

Determination of trade waste category



TasWater is responsible for managing trade waste discharges to the sewerage system. Trade waste customers are categorised based on the risk that their trade waste discharge poses to our sewerage system.

Risk score method

The risk score methodology used to categorise commercial trade waste customers is an adaptation of a method outlined in the *WSAA Australian Sewage Quality Management Guideline 2012*, recognised nationally as the most comprehensive guideline to managing trade waste discharge to sewer. The calculation of a risk score for each customer is the combined total of four applicable elements:

Trade waste risk score = (A+S+P+V)

Business activity (A)

Commercial trade waste customers are grouped by the business activity they conduct. The grouping is based on the premise that businesses conducting the same activity will produce a similar waste stream, with a score applied. An activity such as a church/place of worship or community centre/hall may not require categorisation to become a trade waste customer if the activity is not of a business nature and TasWater determines that discharge to sewer from the activity is representative of domestic usage.

Table 1 – Business activity score

Business activity	Risk score
Animal boarding	5
Biological load > domestic	5
Car wash/wash bay (wand/drive through)	5
Church/place of worship	5
College tertiary	5
Community centre/hall	5
Correction centre	5
Generic to be classified	5
Green grocer	5
Hairdresser/beauty salon	5
Hospital	5
Laundromat (coin operated)	5
Medical (inc. dentist, vet)	5
Nursery/horticulture	5
Nursing home/care home (kitchen)	5
Panel/body repair	5
Primary/secondary school	5
Pub/bar/hotel	5
Swimming pool	5

Business activity	Risk score
Automotive service/repair	10
Bakery	10
Bowling green (kitchen)	10
Catering	10
Laboratories	10
Licensed club	10
Plant/machinery hire/truck wash	10
Restaurant/café	10
Small goods, butcher	10
Sports stadium (kitchen)	10
Supermarket	10
Take away/fast food	10

Substance of most concern (S)

The substance of most concern is the material(s) in your trade waste discharge that has the biggest impact on our sewerage system. For example, a restaurant's substances of most concern are fat, oil and grease. If there are multiple substances present, the highest score is applied.

Table 2 – Business activity score

Trade waste category	Substances	Potential impacts	Substance score
Low impact	Suspended solids (SS)	Restricted sewer capacity	5
	Pool filter backwash	Hydraulic overload	
	Total dissolved solids (TDS)		
Medium impact	Fat, oil & grease (FOG)	Sewer blockage	10
	MBAS (detergents)	Excessive foaming Biological inhibition	
High impact	Total petroleum hydrocarbons (TPH)	Flammable/explosion	15
	Chemicals	Biological inhibition	



Pre-treatment equipment (P)

The type and complexity of a pre-treatment device required is largely dependent on the business activity being conducted and the substance of most concern within the trade waste discharge. Pre-treatment devices are given a risk score based on their complexity, susceptibility to failure and the difficulty of maintaining it in a satisfactory condition. Further information on the minimum requirements for pre-treatment devices can be found in our Pre-treatment Guidelines on our website.



Table 3 – Pre-treatment score

Definition	Pre-treatment fixtures	Score
Low risk	Cooling facility	5-8
	Dry-basket arrestors (in sink/in floor)	
	Plaster trap	
	Bucket trap	
	Controlled flow Cleaner production	
Medium risk	Grease trap	15
	Neutralising trap	
High risk	Oil/water separator – (plate separator, VGS, coil pack)	18
	Solvent separator	

Trade waste volume (V)

To categorise trade waste customers according to their demand on the sewer an additional score is applied for the estimated trade waste volume discharged to sewer. The applicable trade waste volume is calculated based on three inputs:

- Metered water consumption for the business
- Reduction in volume on the basis that 80 per cent of the metered consumption is discharged to sewer, known as the base volume
- Application of discharge factors (DF) which reflect a percentage of metered water consumption; this amount is considered to be the trade waste discharged to sewer.

