

Policy

Discharge of liquid trade waste to the sewer system

Version 2.1

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1. Policy objective

The objectives¹ of this policy are:

- to protect public health
- to protect the health and safety of Council employees
- to protect the environment from the discharge of wastewater that may have a detrimental effect
- to protect Council assets from damage
- to assist Council to meet its statutory obligations
- to provide an environmentally responsible liquid trade waste service to the non-residential sector
- to encourage wastewater minimisation and cleaner production in the commercial and industrial sectors
- to promote water conservation, water recycling and biosolids reuse
- to ensure compliance of liquid trade waste dischargers with Council's approved conditions
- to provide operational data on the volume and composition of industrial and commercial effluent to assist in the operation of the sewerage system and the design of augmentations or new sewerage systems
- to ensure commercial provision of services and full cost recovery through appropriate sewerage and liquid trade waste fees and charges.

1.1. Definitions

Authorised assumed concurrence: Council may apply to the Secretary, Department of Planning and Environment for authorisation to assume concurrence for Council's approval of Classification B and Classification S discharges. If granted, Council will no longer need to forward such applications to the Department for concurrence, provided that Council complies with the conditions outlined in the notice of concurrence.

Automatic assumed concurrence: Council has been granted assumed concurrence for approval of Classification A discharges, provided that Council complies with conditions outlined in the notice of concurrence. Such applications may be approved by Council without forwarding the application to the Department for concurrence.

Bilge water: minor amounts of water collecting in the bilge of a vessel from spray, rain, seepage, spillage and boat movements. Bilge water may be contaminated with oil, grease, petroleum products and saltwater.

Biochemical Oxygen Demand (BOD₅): The amount of oxygen utilised by micro-organisms in the process of decomposition of organic material in wastewater over a period of five days at 20°C. In practical terms, BOD is a measure of biodegradable organic content of the waste.

Biosolids: Primarily organic solid product produced by sewage processing. Until such solids are suitable for beneficial use, they are defined as wastewater solids or sewage sludge.

Blackwater: wastewater containing human excrement (i.e. faeces, urine).

Bunding: Secondary containment provided for storage areas, particularly for materials with the propensity to cause environmental damage.

Chemical Oxygen Demand (COD): A measure of oxygen required to oxidise organic and inorganic matter in wastewater by a strong chemical oxidant. Wastewaters containing high levels of readily oxidised compounds have a high COD.

Chemical toilet: Toilet in which wastes are deposited into a holding tank containing a deodorizing or other chemicals; wastes are stored and must be pumped out (and chemical recharged) periodically.

Commercial Kitchen/Caterer: For the purpose of these Guidelines, a commercial kitchen is a premises that is typically a stand-alone operation and prepares food for consumption off-site. These types of businesses

¹ The above objectives are consistent with the *National Framework for Wastewater Source Management* on page 17 of the *Australian Sewage Quality Management Guidelines, June 2012*, Water Services Association of Australia (WSAA).

typically cater to wedding functions, conferences, parties, etc. This definition would not apply to a food processing factory supplying pre-prepared meals to an airline company or similar.

Concurrence is required before a council may approve an application for the discharge of liquid trade waste (including septic tank and pan waste) to the sewerage system. It is a requirement under section 90(1) of the Local Government Act and clause 28 of the *Local Government (General) Regulation 2005* that council obtain the written concurrence of the Secretary, prior to approving such waste to be discharged to the council's sewerage system. Such concurrence request is to be provided to the NSW Office of Water (a division of NSW Department of Primary Industries).

Contingency plan: A set of procedures for responding to an incident that will affect the quality of liquid trade waste discharged to the sewerage system. The plan also encompasses procedures to protect the environment from accidental and unauthorised discharges of liquid trade waste to the stormwater drainage system, and leaks and spillages from stored products and chemicals.

DPE: the NSW Department of Planning and Environment, the Department responsible for providing concurrence with trade waste approvals.

Due diligence program: A plan that identifies potential health and safety, environmental or other hazards (e.g. spills, accidents or leaks) and appropriate corrective actions aimed at minimising or preventing the hazards.

Effluent: The liquid discharged following a wastewater treatment process.

Effluent Improvement Plan (EIP): The document required to be submitted by a discharger who is not meeting the acceptance limits for discharge waste quality set down in Council's approval conditions and/or liquid trade waste agreement. The document sets out how the discharger will meet the acceptance limits for the discharge of liquid trade waste to the sewerage system within the agreed timeframe.

Galley waste: In this Policy, a liquid waste from a kitchen or a food preparation area of a vessel; solid wastes are excluded.

Heavy metals: Metals of high atomic weight which in high concentrations can exert a toxic effect and may accumulate in the environment and the food chain. Examples include mercury, chromium, cadmium, arsenic, nickel, lead and zinc.

Housekeeping: is a general term, which covers all waste minimisation activities connected with the way in which operations within the premises are carried out.

Industrial discharges: Industrial liquid trade waste is defined as liquid waste generated by industrial or manufacturing processes.

Local Government Regulation: *Local Government (General) Regulation 2005* under the *Local Government Act 1993*.

Liquid trade waste: all liquid waste other than sewage of a domestic nature discharged to the sewerage system.

Mandatory concurrence: for the liquid waste in Classification C, councils need to obtain concurrence for approval of each discharge. The Water Utilities Branch of the Department of Planning and Environment provides concurrence on behalf of the Department's Secretary.

Methylene Blue Active Substances (MBAS): These are anionic surfactants (see surfactants definition) and are called MBAS as their presence and concentration is detected by measuring the colour change in a standard solution of methylene blue dye.

Minimal pre-treatment: For the purpose of this Policy includes sink strainers, basket arrestors for sink and floor waste, plaster arrestors and fixed or removable screens.

National Framework for Wastewater Source Management: refer to section 3.2

NSW Framework for Regulation of Sewerage and Trade Waste: refer to section 3.1

NSW Office of Water (NOW): In accordance with the Public Sector Employment and Management (Departments) Order 2011, from 4 April 2011 the NSW Office of Water is a separate office within the Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS).

Open area: Any unroofed process, storage, washing or transport area potentially contaminated with rainwater and substances which may adversely affect the sewerage system or the environment.

Pan: For the purpose of this Policy "pan" means any moveable receptacle kept in a closet and used for the reception of human waste.

pH: A measure of acidity or alkalinity of an aqueous solution, expressed as the logarithm of the reciprocal of the hydrogen ion (H⁺) activity in moles per litre at a given temperature; pH 7 is neutral, below 7 is acidic and above 7 is alkaline.

Premises: Has the same meaning as defined in the Local Government Act Dictionary and includes any of the following:

- a. a building of any description or any part of it and the appurtenances to it
- b. land, whether built on or not
- c. a shed or other structure
- d. a tent
- e. a swimming pool
- f. a ship or vessel of any description (including a houseboat)
- g. a van.

Prescribed pre-treatment Equipment is defined as standard non-complex equipment used for pre-treatment of liquid trade waste, e.g. A grease arrestor, an oil arrestor/separator, solids arrestor, cooling pit (refer to Table 7 of *Liquid Trade Waste Regulation Guidelines, 2009*).

Primary measurement device: A device such as a gauging pit, weir tank or flume installed in the liquid trade waste discharge line suitable for installation of instrumentation for flow measurement. In cases of commercial flows this can mean a removable section of pipe (in the fresh water supply to the trade waste area) and the installation of a check meter.

Regulation: Local Government (General) Regulation 2005 under the Local Government Act 1993.

Secretary: the head of the NSW Department of Planning and Environment.

Septage: Material pumped out from a septic tank during desludging; contains partly decomposed scum, sludge and liquid.

Septic tank: Wastewater treatment device that provides a preliminary form of treatment for wastewater, comprising sedimentation of settleable solids, flotation of oils and fats, and anaerobic digestion of sludge.

Septic tank effluent: The liquid discharged from a septic tank after treatment.

Sewage management facility: A human waste storage facility or a waste treatment device intended to process sewage and includes a drain connected to such a facility or device.

Sewage of a domestic nature: Includes human faecal matter and urine and waste water associated with ordinary kitchen, laundry and ablution activities of a household, but does not include waste in or from a sewage management facility.

Sewerage system: The network of sewage collection, transportation, treatment and by-products (effluent and biosolids) management facilities.

Ship-to-shore pump-out: Liquid waste from a vessel that may be considered for disposal to the sewerage system. This includes on-board toilet wastes, galley wastes and dry dock cleaning waste from maintenance activities.

Sullage: Domestic wastewater excluding toilet waste.

Surfactants: The key active ingredient of detergents, soaps, emulsifiers, wetting agents and penetrants. Anionic surfactants react with a chemical called methylene blue to form a blue-chloroform-soluble complex; the intensity of colour is proportional to concentration.

Suspended Solids (SS): The insoluble solid matter suspended in wastewater that can be separated by laboratory filtration and is retained on a filter. Previously also referred to as non-filterable residue (NFR).

Total Dissolved Solids (TDS): total amount of dissolved material in the water.

Waste minimisation: Procedures and processes implemented by industry and business to modify, change, alter or substitute work practices and products that will result in a reduction in the volume and/or strength of waste discharged to sewer.

