov.au

13. ARRESTOR INSTALLATIONS AND REPLACEMENTS

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

A Plumbing Form 1 and associated plans must be submitted to CSC prior to any commencement of any plumbing and drainage work associated with the installation of trade waste equipment.

All work must be performed by a licenced Plumber/Drainer.

A hose cock for the purpose of cleaning and maintenance of trade waste equipment, connected to a high hazard backflow prevention device shall be installed in accordance with AS3500 part 1.

13.1 GUIDE FOR DRAINS AND DISCHARGE PIPES CONVEYING TRADE WASTE

13.1.1 LIST OF DISCHARGERS WHEREIN TRADE WASTE PIPE OR OTHER APPROVED MATERIALS WILL BE REQUIRED

Laundries – commercial and hospital Hospitals – sterilisers, autoclaves, laboratories Tanneries Anodising plants Smallgoods manufacture Boning rooms Paint manufacture Boiler blow down from industrial premises Poultry abattoir Margarine and butter manufacture Breweries	Mechanical parts washing – solvents Printing works Food processing Bakery Restaurant Fish and chip shop Take away food shop Car wash Retail butchery and abattoir Any business that produces high temperatures and/or chemical discharge

13.1.2 LIST OF DISCHARGES WHEREIN TRADE WASTE PIPE OR OTHER APPROVED MATERIAL WOULD BE OPTIONAL

1. Coffee shop (no food preparation)
2. Milk bar
3. Garbage compaction areas
4. Hair dressing and nail salons

13.1.3 GENERAL PRE-TREATMENT REQUIREMENTS FOOD INDUSTRY

Generator/Source	**Characteristics of Waste**	**General Treatment Requirements**
Bakery-Hot bread, pies cakes, pastries	Flour products, grease	See notes below 1 & 2
Bistro	Grease/oil	See notes below 1 & 2
Brewery	Suspended Solids, Chemicals, Trub, grain	See notes below 1 Sub-metering Grated floor drains with strainers Interceptor treatment system to be sized in relation to brewing discharge limits
Butcher, small, retail	Grease (washing floors and utensils)	See notes below 1 & 2
Canteen/cafeteria (with hot food preparation)	FFOG	See notes below 1 & 2
Caterer	FFOG	See notes below 1 & 2
Chicken (fresh), retail, meat cutting and preparation	FFOG	See notes below 1 & 2

Generator/Source	Characteristics of Waste	General Treatment Requirements
Coffee shop, hot food prepared and served	FFOG	See notes below 1 & 2
Commercial kitchen	FFOG	See notes below 1 & 4
Community halls (food preparation)	Food and Solids	See notes below 1 & 2
Fish (fresh) - no cooking	Scales, fish gut	See notes below 1 & 2
Fish shop retail and cooking on site	Scales, grease	See notes below 1 & 2
Hospital kitchen/ Laundries	Grease/solids Lint Temperature	In-floor and in sink dry basket arrestors (1) in food preparation and wash-up areas; grease arrestor, capacity to cool hot discharge water to less than 38C. See note below 1 & 4 Lint and cooling pits
Hotel with counter lunches/restaurants	FFOG	In-floor and in sink dry basket arrestors (1) in food preparation and wash-up areas; grease arrestor Glass washers in bars to by-pass grease arrestors. See note below 1 & 4
Ice Cream Parlour	Milk product	No pre-treatment required. Direct to sewer
Ice cream parlour – with hot food, take-away	Dairy, FFOG	See notes below 1 & 2
Large take-away food outlets eg: McDonald's, Hungry Jack's Pizza Hut, Kentucky Fried Chicken, BBQ and Charcoal Chicken, (Convotherm-ovens), rotisseries etc	FFOG	See notes below 1 & 4
Motel with kitchens/restaurants	FFOG	See notes below 1 & 4
Nursing homes kitchen/ laundry	Grease/solids Lint Temperature	See notes below 1 & 2 Lint and cooling pits
Restaurant	FFOG	See notes below 1 & 2
Sandwich bar with hot food take-away	FFOG	See notes below 1 & 2
Sandwich/coffee shop - no foods prepared	Solids	Subject to condition. No cooking.
Shopping centres–preparation	FFOG and solids	See notes below 1 & 4
Supermarkets – incorporating butcher and/or bakery	FFOG and flour	See notes below 1 & 4
Take-away food outlets	FFOG, Solids	See notes below 1 & 2

