General Policy

WATER AND WASTE

TRADE WASTE ENVIRONMENTAL MANAGEMENT PLAN

This policy is to remain in force until otherwise determined by Council.
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Intent  Provide for treatment (subject to conditions) of biodegradable waste into the sewerage systems such that discharges to receiving waters maintain or enhance receiving water quality.

Scope  The policy applies to all liquid waste generated by industry, small business and commercial enterprises.

1. INTRODUCTION

Liquid wastes are produced by a variety of industrial, commercial and domestic activities. The Environmental Protection Act 1994 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. Water Supply (Safety and Reliability) Act 2008 prohibits the unauthorised discharge of wastes, other than domestic sewage, into the sewerage system. The options for producers of trade waste are to have it treated at an approved treatment facility, obtain approval from Water and Waste to discharge to the sewerage system, or to obtain an environmental authority under the Environmental Protection Act 1994 to treat the waste themselves before discharge to the environment.

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

In the past, residential ratepayers have had to bear the extra costs involved with the treatment of commercial & industrial discharges. The purpose of the Trade Waste Policy is also to remove this burden and provide a true user pays system.

Water and Waste is required to meet the conditions of the environmental authority (licence), issued by the Environmental Protection Agency (EPA), for its sewerage system including the disposal and reuse of treated effluent and biosolids. Water and Waste is also required by the Water Supply (Safety and Reliability) Act 2008 and the Environmental Protection (Water) Policy 2009 (EPP (Water)) to fully assess the effect of trade waste on the sewerage system and the environment before issuing a trade waste approval.

Under the Environmental Protection Act, Cairns Regional Council is held responsible for any pollution from stormwater outfalls under its control. The discharge of trade waste to stormwater drainage is prohibited under the Local Government Act 2009. The stormwater system must only be used for the disposal of uncontaminated stormwater runoff.

Domestic sewage consists mostly of water which, after treatment to reduce biodegradable material, suspended solids and nutrients, can be disposed of in accordance with its environmental authority requirements. Water and Waste is actively seeking opportunities to reuse and recycle treated effluent and biosolids.
Trade waste may have an organic strength many times that of domestic sewage and may overload the treatment facility. Trade waste may also contain other substances such as high levels of fats and grease, heavy metals, organic solvents and chlorinated organic substances which sewerage systems are not designed to treat. These substances may:

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

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

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

Discharge of waste containing substances in amounts liable to be toxic or hazardous to the sewerage system, treatment process, personnel or the environment is prohibited. Water and Waste 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 Water and Waste's sewerage operations, and in line with national practice, trade waste approvals are available for public scrutiny. Commercially confidential details may be withheld.

2. 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.

Water and Waste
In this plan a reference to Water and Waste means Water and Waste or any person appointed or authorised by Water and Waste to act on behalf of Water and Waste as the case may require.

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

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

Effluent
The liquid discharged following a wastewater treatment process.

Generator
See trade waste generator

Human wastes
Human faecal substances and urine.
Owner
As defined in the Local Government Act 2009.

Permit
See trade waste permit

Premises
A lot as defined in section 1.3.5 of the Sustainable Planning Act 2009, and includes a lot that has a building situated on it, or that is wholly or partly contained in, or that wholly of partly contains, a building.

Premises Group
The land comprised 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 (BCCMA) 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 BCCMA – the scheme land for the scheme; or (b) if the premises are lots under BUGTA – the parcel of which the premises form part.

Prohibited substances

Regulated waste
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.

Sewage
The wastewater from the community including all faecal matter, urine, household and commercial wastewater that contains 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 liquid 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 Water and Waste’s sewerage system.

Trade waste approval
Written approval by Water and Waste for a person to discharge trade waste to Water and Waste’s sewerage system. See Trade waste agreement and Trade waste permit.

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

Trade waste officer
Trade waste officer means a person holding appointment as a trade waste officer of Water and Waste.

Trade waste permit (Permit)
Trade waste approval for the discharge of liquid waste classified as Category 1 or 2. It states the terms and conditions to be met by the trade waste generator and the owner with respect to the discharge of trade waste into Water and Waste’s sewerage system.

3. TRADE WASTE POLICY

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

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

To promote water conservation.

To assist Water and Waste to meet its statutory obligations.


Process
Water and Waste 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 / mass limits for sewerable wastes);
- conditional trade waste approvals (permits and agreements);
- “user pays” pricing; and
- effluent improvement programs.