1.2. Policy background

This policy sets out how Council will regulate sewage and trade waste discharges to its sewerage system in accordance with the NSW Framework for Regulation of Sewerage and Trade Waste (section 3.1). The policy is concerned with the approval, monitoring and enforcement process for liquid trade wastes discharged to Council's sewerage system and the levying of commercial sewerage and liquid trade waste fees and charges. It has been developed to ensure the proper control of liquid trade waste and hence

protection of public health, worker safety, the environment, and Council's sewerage system. The policy also promotes waste minimisation, water conservation, water recycling and biosolids reuse.

Sewerage systems are generally designed to cater for waste from domestic sources that are essentially of predictable strength and quality. Council **may** accept trade waste into its sewerage system as a **service** to businesses and industry.

Liquid trade wastes may exert much greater demands on sewerage systems than domestic sewage and, if uncontrolled, can pose serious problems to public health, worker safety, Council's sewerage system and the environment.

Impacts of poor liquid trade waste regulation include:

- Grease, oil, solid material, if not removed on-site, can cause sewer chokes and blockages and the discharge of untreated sewage to the environment.
- Strong waste may cause sewage odour problems and corrosion of sewer mains, pumping stations and sewage treatment works.

A person wishing to discharge liquid trade waste to the sewerage system must, under section 68 of the *Local Government Act 1993*, obtain prior approval from Council. Discharging liquid trade waste without an approval is an offence under section 626 of the Act.

The procedure for approval is governed by Chapter 7 of the *Local Government Act* and is subject to the *Local Government (General) Regulation 2005*.

Under clause 28 of the *Local Government (General) Regulation*, a council must not grant an approval under section 68 of the Act to discharge trade waste (whether treated or not) into a sewer of the council unless the Secretary of the NSW Government Department responsible for providing concurrence to trade waste approvals has concurred with the approval.

Under section 90 (2) of the *Local Government Act*, the Secretary may give the Council notice that the concurrence may be assumed (with such qualifications or conditions as are specified in the notice).

2. Policy

2.1 What is liquid trade waste?

Liquid trade waste is defined in the *Local Government (General) Regulation 2005* as below:

Liquid trade waste means all liquid waste other than sewage of a domestic nature.

Liquid trade waste discharges to the sewerage system include liquid wastes from:

- business/commercial premises (e.g. beautician, florist, hairdresser, hotel, motel, restaurant, butcher, service station, supermarket, dentist)
- community/public premises (including craft club, school, college, university, hospital and nursing home)
- industrial premises
- trade activities (e.g. mobile carpet cleaner)
- any commercial activities carried out at a residential premises
- saleyards, racecourses and from stables and kennels that are not associated with domestic households
- septic tank waste, chemical toilet waste, waste from marine pump-out facilities and established sites for the discharge of pan content from mobile homes/caravans to the sewerage system.

While septic tank, pan and ship-to-shore pump-out waste are defined as trade waste, specific procedures need to be applied to their management as the waste is often transported from its source to the sewerage system. Accordingly, specific references to these wastes are provided in this policy where necessary.

Liquid trade waste excludes:

- toilet, hand wash basin*, shower and bath wastes derived from all the premises and activities mentioned above

- wastewater from residential toilets, kitchens, bathrooms or laundries (i.e. domestic sewage)
- common use (non-residential) kitchen and laundry facilities in a caravan park
- residential swimming pool backwash.

* Used for personal hygiene only

Scope of this policy

This policy comprises three parts:

- Part 1 specifies the circumstances in which a person is exempt from the necessity to apply for an approval to discharge liquid trade waste to Council's sewerage system
- Part 2 specifies the criteria which Council will take into consideration in determining whether to give or refuse a liquid trade waste approval
- Part 3 specifies the framework for regulation of liquid trade waste, including the NSW Framework for Regulation of Sewerage and Trade Waste, alignment with the National Framework for Wastewater Source Management, application procedures, liquid trade waste discharge categories, liquid trade waste services agreements, monitoring of liquid trade waste discharges, liquid trade waste fees and charges, modification or revocation of approvals, prevention of waste of water and contaminated stormwater discharges from open areas.

Part 1 – Exemptions

For obtaining approval of liquid trade waste discharge

Table 1: Exemptions

This table lists commercial business activities that the Secretary has consented to an exemption from the requirement to apply for approval for liquid trade waste discharge to the sewerage system. Each such business must meet the standard requirements specified below.

Activity	Requirements
Beautician	Nil.
Bed and Breakfast (not more than 10 persons including proprietor)	Sink strainers in food preparation areas. Housekeeping practices (see note 4)
Day care centre (no hot food prepared)	Sink strainers in food preparation areas. Housekeeping practices (see note 4). Nappies are not to be flushed into the toilet.
Delicatessen – no hot food prepared	Sink strainers in food preparation areas. Housekeeping practices (see note 4).
Doctor's surgery (plaster casts, no X-ray)	Plaster arrestor required.
Dog/cat groomer/salon	Floor waste basket and sink strainer required (see note 3). Animal litter and any waste disposal products may not be discharged to sewer. No organophosphorus pesticides may be discharged to sewer.
Florist	Floor waste basket and sink strainer required. No herbicides/pesticides may be discharged to sewer.
Fruit and vegetable – retail	Floor waste basket and sink strainer required (see note 3).
Hairdressing	Floor waste basket and sink strainer (where available).

Activity	Requirements
Jewellery shop <i>miniplater</i> <i>ultrasonic washing</i> <i>precious stone cutting</i>	Miniplater vessel to contain no more than 1.5 L of precious metal solution Nil If : < 1000 L/d plaster arrestor required > 1000 L/d general purpose pit required
Mobile cleaning units carpet cleaning garbage bin washing	20 micron filtration system fitted to a mobile unit. Floor waste basket required. Discharge is via grease arrestor (if available).
Motel (no hot food prepared and no laundry facility)	Floor waste basket and sink strainer required (see Note 3). Housekeeping practices (see note 4).
Nut shop	Floor waste basket and sink strainer required (see note 3).
Optical service – retail	Solids settlement tank/pit required.
Pet shop – retail	Floor waste basket and sink strainer required (see note 2).
Pizza reheating for home delivery	Housekeeping practices (see note 4).
Venetian blind cleaning	Nil (see note 2).

Notes:

1. Where “required” is used it means as required by Council.
2. If activity is conducted outdoors, the work area is to be roofed and bunded to prevent stormwater ingress into the sewerage system.
3. All drainage from floors in food preparation areas is required to pass through a floor waste basket.
4. Food preparation activities need to comply with sound housekeeping practices including:
 - (a) Floor must be dry swept before washing.
 - (b) Pre-wiping of all utensils, plates, bowls etc. to the scrap bin before washing up.
 - (c) Use of a food waste disposal unit is not permitted.

Part 2 - Criteria for approval to discharge liquid trade waste into Council's sewerage system

2.1 Factors for consideration

Council's decision to accept liquid trade waste into its sewerage system is on the basis of a preventive risk management framework for managing risks to the sewerage system within an integrated water cycle management² context. It will be based on the discharge meeting Council's requirements³. When determining an application to discharge liquid trade waste to the sewerage system, Council will consider the following factors:

- The potential for the liquid trade waste discharge to impact on public health
- The possible impacts the discharge may pose to the environment (land, water, air, noise, or nuisance factors)
- The potential impacts of the discharge on the health and safety of the Council's employees
- The possible impact of the discharge on Council's sewerage infrastructure or sewage treatment process
- The capability of the sewerage system (both transportation and treatment components) to accept the quality and quantity of the proposed liquid trade waste discharge
- The impact the liquid trade waste will have on the ability of the sewerage scheme to meet Environment Protection Authority (EPA) licence requirements
- Compliance of the proposed liquid trade waste discharge with guideline limits in this policy⁴
- The potential impacts of the discharge on the quality of, and management practices for, effluent and biosolids produced from the sewage treatment process
- The adequacy of the pre-treatment process(es) to treat the liquid trade waste to a level acceptable for discharge to the sewerage system, including proposed safeguards if the pre-treatment system fails
- Whether appropriate safeguards are proposed to avoid the discharge of other, non-approved wastes to the sewerage system
- The adequacy of any chemical storage and handling facilities, and the proposed safeguards for preventing the discharge of chemicals to the sewerage system
- Whether prohibited substances are proposed to be discharged
- The potential for stormwater entering the sewerage system and adequacy of proposed stormwater controls
- Waste minimisation and water conservation programs
- The adequacy of the proposed due diligence program and contingency plan, where required.

² *Integrated Water Cycle Management Guidelines for NSW Local Water Utilities, DWE, October 2004.*

³ In considering options for waste management to drive resource efficiency, the following order of preference set out on page 80 of the *National Wastewater Source Management Guidelines, July 2008*, WSAA will be adopted:

- Avoidance
- Minimisation
- Re-use
- Recovery of energy
- Treatment
- Disposal

⁴ The quality of trade waste from some low risk commercial activities in Classification A will exceed guideline limits in Council's trade waste policy. As a higher level of pre-treatment is not cost-effective, such waste is acceptable if the discharger installs and properly operates and maintains the required pre-treatment equipment (refer to Table 6 on page 25 and Tables 7 to 9 of *Liquid Trade Waste Regulation Guidelines, 2009*). Similarly, septic and pan waste may exceed some guideline limits.

2.2 Discharge quality

Council has guideline limits for the acceptance of discharges, as set out in Table 2. Council may vary the guideline limits for a particular sewage treatment works. Where the guideline limits cannot be met, applicants are required to provide justification for exceeding the limits. Based on the type and the proposed contaminant levels, Council may refuse the application, or may approve it subject to an effluent improvement program, or other conditions being implemented.

