

**TRADE WASTE  
ENVIRONMENTAL MANAGEMENT PLAN**

**Regulatory Services  
TRADE WASTE SECTION**

**August 1999**

# Trade Waste Environmental Management Plan

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## 1.0 INTRODUCTION

Liquid wastes are produced by a variety of industrial, commercial and domestic activities. Queensland's Environmental Protection Act provides a general prohibition against the pollution of the environment by the discharge of such wastes, except where the person or agency holds an environmental authority permitting such discharge. All discharges to receiving waters are required to be treated to a standard that will maintain or enhance receiving water quality and environmental values.

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

Council provides a sewerage system primarily for the transport and treatment of domestic sewerage. Payment for this service is collected through sewerage charges on each rateable property. This system may also be used, where appropriate, for the acceptance and treatment of trade waste. As trade waste imposes an additional load on the sewerage system, trade waste charges apply.

Council is required to meet the conditions of the environmental authority (license), issued by the Environmental Protection Agency, for its sewerage system including the disposal and reuse of treated effluent and biosolids. Council is also required to the Standard Sewerage Law and the Environmental Protection (Water) Policy to fully assess the effect of trade waste on sewerage and the environment before issuing a trade waste approval. Under the Environmental Protection Act, Council is held responsible for any pollution from stormwater outfalls under its control. The stormwater system must only be used for the disposal of uncontaminated stormwater runoff.

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

Trade waste may have an organic strength many times that of domestic sewage and may overload the treatment facility. Trade waste may also contain a variety of other substances – such as heavy levels of fats and grease, heavy metals, organic solvents and chlorinated organic substances which sewerage systems are not designed to treat. These substances may:

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

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

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

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

In order to maintain community confidence in Council's sewerage operations, and in line with national practice, trade waste approvals are available for public scrutiny. Commercially confident details may be withheld.

## 2.0 DEFINITIONS

<i>Agreement</i>	See trade waste agreement.
<i>Arrestor</i>	An apparatus designed to intercept and retain silt, sand, grease, oil, sludge and other substances in a waste discharge.
<i>Authorised Agent</i>	Person or firm appointed by the owner to act on their behalf. Notification to Council of such appointment is to be lodged in writing with Council.
<i>Biosolids</i>	The treated solids (sludge), mainly organic, produced by sewerage treatment.
<i>Council</i>	In this plan a reference to Council means the Council or any person appointed or authorised by the Council to act on behalf of Council as the case may require.
<i>Domestic sewage</i>	Faecal matter and urine of human origin and liquid householder wastes from water closet pans, sinks, baths, basins and similar fixtures designed for use in private dwellings.
<i>Generator</i>	See trade waste generator.
<i>Human wastes</i>	Human faecal substances and urine.
<i>Owner</i>	The person (including if the premises is leased from the State, the lessee) for the time being is entitled to receive rent for the premises, so who would be entitled to receive the rent for the premises if it were let to a tenant for rent.
<i>Approval</i>	See trade waste approval.
<i>Premises</i>	A lot as defined in section 1.3.5 of the Integrated Planning Act 1997, and includes a lot that has a building situated on it, or that is wholly or partly contained in, or that wholly or partly contains a building.
<i>Premises Group</i>	The land comprising in 2 or more premises all the owners of which have mutual rights and obligations under the Body Corporate and Management Act 1997 (BCCMA) or the Building Units and Group Titles Act 1980 (BUGTA) for the purpose of their respective ownerships, and includes the common property forming part of: (a) if the premises are lots included in a community titles scheme under the BCCMA – the scheme land for the scheme; or (b) if the premises are lots under BUGTA – the parcel of which the premises form part.
<i>Prohibited Substances Sewerage Law</i>	A substance prescribed in Schedule 1 of the Standard.
<i>Regulated Waste</i>	Non-domestic waste as mentioned in Schedule 7 of the Environmental Protection Regulation 1998 (whether or not it has been treated or immobilised) and includes: (a) for an element – any chemical compound containing the element; and (b) anything that has contained the waste.
<i>Sewage</i>	The waste water from the community including all faecal matter, urine, household and commercial waste water that contains human waste.
<i>Sewerage or Sewerage System</i>	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).
<i>Stormwater Drainage</i>	Other than for section 23 and 42 of the Standard Sewerage Law, 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)
<i>Trade Waste</i>	The water borne waste from business, trade or manufacturing premises, other than: (a) waste that is a prohibited substance; and