Table 2: General Pre-Treatment Requirements Food Industry

NOTES:

1. Bucket trap with removable strainer for cleaning, fixed secondary strainer or self-closing or self-sealing valve for in floor and in all sinks.
2. Grease Arrestor required minimum size 1000L
3. FFOG is Foods, fats, oils and grease
4. Grease Arrestor required minimum size 2000L

13.2 GREASE ARRESTORS

Section 13, Tables 2 and 3 outline the method for estimating the size of grease arrestors. The CSC Trade Waste Officer/ Inspector will approve the final adequate capacity.

The minimum required grease arrestor to be installed is 1000L unless approved by CSC under special circumstances.

The maximum capacity of an individual grease arrestor shall be 3000L. Where the capacity of a grease arrestor is greater than 3000L, additional arrestors shall be used. For each separate arrestor that is installed the waste stream must be defined.

In certain circumstances CSC may approve the installation of an arrester in excess of a 3000L capacity. Applications must include all details relating to loadings and accompanied with detailed plans and specifications of the proposed device.

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;
- the names of the businesses and shop number(s) sharing the arrestor.

Grease arrestors must be appropriately located to allow access for inspection, pump out and cleaning. The location must be approved by CSC prior to installation.

For the purpose of odour control all grease arrestors shall be fitted with full length and width opening, gas tight metal covers and frames.

The outlet of all arrestor installations must discharge to a disconnector gully to allow for inspection and sampling.

Grease arrestors shall be vented with a minimum of 100mm diameter vent. The grease arrestors vents are not permitted to be interconnected.

A remote washout line shall be installed on grease arrestors that require a riser of 900mm or more when the opening is not the full size of the arrestor.

When a remote pump out line is required, the maximum distance shall not exceed 30 metres in length. The pressure pipe is to be a minimum of 80mm diameter and fitted with cast alloy or stainless steel Female Camlock at the vacuum truck connection end and Male Camlock at the grease arrestor.

The use of solvents, enzymes, mutant or natural bacterial cultures, odour control agents or pesticides in grease arrestors is prohibited unless specifically approved by CSC.

Conditional approval may be given to allow the trade waste generator to demonstrate to CSC that the product to be used does not adversely impact on the sewerage system or the environment.

Maintenance and cleaning of grease arrestors shall be carried out on a regular basis in accordance with conditions of the trade waste approval by a licenced waste handler.

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 (section 6) will apply.

All final decisions on the size of grease arrestors will be made by CSC.

Grease converters and grease removal systems will not be accepted as a primary source of pre-treatment but may be installed upstream of a grease arrestor to assist in the removal of grease and cooking oils.

13.3 INSTALLATION WITHIN BUILDINGS

Grease Arrestors installed inside buildings are not normally permitted, except in exceptional circumstances, and only with the approval of CSC Trade Waste Officers and Environmental Health Officers. The arrestor must be fitted with gas tight lids and to be of a suitable design for remote pump out.

13.4 COVER AND FRAME INSTALLATION

The cast iron grease arrestor frame shall be jointed to the thickening rib and/or wall extension of the grease arrestor with industrial Epoxy or similar Council approved material. The 'in situ' concrete surround around the frame shall be at least 200 mm wide and extend below the angle of the thickening rib of the grease arrestor.

13.5 GUIDELINES FOR SIZING GREASE ARRESTORS

The capacity of a grease arrestor may be calculated from the following capacity allowances for various fixtures and fittings in commercial premises. Minimum sizes apply to certain activities refer to Section 13, Table 3.

How to calculate your peak hourly flow

1. Determine the fixtures/fittings that will feed into your grease arrestor and how many of each.
2. Add together the flow ratings – this will be in litres.
3. The total amount will be the minimum sized grease arrestor needed to satisfy the one-hour retention requirement.
4. Choose a grease arrestor with a capacity equal to or more than your estimated peak hourly flow.