2.3 Prohibited substances

Some substances are not suitable for discharge to the sewerage system. Table 3 sets out those substances which must not be discharged to the sewerage system. Council may not grant approval for the discharge of these substances to the sewerage system unless it is specifically approved under section 68 of the Local Government Act.

2.4 Stormwater discharges from open areas

Stormwater is a prohibited discharge under this policy. The ingress of stormwater into the sewerage system can cause operational problems to the system and result in sewer overflows, as the sewerage system does not have the capacity for such flows. Therefore, Council does not generally accept the discharge of stormwater to the sewerage system.

However, it is recognised that it may not always be possible or practical to prevent all stormwater entering the sewerage system at some liquid trade waste premises. The discharge of limited quantities of first flush stormwater from sealed areas will be considered where roofing cannot be provided because of safety or other important considerations. The discharge from unsealed areas is not permitted.

Before the stormwater will be considered for discharge to the sewerage system, the applicant must provide the following information:

- reasons why the area cannot be fully or partially roofed and bunded to exclude stormwater
- the dimensions and a plan of the open area under consideration
- whether the open area is sealed
- the estimated volume of the stormwater discharge
- information on rain gauging
- where a first-flush system is proposed, details on how the stormwater will be diverted to the drainage system after the first flush is accepted (the first flush to be limited to first 10 mm of storm runoff)
- measures proposed for diverting stormwater away from the liquid trade waste generating area
- report on other stormwater management options considered and why they are not feasible.

Note: Trade waste charges for the acceptance of stormwater to the sewerage system are indicated in section 3.7.8.

2.5 Food waste disposal units

The use of food waste disposal units (also known as in-sinkerators, in-sink food waste disposers, or garbage grinders) is not permitted. Existing installations in hospitals and nursing homes may be permitted, provided that wastewater is discharged through an adequately sized grease arrestor. For existing premises, a food waste disposal charge will be levied based on the number of beds in the hospital or nursing home.

If the hospital or nursing home kitchen is refurbished, the food waste disposal unit must be removed.

2.6 Devices that macerate or pulverise waste

Macerators and any other similar devices that are used for pulverising of solid waste are not authorised to connect to Council's sewerage system. Solid waste includes, but is not limited to, sanitary napkin, placenta, surgical waste, disposable nappy, mache bedpan and urine containers.

Therefore, Council will not accept any discharges from such devices to its sewerage system

2.7 Use of additives in pre-treatment systems

Council does not allow solvents, enzymes, bioadditives, and odour control agents to be used in pre-treatment systems (except neutralising chemicals designated for the pre-treatment) except by specific written application and subsequent approval.

Table 2: Guideline limits for acceptance of liquid trade wastes into sewerage system

Parameter*	Limits
General acceptance guideline limits	
Flow Rate	The maximum daily and instantaneous rate of discharge (kL/h or L/s) is determined based on the available capacity of the sewer. Large dischargers are required to provide a balancing tank to even out the load on the sewage treatment works.
BOD ₅	Normally, approved at 300 mg/L. Concentration up to 600mg/L may be accepted.
Suspended Solids	Normally, approved at 300 mg/L. Concentration up to 600mg/L may be accepted.
COD	Normally, not to exceed BOD ₅ by more than three times. This ratio is given as a guide only to prevent the discharge of non-biodegradable waste.
Total Dissolved Solids	Up to 4000 mg/L may be accepted. The acceptance limit may be reduced depending on available effluent disposal options and may be subject to a mass load limit.
Temperature	Less than 38°C.
pH	Within the range 7.0 to 9.0.
Oil and Grease	100 mg/L if the volume of the discharge does not exceed 10% of the design capacity of the treatment works and 50 mg/L if the volume is greater than 10%.
Detergents	All detergents are to be biodegradable. A limit on the concentration of 50 mg/L (as MBAS) may be imposed on large liquid trade waste discharges.
Colour	Colour must be biodegradable. No visible colour when diluted to the equivalent dilution afforded by domestic sewage flow. Specific limits may be imposed on industrial discharges where colour has a potential to interfere with sewage treatment processes and the effluent management.
Radioactive Substances	If expected to be present (e.g. Iodine 131 from ablation), acceptance requirements will be set on a case-by-case assessment.

* See Glossary for explanation of terms

Table 2 (Cont.) – Guideline Limits for Acceptance of Liquid Trade Wastes into Sewerage System

Parameter	Maximum concentration (mg/L)
Acceptance guideline limits for inorganic compounds	
Ammonia (as N)	50
Boron	5
Bromine	5
Chlorine	10
Cyanide	1
Fluoride	30
Nitrogen (total Kjeldahl)	100
Phosphorus (total)	20
Sulphate (as SO ₄)	500
Sulphide (as S)	1
Acceptance guideline limits for organic compounds	
Benzene	<0.001
Toluene	0.5
Ethylbenzene	1
Xylene	1
Formaldehyde	30
Phenolic compounds non-halogenated	1
Petroleum Hydrocarbons	
C ₆ – C ₉ (flammable)	5
Total Recoverable Hydrocarbons (TRH)	30
Pesticides general (except organochlorine and organophosphorus)	0.1
Polynuclear Aromatic Hydrocarbons (PAHs)	5

Table 2 (cont.) – Guideline limits for acceptance of liquid trade wastes into sewerage system

Parameter	Maximum concentration (mg/L)	Allowed daily mass limit (g/d)
Acceptance guideline limits for metals		
Aluminium	100	-
Arsenic	0.5	2
Cadmium	1	6
Chromium*	3	15
Cobalt	5	15
Copper	5	15
Iron	100	-
Lead	1	5
Manganese	10	30
Mercury	0.01	0.05
Molybdenum	5	15
Nickel	1	5
Selenium	1	5
Silver	2	5
Tin	5	15
Zinc	1	5
Total heavy metals excluding aluminium, iron and manganese	less than 30 mg/L and subject to total mass loading requirements	

* Where hexavalent chromium (Cr⁶⁺) is present in the process water, pre-treatment will be required to reduce it to the trivalent state (Cr³⁺), prior to discharge into the sewer. Discharge of hexavalent chromium (Cr⁶⁺) from chromate compounds used as corrosion inhibitors in cooling towers is not permitted.

Table 3: Substances prohibited from being discharged into the sewerage system

- organochlorine weedicides, fungicides, herbicides and substances of a similar nature and/or wastes arising from the preparation of these substances
- organophosphorus pesticides and/or waste arising from the preparation of these substances
- Per- and poly-fluoroalkyl substances (PFAS)
- any substances liable to produce noxious or poisonous vapours in the sewerage system
- organic solvents and mineral oil
- any flammable or explosive substance
- discharges from chemicals and/or oil storage areas and 'Bulk Fuel Depots'
- chromate from cooling towers
- natural or synthetic resins, plastic monomers, synthetic adhesives, rubber, and plastic emulsions
- roof, rain, surface, seepage, or ground water, unless specifically permitted (clause 137A of the *Local Government (General) Regulation 2005*)
- solid matter
- Disposable products including wet wipes, cleaning wipes, colostomy bags, cat litter and other products marketed as flushable
- any substance assessed as not suitable to be discharged into the sewerage system
- liquid waste that contains pollutants at concentrations which inhibit the sewage treatment process – refer *Australian Sewage Quality Management Guidelines, June 2012, WSAA*
- any other substances listed in a relevant regulation

Part 3 – Framework for regulation of liquid trade waste

3.1 The NSW framework for regulation of sewerage and trade waste

Due to the *Tragedy of the Commons*⁵ in the use of common pool resources, sound regulation of sewerage and trade waste requires implementation of **all** the following integrated measures.

1. Preparation and implementation of a sound trade waste regulation policy, assessment of each trade waste application and determination of appropriate conditions of approval. The conditions must be consistent with the LWU's *Integrated Water Cycle Management Strategy* and demand management plan. In addition, execution of a liquid trade waste services agreement is required for large dischargers to assure compliance.
2. Preparation and implementation of a sound *Development Servicing Plan*⁶, with commercial sewerage developer charges to ensure new development pays a fair share of the cost of the required infrastructure.
3. Full cost recovery with appropriate sewer usage charges⁷ and trade waste fees and charges⁸ in order to provide the necessary pricing signals to dischargers. These charges must include non-compliance trade waste usage charges and non-compliance excess mass charges in order to provide the necessary incentives for dischargers to consistently comply with their conditions of approval.
4. Monitoring, mentoring and coaching of dischargers in order to achieve cleaner production and assist them to comply with their conditions of approval.
5. Enforcement, including appropriate use of penalty notices under section 222 of the *Protection of the Environment Operations Act 1997*. Orders may also be issued, and penalties imposed for offences under sections 626, 627 and 628 of the *Local Government Act 1993*.
6. Disconnection of a trade waste service in the event of persistent failure to comply with the LWU's conditions of approval.

Together, the above six measures comprise the NSW framework for regulation of sewerage and trade waste. The framework involves a preventive risk management approach, which has been developed to address the use of common pool resources by providing economic incentives for dischargers to minimise their waste and to consistently comply with their conditions of approval.

⁵ Refer to page 3 of *Australian Sewage Quality Management Guidelines, June 2012*, WSAA. Thus, in the absence of appropriate controls and measures (such as conditions of approval, a sewer usage charge, a trade waste usage charge, a non-compliance trade waste usage charge, excess mass charges, non-compliance excess mass charges and penalty notices), it would be in the economic interest of each trade waste discharger to minimize their efforts and expenditure on control and pre-treatment of their trade waste before discharging it to the sewerage system. In the past, failure to implement these measures has caused multi-million dollar damage to sewerage networks, pumping stations and treatment works.