	(b) human waste; and (c) stormwater
<i>Trade Waste agreement (Agreement)</i>	Trade waste approval for the discharge of liquid waste classified as Category 3. It states that terms and conditions to be met by the trade waste generator and the owner/authorised agent with respect to the discharge of trade waste into Council's sewerage system.
<i>Trade waste approval</i>	Written approval by Council for a person to discharge waste to Council's sewerage system. See <i>Trade waste agreement</i> and <i>Trade waste approval</i> .
<i>Trade waste generator</i>	Any person, owner, occupier, company or body whose activity produces or has the potential to produce trade waste.
<i>Trade Waste Officer</i>	Trade Waste Officer means a person holding appointment as a trade waste officer of the Council.
<i>Trade waste approval (Approval)</i>	Trade waste approval for the discharge of liquid waste classified as Category 1 or 2. It states the terms and conditions to be met by the trade waste generator and the owner/authorised agent with respect to the discharge trade waste into Council's sewerage system.

### 3.0 TRADE WASTE POLICY

#### Purpose

To provide a liquid waste disposal service for domestic, commercial and industrial waste in accordance with the principles of environmental sustainability and in a manner which safeguards public health.

#### Objectives

To safeguard public health and the environment.

To prevent harm or injury to sewerage employees.

to safeguard the sewerage system against damage, blockage or surcharging.

To exclude non-biodegradable and potentially harmful substances that may:

- lead to non-compliance with the conditions of Council's environmental authority issued by the Environmental Protection Agency;
- cause the treatment process to fail;
- render effluent or biosolids unacceptable for reuse or disposal;
- cause physical damage to infrastructure; or
- cause any other detriment to the environment.

To equitably recover the cost of services to commerce and industry including the cost of conveyance, treatment and disposal and, maintenance and repair of damage to the sewerage system.

To provide operational data on the volume and composition of industrial and commercial effluent to assist in the operation of the sewerage system, the design of augmentations or new sewerage systems and waste management reporting.

To encourage waste minimisation and cleaner production, including waste prevention, recycling, and pre-treatment.

To promote waste conservation.

To assist Council to meet its statutory obligations.

To conform with the National Water Quality Management Strategy *Guidelines for Sewerage Systems, Acceptance of Trade Wastes (Industrial Wastes)*, Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council, November 1994.

#### 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.

#### Policy Instruments

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

- sewer admission limits (acceptable concentration limits for sewerable wastes)
- conditional trade waste approvals (approvals and agreements)
- "user pays" pricing.

## 4.0 CONTROL OF TRADE WASTE

A summary of legislation relevant to trade waste control and acceptance to sewer is given in Appendix 1. This is not, nor is it intended to be, a complete listing of all legislation pertaining to the control of trade waste.

It is illegal to discharge trade waste to the sewer unless a trade waste approval has been issued by Council. Any person wishing to discharge trade waste to sewerage must apply for a trade waste approval (see section 8).

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

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

### 4.1 Suspension or Cancellation of Trade Waste Approval

Grounds for suspension or cancellation of a trade waste approval are defined in section 26 of the Standard Sewerage Law.

Procedures for the suspension or cancellation of a trade waste approval are set out in section 27 of the Standard Sewerage Law.

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

### 4.2 Penalties and Recovery of Costs

Council shall prosecute any person who commits a breach of the Water Act or the Standard Sewerage Law, or the Environmental Protection Act and its subordinate legislation, or who refuses or neglects to comply with any direction or requirement by Council pursuant to the above legislation. Penalties are set out in the above legislation, and include substantial fines.

Council shall recover costs of repairing the damaged sewerage system from a person causing damage to the system by discharging a prohibited substance.

## 5.0 SEWER ADMISSION LIMITS

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

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

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

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

The dilution of trade waste with water to achieve compliance with the sewer admission limits is prohibited.

### 5.1 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 be deemed a satisfactory effluent with respect to the General Limit Parameter(s) (Schedule 1, Appendix 2).