Fixture/Fitting	Peak flow allowance (L/hr)	Quantity	Total (L/hr)
Bain Marie	50		
Basin - hand	50		
Bowl – Mixing	200		
- small – 350 diameter	100		
- large	200		
Combi Oven	150		
Dishwasher - small (bench)	400		
- medium (upright)	800		
- large (2 outlets) Conveyor	1200		
Floor Waste	50		
Grease canopy	50		
Glass washers (not in liquor sales area)	200		
Kettle	200		
Noodle / paster cooker	140		
Sink			
– cleaners	50		
– domestic	50		
– commercial Kitchen single	75		
– commercial Kitchen double or pot	150		
– lab – education facility	30		
– lab – commercial or research	50		
Steamer cooker/kettle	200		
Steamer/hydrotherm/boiling pots/stock pots	100		

Fixture/Fitting	Peak flow allowance (L/hr)	Quantity	Total (L/hr)
Steam Roasting Convection Ovens (Convotherm-ovens) - 10 or less trays	400		
->10 but <20 trays	800		
- >20 trays	1200		
Tundish – condensate (refrigerator/freezer)	3		
Water heated bain-marie	50		
Wok burner	200		
TOTAL for Grease Arrestor volume			

Table 3: Guidelines for Sizing Grease Arrestors

If the generators business does not have fixtures or appliances in excess of 550L, then the minimum grease arrestor shall apply.

14. MINERAL OIL ARRESTORS

CSC **will not accept** in-ground, triple chamber type oil arrestors for oil and grease separation.

Current in-ground triple interceptor for use as an oil and grease separation will require an improvement/upgrade within 3 years of being identified upon trade waste inspection.

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

- coalescing plate separators;
- vertical gravity separators;
- membrane technology;
- dissolved air flotation (DAF);
- chemical precipitation;
- hydrocyclones; and
- other approved apparatus /methods.

Each application will be assessed on the nature of the oily waste to be treated. The proposed treatment method and site location will be advised.

Only CSC approved equipment is to be installed on the premises and must comply with the relevant Queensland Legislation.

Holding tanks are to be of minimum size 1000L installed before the pre-treatment system. They are to be fitted with a high-level alarm system with strobe light and audible alarm.

Only non-emulsifying pumps, such as an electrically driven diaphragm pump (at less than 40 cycles per minute) may be used to pump the wastewater to a separator.

Pump discharge must not be greater than the capacity of the separator.

Any person wishing to sell an Oil Separator System, which includes the pump for treatment of wastewater going to sewer, must conform to these guidelines.

Hand wash basins and troughs in workshops are to discharge to the separation treatment system and not directly or indirectly to CSC sewer infrastructure.

The connection of these fixtures to the separation system does not imply that they are suitable as parts washing facilities.

Only “Quick Break” detergents and degreasers may be used in mineral oil separators.

Maintenance cleaning of mineral oil arrestors shall be carried out on a regular basis in accordance with conditions of the trade waste approval.

Removal of oily waste shall be done by a licensed waste handler.

Servicing records are to be kept on-site and made available to CSC Trade Waste Officers/Inspectors.

14.1 PRE-TREATMENT REQUIREMENTS FOR MECHANICAL & AUTOMATIVE

General Requirements Generator/Source	Characteristics of Waste	General Treatment Requirements
Car wash areas – commercial -roofed and bunded	Oil, grease, solids, Oil, grease, solids	Oil separator, float and alarm system, trade wastewater meter. Quick-break detergents must be used. Discharge meter required.
Car wash areas – commercial - open areas	Oil, grease, solids, Oil, grease, solids	As above + Demand driven diversion system. Discharge meter required.
Car wash areas – residential* -roofed and bunded	Oil, grease, solids, Oil, grease, solids	Oil separator, float and alarm system, trade wastewater meter. Quick-break detergents must be used.
Car wash areas – residential* - open areas	Oil, grease, solids, Oil, grease, solids	As above + Demand driven diversion system.
Detailing	Grease, oil, solids, detergents	Basket trap, Holding tank and Oil Separator. Discharge meter required.
Engine/gear box reconditioning (small operation)	Lead, grease, kerosene, solids, detergent	Holding tank and Oil Separator
Equipment hire company	Oil, grease, kerosene, solids, detergent	Holding tank and Oil Separator Discharge meter required.
Lawn mower repairs	Oil, grease, grass, solids, detergents	Holding tank and Oil Separator
Mechanical workshop	Oil, grease, kerosene, solids, detergents	Holding tank and Oil Separator Coolant is prohibited and cannot be discharged to sewer direct or in-directly.
Parts Washing (water based)	Oil, grease, detergents	Holding tank and oil separator
Parts Washing (Solvents)	Oil, grease, solvents, chemicals	Holding tank and NO discharge to sewer licenced waste handler to remove waste.
Panel beating/spray painting	Suspended solids, oil, grease	Holding tank and Oil Separator Coolant is prohibited and cannot be discharged to sewer direct or in-directly.
Radiator repair (small operation)	Suspended solids, pH, toxic metals	pH adjustment prior to solid settlement and pH adjustment before discharge to sewer; may require oil separation and metal precipitate removal. Coolant is prohibited and cannot be discharged to sewer direct or in-directly.
Service stations and refuelling depots – workshop only	Oil and grease	Holding tank and oil separator**