⁶ In accordance with the *NSW Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, 2002*.

⁷ In accordance with page 29 of the *NSW Water Supply, Sewerage and Trade Waste Pricing Guidelines, 2002*.

⁸ In accordance with Appendices D and I of the *Liquid Trade Waste Regulation Guidelines, 2009*.

3.2 Alignment with the national framework for wastewater source management

The NSW framework for regulation of sewerage and trade waste is outlined in section

3.1. The NSW framework is driven by the NSW Government's *Best-Practice Management of Water Supply of Sewerage Guidelines, 2007* and is consistent with that in the *National Framework for Wastewater Source Management*⁹.

In particular, under the *Best-Practice Management Guidelines* each LWU is required to achieve the following outcomes:

- Prepare and implement a 30-year Integrated Water Cycle Management Strategy, demand management plan, pay-for-use water supply pricing and community and customer involvement (Elements 1, 6, 8).
- Annual performance monitoring, including an annual triple bottom line (TBL) Performance Report and Action Plan to identify and address any areas of under-performance (Elements 5, 6, 9, 10, 11, 12).
- Achieve full cost recovery for water supply, sewerage and trade waste services and apply an appropriate non-residential sewer usage charge (Elements 3, 8).
- Prepare and implement a sound trade waste regulation policy and issue an appropriate approval to each trade waste discharger, including waste minimisation and cleaner production (Elements 1, 2, 3, 4, 7, 8).
- Appropriate trade waste fees and charges (including incentives to comply with LWU's approval conditions through non-compliance trade waste usage charges and non-compliance excess mass charges) (Elements 3, 8).
- Trade waste services agreement for large dischargers to assure compliance (Elements 3, 8).
- Appropriate training of LWU staff and monitoring, mentoring and coaching of trade waste dischargers (Elements 1, 4, 5, 7, 8).
- Enforcement, including appropriate use of penalty notices or orders (Elements 3, 8).
- Disconnection of a trade waste service in the event of persistent failure to comply with the LWU's conditions of approval (Element 8).

⁹ The following 12 elements of the *National Framework for Wastewater Source Management* are set out on page 22 of the *Australian Sewage Quality Management Guidelines, June 2012, WSAA*:

COMMITMENT

1. Commitment to Wastewater Source Management

SYSTEM ANALYSIS and MANAGEMENT

2. Assessment of the Wastewater System
3. Preventive Measures for Wastewater Input Quality Management
4. Operational Procedures and Process Control
5. Verification of Wastewater Inputs Quality
6. Management of Incidents/Complaints and Emergencies

SUPPORTING REQUIREMENTS

7. Employee Awareness and Training
8. Customer and stakeholder involvement and awareness
9. System Validation and Research and Development
10. Documentation and Reporting

REVIEW

11. Evaluation and Audit
12. Review and Continual Improvement

3.3 Application procedures

To obtain Council's approval to discharge liquid trade waste to Council's sewerage system, a discharger must lodge an application in writing. Application forms are available from Council. If a person wishes to discharge liquid trade waste to the sewerage system but is not the owner of the premises, the person must obtain the owner's consent to the application.

The applicant must provide the following information:

- site owner's full name, address, contact telephone number
- address of the business/industry where discharge to the sewerage system will occur
- name of contact person for the premises and telephone contact for the business/industry
- type of process/activity generating the liquid trade waste
- normal hours of business operation
- rate of discharge, including
- the average per day, maximum per day and per hour, and
- hours of the day during which discharge will take place
- characteristics of wastes, including
- nature of source
- expected maximum and average concentrations of pollutants
(Where sampling and testing are required to establish the quality of the liquid trade waste, the testing should be carried out in accordance with the procedures set out in the *Standard Methods for the Examination of Water and Wastewater* published by the American Public Health Association, American Water Works Association and Water Pollution Control Federation.)
- chemicals to be used – supply Material Safety Data Sheets
- details of any proposed pre-treatment facilities, location and site plan. Details should include:
 - pre-treatment process details
 - internal wastewater drainage
 - pump size
 - rising main size, length and profile
 - system operational characteristics
 - operational procedures
 - provisions for sampling and flow measurement, where required
 - proposed connection point to the sewerage system
 - flow diagram and hydraulic profile of proposed liquid trade waste pre-treatment facilities
 - maintenance schedule for pre-treatment equipment, including contractor's details
 - stormwater drainage plan
 - measures for prevention of stormwater ingress into the sewerage system
 - location, nature and chemical composition of all substances stored/used on site
 - justification for disposing of the waste into the sewerage system over other possible options (if any)
 - methods of disposal for other wastes that are not discharged to the sewerage system
 - any relevant environmental impact assessments
 - any additional information as requested by Council.

The following information needs to be provided in regard to the discharge of septic tank and pan waste to the sewerage system:

- identification of the pump out service provider

- proposed method of discharge including plans and drawings if appropriate
- details of any proposed facilities for a disposal point, location and site plan (if applicable). Details should include the proposed connection point to the sewerage system
- security arrangements at the proposed disposal site (if applicable)
- the provision of freshwater for hosing down where needed
- bunding and measures to prevent the ingress of stormwater at the proposed dump point, if applicable
- the use of odour inhibiting or other chemicals, if any, and their dosage rates
- statement that septic effluent will not be mixed with septage or grease trap pump out, ie. Dedicated tankers will be used for each type of waste
- for boat/marina facility – the type and number of vessels either moored at the marina and/or would utilise the pump-out facility on a regular basis:
 - private
 - commercial.

Council may, under section 86 of the Local Government Act, request an applicant to provide more information to enable it to determine the application.

3.4 Approval of applications

Where an application is approved, Council will notify the applicant as soon as practical of the approval and any conditions of the approval. The duration of the approval will be as stated in the approval. In cases where Council requires a discharger to enter into a liquid trade waste services agreement (refer to section 3.9), Council will issue a deferred commencement approval under section 95 of the Local Government Act requesting the discharger to do so within the time specified in Council's letter. In such cases, the approval will not be operative until the agreement has been executed by the discharger.

An applicant may make a minor amendment or withdraw an application before it is approved by Council. An applicant may also apply to Council to renew or extend an approval, in accordance with section 107 of the Local Government Act.

If an application is refused, Council will notify the applicant of the grounds for refusal.

An approval to discharge liquid trade waste to Council's sewer is not transferable. A new application must be lodged and a new approval obtained if there is a change of the approval holder or the activity. Council must be notified of change of ownership and/or occupier in all cases, whether a new approval is required or not, to allow updating of records.

3.5 Concurrence

If Council supports an application and has a notice stating that concurrence can be assumed for the waste relevant to the application, Council will approve the application. Otherwise, Council will seek concurrence from DPE in accordance with the requirements of section 90(1) of the Local Government Act. The DPE provides concurrence on behalf of the Secretary.

Liquid trade waste discharges are divided into four (4) classifications for the purpose of the concurrence process:

- Concurrence Classification A – liquid trade waste dischargers for which Council has been authorised to assume concurrence to the approval subject to certain requirements
- Concurrence Classification B – liquid trade waste dischargers whereby Council may apply for authorisation to assume concurrence to the approval subject to certain requirements
- Concurrence Classification S – the acceptance of septic tank, pan waste and ship-to-shore pump-out. Council may apply for authorisation to assume concurrence to the approval subject to certain conditions
- Concurrence Classification C – all other liquid trade waste dischargers that do not fall within Concurrence Classification A, B or S, and therefore require Council to apply to DPE for concurrence.

All councils have been authorised to assume concurrence for Concurrence Classification A liquid trade waste discharges. These are listed in Table 4 and Council will not need to seek concurrence for approval of trade waste applications for these activities.

Table 4: Liquid trade waste discharges with automatic assumed concurrence

Commercial retail food preparation activities	Other commercial activities
Bakery (retail)	Animal wash (pound, stables, racecourse, kennels, mobile animal wash and veterinary with no X-ray)
Bed and Breakfast (<10 persons)	Beautician
Bistro	Boiler blowdown
Boarding house/hostel kitchen	Car detailing
Butcher shop (retail)	Cooling tower
Café/coffee shop/coffee lounge	Craft activities (making of clay pottery, ceramics, cutting and polishing of gemstones or making of jewellery at clubs, cottage industries)
Canteen	Dental surgery/dental specialist
Cafeteria	Dental technician
Chicken/poultry shop (only fresh chickens/game sold)	Doctor's surgery, medical centre – plaster casts (no X-rays)
Chicken/poultry shop (retail BBQ/charcoal chicken)	Florist
Club (kitchen wastes)	Funeral parlour, morgue
Commercial kitchen/caterer	Hairdressing (includes barbers)
Community hall/civic centre	Jewellery shop
Day care centre	Laboratory (pathology/analytical)
Delicatessen	Laundry or laundromat (coin operated)
Doughnut shop	Lawnmower repairs
Fast food outlet (McDonalds, KFC, Burger King, Pizza Hut, Red Rooster, etc.)	Mechanical repairs/workshop
Fish shop (retail – fresh and/or cooked)	Mobile cleaning units
Food caravan	Optical service
Fruit and vegetable shop (retail)	Pet shop (retail)
Function centre	Photographic tray work/manual development
Hotel	Plants retail (no nursery)
Ice cream parlour	School (Primary and Secondary)
Juice bar	Stone working
Mixed business	Swimming pool/spa/hydrotherapy
Motel	Vehicle washing (by hand/wand, automatic car wash, external truck wash or underbody/engine degrease only)