Council may, at its discretion, negotiate with a Category 3 trade waste generator for the acceptance of waste to sewerage that exceeds the Sewer Admission Limit(s) for certain General Limit Parameter(s) (Schedule 1, Appendix 2). Additional charges (section 7.1.2) may apply for such parameters. Where such an agreement is made, Council may require the trade waste generator to prepare, to the satisfaction of Council, an *effluent improvement program*. This program will 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 3 years to the prescribed admission limits. An action program must be provided, including expected outcomes, timelines and milestones;
- preparation of a report for Council, including a summary of achievements and options.

Where Council requires an existing Category 3 trade waste generator to develop an *effluent improvement program* they will be advised of this requirement in writing. 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 Council requesting an extension of time. Council may issue a new trade waste approval, subject to conditions that:

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

## 6.0 DISCHARGE CATEGORIES

All trade waste accepted to the sewer will be classified according to the following three categories for the purposes of approval, control and charging.

### Category 1

Low strength / low volume discharges:

- BOD and Suspended Solids < 300 mg/L
- and / or COD < 600 mg/L
- Volume < 500 kL/annum;

Approval to discharge required – Approval;

Charge – flat fee (see clause 7.1).

### Category 2

Low strength / high volume discharges:

- BOD5 and Suspended Solids < 300 mg/L
- and / or COD < 600 mg/L
- Volume > 500 kL/annum;

Approval to discharge required – Approval;

Charge – Quantity charge on total annual flow; Minimum fee applies (see clause 7.1).

### Category 3

High strength discharges:

- BOD and Suspended Solids > 300 mg/L
- and / or COD > 600 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 charge on total annual load; Minimum fee applies (see clause 7.1).

*Acceptance of waste under any category is conditional on the waste meeting Council's Sewer Admission Limits (clause 5. and Appendix 2) unless otherwise specified in the Approval or Agreement.*

It is the responsibility of the generator to install, operate and maintain "best practice" pre-treatment facilities to ensure sewer admission limits are not exceeded.

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

## 7.0 TRADE WASTE CHARGES AND FEES

Trade waste charges and fees are levied under sections 973 and 974 of the Local Government Act. Charges and fees 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 and fees for the current financial year are listed in Appendix 3 and are also available from Council on request.

### 7.1 Trade Waste Charges

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

Accounts for trade waste discharged to sewer will be:

- (a) forwarded annually for Category 1 and Category 2;
- (b) forwarded quarterly for Category 3;
- (c) a debt due by the owner of the premises;
- (d) if not paid within 7 days of the due date, thereafter bear interest at such rate per centum per annum as shall be fixed by the Council; and
- (e) recoverable in the same manner as general rates.

Alternative billing cycles (monthly, quarterly, half yearly) may be negotiated for Category 2 and Category 3 trade waste approval holders.

#### 7.1.1 General Trade Waste Charges

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

Charges will be determined as follows:

##### Category 1:

An annual charge to cover the cost of treatment and recurring administration and overhead costs associated with trade waste control shall apply.

##### Category 2:

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

$$C = Qk \quad \text{where} \quad \begin{array}{l} - C \text{ is the annual charge } (\$), \\ - Q \text{ is the annual volume (kL), and} \\ - k \text{ is the unit charge rate } (\$/\text{kL}). \end{array}$$

The unit charge, k, which incorporates both volume and load costs, is based on the total cost of providing and maintaining the sewerage system for the total annual wastewater flow to the sewerage plant(s). It includes administration and overhead costs associated with trade waste control.

##### Category 3:

A Quantity and Quality charge on the total annual discharge of trade waste to the sewer to be calculated as follows:

$$C = Qa + Qx1n1/1000 + Qx2n2/1000 + \quad \text{where} \quad \begin{array}{l} - C \text{ is the total annual charge } (\$), \\ - Q \text{ is the total annual discharge volume (kL),} \\ - a \text{ is the unit charge for volume } (\$/\text{kL}); \\ - x1, x2 \text{ are the average concentrations of pollutants N1, N2 (mg/L);} \\ - n1, n2 \text{ are the unit charges for pollutants N1, N2 } (\$/\text{kg}); \\ - N1, N2 \text{ are the pollutants to be charged for.} \end{array}$$

Charges shall be made for BOD<sub>5</sub> (or COD), suspended solids, (oil/grease), nitrogen, phosphorus, heavy metals, etc.

A minimum charge to cover administration, inspection and compliance testing shall apply when the charges calculated by the above formula are less than the allocated cost for these services.