General Requirements Generator/Source	Characteristics of Waste	General Treatment Requirements
- covered forecourt***	Not allowed	No discharge to sewer
Wreckers/Vehicle Dismantlers	Oil, grease, solids	Holding tank and Oil Separator Coolant is prohibited and cannot be discharged to sewer direct or in-directly.

Table 4: Pre-Treatment Requirements for Mechanical & Automotive

*Note: Residential premises do not require a trade waste approval.

**Sewer connections from fuel dispensing areas, flammable and dangerous goods storage will not be permitted.

A minimum 10,000 L holding tank not connected to the stormwater or sewerage system, with high-level alarm, is a cost-effective option.

***Where there is an existing Trade Waste Approval for discharge collected from the forecourt and fuel-filling areas, Council may, at its discretion, continue to permit the discharge. However, Council may require the Owner/Operator to submit for approval a Plan that outlines proposed upgrade measures and timelines to disconnect from the sewer.

15. 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 CSC.

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

Maintenance and cleaning of arrestors shall be carried out on a regular basis in accordance with the conditions of the trade waste approval. This can be carried out by a licensed waste handler under the current relevant Queensland State legislation.

15.1 PRE-TREATMENT REQUIREMENTS FOR OTHER TRADE WASTE GENERATOR

Generator/Source	Characteristics of Waste	General Treatment Requirements
Backpackers accommodation	FFOG Lint Temperature	Refer to section 13 for Grease Arrestor requirements Dry Basket Arrestors with secondary strainers in floor waste and sinks
Beauty and Nail salons	Alkali and wastewater	Nil Pre-treatment required
Cooling Towers	Chemicals, Temperature, Colour	Lab testing for levels of chemicals and other sewer admissions limits (Trade waste unit will advise of testing requirements) Discharge metering required.
Dental/Medical/Veterinary surgeries - Plaster Casts	Solid & wastewater	Plaster Arrestor or separator.
Dental/Medical/Veterinary surgeries - No Plaster cast	Wastewater	Dry basket arrestor.
Dental/Medical/ Veterinary surgeries - non digital X-Ray	Rinse water	Silver recovery unit required. Collect fixer & Developer for disposal by licenced waste handler.