Commercial retail food preparation activities	Other commercial activities
Nightclub	Venetian blind cleaning
Nursing home kitchen	Veterinary /animal kennels with X-ray
Nut shop	Waterless minilab
Patisserie	
Pie shop	
Pizza shop	
Restaurant	
Salad bar	
Sandwich shop	
School canteen	
Supermarket (with butcher /delicatessen / seafood / or charcoal chickens)	
Take-away food outlet	

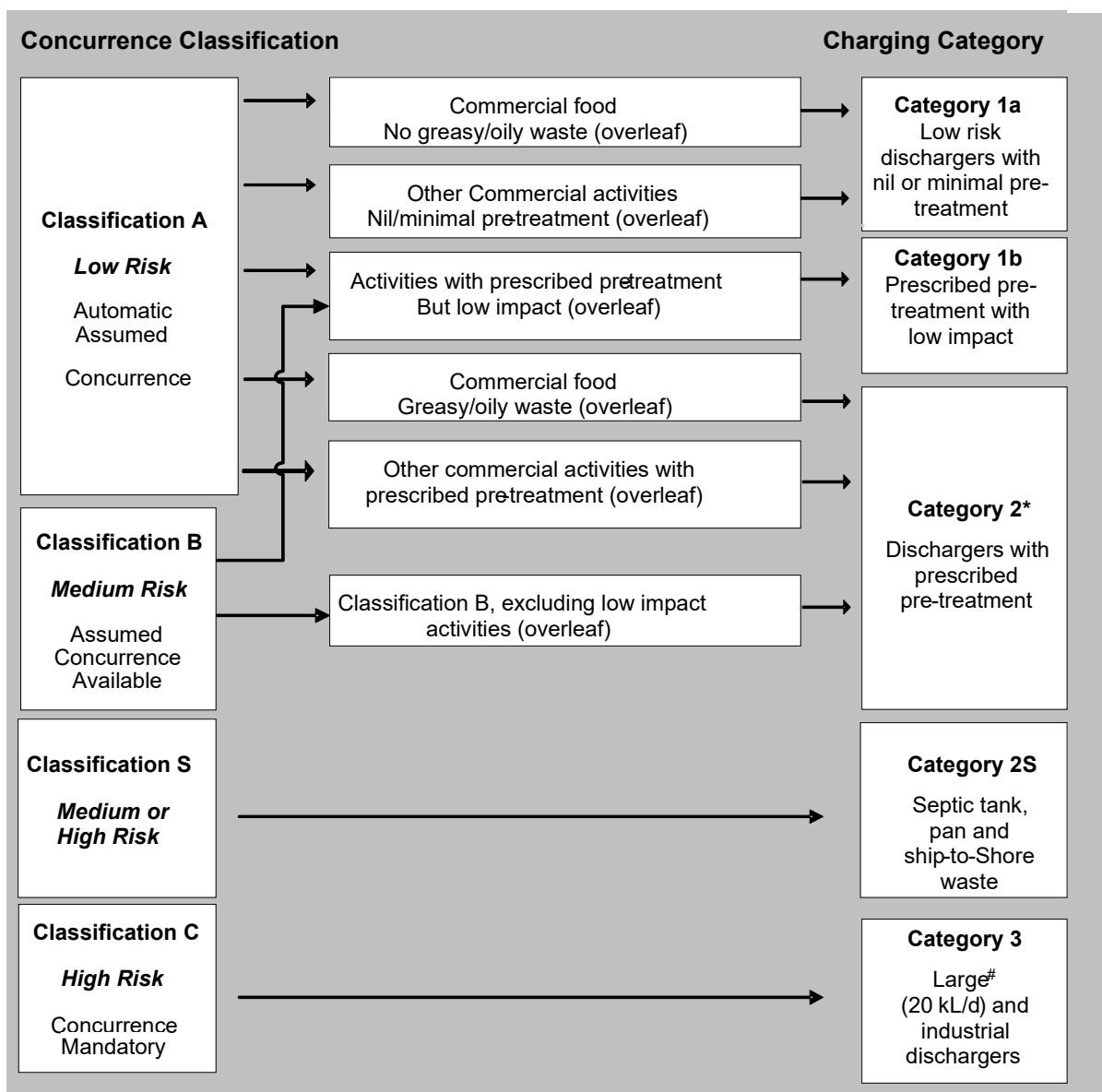
Notes:

The volume of liquid trade waste must be less than 5 kL/d or 1000 kL/a except in the case of commercial retail food preparation activities, where up to 16 kL/d is included in this category. If the waste discharge to the sewer exceeds these volumes, the application must be treated as Concurrence Classification B. Dischargers over 20KL / day must be treated as Classification C.

3.6 Liquid trade waste charging categories

Four (4) classifications of liquid trade waste have been established for concurrence purposes, Classification A, B, C and S. For trade waste charging purposes there are five (5) charging categories, Category 1A, 1B, 2, 2S and 3. The activities fall into each charging category are listed below. This section also describes the charging criteria for discharge of tankered waste other than septic waste.

Figure 1. Charging categories for trade waste



* Also includes fish shop (fresh fish for retail)

Except shopping complexes and institutions (hospital, educational facilities etc). These will be charged as Category 2 in accordance with activities carried out on the premises.

Category 1A Discharger

Category 1A liquid trade waste dischargers are those conducting an activity deemed by Council as requiring nil or only minimal pre-treatment equipment and whose effluent is well defined and of a relatively low risk to the sewerage system.

Activities – Commercial retail food preparation activities that do not generate an oily/greasy waste & Other commercial activities: bakery (only bread baked on-site), bistro (sandwiches, coffee only), café/coffee shop/coffee lounge, canteen, community hall (minimal food), day care centre, delicatessen, fruit and vegetable shop, hotel, ice cream parlour (take away only), juice bar, mixed business, motel, nightclub, nut shop, pizza cooking/reheating (no preparation or washing up on-site, pizza heated and sold for consumption off-site), potato peeling (small operation), sandwich shop/salad bar, take away food outlet (no food preparation on site). animal wash, beautician/hairdressing, crafts < 1000 L/d, dental surgery (plaster casts, no X-ray unless digital), doctor's surgery and medical centre (plaster casts, no X-ray), florist, funeral parlour, mobile cleaning units, morgue, jewellery shop, optical service (retail), pet shop, plants retail (no nursery), public swimming pool, photographic (tray work/manual development), venetian blind cleaning, veterinary (no X-ray).

Category 1B Discharger

Category 1B includes dischargers requiring prescribed pre-treatment but with low impact on the sewerage system.

Activities – dischargers with prescribed pre-treatment with low impact on the sewerage system:

boiler blowdown, cooling tower, industrial boilers, laboratory (analytical/pathology/tertiary institution), laundry, primary and secondary school¹⁰ and vehicle washing.

Category 2 Dischargers

Category 2 liquid trade waste dischargers are those conducting an activity deemed by Council as requiring a prescribed type of liquid trade waste pre-treatment equipment and whose effluent is well characterised.

Trade Waste dischargers with prescribed pre-treatment¹¹ include:

Classification A activities: Premises that **prepare and/or serve hot food or foods that generate an oily/greasy waste:** bakery (pies, sausage rolls, quiches, cakes, pastries with creams or custards), bistro, boarding house/hostel kitchen, butcher, café/coffee shop/coffee lounge, cafeteria, canteen, fast food outlet, chicken/poultry shop, club, community hall¹², commercial kitchen/caterer, nursing home, patisserie, supermarket, doughnut shop, fish shop (cooking on-site), function centre, hotel, ice cream parlour, motel, nightclub, pizza cooking, restaurant, sandwich shop/salad bar, take away food outlet.

Other commercial Classification A activities: car detailing, craft activities > 1000 L/d, dental surgery with X-ray, lawnmower repairs, mechanical workshop, stone working, veterinary (with X-ray), waterless mini-lab.

Classification B activities: auto dismantler, bus/coach depot, construction equipment maintenance and cleaning, equipment hire, maintenance and cleaning, glass cutting and grinding, graphic arts, hospital (with or without X-ray), medical centre (with X-ray), optical services (at medical or educational facilities, workshops), oyster processing – shucking, panel beating, photographic lab, radiator repairer, screen printing, service station forecourt, shopping complex, water wash mini-lab, X-ray radiologist.

Other Classification A activities: fish shop (fresh fish for retail).

Category 2S Discharger

Category 2S dischargers are those conducting an activity of transporting and/or discharging septic tank or pan content waste into the sewerage system.

Trade waste dischargers include the following Classification S activities:

Classification S activities: bus/rail coaches/caravan/motor home/caravan park waste dump points, mooring/marina dump points, pan waste, portable chemical toilet waste, septage, septic tank effluent, leachate, ship-to-shore pump-outs (galley waste and toilet waste).