Trade waste volume is determined by the formula below.

Trade waste volume = (FY12-13 water consumption – DR)xBVxDF

Where:

- DR = 200kL, which is the allowance if a domestic residence is present
- BV = base volume is 80 per cent of annual potable water meter consumption
- DF = Trade waste discharge factor is a percentage factor amount applied depending on the type of business activity, for example a restaurant is 50 per cent. Please see table 7 in the Trade Waste Customer Category Guideline, available on our website, for discharge factor amounts.

See the Trade Waste Customer Category Guideline on our website for further information on how to calculate your volume score.

Table 4 – Volume score

Lower limit (kL/annum)	Upper limit (kL/annum)	Volume score
0	300	5
301	600	10
601	1100	20
>1101		30



Trade waste categories

Using the trade waste risk score calculated from the method above, the applicable trade waste category can be determined from the table below:

Table 5 – Trade waste category risk score

Lower limit	Upper limit	Risk category
0	39	1
40	49	2A
50	59	2B
60+		2C

Category 1

This is a customer discharging low volume and/or low impact trade waste that is minimal risk to the sewerage system and may be managed through cleaner production methods.

Category 2A, 2B, 2C

These are customers discharging low to medium volume and low impact trade waste that requires physical pre-treatment at the source to make it acceptable for discharge to the sewerage system.

Trade waste category calculation examples

Restaurant

A restaurant with 650kL potable water consumption per year:

Trade waste volume = $W \times BV \times DF$

Criteria	Description	Risk score
Business activity (A)	Restaurant	10
Substance of concern (S)	Fat, oil and grease	10
Pre-treatment (P)	Grease trap	15
Trade waste volume (V)	$650 \times 0.8 \times 0.5 = 260\text{kL}$	5
Total risk score	A+S+P+V	40 (Cat. 2A)

A restaurant with 1,300kL potable water consumption per year with domestic premises connected to the same meter:

Trade waste volume = $W \times BV \times DF$

Criteria	Description	Risk score
Business activity (A)	Restaurant	10
Substance of concern (S)	Fat, oil and grease	10
Pre-treatment (P)	Grease trap	15
Trade waste volume (V)	$(1,300-200) \times 0.8 \times 0.5 = 440\text{kL}$	10
Total risk score	A+S+P+V	45 (Cat. 2A)

A restaurant with 3,300kL potable water consumption per year:

Trade waste volume = $W \times BV \times DF$

Criteria	Description	Risk score
Business activity (A)	Restaurant	10
Substance of concern (S)	Fat, oil and grease	10
Pre-treatment (P)	Grease trap	15
Trade waste volume (V)	$3,300 \times 0.8 \times 0.5 = 1,320\text{kL}$	30
Total risk score	A+S+P+V	65 (Cat. 2C)

Hair salon

A hair salon with 650kL potable water consumption per year:

Trade waste volume = $W \times BV \times DF$

Criteria	Description	Risk score
Business activity (A)	Hair salon	5
Substance of concern (S)	Total dissolved solids	5
Pre-treatment (P)	Cleaner production	5
Trade waste volume (V)	$650 \times 0.8 \times 0.25 = 130\text{kL}$	5
Total risk score	A+S+P+V	20 (Cat. 1)

Automotive service/repair

An automotive service/repair business with 1,000kL potable water consumption per year:

Trade waste volume = $W \times BV \times DF$

Criteria	Description	Risk score
Business activity (A)	Automotive service/repair	10
Substance of concern (S)	Total petroleum hydrocarbons	15
Pre-treatment (P)	Oil/water separator	18
Trade waste volume (V)	$1,000 \times 0.8 \times 0.7 = 560\text{kL}$	10
Total risk score	A+S+P+V	53 (Cat. 2B)

More information

- Refer to the *Trade Waste Customer Category Guideline* for detailed information
- Use the online Trade Waste Category Calculator Tool available at www.taswater.com.au
- Call our Customer Service Centre on 13 6992.