

Sewage and Trade Waste Discharge Factor

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PURPOSE

The aim of this Policy is to provide a method for calculating the quantity of sewage and of trade waste discharged to the sewerage system from residential and non-residential customers where the quantities of sewage cannot be directly measured. Quantities derived using this method will be used to calculate sewerage and trade waste charges for residential and for non-residential customers in accordance with Council's pricing policies.

BACKGROUND AND RELATED LEGISLATION

Liquid Trade Waste Management Guidelines 2021

Best-Practice Management of Water Supply and Sewerage Guidelines 2007

SCOPE

This Policy shall be read in conjunction with the Liquid Trade Waste Policy.

DEFINITIONS

To assist in interpretation, the following definitions apply:

Term	Definition
Discharger	The owner of the property, from which liquid waste is discharged to the sewerage system.
Sewage	A liquid water produced by human society which typically contains washing water, laundry waste, faeces, urine and other liquid or semi-liquid wastes.
Sewerage	The system of sewers that convey sewage to a treatment plant. The term includes all pumps, pipelines, valves and associated infrastructure.
Sewers	Pipes that convey sewage under gravity.
Trade waste	Liquid trade waste, factory waste, chemical or other impurities from any business, trade or manufacturing premises other than domestic sewage, stormwater or unpolluted water.

POLICY

Dubbo Regional Council (Council) provides water and sewerage services to residential and non-residential property owners.

The sewerage charging structure is based on the 'Water Supply, Sewerage and Trade Waste' pricing guidelines, NSW Department of Planning, Industry and Environment. These guidelines incorporate principles of user pays.

In accordance with the user pays principles, the charges for sewerage services should be based on the quantity of sewage discharged to the sewerage system. While modern water meters provide a cheap and accurate way of measuring fresh water supplied to a property, there is no practical way of actually measuring sewage leaving a property.

The NSW Government has recommended that sewage should be estimated by means of a percentage of the fresh water supplied to the property.

The Sewage Discharge Factor (SDF) is the name given to the percentage of fresh water supplied to a property deemed to be the quantity of sewage discharged from that property.

The NSW Government pricing guidelines recommends that all domestic properties receive a common charge. Council has adopted a SDF for residential properties in its determination of the standard residential sewerage charge.

The NSW Government pricing guidelines also recommends that non-residential properties are likely to exhibit significant variation, therefore a standard charge is inappropriate. The charges are based on a SDF assigned initially on the basis of the industry type.

In the case of properties that have both residential and non-residential features, such as a corner shop with residence, Council staff will deem the property to be either residential or non-residential based on the dominant use of the property.

'Trade Waste' is the name given to liquid wastes discharged to the sewer and containing trade or factory wastes or chemicals, or other impurities from any business, trade or manufacturing premises other than domestic sewage, stormwater or unpolluted water.

The trade waste charging structure is as defined in Council's Liquid Trade Waste Policy.

Both sewage and trade waste charges are levied on the property owner. All agreements and transactions are between Council and the affected property owner.

1. Discharge Factors

For many properties, it would be cost prohibitive, or impractical, to install a meter to measure the actual volume of sewage discharged to the sewerage system. For these customers, Council will estimate the volume of sewage and trade waste discharged to the sewerage system by applying a default discharge factor to the volume of potable water supplied to the property and measured at the water meter.

The Sewage Discharge Factor (SDF) is the percentage of the water consumption of the property, as measured by the water meter, which is discharged to the sewerage system. The SDF includes all domestic, commercial and trade waste that enters the sewerage system from a property. Discharge factors may range from 0 to 100%, and in exceptional circumstances may even be greater than 100% if additional material is added to the waste stream as part of the production process.

The Trade Waste Discharge Factor (TWDF) is a percentage of the total water consumption of the property, as registered on the water meter supplying the property that is considered to be trade waste, and is discharged with the general sewage flow from the property. Normally the TWDF for a property is less than the SDF for the same property.

With respect to residential properties, Council's policy is to adopt a standard SDF for all residential properties as recommended by the NSW Government Pricing Guidelines. Council has adopted a SDF for all residential properties of 60%. This SDF will apply to all residential properties, including single standalone houses, duplex houses, block of flats and strata title units.

With respect to non-residential properties, a review of Council's flow monitoring data, industry standards and information supplied by other water authorities was used to develop default SDF and TWDFs for each of the business types that discharge into the sewerage system.