4. CONTROL OF TRADE WASTE

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

It is an offence to discharge trade waste to the sewer unless a trade waste approval has been issued by Water and Waste Water Supply (Safety and Reliability) Act 2008. 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 Water and Waste 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 permit (Permit) for Category 1 and 2 wastes and a trade waste agreement (Agreement) for Category 3 wastes.

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

4.1 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 2008.

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

4.2 PENALTIES AND RECOVERY OF COSTS

Water and Waste 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 Water and Waste pursuant to the relevant Acts and Regulations. Penalties are set out in the appropriate Acts and Regulations, and include substantial fines.
Water and Waste may recover costs of repairing the damaged sewerage system from a person causing damage to the system by discharging unauthorised material, making an unauthorised connection or interfering with infrastructure.

5. SEWER ADMISSION LIMITS

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

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

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

Water and Waste 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. Water and Waste has obligations to avoid sewer overflows and consequently will impose limits on the rate and timing of trade waste discharges.

5.1 EFFLUENT IMPROVEMENT PROGRAMS

For Category 1 and 2 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(s) (Schedule 1, Appendix 2).

Water and Waste 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, Appendix 2). Additional charges (section 7.1.2) may apply for such parameters.

Where such an agreement is made, Water and Waste 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;
- a report for Water and Waste, including a summary of achievements and options.

Trade waste generators will be advised in writing if Water and Waste 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 Water and Waste requesting an extension of time with reasons.

Water and Waste may issue a new trade waste approval, subject to conditions that:

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Category 1 low strength/low volume</th>
<th>Category 2 low strength / high volume</th>
<th>Category 3 high strength/ any volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical Oxygen Demand (BOD₅), mg/L</td>
<td>&lt; 600</td>
<td>&lt; 600</td>
<td>&gt;600</td>
</tr>
<tr>
<td>Chemical Oxygen Demand (COD), mg/L</td>
<td>&lt; 1200</td>
<td>&lt; 1200</td>
<td>&gt; 1200</td>
</tr>
<tr>
<td>Suspended Solids, mg/L</td>
<td>&lt; 600</td>
<td>&lt; 600</td>
<td>&gt; 600</td>
</tr>
<tr>
<td>Total Kjeldahl Nitrogen, mg/L N</td>
<td>&lt; 150</td>
<td>&lt; 150</td>
<td>&gt; 150</td>
</tr>
<tr>
<td>Total Phosphorus, mg/L P</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>Volume, kl/annum</td>
<td>&lt; 500</td>
<td>&gt; 500</td>
<td>Any</td>
</tr>
<tr>
<td>Trade waste approval</td>
<td>Permit</td>
<td>Permit</td>
<td>Agreement</td>
</tr>
<tr>
<td>Charges</td>
<td>Annual Charge (see section 7.1.1)</td>
<td>Quantity based charge (see section 7.1.1)</td>
<td>Quantity/Quality charge on total annual load (see section 7.1.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum charge applies</td>
<td>Minimum charge applies</td>
</tr>
</tbody>
</table>

Acceptance of waste under any category is conditional on the waste meeting Water and Waste's Sewer Admission Limits (section 5 and Appendix 2) unless otherwise specified in the trade waste approval.

It is the responsibility of the trade waste generator to install, operate and maintain "best practice" pre-treatment devices 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.

7. TRADE WASTE CHARGES AND FEES

Trade waste charges and fees are levied under sections 36, 973 and 1071A of the Local Government Act. Charges and fees to be levied for the ensuing financial year will be determined by Cairns Regional 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 Water and Waste 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) Permit fees forwarded annually for category 1 and category 2, with volume charges billed four (4) monthly;
- b) forwarded quarterly for Category 3;
- c) a debt due by the generator;
- d) recoverable as per Council’s Debt Recovery Processes

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 and 2:**
- An annual flat charge (non refundable) to cover the cost of treatment and recurring administration and overhead costs associated with trade waste control shall apply.
- Where the water consumed for the property exceeds 1.37 kilolitres per day a quantity charge shall apply.

**Category 3:**
- A quantity and quality charge on the total annual discharge of trade waste to the sewer to be calculated as follows:

\[
C = Qa + Qx_1n_1/1000 + Qx_2n_2 /1000 + \ldots.
\]

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.

- A minimum charge to cover administration, inspection and compliance testing shall apply.