Generator/Source	Characteristics of Waste	General Treatment Requirements
Dog Washes and Hydrobath	Hair and chemicals	Dry basket arrestors with secondary strainers. No organophosphates pesticides.
Fruit/vegetables peelers	Solids	Direct to sewer with dry basket arrestor in sinks and floor.
Funeral Parlour	Various	Nil pre-treatment
Rubbish bin cleaning and Refuse Area-Commercial Area (Domestic do not attract trade waste approval but pre-treatment still applies)	Grease/suspended solids	Dry Basket Arrestors in floor waste with secondary strainers; Direct to sewer
Hairdressing salon	Wastewater – hair dyes	Direct to sewer with basket traps installed in hair wash basins
Hobby Clubs: <200L/day	Suspended Solids	Dry Basket Arrestor
Hobby Clubs: 200 –1,000 L/day	Suspended Solids	Under sink paster arrestor Dry Basket Arrestor
Hobby Clubs: >1,000 L/day	Suspended Solids	Settlement trap min 1000Lt Dry Basket Arrestor
Hostels	FFOG Lint Temperature	Refer to section 13 for Grease Arrestor requirements Dry Basket Arrestors with secondary strainers in floor waste and sinks
Kennels	Solids and wastewater	Basket traps with secondary strainers; Dry cleaning techniques are to be performed before wash down. No solids are to be discharged to sewer directly or in-directly
Laboratories and Science	Acid/alkali and chemical	Neutralising or dilution trap
Laundries - Commercial	Lint, Temperature, Chemicals	Lint traps screens 3mm mesh, Cooling/Settlement trap with temperature control <38C Discharge meter required
Laundromat (Coin Operated)	Lint, temperature	Lint screens 3mm mesh; >38C (washing machine internal screens acceptable) Discharge meter required
Mobile Bin Cleaning	Wastewater Suspended solids Chemicals	Holding tanks Filter system Recycled water
Optician (<200 l/day)	Suspended solids	Dry basket arrestors with secondary strainers in sinks
Photographic waste - fast photo - X-rays	Rinse water and spent solutions	Silver recovery unit required and collect fixer & Developer for disposal by licenced waste handler.
Schools		
Arts and Crafts	Grease, Suspended solids, chemicals, paint.	Dry basket arrestors with secondary strainers in sinks. Plaster / paint arrestor required depending on activity.
Home Economics	Grease, suspended solids.	Dry basket arrestors with secondary strainers in sinks. Grease arrestor required.
Science Blocks	Chemicals (alkaline and acidic).	Dry basket arrestors with secondary strainers in sinks.

Generator/Source	Characteristics of Waste	General Treatment Requirements
		Neutralising arrestor required.
Metal Works	Acids and metal fragments.	Dry basket arrestors with secondary strainers in sinks. Arrestor required depending on activity.
Tuckshops participating in healthy food program	FFOGs and suspended solids.	Dry basket arrestors with secondary strainers in sinks and floor wastes.
Tuckshops	FFOGs and suspended solids.	Dry basket arrestors with secondary strainers in sinks and floor wastes. Grease arrestor required.
Student Accommodation	FFOG Lint Temperature	Refer to section 13 for Grease Arrestor requirements Dry Basket Arrestors with secondary strainers in floor waste and sinks

Table 5: Pre-Treatment Requirements for Other Trade Waste Generator

Note: For sizing of pre-treatment requirements, refer to Section 13, Table 3.

16. BUNDING

The area around all treatment installations must be bunded. There must be no spillage or overflow of trade waste influent or effluent, sludge, or treatment chemicals to the stormwater or sewerage systems (by gravity or by automated mechanical means).

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

17. ENZYMES / BIOLOGICAL ADDITIVES

17.1 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 CSC.

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

17.2 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 Genetic Technology Regulator, Canberra. CSC may then grant approval for discharge to sewerage.

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.

18. FOOD WASTE DIGESTERS (ANAEROBIC AND AEROBIC)

a) Food waste digesters must be installed upstream of a properly sized authorised grease arrestor.
b) All digester installations must comply with Plumbing and Drainage regulations and installed by a licenced plumber/drainer.
c) All digester installations must include metering for calculation of volume discharged, and a downstream inspection and sampling port that provides access to a representative sample of the discharge.

d) Discharges from grease arrestors with digesters connected must comply with the Sewer Acceptance Criteria.

19. FRUIT AND VEGETABLE PEELERS

All peelers within this category and are subject to the same charges and conditions.
All peelers must be connected to drain and not connected to grease arrestors.

20. MACERATORS

Bed pan macerators are prohibited.

21. FOOD WASTE DISPOSAL UNITS

Food waste disposal units (garbage grinders / sink-to-sewer disposal units) are normally not allowable but may be approved for non-domestic use by specific application to CSC. Where installation is approved, the annual charge shall be based on motor power for Category A and Category B fees can be found on the CSC website fees and charges.

22. SWIMMING POOLS / ORNAMENTAL PONDS

The back-wash water and water from commercial and public swimming pools and ornamental ponds must not discharge to sewer without a trade waste approval. Trade waste charges in accordance with the discharge category will apply.