Category 3 Discharger (large or industrial waste dischargers)

Category 3 liquid trade waste dischargers are those conducting an activity which is of an industrial nature and/or which results in the discharge of large volumes (over 20 kL/d) of liquid trade waste to the sewerage system. Any Category 1A, 1B or 2 discharger whose volume exceeds 20 kL/d becomes a Category 3 discharger, except shopping complexes and institutions (e.g. Hospitals, educational facilities, correctional facilities, etc)

Large trade waste dischargers and other Classification C activities include: abattoir, bakery (wholesale), brewery, cooling towers, cosmetics/perfumes manufacture, dairy processing (milk/cheese/yoghurt/ice cream etc.), food processing (cereals/cannery/condiments/ confectionary/edible oils/fats/essence/ flavours/fish/fruit juice/gelatine/honey/meat/pickles/ smallgoods/tea and coffee/vinegar/yeast manufacture etc.), fruit and vegetable processing, flour milling, glue manufacturer, egg processing, pet food processing, plants nursery (open areas), potato processing, poultry processing, saleyards, seafood processing, soft drink/cordial manufacture, starch manufacture, sugar refinery, tanker washing, tip leachate, transport depot/ terminal, water treatment backwash, wholesale meat processing, winery, wine/spirit bottling.

Dischargers of industrial waste include the following Classification C activities: acid pickling, adhesive/latex manufacture, agricultural and veterinary drugs, anodising, bitumen and tar, bottle washing, cardboard and carton manufacture, carpet manufacture, caustic degreasing, chemicals manufacture and repackaging, contaminated site treatment, cyanide hardening, detergent/soaps manufacture, drum washing, electroplating, engine gearbox reconditioning, extrusion and moulding (plastic/metal), feather washing, fellmonger, felt manufacture, fertilisers manufacture, fibreglass manufacture, filter cleaning, foundry, galvanising, glass manufacture, ink manufacture, laboratories (excluding those in Categories 1B & 2), liquid

¹⁰ If significant hot food preparation is carried out, Category 2 charges may be levied by Council.

¹¹ Excludes low impact activities, listed under Category 1B.

¹² If the type and size of kitchen fixtures installed enable catering for large functions.

wastewater treatment facility (grease trap receive depot and other pump-out waste depot), metal finishing, metal processing (refining/rumbling/ non-cyanide heat treatment/phosphating/ photo engraving/printed circuit etching/sheet metal fabrication etc.), mirrors manufacture, oil recycling (petrochemical) and refinery, paint stripping, paint manufacture, paper manufacture, pharmaceuticals manufacture, plaster manufacture, powder coating, printing (newspaper, lithographic), sandblasting, slipway, tannery, timber processing (joinery and furniture/plywood/hardwood), textile manufacture (wool dyeing/ spinning/scouring), truck washing (internal), waxes and polishes.

3.7 Liquid trade waste fees and charges

Council provides sewerage and liquid trade waste services on a commercial basis, with full cost recovery through sewerage and liquid trade waste fees and charges. Council's proposed fees and charges are advertised annually for public comment in its draft Management Plan. In addition to the trade waste fees and charges described below, Council has included some of the trade waste charges shown in Appendix I of the *Liquid Trade Waste Regulation Guidelines, 2009*.

Liquid trade waste discharged to the sewerage system from industrial, commercial, or other non-residential customers can impose significant costs on sewage transport and treatment facilities. To recover these costs and to ensure removal of existing significant cross-subsidies from residential customers, in addition to a two-part tariff with an appropriate **sewer usage charge/kL** for non-residential sewerage, appropriate fees and charges are levied for liquid trade waste.

Council's liquid trade waste fees and charges may include:

- Application fee
- Annual trade waste fee
- Re-inspection fee
- Trade waste usage charge
- Septic tank and pan waste disposal charge
- Excess mass charges
- Food waste disposal charge
- Non-compliance trade waste usage charge
- Non-compliance excess mass charge and pH charge
- Non-compliance penalty.

3.7.1 Application fee

The application fee recovers the cost of administration and technical services provided by Council in processing applications for approval to discharge liquid trade waste to the sewerage system. The application fee will be allocated on the basis of the category into which the discharger is classified and reflects the complexity of processing the application. Application fees will be set annually by Council.

An application fee will be charged on each change in activity.

3.7.2 Annual trade waste fee

The purpose of this fee is to recover the cost incurred by Council for administration and the scheduled inspections each year to ensure a liquid trade waste discharger's ongoing compliance with the conditions of their approval.

As part of an inspection, Council or its agents may undertake monitoring of the liquid trade waste discharges from premises or business. Such monitoring may include but is not limited to, flow measurement and the sampling of the liquid trade waste. **Where more than one (1) instance** of such monitoring is undertaken by Council, or its agents, in a financial year, the cost involved may be recovered from the discharger.

Annual liquid trade waste fees are determined on the basis of the category of the discharger and are proportionate to the complexity of their inspection and administration requirements. Annual trade waste fees will be set by Council for each trade waste business within a property. Where the discharger is required to pay for monitoring this will be charged on the basis of full cost recovery.

3.7.3 Re-inspection fee

Where non-compliance with the conditions of an approval has been detected and the discharger is required to address these issues, Council will undertake re-inspections to confirm that remedial action has been satisfactorily implemented. Council will impose a fee for each re-inspection. The re-inspection fee will be set annually by Council on the basis of full cost recovery. A re-inspection may include the monitoring of liquid trade waste discharges, the cost of which may be recovered from the discharger.

3.7.4 Trade waste usage charge

The trade waste usage charge is imposed to recover the additional cost of transporting and treating liquid trade waste from Categories 2 dischargers.

$$\text{Trade Waste Usage Charge (\$)} = Q \times [\text{usage charging rate}]$$

Where Q = Volume (kL) of liquid trade waste discharged to sewer (See Appendix B for reference on how Q is determined).

[usage charging rate] = charging rate per kL, as per Council's fees and charges.

3.7.5 Excess mass charges

For Category 3 discharger excess mass charges will apply for substances discharged in excess of the deemed concentrations in domestic sewage shown in Table 5 below. For excess mass charge calculation, equation (1) below will be applied.

Table 5: Deemed concentration of substances in domestic sewage

Substance	Concentration (mg/L)
Biochemical Oxygen Demand (BOD ₅)	300
Suspended Solids	300
Total Oil and Grease	50
Ammonia (as Nitrogen)	35
Total Kjeldahl Nitrogen	50
Total Phosphorus	10
Total Dissolved Solids	1000
Sulphate (SO ₄)	50 [#]

[#] The concentration in the potable water supply to be used if it is higher than 50mg/L.

NB. Substances not listed above are deemed not to be present in domestic sewage.

$$\text{Liquid Trade Waste Excess Mass Charge (\$)} = \frac{(S - D) \times Q \times U}{1,000} \quad (1)$$

Where: S = Concentration (mg/L) of substance in sample.

D = Concentration (mg/L) of substance deemed to be present in domestic sewage.

Q = Volume (kL) of liquid trade waste discharged to the sewerage system.

U = Charging rate (\$/kg) for discharge of substance to the sewerage system.

Charging rates (U) used in equation (1) are as shown in Council's Annual Management Plan.

With regard to BOD, equation (1) applies for BOD₅ up to 600 mg/L.

Excess mass charges for BOD exceeding 600mg/L

If Council approves the acceptance limits for BOD higher than 600mg/L, an exponential type equation will be used for calculation of the charging rate U_e (\$/kg) as shown in equation (2). Equation (2) provides a strong incentive for dischargers to reduce the strength of waste. In addition, equation (5) on page 33 will be used where the discharger has failed to meet their approved BOD limit on two (2) or more instances in a financial year.

U_e is the excess mass charging rate for BOD (\$/kg).

$$U_e = 2C \times \frac{(\text{Actual BOD} - 300\text{mg/L})}{600\text{mg/L}} \times 1.05 \frac{(\text{Actual BOD} - 600\text{mg/L})}{(600\text{mg/L})} \quad (2)$$

Where C = the charging rate (\$/kg) for BOD_5 600mg/L.

Actual BOD – the concentration of BOD_5 as measured in a sample

For example, if $C = \$0.623/\text{kg}$, equation (2) would result in the following excess mass charging rates:

\$0.623/kg for BOD_5 600mg/L

\$1.96/kg for BOD_5 1200mg/L

\$5.05/kg for BOD_5 2400mg/L

The excess mass charge for BOD is calculated using equation (1):

$$\text{Excess Mass Charge for BOD (\$)} = \frac{(S - D) \times Q \times U_e}{1,000}$$

3.7.6 Non-compliance charges

Category 1A, 1B and 2 Dischargers

If the discharger has not installed or maintained appropriate pre-treatment equipment, non-compliance trade waste usage charges will be applied for the relevant billing period. Refer to fees and charges listed in Council's Management Plan for the appropriate amounts.

Category 3 Discharger

Non-compliance pH charge

Equation (3) is used for waste with pH being outside the approved range. This equation provides an incentive for dischargers to apply appropriate pH correction so their waste remains within the approved pH limits. Council may require industrial and large dischargers to install and permanently maintain a pH chart recorder or data logger as control of pH is critical to minimising odour and corrosion problems in the sewerage system.

Charging rate for pH where it is outside the approved range for the discharger =

$$K \times (\text{actual pH} - \text{approved pH})^{\#} \times 2^{\text{abs}(\text{actual pH} - \text{approved pH})} \quad (3)$$

absolute value to be used.

K = pH coefficient (Refer to fees and charges)

Example: Council has approved the pH range 8.0 to 9.0 for a large discharger generating high strength trade waste in order to prevent corrosion and odour problems in the sewerage system.