#### 7.1.2 Additional Charges for Over Limit Discharge

This charge applies:

- (a) Where Council agrees to accept to sewerage waste which has properties in excess of these defined in General Limits (Schedule 1, Appendix 2) of the Sewer Admission Limits (the conditions of acceptance are defined in the trade waste approval).
- (b) Where a trade waste generator continually discharges waste to sewer in excess of the limits defined in the trade waste approval or the Sewer Admission Limits (Appendix 2) without approval to exceed the limits.

This additional charge shall apply to each non-complying parameter.

The formula for calculation shall be:

$$\text{Charge} = (\text{actual/approved})^d \times \text{charge rate } (\$/\text{kg}) \times \text{kg pollutant} \quad \text{where} \quad \begin{array}{l} - d \text{ is a constant to be determined by Council;} \\ - \text{the minimum ratio for (actual/approved) is 1.0; and} \\ - \text{approved means the sewer admission limit value or other} \\ \text{negotiated value defined in the trade waste approval.} \end{array}$$



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.

### 7.1.3 Equivalent Arrestor Charges

This charge applies where an existing waste stream requires the installation of an arrestor to provide best practice pre-treatment for Category 1 or Category 2 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, (section 7.1.1) a charge equal to the average cost paid by other trade waste generators of similar waste type to be arrestors regularly cleaned, will apply.

### 7.1.4 Charges for Food Waste Disposal Units

Trade waste Generators in Categories 1 and 2 with food waste disposal units (garbage grinders) shall be charged a fee based on the power of the motor:

Rated Power, kilo watts/hour

- Up to 0.4 kW/h
- Between 0.4 and 0.6 kW/h
- Over 0.6 kW/h

## 7.2 Trade Waste Fees

### 7.2.1 Inspection and Analysis Fees

The trade waste charges in all categories (section 7.1.1) allow for a defined number of inspections and quality 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 holder of the approval.

Inspection fees shall be based on the time spent on site and travel to and from the site.

The full cost of laboratory analyses shall be recovered.

### 7.2.2 Application Fees

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

The application fee shall be the actual costs of processing and drawing up an approval for Category 3 wastes.

### 7.2.3 Septic Tank and Other Liquid Waste Fees

Licensed waste transporters (section 13.) disposing of septage, portable toilet or other approved liquid waste to the sewer or sewage treatment plant under approved conditions shall be charged on a calculated volume basis (\$/kL) which takes account of both the volume and strength of the waste.

## 7.3 Refunds on Cessation of Discharge

If a holder of an approval ceases to discharge between billing periods, a refund will be offered on a pro rata basis. Should the owner of the premises fail to notify Council of a change of ownership, termination of a business or demolition of a building within 30 days of the occurrence of such an event, no refund will be granted.

## 8.0 APPLICATION PROCEDURES

Any person wishing to discharge trade waste to sewer must make written application for an approval to discharge. Applicants should contact Council'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 Building Application for new premises or extensions intended for industrial and/or commercial usage;
- change in tenancy of such premises;
- change of ownership of such premises;
- shop fit-outs of such premises;
- during the processing of an application to strata title such premises;
- existing premises where trade waste is generated and no trade waste approval has been issued;
- where a change in process technology occurs.

Liquid waste disposal contractors wishing to discharge septage, portable toilet waste or other approved holding tank or liquid waste to the sewer or sewage treatment plant must be licensed (section 13) and must apply for an approval.

Application forms are available from the Council, or will be forwarded on request by telephoning or +writing to the Council.

Applications for approval to discharge Category 3 wastes are subject to an Agreement being negotiated and must be accompanied by the Application Fee (Section 7.4 and Appendix 3).

Applications should include details of the proposed method of pre-treatment to be used to ensure waste meets sewer admission limits. Treatment plans should be forwarded in triplicate with the application. One copy will be returned stamped "approved – trade waste only" if proposal is satisfactory.

Any plumbing and drainage work associated with the installation of any treatment process shall be in accordance with the Standard Sewerage Law and the Standard Water Supply Law, the National Plumbing and Drainage Code (AS/NZS 3500), and the approved sewerage drainage plan and be carried out by a licensed plumber and drainer.

Applicants are referred to Council's publication "Pre-treatment Guidelines for Trade Waste Discharges" for further guidance. A copy is available from Council's Customer Service Centre.