This plan approves the discharge of swimming pool backwash water to sewer for class 1A buildings (dwelling) and class 2 buildings.

23. MEDICAL, CLINICAL, VETERINARY AND INFECTIONS WASTES

Solid wastes from any hospital, clinical, veterinary facilities, laboratories, convalescent home, nursing home or health transport facility including but not limited to clinical solid wastes, any paper or plastic item of a disposable nature, or any portions of human or animal tissue, shall not be discharged to the sewer. Refer to Schedule 2 of this plan.

Discharging trade wastes including faeces and body fluids to sewer from any hospital, clinic, office or surgery of a medical or veterinary facility or laboratory, convalescent or nursing home or health transport facility is permitted in accordance with the relevant legislation.
Infectious or hazardous wastes deemed to pose a threat to public health and safety may not be discharged to the sewer without approval from CSC. Such wastes shall require treatment to render them non-infectious or non-hazardous prior to discharge. If approved for discharge, trade waste charges will apply.

24. 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 sewerage or the stormwater drainage system.

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

25. DISCHARGE OF TRADE WASTES FROM VESSELS, VEHICLES AND AIRCRAFT

25.1 VESSELS

Depending on the quality, the discharge of black and grey liquid waste from vessels may be permitted via approved "pump out" facilities at ports and marinas. The operator of such facilities must hold a trade waste approval to discharge into CSC sewerage infrastructure.

Charges in accordance with Section 6.2.4 will apply.

THE DISCHARGE OF UNTREATED BILGE WATER IS PROHIBITED TO SEWER.

25.2 BUSES, AIRCRAFT, RECREATIONAL VEHICLES

The discharge of toilet waste from buses, aircraft or recreational vehicles may be permitted at approved disposal locations such as bus or transport depots, terminals, and caravan parks. The operator of such facilities must hold a trade waste approval to discharge into CSC sewerage infrastructure.

Charges in accordance with Section 6.2.4 will apply.

26. LANDFILL LEACHATE & DISPOSAL FACILITY WASTEWATER

Leachate from landfill sites and wastewater from waste treatment/disposal facilities may 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 under Section 6.2.4 and Schedule 1 of this Plan.

27. DISCHARGE FROM OPEN AREAS

THE DISCHARGE OF RAINWATER AND STORMWATER TO SEWER IS PROHIBITED.

The ingress of surface water from a potentially contaminated open area to sewerage can cause severe operational problems for CSC. 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 bunded 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 of polluted areas such as roofing or other methods to keep water away from the open area. Applicants must demonstrate to CSC 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 CSC ensure that:

- all contaminated trade waste is pumped to sewer at a rate acceptable to CSC;
- all discharge to sewer ceases automatically after a predetermined level of rainfall volume (mm) and/or intensity (mm/hr) to be set by CSC;
- the "first flush" volume is collected and segregated during wet weather with additional runoff directed to the storm water system. Applicants should seek advice from CSC 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 under Section 6.2.4 and Schedule 1.

28. DENTAL FACILITIES

A Trade Waste Approval will not be required for Dental facilities provided any trade waste generated and discharged to sewer through an Amalgam Separator.

Note: If Film Processing or plaster casting is carried out on site, a Trade Waste Approval and additional pre-treatment may be required.

29. CAR WASH FACILITIES

At least 50% of all water used in a car wash facility must be re-circulated.

30. WORK PRACTICES

Work practices (practices) refers to all activities that minimise trade waste discharge. There is a number of practices that can be adopted to reduce wastewater levels, and lessen the load placed on pre-treatment facilities. Good practice procedures must be adopted wherever possible and in some circumstances can even classify the generator as a non-discharger.

Some of these practices are:

- Use less water by adopting dry cleaning methods. The less water used, the less trade wastewater to be treated.
- Dry cleaning methods include wiping up spills and sweeping, rather than hosing.
- There are absorbent packs available to soak up oil spills.
- Ensure all equipment is properly cleaned and maintained.
- Ensure that adequate storage is provided for used oil and that a collection program is arranged with an Oil Recycler (Discharging oil down the drain is **PROHIBITED**).
- Use cleaning products that have a pH of 6-10 at working concentrations.
- Remove all solid food waste from cooking and eating utensils before washing.