Case 1: pH measured 7.0

$$\text{Charging rate (\$/kL)} = 0.346 \times [7 - 8] \times 2^{[7-8]} = \$0.69/\text{kL}$$

Case 2: pH measured 11.0

$$\text{Charging rate (\$/kL)} = 0.346 \times [11-9] \times 2^{[11-9]} = \$2.77/\text{kL}$$

Non-compliance excess mass charges

Where a discharge quality fails to comply with the approved concentration limits of substances specified in Council's approval conditions (or the acceptance criterion listed in Council's trade waste policy), Council incurs additional costs in accepting and treating that waste. Council may also face problems with the effluent and biosolids management.

In order to recover Council's costs, equation (4) shall apply for non-compliance excess mass charges, except for BOD where equation (5) shall apply.

$$\text{Non-compliance Excess Mass Charges (\$)} = \frac{(S - A) \times Q \times 2U}{1,000} + \frac{(S - D) \times Q \times U}{1,000} \quad (4)$$

Where: S = Concentration (mg/L) of substance in sample.

A = Approved maximum concentration (mg/L) of pollutant as specified in Council's approval (or liquid trade waste policy).

Q = Volume (kL) of liquid trade waste discharged for the period of non-compliance.

U = Excess mass charging rate (\$/kg) for discharge of pollutant to sewerage system, as shown in Council's Annual Management Plan.

D = Concentration (mg/L) of substance deemed to be present in domestic sewage.

Non-compliance excess mass charges for BOD

If a discharger has failed to meet the approved maximum concentration of BOD on two or more instances in a financial year, the non-compliance excess mass charging rate for BOD U_n will be levied on the basis of equation (5):

U_n is the BOD non-compliance excess mass charging rate.

$$U_n = 2C \times \frac{(A - 300\text{mg/L})}{600\text{mg/L}} \times 1.05^{\frac{(A - 600\text{mg/L})}{600\text{mg/L}}} + 4C \times \frac{(\text{Actual BOD} - A)}{600\text{mg/L}} \times 1.05^{\frac{(\text{Actual BOD} - A)}{600\text{mg/L}}} \quad (5)$$

For example, if $C = \$0.623/\text{kg}$, BOD_5 actual (measured) level is 2400mg/L and the approved maximum concentration of BOD (A) is 1000mg/L , equation (5) would result in a non-compliance excess mass charging rate of $\$8.02/\text{kg}$.

Non-compliance Excess Mass Charge for BOD is calculated using equation (1):

$$\text{Non-compliance Excess Mass Charge (\$)} = \frac{(S - D) \times Q \times U_n}{1,000}$$

The non-compliance excess mass charges shown above are in lieu of the excess mass charges in section 3.7.5.

NB. Council will continue applying the above non-compliance excess mass charge until the quality of discharge complies with Council's approved quality (or the trade waste policy) limits, within the time frame determined by Council for remedying the problem. If the discharger fails to rectify the problem within this time frame, the discharger may be required to cease discharging liquid trade waste into Council's sewerage system and may also be required to pay a 'non-compliance penalty' as indicated in the following section.

3.7.7 Non-compliance penalty

The non-compliance penalty covers instances where Council may seek compensation for its costs relating to legal action, damage to infrastructure, incurred fines and other matters resulting from illegal, prohibited or unapproved liquid trade waste discharged to the sewerage system. Also included are fines under:

Protection of the Environment Operations Act 1997, section 120(1) (Pollution of any waters by a discharger who fails to comply with the conditions of approval for discharge of liquid trade waste to sewer)

Local Government Act, 1993, section 627 (Failure to comply with an approval), section 628 (Failure to comply with an order). Non-compliance penalties will be pursued by legal action.

3.7.8 Discharge of stormwater to the sewerage system

The discharge of stormwater, surface and subsoil waters to the sewerage system is prohibited under this policy. As indicated in section 2.4, the acceptance of first flush stormwater runoff may be permitted. If approval is granted to accept the above waters, excess mass charges will be applied in accordance with section 3.7.5.

3.7.9 Septic and pan waste disposal charge

This charge is imposed to recover the cost of accepting and treating septic tank and pan waste.

Septic tank and pan waste disposal charge (\$) = Q x S

Where: Q = Volume (kL) of waste discharged to sewer.

S = Charging rate in \$/kL for septic tank effluent, septage or chemical toilet waste as indicated in Council's Annual Management Plan.

3.7.10 Other tankered waste

As outlined in Council's Management Plan (Fees and charges), different volume based charging rates are applicable to 24inkered waste. For 24inkered leachate, in addition to a volume based charge, excess mass charges will be applicable to substances discharged in excess of deemed concentration in domestic sewage.

3.7.11 Responsibility for payment of fees and charges

Property (land) owners are responsible for the payment of fees and charges for water supply, sewerage and liquid trade services provided by Council. This includes property owners of marina, caravan park, etc., if a dump point located at their premises is connected to the sewerage system. Where another party (lessee) leases premises any reimbursement of the lesser (property owner) for such fees and charges is a matter for the lesser and the lessee.

Council will charge a septic tank and pan waste disposal charge for services it provides to transporters of septic tank and pan waste 25inkered and discharged to the sewerage system.

Table 6: Summary of Trade Waste Fees and Charges

CHARGING CATEGORY	APPLICATION FEE	ANNUAL NON-RESIDENTIAL SEWERAGE BILL WITH APPROPRIATE SEWER USAGE	ANNUAL TRADE WASTE FEE	RE-INSPECTION FEE (when required)	TRADE WASTE USAGE CHARGE/kL	SEPTIC WASTE DISPOSAL CHARGE	EXCESS MASS CHARGES/kg	NON-COMPLIANCE TRADE WASTE USAGE CHARGE/kL	NON-COMPLIANCE EXCESS MASS/kg and pH CHARGES/kL (if required)	NON-COMPLIANCE PENALTY (if required)
1 A	Yes ¹³	Yes	Yes	Yes	No	No	No	Yes ¹⁴	No	Yes
1 B	Yes ¹³	Yes	Yes	Yes	No	No	No	Yes ¹⁴	No	Yes
2	Yes	Yes	Yes	Yes	Yes	No	No	Yes ¹⁴	No	Yes
2S	Yes	Yes ¹⁵	Yes	Yes	No	Yes	No ¹⁶	No	No	Yes
3	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes

All dischargers of liquid trade waste to Council's sewerage system should be aware that they are subject to prosecution and imposition of fines under the *Local Government Act 1993* and the *Protection of the Environment (Operations) Act 1997* and Regulations. In addition to fines, Council may recover costs of damages and fines incurred by Council as a result of an illegal liquid trade waste discharge.

3.8 Monitoring

Council will carry out inspections of the premises of all liquid trade waste dischargers and their treatment facilities at least once per annum. Inspections of commercial premises preparing hot food may be carried out four (4) times per annum (Section 3.7.2). Monitoring of the large and industrial dischargers is to be carried out as specified in the approval conditions.

The applicant may be required to monitor the liquid trade waste discharge as a condition of an approval or agreement. They may also be required to pay for any sampling and testing of liquid trade waste undertaken by Council.

For this purpose, an inspection/sampling point, where the waste can be inspected and sampled, will be specified in the approval and/or agreement. This point will normally be located after the pre-treatment facility. The discharger may need to install a suitable method of flow measurement.

Council may require the discharger to:

- install a permanent primary measurement device
- measure the volume and flow rate using the permanently installed flow measurement system (such as a flow metering system)
- install a flow measurement device on a temporary basis and obtain enough data to determine a basis for assessing the flow rate and volume

¹³ Not applicable for discharges exempted in Table 1.

¹⁴ Non-compliance trade waste usage charges, if the discharger fails to install or properly maintain appropriate pre-treatment equipment.

¹⁵ Only applicable if the discharger has a dump point located at their premises which is connected to the sewer system.

¹⁶ Excess Mass charges are applicable to leachate.

- provide a system which allows obtaining a flow weighted composite sample.

Testing of samples is to be undertaken by a NATA-registered or other laboratory recognised by NSW Department of Planning and Environment (DPE) to ensure reliable and accurate results. Where the discharger is sampling the effluent, Council may randomly take duplicates to confirm the waste characteristics.

3.9 Liquid trade waste services agreement

In addition to its approval under the Local Government Act, Council may require certain dischargers, including those who wish to discharge liquid trade waste in large volumes (discharge >20 kL/d) or industrial waste (Concurrence Classification C discharges) or Classification S into its sewerage system to execute a liquid trade waste services agreement (refer to Attachment 1). The agreement will set out the conditions associated with the discharge and execution of the agreement will be a condition of the approval issued by Council (refer to section 3.4). The conditions will be binding on the applicant and the Council. The agreement will be for a period of up to five (5) years. No discharge is to be made to Council's sewerage system until an agreement or an interim agreement has been executed.

Provision can be made in the agreement for (in addition to Council's approval conditions):

- additional conditions for discharge of liquid trade waste
- cancellation of the agreement and/or order to cease the discharge if the discharger is found to be in breach of the agreement or the liquid trade waste approval or, in the opinion of Council, the waste is adversely affecting the sewerage system or the environment
- entry by Council officers to inspect the liquid trade waste collection, treatment, monitoring and disposal systems
- the applicant to notify Council in advance of any changes that may affect the quality and quantity of the liquid trade waste
- the amount of bond/security to be lodged with Council prior to discharging to the sewerage system.