Council will adopt the default SDF or TWDF and use it for charges. Either Council, or the discharger, can initiate a review into the actual SDF and TWDFs applicable for the individual property. Council may change the discharge factors after advising the property owner. The discharger may apply to vary the factors applicable to the property. The discharger will be required to undertake a review of the factors and submit the review to Council. If Council accepts the review results, then the factor applicable to the property may be varied. In addition, the default may be varied and used for future dischargers. Any change in the factors leading to a reduction in the amounts charged will only apply in future, there will be no retrospective refund of previous amounts charged.

When reviewing a discharge factor, all water usage within the property will be considered. Examples of water supplied to a property and not returned to sewer include:

- Landscape and garden watering.
- Evaporation loss through air conditioning or boiler use.
- Dust suppression.
- Water added to products.
- Waste water that is removed off-site to a specialised receival facility (eg by tanker) that is deemed unsuitable for discharge to sewer.

When calculating a SDF it may be necessary to include other sources of water which enter the sewerage system. These include storm diversion and waste product, the same is true of TWDFs, where stormwater, bore water or other sources are used in the process or activity.

While all non-residential properties will have a SDF only those properties generating trade waste will have a TWDF. Council's policy with respect to TWDF is to assign a default TWDF for each property in accordance with this Policy. If as a result of specific investigation Council is satisfied that the TWDF should be changed from the default value then Council will change the TWDF and use the new TWDF for future charging.

In summary, Council's method of determining SDF and TWDFs is shown in the table below:

DETERMINATION OF:	SDF	TWDF
Residential	All to be 60%	N/A
Non-residential	Default SDF	Default TWDF

2. Review of Discharge Factors

Either Council, or the property owner, may initiate a review of the SDF or the TWDF applied to a property if either party considers that the default factor is not appropriate for an individual property.

The property owner can initiate a review by completing the attached Discharge Factor Variation Application Form (Appendix 3). Information that supports the application should be submitted with the application. However, additional information that Council considers necessary to assess the application may be requested. This information must be supplied at the applicant's cost. An example of the type of information that may be requested is additional flow monitoring data so as to verify the data supplied in the Water Usage Section of the application.

Council can also initiate a review. Council will give the property owner written advice that a review is to be conducted. Council will be responsible for costs associated with reviews it initiates.

Where Council believes, as a result of a review, that the current SDF or the current TWDF is not appropriate for a property, then the property will be assigned a new individual SDF or a new individual TWDF.

Where a discharge factor is varied from the default SDF or TWDF included with the policy, or a previous discharge factor, the property owner will be advised in writing of the variation. The variation will be effective from the next charging period and will not be applied retrospectively.

If Council considers that the information does not justify a variation to the discharge factor, the applicant will be advised in writing. This advice will also outline the reasons for the decision.

3. Effluent Flow Meters

New customers proposing to discharge greater than 5000 litres per day will be required to install an effluent flow meter. Customers who discharge a high strength waste, or wastewater volume greater than the volume of water supplied to the property, may also be required to install an effluent flow meter in accordance with Council's Liquid Trade Waste Policy.

Effluent flow meters must be maintained as per the manufacturer's recommendations and calibrated by a suitably qualified person as often as required to ensure the device records accurately. Maintenance and calibration records must be kept for at least five years and made available to Council's authorised officers on request.

4. Application of Charges

Under Council's Revenue Policy an increase in water consumption will increase the water charge, and will also increase the sewerage charge and the trade waste charge. This is a consequence of the sewerage charge and the trade waste charge being determined as a percentage of the water consumption. This provides additional incentive to reduce water consumption in the first place.

If there is a major water leak on the property then Council will require the water charge to be paid, but may reduce the sewerage charge and the trade waste charge to amounts that the property owner would have received in the absence of the water leak. This will only occur upon the written application from the property owner and with the approval of the Manager Water Supply and Sewerage.

5. Water Meters

The size of the water meter installed at a property is also used to calculate the applicable sewerage charges. Applications to reduce the size of the water meter must be made in writing and accompanied by a hydraulic consultant's report detailing water demand parameters, including maximum pressure and flow rate required in accordance with all legislative requirements.

6. Meter Failure

Should the water meter fail, readings from the previous four billing periods will be averaged and used to calculate the sewerage charge. If the failure occurs before four periods have elapsed, available data will be used.

In the event of the effluent flow meter failing, the effluent and water meter readings from the previous four billing periods will be used to estimate a discharge factor. This discharge factor will be used in conjunction with the water meter readings from the current billing period to calculate the sewerage charge. If the failure occurs before four billing periods have elapsed, available data will be used.

7. Disputes

The property owner may request a review of any Council decision on SDFs or TWDFs. This request must be made in writing to the Chief Executive Officer at Dubbo Regional Council.