* "a" is the unit charge for the volume component only and should not be confused with “k “(Category 2) which is a volume based charge which reflects the total cost of operation and treatment for the sewerage system for both volume and mass load based on domestic strength sewage.
7.1.2 ADDITIONAL CHARGES FOR OVER LIMIT DISCHARGE

This charge applies:

a) Where Water and Waste agrees to accept to sewerage waste which has properties in excess of those defined in the General Limits (Schedule 1, Appendix 2) 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 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 charge shall apply to each non-complying parameter in addition to the general charges under section 7.1.1.

The formula for calculation is:

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

- d is a constant to be determined by Water and Waste;
- 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 Water and Waste 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 and quantity, to have arrestors installed and 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, 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 under section 7.1.1.

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

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 routine inspections and quality compliance / auditing analyses by Water and Waste. 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.
7.2.2 APPLICATION FEES

Applications for approval to discharge Category 3 waste must be accompanied by the prescribed application fee.

No application fee is required for applications for the discharge of Category 1 and 2 wastes.

7.2.3 SEPTIC TANK AND OTHER LIQUID WASTE FEES

Licensed waste transporters (section 13) and other persons disposing of septic tank, 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.

7.2.4 PENALTY CHARGES FOR NON-SERVICING OF ARRESTORS

Penalty charges based on equivalent arrestor charges (section 7.1.3) 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 Permit.

7.3 REFUNDS ON CESSATION OF DISCHARGE

No refunds on cessation of discharge shall apply.

8. APPLICATION PROCEDURES

Any person wishing to discharge trade waste to sewer must make written application for an approval to discharge. Applicants should contact Water and Waste’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; or
- where a change in process technology occurs.

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

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

Water and Waste
Trade Waste Section
119-145 Spence Street Cairns

or will be forwarded on request by telephoning 4044 8204 or by writing to the Water and Waste at

P.O. Box 359
CAIRNS QLD 4870

Failure to provide all required information will result in delays in approvals.
Applications for approval to discharge Category 3 waste are subject to an Agreement being negotiated and must be accompanied by the Application Fee (section 7.2.2 and Appendix 3).

Applications should include details of the proposed method of pre-treatment to be used to ensure waste meets sewer admission limits. Two (2) copies of treatment plans should be forwarded with the application. One copy will be returned stamped "approved- trade waste" if the proposal is satisfactory.

Any plumbing and drainage work associated with installing any treatment process shall be in accordance with the Plumbing and Drainage Act 2002 and the standard Plumbing and Drainage Regulation 2003, the National Plumbing and Drainage Code (AS/NZS 3500), and the approved sewerage drainage plan. It must be carried out by a licensed plumber and drainer.

Applicants are referred to Water and Waste's publication "Pre-treatment Guidelines for Trade Waste Discharges" for further guidance. A copy is available from:

Water and Waste
Trade Waste Section
119-145 Spence Street, Cairns

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 Water and Waste, however detailed advice should be sought from appropriately qualified private consultants.

9. PERMITS AND AGREEMENTS

9.1 PERMITS

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

Trade waste permits are not transferable.

The Permit states the terms and conditions the holder of the Permit must observe to discharge trade waste to Water and Waste's sewerage. 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 Water and Waste’s sewer admission limits as specified in Appendix 2 of the TWEMP (or attached to the Permit) and details of any allowed variations;
- the quantity of trade waste that may be discharged;
- the rate of discharge, including maximum rate of discharge;
- the time when trade waste may be discharged;
- the period for which trade waste may be discharged;
- the method for estimating or measuring discharge volume;
- provisions for measuring and sampling discharge 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 7 of the TWEMP; and
• any other conditions considered by Water and Waste to be appropriate.

9.2 AGREEMENTS

A trade waste generator producing waste assessed as suitable for sewer discharge and classified as Category 3 may be issued with a written trade waste approval in the form of a trade waste agreement (Agreement). The Agreement shall 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 Water and Waste’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 Water and Waste’s sewer admission limits as specified in Appendix 2 of the TWEMP (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/detalis 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 Water and Waste;
• 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;
• a statement that trade waste charges and fees apply and shall be paid in accordance with section 7 of the TWEMP; and
• any other conditions relevant to the particular discharge as agreed.

10. INSPECTION AND MONITORING

For the purpose of monitoring and auditing the conditions of discharge, Water and Waste 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.
- Checks to ensure that there are no illegal tradewaste connections to stormwater or sewer and that there is no potential for trade waste to overflow improperly to 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.