3.10 Enforcement of approvals and agreements

(see the attached sample agreement at Attachment 1)

Any person who fails to obtain Council's approval to discharge liquid trade waste into the sewerage system, or fails to comply with the conditions of the approval, may be liable to a penalty as provided under the *Local Government Act 1993* (sections 626 to 628 and 634 to 639).

Polluting of any waters by a discharger of liquid trade waste who does not have a Council approval or who fails to comply with the conditions of the approval is an offence under section 120 (1) of the *Protection of the Environment Operations Act 1997*. In addition, under section 222 of this Act, Council may issue a penalty notice (ie. An on-the-spot fine) to such a discharger.

Any person who fails to comply with the terms or conditions of a liquid trade waste services agreement (ie. There is a breach of the agreement) will be required to indemnify the Council against any resulting claims, losses or expenses in accordance with section 9 of the agreement. Suspensions may also apply and may include a notice to cease the discharge.

3.11 Modification and revocation of approvals

Council reserves the right to modify or revoke an approval to discharge liquid trade waste to the sewerage system in any of the following circumstances:

if the approval was obtained by fraud, misrepresentation or concealment of facts

for any cause arising after the granting of the approval which, had it arisen before the approval was granted, would have caused the council not to have granted the approval

for failure to comply with a requirement made by or under the *Local Government Act 1993* relating to a condition of the approval

for failure to comply with a condition of the approval.

3.12 Prevention of waste of water

Water must be used efficiently and must be recycled where practicable. It is an offence under section 637 of the *Local Government Act 1993* and its Regulation (refer to Attachment 2) to waste or misuse water.

Dilution of trade waste with water from any non-process source including Council's water supply, bore water, groundwater and/or stormwater as a means of reducing pollutant concentration is therefore strictly prohibited.

3.13 Effluent improvement plans

Where the existing liquid trade waste discharged does not meet Council's requirements, the applicant may be required to submit an Effluent Improvement Plan setting out how Council's requirements will be met. The proposed plan must detail the methods/actions proposed to achieve the discharge limits and a timetable for implementation of the proposed actions. Such actions may include more intensive monitoring, improvements to work practices and/or pre-treatment facilities to improve the effluent quality and reliability.

3.14 Due diligence programs and contingency plans

For *Concurrence Classification A*, a discharger is not required to submit either a due diligence program or a contingency plan.

A discharger may be required to submit a due diligence program and a contingency plan for *Concurrence Classification B or Classification S* where it is considered that the discharge may pose a potential threat to the sewerage system. If required, a due diligence program and contingency plan must be submitted to Council within six (6) months and three (3) months respectively of receiving a liquid trade waste approval.

For *Concurrence Classification C*, a discharger may need to provide a due diligence program and contingency plan to Council within six (6) months and three (3) months respectively of receiving a liquid trade waste approval.

It should be noted that:

1. If the discharger has an accredited environmental management system in place, a due diligence program and contingency plan may not be required. However, proof of accreditation must be provided to Council with the application. The EMP may not include all necessary provisions in regard to trade waste. In such cases Council may require that a suitable due diligence program and contingency plan be developed and submitted to Council.
2. Where Council considers there is potential risk to the sewerage system from a discharge, it may request a due diligence program and contingency plan to be submitted prior to commencing the discharge.

APPENDIX A: SEWER DISCHARGE FACTORS (VOLUMETRIC)

The sewer discharge factor is used to for billing purposes to relate metered water consumption to the volume of liquid waste discharged to sewer.

Business	%
Bakery	95
with a residence attached ¹⁷	70
Bed and Breakfast/Guesthouse (max. 10 persons)	75
Boarding House	90
Butcher	95
with a residence attached ¹⁷	70
Cakes/Patisserie	95
Car Detailing	95
Car Wash	75
Caravan Park (with commercial kitchen)	75
Caravan Park (no commercial kitchen)	75
Chicken / poultry shop (retail fresh, no cooking)	95
Charcoal Chicken	95
Club	95
Cold store	7
Community hall (minimal food only)	95
Correctional Centre	90
Craft/Stonemason	95
Day Care Centre	95
Delicatessen, mixed business (no hot food)	95
with a residence attached ¹⁷ above ¹⁷	70
Dental Surgery with X-ray	95
with a residence attached ¹⁷	70
Fresh Fish Outlet	95
Hairdresser	95
High School	95
Hospital	95
Hostel	90
Hotel	100
Joinery	95
KFC, Red Rooster	95
Laundry	95
Marina	90
McDonalds Restaurant, Burger King, Pizza Hut	95
Mechanical Workshop ¹⁸	95
Mechanical workshop with car yard	85

¹⁷ If a residence is attached, that has garden watering, the residential SDF should be applied

¹⁸ Includes lawn mower repairer, equipment hire

Medical Centre	95
Motels small (breakfast only, no hot food)	90
Motel (hot food prepared)	90
Nursing Home	90
Office Building	95
Optical Service	95
Panel Beating / Spray Painting	95
Primary School	95
Printer	95
Restaurant ¹⁹	95
Self-Storage	90
Service Station	90
Shopping Centre	85
Supermarket	95
Swimming Pool (commercial)	85
Take Away Food	95
Technical College or University	95
Vehicle Wash: Robo, Clean and Go, Gerni Type	95
Veterinary (no X-Ray), Kennels, Animal wash	80
Factories, Golf Clubs, Fisheries Bait and Sea foods, Schools, and Miscellaneous	Determined on an individual basis

¹⁹ Includes café, canteen and bistro

Notes:

1. All liquid waste generators will be charged additional volume charges if the total metered water consumption multiplied by their discharge factor, exceeds the allowable volume returned to sewer.
2. If suitable information can be supplied which demonstrates a significant departure from the applied discharge factor, then Council can be approached to reconsider the discharge factor. Council may also revise the discharge factor if it gains suitable information to support a revision.
3. Any internal metering must be approved by Council and installed and maintained by the owner at the owner's expense. Where it is not possible to estimate the volume of water discharged to sewer, a separate effluent meter approved by Council may be installed and maintained by the owner. Alternative ways to measure flow that may be considered are hydraulic calculations and pump run times but these as a minimum would need to have some way to automatically record electronic daily records to be considered.
4. Discharge factors for consumers having water consumption in excess of 20,000 kL per year will be determined on an individual basis.
5. Bowling and Golf Clubs will have their discharge factors determined on an individual basis.
6. The Manager, Water, has delegated Authority to determine discharge factors.
7. Premises not included in the above table shall have their discharge factors determined by the Manager Water and Wastewater.
8. Where consideration is to be given to a reduction in sewer access charges, the peak flow to sewer is to be assessed based on peak day water consumption, the sewer discharge factor and the period of discharge in the most adverse situation. The peak flow to sewer is then to be compared with a typical peak residential sewage flow. Any reduction in sewer access charges will be determined by the Manager Water and Wastewater.

APPENDIX B: TRADE WASTE PROPORTION OF DISCHARGE

The trade waste factor is used to for billing purposes to determine the trade waste component of liquid waste discharged to sewer.

Business	%
Bakery	25
With a residence attached'	18
Boarding House	20
Butcher	90
with a residence attached ¹⁷	65
Cakes/Patisserie	50
Car Detailing	90
Car Wash	70
Caravan Park (with commercial kitchen)	15
Chicken / poultry shop (retail fresh, no cooking)	90
Charcoal Chicken	80
Club	30
Correctional Centre	Assessed on relevant activities
Craft/Stonemason	80
Dental Surgery with X-ray	80
with a residence attached ¹⁷	60
Fresh Fish Outlet	90
High School	25 ²⁰
Hospital	30
Hostel	20
Hotel	25
Joinery	10
KFC, Red Rooster	80
Laundry	92 ²⁰
Marina	70
McDonalds Restaurant, Burger King, Pizza Hut	62
Mechanical Workshop ¹⁸	70
Mechanical workshop with car yard	70
Medical Centre	25 ²⁰
Motel (hot food prepared)	20
Nursing Home	30
Panel Beating / Spray Painting	70
Primary School	10 ²⁰
Printer	85
Restaurant ¹⁹	50
Service Station	70

²⁰ A trade waste usage charge applies if appropriate pre-treatment equipment has not been installed or has not been properly operated and maintained

(b) take any other action that is reasonable to prevent waste and misuse of water.

“Liquid Trade Waste Management Guidelines” means the Guidelines of that name produced by the Department of Energy, Utilities and Sustainability in March 2005, as in force from time to time. The 2005 Guidelines have now been superseded by *Liquid Trade Waste Regulation Guidelines, April 2009*.

* a reference to the Secretary of the Department of Planning and Environment is to be construed as a reference to the Secretary of the NSW Government Department responsible for providing concurrence to trade waste approvals.

3. Related legislation

Local Government Act 1993

Local Government (General) Regulation 2005

Radiation Control Act 1990

4. Compliance

Non-compliance with this policy may result in fees and charges being imposed as referenced throughout this document

5. Forms

[Liquid Trade Waste Services Agreement between Council and Applicant](#)

6. Review period

This policy will be reviewed within 12 months of the election of each new Council or more frequently in the event of any legislative changes or change in circumstances.

7. Useful links

[Tweed Shire Council website](#)

8. Version control

Version #	Summary of changes made	Date changes made
1.0	Incorporated into new policy template	20/06/2013
2.0	To align the policy with NSW Office of Water requirements and update discharge factors	18/06/2015
2.0	Adopted by Council	17/09/2015
2.1	Updated and adopted by Council and incorporated into the new policy template	15/09/2022