31. DISCRETIONARY POWER

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

32. RECORDS AND REPORTS

The generator is required to keep records of the cleaning and maintenance of the pre-treatment equipment in accordance with the trade waste approval.

This includes and not limited to recording the removal of grease arrestor waste, oils, fats, greases, coolant, prohibited substances.

Records to be kept on site and made available to CSC officers upon inspection.

32.1 IMPLEMENTATION RECORDS AND REPORTS

This plan will become effective immediately.

APPENDIX A: RELEVANT LEGISLATION

Relevant State of Queensland Legislation

- *Water Supply (Safety and Reliability) Act 2008*
- *Plumbing and Drainage Act 2018*
- *Environmental Protection Act 1994*
  - *Environmental Protection Regulation 2008*
  - *Environmental Protection (Air) Policy 2019*
  - *Environmental Protection (Water) Policy 2009*
- *Local Government Act 2009*
- *Planning Act 2016*

Other Relevant Legislation and Guidelines

- *Radiation Safety Act 1999*
  - *Radiation Safety Regulation 2010*
- *Gene Technology (Queensland) Act 2016*
- *Gene Technology Act 2000 (Commonwealth)*
- Australian Sewage Quality Guidelines June 2012
- National guidelines for waste in the health industry, 1999
- National Guidelines for Managing Food, Fats, Oils and Grease (FFOG) from Food Premises, 2018 (WSAA)
- National Health and Medical Research Council.

SCHEDULE 1: SEWER ADMISSION LIMITS

The upper limits for the quality of trade waste discharged to the sewer for all categories are set out below. These admission limits shall apply immediately. They are subject to periodic review.

General Limits

Parameter	Concentration, mg/L except *
Temperature *	< 38°C
pH *	6 - 10
Biochemical Oxygen Demand (BOD_5) +#	600 mg/l
Chemical Oxygen Demand (COD) +#	1200 mg/l
Total Organic Carbon (TOC) +#	1200 mg/l
Suspended Solids +#	600 mg/l
Total dissolved solids (TDS) +#	4000 mg/l
Total oil/grease (freon extractable)	200
Gross solids *	non faecal gross solids shall have a maximum linear dimension of less than 20mm and a quiescent settling rate of less than 3m/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 CSC's sewerage system
Chlorine (as Cl_2)	10
Sulphate (as SO_4^{--}) #	2000
Sulphite (as SO_2)	100
Surfactants - Anionic (MBAS)	500
Aluminium (as Al) #	100
Iron (as Fe) #	100
Ammonia plus ammonium ion (as N) #	100
Total Kjeldahl Nitrogen (as N) #	150
Total Phosphorus (as P) #	50
Manganese (as Mn)	100

+ The total mass load and the capacity of the sewerage system to accept the load shall be considered for each application.
# CSC may in some circumstances accept waste containing higher concentrations of these substances. Additional charges for treatment (Section 6) will apply.

Specific Limits - Inorganic

Parameter	Concentration, mg/L
Boron (B)	100
Bromine (Br_2)	10
Fluoride (F^-)	30
Cyanide (CN^-)	5
Sulphide (S^{--})	5

Specific Limits - Metals

Parameter	Maximum Concentration mg/L	Lower Daily Mass Load g/day
Arsenic (As)	0.05	5
Cadmium (Cd)	2	6
Chromium (Cr)		
Total	20	75*
Hexavalent	10	
Cobalt (Co)	10	30
Copper (Cu)	10	75
Lead (Pb)	10	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	75

The concentration values apply to discharges having a daily mass load between the Lower Daily Mass Load (LDML) and the Upper Daily Mass Load (UDML). For small discharges with a daily mass load below the LDML, no concentration limits apply. Dischargers who exceed CSC's UDML limits will be required to take measures to meet the UDML. This may involve treating to a lower concentration than indicated above.

* For discharges below the Lower Daily Mass Load, hexavalent Cr must be reduced to trivalent Cr.