10.1 INSPECTION CHAMBERS AND/OR GAUGING FACILITY

Category 3 waste shall be discharged to Water and Waste'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 Water and Waste's officers, 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 AS 2845.3 and approved by Water and Waste 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 a commercial or industrial premises generates trade waste but does not discharge trade waste to Water and Waste'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 Water and Waste sewer. This is to enable checks to be made to ensure that trade waste is not being discharged to sewer.

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

11. 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 136 kL/annum per pedestal and an allowance for water consumed on the property, based on a discharge factor.

Investigations have established a basis for estimating the proportion of water consumption discharged as trade waste by various types of trade and manufacturing processes. These will form the basis of the initial fraction applied when a permit is issued. Where there is no fraction available, 100 per cent discharge will be assumed.

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

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 Permit 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 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 11.1.

12. 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 Water and Waste 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 Water and Waste shall charge the holder of the approval as prescribed in section 7.2.1 and Appendix 3.

12.2 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 Water and Waste shall be specified in the Agreement.

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

Water and Waste 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 Water and Waste as a result of non-compliance, Water and Waste shall charge the holder of the Agreement as prescribed in section 7.2.1 and Appendix 3.

13. SPECIFIC REQUIREMENTS FOR COMMERCIAL AND INDUSTRIAL WASTES

13.1 REMOVING REGULATED WASTE FROM PREMISES

Removing 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 Regulation 1998 and the Environmental Protection (Waste Management) Regulation 2000.
No person shall discharge or cause to be discharged directly or indirectly to sewerage, wastes from any waste transport vehicle without a trade waste approval. Removing and disposing of septic tank waste, 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 approval conditions.

Waste from grease and oil arrestors, other than treated effluent from approved installations (section 13.2), shall not be disposed of to 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 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 Water and Waste to account for all waste collected, and disposed of within or outside Water and Waste’s local government area from pre-treatment facilities.

Trade waste charges in accordance with Section 7.2.3 and Schedule VI Appendix 3 will apply to all transported liquid and sludge waste approved for discharge to sewerage.

Advice on the disposal of liquid waste not suitable for discharge to sewerage may be obtained from:

Water and Waste
Trade Waste Section
P.O. Box 359
CAIRNS QLD 4870
Telephone: 4044 8204

13.2 ARRESTOR INSTALLATIONS

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

13.2.1 GREASE ARRESTORS

Guidance on the sizing and installation of grease arrestors is available from

- Water and Waste’s Pre-treatment Guidelines for Trade Waste Discharges

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.

In certain circumstances Water & Waste may approve the installation of an arrestor in excess of a 2,000 litre 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 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 Water and Waste prior to installation.

For the purpose of odour control, Water and Waste may, at its discretion, require grease arrestors to be fitted with full length and width opening, gas tight covers and frames.

The use of solvents, enzymes, mutant or natural bacterial cultures, odour control agents or pesticides in grease arrestors is prohibited unless specifically approved by Water and Waste. Conditional approval may be given to allow the trade waste generator to demonstrate to Water and Waste 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 under the Environmental Protection Act 1994 and the Environmental Protection Regulation 1998.

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 7.1.3) will apply.

All final decisions on the size and type of grease arrestors will be made by Water and Waste Trade Waste Officers.

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.

13.2.2 MINERAL OIL ARRESTORS

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.

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 waste transporter licensed under the Environmental Protection Act and the Environmental Protection Regulation.

13.2.3 OTHER ARRESTOR APPLICATIONS

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

- silt separation;
- oil and grease (non petroleum);
- cooling;
- neutralisation; and
- other specific applications approved by Water and Waste.
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 under the Environmental Protection Act and the Environmental Protection Regulation.

### 13.3 ENZYMES / BIOLOGICAL ADDITIVES

#### 13.3.1 ENZYME AND BACTERIAL CULTURES

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

Applicants will need to demonstrate to Water and Waste 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 Technology Regulator, Canberra. Water and Waste 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.

### 13.4 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 Water and Waste. Where installation is approved, the annual charge shall be based on motor power (section 7.1.4 and Appendix 3) for Category 1 and Category 2 approvals.