Council may request additional information from the property owner. Council will complete the review and advise the applicant within 10 working days of receipt of the request, and the result of all additional requested information.

8. Non-residential Sewerage and Liquid Trade Waste Fees and Charges

A discharge factor represents the percentage of the metered water consumption, which is discharged to the sewerage system from a non-residential property. There are two types of discharge factors:

- Sewer (SDF); and
- Liquid Trade Waste (TWDF).

9. Sewer Discharge Factor

The sewer discharge factor is the ratio of all wastewater discharged from a premises to the sewerage system to the total water consumption expressed as a percentage.

$$SDF = \left(\frac{\textit{Domestic} + \textit{Trade Waste}}{\textit{Total Water Consumption}} \right) \times 100$$

10. Trade Waste Discharge Factor

The TWDF is the ratio of the volume of liquid trade waste discharged into the sewerage system to the total water consumption expressed as a percentage.

$$TWDF = \left(\frac{\textit{Liquid Trade Waste}}{\textit{Total Water Consumption}} \right) \times 100$$

Appendix 1: Sewage and Trade Waste Discharge Factors for Non-residential Premises

<i>Discharger</i>	<i>Discharge Factor</i>	
	<i>Sewer</i>	<i>Trade Waste</i>
Bakery	95	25
with a residence attached ¹	70	18
Bed and Breakfast/Guesthouse (max. 10 persons)	75	N/A ²
Boarding House	90	20
Butcher	95	90
with a residence attached ¹	70	65
Cakes/Patisserie	95	50
Car Detailing	95	90
Car Wash	75	70 ⁵
Caravan Park (with commercial kitchen)	75	15
Caravan Park (no commercial kitchen)	75	N/A ²
Chicken/poultry shop (retail fresh, no cooking)	95	90
Charcoal Chicken	95	80
Club	95	30
Cold store	7	N/A ²
Community hall (minimal food only)	95	N/A ²
Correctional Centre	90	Note 6
Craft/Stonemason	95	80
Day Care Centre	95	N/A ²
Delicatessen, mixed business (no hot food)	95	N/A ²
with a residence attached ¹	70	
Dental Surgery with X-ray	95	80
with a residence attached ¹	70	60
Fresh Fish Outlet	95	90
Hairdresser	95	N/A ²
High School	95	25 ⁵
Hospital	95	30
Hostel	90	20
Hotel	100	25
Joinery	95	10
KFC, Red Rooster	95	80
Laundry	95	92 ⁵

<i>Discharger</i>	<i>Discharge Factor</i>	
	<i>Sewer</i>	<i>Trade Waste</i>
Marina	90	70
McDonalds Restaurant, Burger King, Pizza Hut	95	62
Mechanical Workshop ³	95	70
Mechanical workshop with car yard	85	70
Medical Centre	95	25 ⁵
Motels small (breakfast only, no hot food)	90	N/A ²
Motel (hot food prepared)	90	20
Nursing Home	90	30
Office Building	95	N/A
Optical Service	95	N/A ²
Panel Beating/Spray Painting	95	70
Primary School	95	10 ⁵
Printer	95	85
Restaurant ⁴	95	50
Self Storage	90	N/A
Service Station	90	70
Shopping Centre	85	30
Supermarket	95	70
Swimming Pool (commercial)	85	N/A ²
Take Away Food	95	50
Technical College or University	95	Note 6
Vehicle Wash: Robo, Clean and Go, Gerni Type	95	90 ⁵
Veterinary (no X-ray), Kennels, Animal wash	80	N/A ²

Notes:

¹ If a residence is attached, that has garden watering, the residential SDF should be applied.

² A trade waste usage charge is not applicable for this activity.

³ Includes lawn mower repairer, equipment hire, hydraulics, radiator and transmission repair, etc.

⁴ Includes café, canteen, bistro, etc.

⁵ A trade waste usage charge applies if appropriate pre-treatment equipment has not been installed or has not been properly operated or maintained.

⁶ A discharge factor to be applied on the basis of the relevant activity, eg food preparation/service, mechanical workshop, optical services, etc.

Appendix 2: Categorisation of Water Consumers

At present Council categorises all existing water consumers into one of the following categories:

- Domestic
- Commercial
- Industrial
- Public Use
- Fire Service
- DCC Commercial
- DCC Public Use
- DCC Sporting Field
- DCC Parks
- DCC Trees

Appendix 3: Application of Variation of Sewage or Trade Waste Discharge Factor

TRADE WASTE DISCHARGE FACTOR VARIATION



Please complete this form to Infrastructure with Dubbo Regional Council.