Where a waste is deemed to be non-sewerable, a Approval/Agreement 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 the Council's Regulatory Services Department; however detailed advice should be sought from appropriately qualified private consultants.

## 9.0 APPROVALS AND AGREEMENTS

### 9.1 Approvals

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

Trade Waste Approvals are not transferable.

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

- expiry/renewal date;
- the location of the premises and nature of the occupancy;
- the type and composition of trade waste that may be discharged;
- 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 estimation or measurement of discharge volume;
- provisions for measurement and sampling of 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;
- the obligations of the owner to pay trade waste charges issued as part of a rates notice;
- the obligations of the holder of the Approval to pay fees and additional charges due to the non-compliance (e.g. testing, inspections); and
- any other conditions considered by Council to be appropriate.

When the trade waste generator is not the owner, a copy of the Approval will also be supplied to the owner because of the owner's responsibilities for payment of trade waste charges.

### 9.2 Agreements

A trade waste generator producing waste assessed as suitable for sewer discharge and classified as Category 3 shall be required to negotiate a written trade waste agreement (Agreement) with Council. The Agreement will remain in force for the specified period unless cancelled sooner.

Trade Waste Agreements are not transferable.

The Agreement states the terms and conditions the holder of the Agreement must observe to discharge trade waste to Council'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;
- quantity of waste that may be discharged;
- rate of discharge – maximum instantaneous, maximum daily;
- hours of day, days of week discharge is allowed;
- 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 Council;
- 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 effect discharge quantity or quality including change of business type;
- the obligations of the owner to pay trade waste charges issued as part of the rates notice;
- the obligations of the holder of the Agreement to pay fees and additional charges due to non-compliance (e.g. testing, inspections); and
- any other conditions relevant to the particular discharge as agreed to.

When the trade waste generator is not the owner, a copy of the Agreement will also be forwarded to the owner because of the owner's responsibility to pay trade waste charges. Commercial confidence details will be withheld.

## **10.0 INSPECTION AND MONITORING**

For the purpose of monitoring and auditing the conditions of discharge, Council shall routinely and randomly inspect all premises occupied by the holder of a trade waste approval.

Inspections will include, but may 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.
- That there are no illegal stormwater connections to the trade waste system or sewerage.
- That there is no potential for trade waste to overflow improperly to sewer, stormwater or waterways.
- 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.
- Work practices do not result in a breach of the trade waste approval or legislation.

### **10.1 Inspection Chambers and/or Gauging Facility**

Category 3 waste shall be discharged to Council's 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 standard water supply outlet with back-flow prevention device installed in accordance with AS 3500 Part 1 and AS 2845.3 and approved by Council 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.

Where a commercial or industrial premises generates trade waste but does not discharge trade waste to Council's sewerage system, a suitable inspection point shall be installed on the house drain, in an accessible location prior to leaving the property and/or connecting into the Council sewer. This is to enable checks to be made to ensure that waste is not being discharged to sewer.

Arrestor trap installations and other pre-treatment devices on premises discharging Category 1 and 2 waste shall have an inspection opening provided externally to the building, within the premises, at finished ground level.

## **11.0 DETERMINATION OF DISCHARGE QUANTITY**

### **11.1 Category 1 and 2**

In the absence of an approved trade waste flow meter, the volume of trade waste discharged shall be estimated from total metered water consumption, less an allowance for domestic waste based on 100 kL/annum per pedestal and an allowance for water consumed on the property, based on a discharge factor.

Investigations have established a basis for estimation of 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 fraction applied when an approval is issued. Where there is no fraction available, 100% discharge will be assumed.

Where individual generators have information which would indicate a departure from these bases, application may be made for reconsideration of the fraction used.

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

## 11.2 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 100 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 11.1.

## 12.0 DETERMINATION OF DISCHARGE QUALITY

### 12.1 Category 1 and 2

Quality measurements for Category 1 and 2 discharges are required for compliance checks only. This shall be done by Council 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 when Council shall charge the holder of the approval as prescribed in Section 7.2.2.

### 12.2 Category 3

Quality measurements are required for both charging and compliance purposes.

For charging purposes a system of self monitoring by the discharger shall be used to collect sufficient 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 by Council shall be specified in the Agreement.

The holder of the Agreement shall meet all costs of self monitoring.

Council 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 Council as a result of non-compliance, Council shall charge the holder of the Agreement as prescribed in section 7.2.2.