### 13.5 COMMERCIAL SWIMMING POOLS / ORNAMENTAL PONDS

The back wash water and water from commercial and public swimming pools and ornamental ponds may not be discharged to sewer without a trade waste approval, Water Supply (Safety and Reliability) Act 2008 Section 193(5). 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 tissue, shall not be discharged to the sewer.

Discharging liquid 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 National Guidelines for Waste Management in the Health Industry, 1999, National Health and Medical Research Council.
Infectious or hazardous liquid wastes deemed to pose a threat to public health and safety may not be discharged to the sewer without approval from Water and Waste. 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 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.

13.8 DISCHARGE OF LIQUID WASTES FROM VESSELS, VEHICLES AND AIRCRAFT

13.8.1 VESSELS

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

Charges in accordance with section 7.2.3 will apply.

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

13.8.2 BUSES, AIRCRAFT, RECREATIONAL VEHICLES

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

Charges in accordance with section 7.2.3 will apply.

13.9 LANDFILL LEACHATE & 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 sewerage can cause severe operational problems for Water and Waste. 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 management of polluted areas such as roofing or other methods to keep water away from the open area. Applicants must demonstrate to Water and Waste 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 Water and Waste ensure that:

- all contaminated liquid waste is pumped to sewer at a rate acceptable to Water and Waste;
- all discharge to sewer ceases automatically after a predetermined level of rainfall volume (mm) and/or intensity (mm/hr) to be set by Water and Waste;
- 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 Water and Waste 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;
- 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.

### 13.11 DENTAL LABORATORIES

A Trade Waste Permit will not be required for Dental Laboratories provided any waste waters generated are discharged to sewer through an Amalgum Separator.

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

### 13.12 AUTOMATIC CAR WASH WASTE

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

### 14. DISCRETIONARY POWER

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

### 15. IMPLEMENTATION

This plan will become effective immediately.

### 16. RECORDS AND REPORTS

Water and Waste will develop a waste database for the purpose of maintaining, in a publicly accessible form, information on waste generation within Cairns Regional Council's local government area. The database will list information on wastes routinely produced by commerce and industry, by location, volume and character.
A component of the database will contain trade waste information based on information produced by holders of trade waste approvals, and from monitoring conducted by or under Water and Waste direction.

The waste database will facilitate the local recycling and reuse of waste, and will assist the Water and Waste in waste management planning and reporting.

Water and Waste will report annually on the implementation of its trade waste environmental management plan to the Environmental Protection Agency / the Department of Natural Resources through the Total Management Planning Process.

This policy is to remain in force until otherwise determined by Council.

General Manager Responsible for Review: General Manager Water and Waste

I certify that this Trade Waste Environmental Management Plan complies with the Environmental Protection (Water) Policy 2009

Stewart Abercromby RPEQ 1568
APPENDIX 1

SELECTED LEGISLATION RELEVANT TO TRADE WASTE

Water Supply (Safety and Reliability) Act 2008
Plumbing and Drainage Act 2002
Standard Plumbing and Drainage Regulation 2003

Environmental Protection Act 1994
Environmental Protection (Water) Policy 2009
Environmental Protection Regulation 1998
Environmental Protection (Waste Management) Policy 2000
Environmental Protection (Waste Management) Regulation 2000

Local Government Act 2009

Sustainable Planning Act 2009

Radiation Safety Act 1999
Radiation Safety Regulation 1999

Gene Technology Act 2001 (Queensland Legislation)
Gene Technology Act 2000 (Commonwealth Legislation)
APPENDIX 2