Specific Limits - Organic

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

Parameter	Maximum Concentration, mg/L
Formaldehyde (HCHO)	50
Phenolic compounds (as Phenol)	100
Pentachlorophenol	5
Petroleum hydrocarbons	30
Halogenated Aliphatic hydrocarbons	5
Halogenated Aromatic Hydrocarbons (HAHs)	0.002
Polychlorinated biphenyls (PCBs)	0.002
Polybrominated biphenyls (PBBs)	0.002
Polynuclear Aromatic Hydrocarbons (PAHs)	5
Pesticides: General (insecticides /herbicides/fungicides) **	1.0
Pesticides: Organophosphates	0.1
Azinphos-methyl	
Azinphos-ethyl	
Coumaphos	
Demeton	
Dichlorvos	
Dimethoate	
Disulfoton	

Fenitrothion	
Fenthion	
Malathion	
Methamidophos	
Mevinphos	
Omethoate	
Oxydemeton-methyl	
Parathion	
Triazophos	
Trichlorfon	
Pesticides- Organochlorines	
Aldrin	0.001
Chlordane	0.006
DDT	0.003
Dieldrin	0.001
Heptachlor	0.003
Lindane	0.100

** This category covers all pesticides other than those specifically listed under organophosphate and organochlorine pesticides.

Petroleum Hydrocarbons

Parameter	Maximum Concentration, mg/L
Total	30
C6 – C9 percentage	5
Benzene	0.04
Toluene	0.5
Ethyl benzene	1.0
Xylene (total)	1.0

SCHEDULE 2: PROHIBITED DISCHARGES

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

- A solid or viscous substance in a quantity, or of a size, that can obstruct sewerage or interfere with the operation of sewerage.

Examples of solids or viscous substances that are prohibited substances if of a size or in the quantity mentioned in item 1—

  - ash, cinders, sand, mud, straw and shavings
  - metal, glass and plastics
  - paper and plastic dishes, cups and milk containers whether whole
  - or ground by garbage grinders
  - rags, feathers, tar and wood
  - whole blood, paunch manure, hair and entrails
  - oil and grease
  - cement laden wastewater including wash down from exposed aggregate concrete surfaces

- A flammable or explosive solid, liquid or gaseous substance including petrol.

- Floodwater, rainwater, roof water, stormwater, subsoil water and surface water.

- 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.

Example of substance under item 4—
a substance with a pH lower than 6.0 or greater than 10.0, or having another corrosive property

- 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—38ºC.

SCHEDULE 3: SUBSTANCES NOT INCLUDED IN TABLES

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

SCHEDULE 4: DISCHARGE PERCENTAGES

ACTIVITY	DISCHARGE %
Aged Care Facility	85
Bakery	85
Beauty Services	100
Brewery	10
Butcher	90
Cafe	90
Caravan Park	70
Catering	90
Child Care Centre	90
Commercial Car Wash	50
Chemical	90
Cleaning	100
Club	90
Commercial Laundry	85
Concrete Batching	2
Dairy	90
Dental	100
De Watering	100
Engineering	90
Food Prep. No Grease	85
Function Centre	90
Glass Manufacturer	90
Animal Grooming	90
Hairdresser	90
Hospital	90
Hostel	90
Hotel	90
Hygiene Services	100
Ice Production	5
Laboratory	90
Laundry	85
Liquid Waste	90
Live Fish Export	90
Food Manufacturing with Grease	90
Mable/Granite Manufacturing	90
Mechanical	90
Medical	90
Metal Finishing	85
Motel	90
Nursing Home	80
Paint	90
Pallet Manufacturer	90

ACTIVITY	DISCHARGE %
Panel Beaters	85
Photographic	90
Pool	70
Pottery	90
Poultry	90
Plant Propagation	100
Printing	90
Quarantine Container Wash Down	90
Radiator Shop	90
Rendering	90
Resort	90
Restaurant	90
Rustproofing	85
Retirement Village	90
School	80
Servicing of Scuba Equipment	90
Seafood Processing	90
Service Station	90
Shelter	90
Shipyard	90
Soil Testing	90
Storage	90
Student Accommodation	85
Supermarket	90
Take Aways	90
Timber	90
Tour Operator	90
Treatment Plant	90
Waste Transfer Station	90
Vehicle Detailing/Washing	90
Vehicle Washing	80
Veterinary	70
Wine Production	90
Workshop	90