## 13.0 SPECIFIC REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL WASTES

### 13.1 Removal of Regulated Waste from Premise

Removal of regulated waste from a premises shall only be carried out by waste transporters licensed in accordance with the Environmental Protection Act and the Environmental Protection Regulation 1998 and transported, stored, treated or disposed of in accordance with the requirements of the Environmental Protection (Waste Management) Regulation 2000.

No person shall discharge or cause to be discharged directly or indirectly to the sewer, wastes from any waste transport vehicle without a trade waste approval.

Removal and disposal of septic tank wastes, portable toilet waste and holding tank waste shall only be done by a licensed waste transporter. Such waste may be disposed of to sewerage in accordance with trade waste approval conditions.

Except as qualified in Section 14, grease arrestor waste and oil arrestor waste shall not be disposed of to the sewerage system. Such wastes shall be disposed of in a manner and/or at a site approved of in accordance with requirement of the Environmental Protection Act and the Environmental Protection Regulation 1998 and operated in accordance with the requirements of the Environmental Protection (Waste Management) Regulation 2000.

All waste transporters shall be required to maintain records as prescribed by Council to account for all waste collected and disposed of within or outside the Council's boundaries.

Trade waste charges in accordance with Section 7.5 will apply to all transported liquid and sludge waste approved for discharge to sewer.

Advice on the disposal of liquid waste not suitable for discharge to sewer may be obtained from Council's Regulatory Services Department.

## 13.2 Arrestor Installations

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

### 13.2.1 Grease Arrestors

Guidance on the sizing of grease arrestors is available from:

- Council's Pre-treatment Guidelines for Trade Waste Discharges
- The Standard Sewerage Law (Section 52)

The maximum capacity of an individual grease arrestor shall be 2000 litres. Where the capacity requirement for a premises is greater than 2000 litres, additional arrestors shall be used, with each arrestor to be a discrete installation separately treating a defined waste stream.

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

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

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

Maintenance cleaning of grease arrestors shall be carried out on a regular basis in accordance with conditions of the trade waste approval by a waste transporter licensed in accordance with the Environmental Protection Act and the Environmental Protection Regulation 1998.

In a situation where a grease arrestor is required for pre-treatment but can not be installed because of specific site constraints an equivalent arrestor charge (Section 7.1.3) will apply.

### 13.2.2 Mineral Oil Arrestors

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

- coalescing plate separators
- membrane technology
- diffused air flotation (DAF)
- chemical precipitation
- hydrocyclone
- triple staged interceptors
- other apparatus / methods

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

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

Maintenance 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 water shall be done by a waste transporter licensed in accordance with the Environmental Protection Act and the Environmental Protection Regulation 1998.

### 13.2.3 Other Arrestor Applications

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

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

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

Maintenance cleaning of arrestors shall be carried out on a regular basis in accordance with conditions of the trade waste approval by a waste transporter licensed in accordance with the Environmental Protection Act and the Environmental Protection Regulation 1998.

## 13.3 Enzymes/Micro-organisms

### 13.3.1 Enzyme and Bacterial Cultures

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

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

### 13.3.2 Genetically Modified Organisms (GMOs)

Any person wishing to discharge commercial products containing genetically modified organisms to sewerage must first obtain approval for release to coastal and inland waters from the Genetic Manipulation Advisory Committee, Canberra. Council may then grant approval for the discharge to 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.

### 13.4 Food Waste Disposal Units

Food waste disposal units (garbage grinders / sink to sewer disposal units) may be approved for non-domestic use by specific application to Council. Where installation is approved, an annual charge based on motor power shall be made (Section 7.1.4) for Category 1 and Category 2 approvals.

### 13.5 Commercial Swimming Pools / Ornamental Ponds

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

### 13.6 Medical, Clinical, Veterinary and Infectious Wastes

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

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

### 13.7 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 sewer or the stormwater system.

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

### 13.8 Discharge of Liquid Wastes from Buses, Aircraft and Vessels

#### 13.8.1 Vessels

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

Charges and fees in accordance with the category classification will apply.

The discharge of untreated bilge water to sewer is prohibited.

#### 13.8.2 Buses, Aircraft, Recreational Vehicles

The discharge of toilet waste from buses, aircraft or other recreational vehicles may be permitted at approved discharge locations such as bus or transport depots, terminals, and caravan parks. The owner of the premises on which such facilities are located must hold a trade waste approval and discharge must be in accordance with the approval conditions.