SEWER ADMISSION LIMITS

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

Schedule I . GENERAL LIMITS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Concentration, mg/L except *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature *</td>
<td>&lt; 38°C</td>
</tr>
<tr>
<td>pH *</td>
<td>6 - 11</td>
</tr>
<tr>
<td>Biochemical Oxygen Demand (BOD₅) +#</td>
<td>600 mg/l</td>
</tr>
<tr>
<td>Chemical Oxygen Demand (COD) +#</td>
<td>1200 mg/l</td>
</tr>
<tr>
<td>Total Organic Carbon (TOC) +#</td>
<td>1200 mg/l</td>
</tr>
<tr>
<td>Suspended Solids +#</td>
<td>600 mg/l</td>
</tr>
<tr>
<td>Total dissolved solids (TDS) +#</td>
<td>4000 mg/l</td>
</tr>
<tr>
<td>Total oil/grease (freon extractable)</td>
<td>200</td>
</tr>
<tr>
<td>Gross solids *</td>
<td>non faecal gross solids shall have a maximum linear dimension of less than 20mm and a quiescent settling rate of less than 3m/hr.</td>
</tr>
<tr>
<td>Colour *</td>
<td>limited such as not to give any discernible colour in treatment works discharge</td>
</tr>
<tr>
<td>Odour *</td>
<td>not detectable in 1% dilution or causing an odour problem in Water and Waste’s sewerage system</td>
</tr>
<tr>
<td>Chlorine (as Cl₂)</td>
<td>10</td>
</tr>
<tr>
<td>Sulphate (as SO₄²⁻) #</td>
<td>2000</td>
</tr>
<tr>
<td>Sulphite (as SO₃) #</td>
<td>100</td>
</tr>
<tr>
<td>Surfactants - Anionic (MBAS)</td>
<td>500</td>
</tr>
<tr>
<td>Aluminium (as Al) #</td>
<td>100</td>
</tr>
<tr>
<td>Iron (as Fe) #</td>
<td>100</td>
</tr>
<tr>
<td>Ammonia plus ammonium ion (as N) #</td>
<td>100</td>
</tr>
<tr>
<td>Total Kjeldahl Nitrogen (as N) #</td>
<td>150</td>
</tr>
<tr>
<td>Total Phosphorus (as P) #</td>
<td>50</td>
</tr>
<tr>
<td>Manganese (as Mn)</td>
<td>100</td>
</tr>
</tbody>
</table>

+ The total mass load and the capacity of the sewerage system to accept the load shall be considered for each application.
# Water and Waste may in some circumstances accept waste containing higher concentrations of these substances. Additional charges for treatment (section 7.1.2) will apply.

Schedule II PROHIBITED DISCHARGES

- Prohibited substances as defined in Schedule 1 of the Water Supply (Safety and Reliability) Act 2008
- Flammable/explosive substances.
- Pathological and infectious waste and Cytotoxic waste except as allowed for under the National Guidelines for Waste Management in the Health Industry, National Health and Medical Research Council, 1999.
- Genetically modified (engineered) organisms.
- Rainwater and stormwater and uncontaminated water.
### Schedule III SPECIFIC LIMITS - INORGANIC

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Concentration, mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron (B)</td>
<td>100</td>
</tr>
<tr>
<td>Bromine (Br₂)</td>
<td>10</td>
</tr>
<tr>
<td>Fluoride (F⁻)</td>
<td>30</td>
</tr>
<tr>
<td>Cyanide (CN⁻)</td>
<td>5</td>
</tr>
<tr>
<td>Sulphide (S⁻)</td>
<td>5</td>
</tr>
</tbody>
</table>

### Schedule IV SPECIFIC LIMITS - METALS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum Concentration mg/L</th>
<th>Lower Daily Mass Load g/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (As)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>75*</td>
</tr>
<tr>
<td>Hexavalent</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Cobalt (Co)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>0.05</td>
<td>0.15</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Selenium (Se)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Silver (Ag)</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Tin (Sn)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>10</td>
<td>75</td>
</tr>
</tbody>
</table>

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 Water and Waste'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.
Schedule V. SPECIFIC LIMITS - ORGANIC