APPLICANT DETAILS	
Title	<input type="checkbox"/> Mr <input type="checkbox"/> Mrs <input type="checkbox"/> Miss <input type="checkbox"/> Ms <input type="checkbox"/> Other - Please specify:
Name/s	
Date of Birth <i>Optional</i>	
Residential Address <i>Include City, State & Postcode</i>	
Postal Address <i>Include City, State & Postcode</i>	
Contact Number	
Email Address	

BUSINESS DETAILS	
Your Name	
Company Name	
ABN	
Company Address <i>Include City, State & Postcode</i>	
Postal Address <i>Include City, State & Postcode</i>	
Contact Number	
Email	

PROPERTY DETAILS					
Lot No		DP/SP No		House Number	
Street/Road					
Town		State		Postcode	

TRADE WASTE DISCHARGE FACTOR VARIATION



PROPERTY OWNER INFORMATION	
Are you the property owner?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If no, relationship to owner	<input type="checkbox"/> Tenant/Business Owner <input type="checkbox"/> Other
If other, please specify	
Property Owner/s Name	
Property Owner/s Address	
Property Owner/s Contact Number	
Property Owner/s Email	

OWNER CONSENT	
<p>The owner's authorisation to make this application must be obtained. This is a mandatory requirement of section 78 of the Local Government Act 1993.</p> <p><i>As owner of the above property, I consent to the making of this application and to the entry onto such land by authorised officers of Council for the purpose of determining this application, and any associated inspections</i></p>	
Signature	
Print Name	
Date	

PROPERTY/BUSINESS DETAILS				
Business Type	<input type="checkbox"/> Factory	<input type="checkbox"/> Workshop	<input type="checkbox"/> Restaurant	<input type="checkbox"/> Other
Business Activity <i>Please Specify</i>				
Is this Business Seasonal	<input type="checkbox"/> No <input type="checkbox"/> Yes			
If yes, please specify				
Days of Operation				
Hours of Operation				
Number of Water Meters Servicing the Property		Serial Number/s		
Number of Toilets		Number of Urinals		
Number of Showers				
Evaporative Cooling	<input type="checkbox"/> No <input type="checkbox"/> Yes (please specify type)		<input type="checkbox"/> Domestic <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial	
Swimming Pool Onsite	<input type="checkbox"/> No <input type="checkbox"/> Yes			
Current Trade Waste Discharge Factor		Trade Waste Discharge Factor Sought		
	%		%	

TRADE WASTE DISCHARGE FACTOR VARIATION



APPLICANT SIGNATURE	
Signature	
Print Name	
Date	

NOTE TO APPLICANT
Variations cannot be performed for previous watering billing periods. If a variation is approved it will be applied to the next water billing quarter.

PRIVACY NOTE:

Council is bound by the provisions of the Privacy and Personal Information Act 1998, in the collection, storage and utilisation of personal information provided in this form. Accordingly, the personal information will only be utilised for the purposes for which it has been obtained. For further information, please refer to Council's Privacy Management Plan Policy located on Council's website www.dubbo.nsw.gov.au

TRADE WASTE DISCHARGE FACTOR VARIATION



WATER USAGE/WASTE WATER GENERATION			
1. Annual (average) water supplied to property (refer to Rates Notice)			kL
2. Garden/Landscape Use	kL	Metered	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Estimated
If estimated, basis for estimation			
3. Used in Product (Allowance)	kL	Metered	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Estimated
If estimated, basis for estimation			
4. Cooling Towers (Allowance)	kL	Metered	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Estimated
If estimated, basis for estimation			
5. Evaporation Loss	kL	Metered	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Estimated
Facility			
If estimated, basis for estimation			
6. Other (Allowance)	kL	Metered	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Estimated
Details			
If estimated, basis for estimation			
Total Allowance:		2 + 3 + 4 + 5 + 6 =	(7)

Your estimation of the discharge factor:			
[1]		-	(7)
Average water supplied to property – Allowance x 100			
Average water supplied to property	=	% [1]	

Please attach any supporting evidence such as meter readings, technical information, production records or areas of gardens/landscape to support this application.

RESPONSIBILITIES

The Council officer responsible for the updating, implementation and interpretation of this Policy document is the Director Infrastructure (DI).

APPENDICES

Appendix 1: Sewage and Trade Waste Discharge Factors for Non-residential Premises

Appendix 2: Categorisation of Water Consumers

Appendix 3: Application of Variation of Sewage or Trade Waste Discharge Factor