### 13.9 Landfill Leachate and Disposal Facility Wastewater

Leachate from landfill sites and wastewater from waste treatment/disposal facilities constitutes a trade waste and 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.

## 13.10 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 the sewerage system can cause severe operational problems to Council. However, there may be circumstances when it is environmentally beneficial to accept these wastes to the sewer under strict controls.

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

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

A trade waste approval is required to discharge such waste.

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

- all contaminated liquid waste is pumped to sewer at a rate acceptable to Council;
- all discharge to sewer ceases automatically after a predetermined level of rainfall volume (mm) and/or intensity (mm/hr) to be set by Council;
- 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 Council on the required "first flush" volumes to be collected;
- the "first flush" volume collected is pumped to sewer, after any necessary pre-treatment, no sooner than one (1) hour after cessation of rain;
- 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.

## 14.0 DISCRETIONARY POWER

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

## 15.0 REFERENCE TO COUNCIL

In this policy, reference to Council means any person appointed or authorised by Council to act on behalf of Council as the case may require.

## **Appendix 1**

### SELECTED LEGISLATION RELEVANT TO TRADE WASTE

Water Act 2000

Standard Sewerage Law 1998

Standard Water Law 1998

Environmental Protection Act 1994

Environmental Protection Regulation 1998

Environmental Protection (Waste Management) Regulation 2000

Environmental Protection Policy (Water) 1997

Local Government Act 1993

Integrated Planning Act 1998



## Appendix 2

### SEWER ADMISSION STANDARDS

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 from 1<sup>st</sup> October 1999. They are subject to periodic review.

#### I. GENERAL LIMITS

Parameter	Concentration mg/L except*
Temperature *	<38°C
pH *	6 – 10
Biochemical Oxygen Demand (BOD5) +	600
Chemical Oxygen Demand (COD) +	1500
Total Organic Carbon (TOC) +	1200
Suspended Solids +	600
Total dissolved solids (TDS) +	10000
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 Council's sewerage system
Chlorine (as Cl <sub>2</sub> )	10
Sulphate (as SO <sub>4</sub> <sup>-</sup> )#	2000
Sulphite (as SO <sub>2</sub> )	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
Phosphorus (Total P)#	50
Manganese (as Mn)	100

#### NOTE:

- + the total mass load and the capacity of the sewerage system to accept the load shall be considered for each application.
- # Council may in some circumstances accept waste containing higher concentrations of these substances. Additional charges for treatment (clause 7.6) will apply.

#### II. PROHIBITED DISCHARGES

Flammable/explosive substances.

Radioactive substances except as allowed for under the Queensland Radioactive Substances Act.

Pathological and infectious waste and Cytotoxic waste except as allowed for under the *National Guidelines for the Management of Clinical and Related Wastes*, National Health and Medical Research Council, 1988.

Genetically engineered organisms.

Rainwater and uncontaminated water.

#### III. SPECIFIC LIMITS - INORGANIC

Parameter	Concentration mg/L
Boron (B)	100
Bromine (Br <sub>2</sub> )	10
Flouride (F <sup>-</sup> )	30
Cyanide (CN <sup>-</sup> )	5
Sulphide (S <sup>-</sup> )	5

IV. SPECIFIC LIMITS - METALS

Parameter	Maximum Concentration mg/L	Lower Daily Mass Load, g/day
Arsenic (As)	5	15
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

NOTE

The concentration values apply to dischargers having a daily mass load between the Lower Daily Mass Load (LDML) and the Upper Daily Mass Load (UDML). For small dischargers with a daily mass load below the LDML, no concentration limits apply. Dischargers who exceed Council'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.

V. SPECIFIC LIMITS - ORGANIC

Council 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	
Methamidop	
hos	
Mevinphos	
Omethoate	
Oxydemeton-methyl	
Parathion	
Triazophos	
Trichlorfon	

SPECIFIC LIMITS – ORGANIC, continued

Parameter	Maximum Concentration mg/L
Pesticides – Organochlorines	
Aldrin	0.001
Chlordane	0.006
DDT	0.003
Dieldrin	0.001
Heptachlor	0.003
Lindane	0.100

NOTE

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

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