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum Concentration, mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (HCHO)</td>
<td>50</td>
</tr>
<tr>
<td>Phenolic compounds (as Phenol)</td>
<td>100</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>5</td>
</tr>
<tr>
<td>Petroleum hydrocarbons</td>
<td>30</td>
</tr>
<tr>
<td>Halogenated Aliphatic hydrocarbons</td>
<td>5</td>
</tr>
<tr>
<td>Halogenated Aromatic Hydrocarbons (HAHs)</td>
<td>0.002</td>
</tr>
<tr>
<td>Polychlorinated biphenyls (PCBs)</td>
<td>0.002</td>
</tr>
<tr>
<td>Polybrominated biphenyls (PBBs)</td>
<td>0.002</td>
</tr>
<tr>
<td>Polynuclear Aromatic Hydrocarbons (PAHs)</td>
<td>5</td>
</tr>
<tr>
<td>Pesticides: General(insecticides /herbicides/fungicides)**</td>
<td>1.0</td>
</tr>
<tr>
<td>Pesticides: Organophosphates</td>
<td>0.1</td>
</tr>
<tr>
<td>Azinphos-methyl</td>
<td></td>
</tr>
<tr>
<td>Azinphos-ethyl</td>
<td></td>
</tr>
<tr>
<td>Coumaphos</td>
<td></td>
</tr>
<tr>
<td>Demeton</td>
<td></td>
</tr>
<tr>
<td>Dichlorvos</td>
<td></td>
</tr>
<tr>
<td>Dimethoate</td>
<td></td>
</tr>
<tr>
<td>Disulfoton</td>
<td></td>
</tr>
<tr>
<td>Fenitrothion</td>
<td></td>
</tr>
<tr>
<td>Fenthion</td>
<td></td>
</tr>
<tr>
<td>Malathion</td>
<td></td>
</tr>
<tr>
<td>Methamidophos</td>
<td></td>
</tr>
<tr>
<td>Mevinphos</td>
<td></td>
</tr>
<tr>
<td>Omeathoate</td>
<td></td>
</tr>
<tr>
<td>Oxydemeton-methyl</td>
<td></td>
</tr>
<tr>
<td>Parathion</td>
<td></td>
</tr>
<tr>
<td>Triazophos</td>
<td></td>
</tr>
<tr>
<td>Trichlorfon</td>
<td></td>
</tr>
<tr>
<td>Pesticides- Organochlorines</td>
<td></td>
</tr>
<tr>
<td>Aldrin</td>
<td>0.001</td>
</tr>
<tr>
<td>Chlordane</td>
<td>0.006</td>
</tr>
<tr>
<td>DDT</td>
<td>0.003</td>
</tr>
<tr>
<td>Dieldrin</td>
<td>0.001</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>0.003</td>
</tr>
<tr>
<td>Lindane</td>
<td>0.100</td>
</tr>
</tbody>
</table>

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

Schedule VI. Any substance not listed in the above tables is a prohibited discharge and may not be discharged without prior approval of Water and Waste. Water and Waste may request specific demonstrable evidence based on degradability and toxicity for any substance when assessing acceptance to sewer.
APPENDIX 3

TRADE WASTE CHARGES AND FEES FOR 2013/2014 FINANCIAL YEAR

Trade waste charges and fees for the 2010/2011 financial year are listed below. These charges are reviewed annually by Water and Waste as part of its budget process.

I: General trade waste charges (section 7.1.1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Annual charge</th>
<th>Volume</th>
<th>Minimum charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>$217.00</td>
<td>$1.45</td>
<td>$217.00</td>
</tr>
<tr>
<td>Category 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II: Additional charges for over limit discharge (section 7.1.2)

For all parameters:
- d = 1.0
- Charge/kg = $ Approved means Sewer Admission Limit unless otherwise specified in trade waste approval

III: Equivalent arrestor charges (section 7.1.3)

500 Litre - $783.80/annum; 1,000 Litre - $1,176.50/annum; 2,000 Litre - $1,412.60/annum.

IV: Charges for food waste disposal units (section 7.1.4)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rated Power, watts</th>
<th>Rating</th>
<th>Rate Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A</td>
<td>100-700 watt</td>
<td>$1,304.80</td>
<td>per annum</td>
</tr>
<tr>
<td>Category B</td>
<td>Over 700 watts</td>
<td>$2,611.00</td>
<td>per annum</td>
</tr>
<tr>
<td>Category C</td>
<td>Hospitals &amp; Nursing Homes</td>
<td>$979.60</td>
<td>per annum</td>
</tr>
</tbody>
</table>

V: Inspection and analysis fees (section 7.2.1)

Inspection charges: Water and Waste’s charge out rate
Laboratory Analyses: Full cost of laboratory charges

VI: Application fees (section 7.2.2)

<table>
<thead>
<tr>
<th>Category</th>
<th>Permit</th>
<th>No charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>Permit</td>
<td>No charge</td>
</tr>
<tr>
<td>Category 2</td>
<td>Permit</td>
<td>No charge</td>
</tr>
<tr>
<td>Category 3</td>
<td>Agreement</td>
<td>$238.60</td>
</tr>
</tbody>
</table>

VII: Septic tank and other approved liquid waste (section 7.2.3)

- Septic: $27.70 per KL
- Septic Holding Tank: $1.45 per KL - minimum charge $14.50
- Shipboard Waste Septic: $27.70 per KL
- Shipboard Waste Holding Tank: $1.45 per KL - minimum charge $14.50
- Other approved – Strength charge on individual basis

† It may be appropriate to have different charges for different waste types.