

WASTEWATER TARIFF & TRADE WASTE PRICING METHODOLOGY

1. PURPOSE

This Standard Operating Procedure (SOP) aims to ensure that East Gippsland Water (EGW) pricing principles for levying **wastewater tariff and trade waste charges** and the methodology used to determine these for residential and non-residential customers.

2. APPROVAL

Managing Director

3. BACKGROUND

EGW uses the Equivalent Tenement (**EQT**) pricing method (see Definitions, Appendix A) for wastewater services supplied to residential and non-residential customers.

Each developed residential property is equal to one EQT and, in the case of vacant land, a half EQT. In addition, a property with supplementary occupiable buildings (such as additional units/flats, Community Centre, Community Hall or Communal gathering place on the one property) is assessed as having more than one EQT.

The pricing for Non Residential properties is assessed on an individual basis according to water usage, business type and function, with an industry discharge factor applied.

EQT method of cost apportionment was supported by VCAT in calculation of shared customer costs for the Bemm River Sewerage Scheme.

4. WASTEWATER & TRADE WASTE PRICING PHILOSOPHY & PRINCIPLES

The Corporation has reviewed all of the wastewater tariffs and developed a set of pricing principles that are cost reflective, fair and reasonable and not overly complex.

Table 1: Principle Criteria Objective indicator.

Principle	Criteria	Objective
Equitable	These should be fair between all residential and non-residential customers	Relationship between costs and service delivery
Consistent	Charges are applied consistently using water volume and industry discharge factors (relevant to the industry type) to apportion charges on the demand that each customer has on the wastewater and trade waste services of the Corporation. Charges will be applied as per the price determination approved by the regulator.	
Good Administration	Charges are transparent Charges should reflect the apportionment of the total cost of providing these services to customers	

4. EQT FOR RESIDENTIAL PROPERTIES

All **residential developed** properties are assessed as being as a single (1.0) EQT unless further separate occupiable buildings, (such as additional units/flats, Community Centre, Community Hall or Communal gathering place on the one property) is assessed as having more than one EQT.

5. ASSESSING THE WASTEWATER DISCHARGED TO THE SYSTEM

A **discharge factor** (see definition Appendix A) is used to assess the amount of wastewater flowing to sewer from a property as a proportion of the metered water consumption. The discharge factor reflects the property use and estimates the likely proportion of water used that is discharged to sewer based upon the **Industry Type** (refer Table 1, below). This is based on the accepted water industry standard where either; 95%, 90%, 75%, 50%, 25% or 0% is applied dependant on Industry Type.

Where the known (measured) **peak load discharge**, or load discharged to the **sewer network** or treatment facility, is not reasonably reflected by the industry discharge factor, EGW may alter the discharge factor to better reflect the cost of the service.

Table 2: Industry Type Classification and discharge factor applied.

Industry Type	Discharge %	Industry Type	Discharge %	Industry Type	Discharge %
Abattoir	95	Hall	90	Recreation/Sporting Ground incl function/change rooms	95
Aerodrome	75	Hospital Public/Private	90	Resource Centre	95
Animal Pound	90	Hostel	90	Restaurant &/ Canteen	95
Art Gallery	95	Hotel/Motel/Accommodation/Lodge	90	Retail/Wholesale food outlet/processing	95
Bakery	75	House & Dairy	25	School - Primary/Secondary	75
Bank	95	House & Flat/Shop	90	Service Station	90
Bed & Breakfast/ Boarding House & Garden	75	House & Winery	75	Shed/Storage	95
Boat Shed/Storage	95	Ice Works	25	Shop & Dwelling	90
Bowling Green/Croquet Green/Golf Course	25	Kindergarten/Infant Welfare Centre	95	Special Accommodation	90
Bowling/Golf Club with Bistro	50	Laboratory	95	Squash Courts	95
Café/Takeaway/Coffee Shop	90	Laundry	95	Stables	25
Car Park	90	Library	95	Store Yard/Warehouse	95
Car Wash	75	Manufacturing & Trade Services	90	Sub-station (elect)	95
Car Yard	50	Mini Golf	90	Supermarket	95
Caravan Park/Camping Ground	75	Mining Treatment	75	Surgery Dentist &/or Doctors	95
Cattle Yards/Saleyards	25	Motor/Engineering Works/Auto Repairs	95	Swimming Pool	75
Cemetery	25	Museum/Historical Buildings/Tourist Att	95	Telephone Exchange	95
Child Minding Centre/Day Care	95	Nursing Home/Retirement Village/Aged Care Unit	90	Television Station & Yard	95
Church &/or Church Hall	90	Office/Retail Outlet/Business/Shop	95	Tennis Courts & Hall	75
Club Non-sporting/Clubrooms/Surf Club/RSL	90	Orchard	25	Tennis Courts Lawn	25
Commercial Gardens	25	Ovals - & Club Rooms	75	Theatre &/or Drive-in theatre	95
Community Centre/Hall/Education Centre	90	Panel Beating Shop	75	Timber Yard/Mill	95
Concrete Batching Plant	25	Paper Mill	75	Tip	95
Convent	90	Parks, Gardens & Reserves	25	Toilet Block/Public Conveniences	95
Court House/Law Court	90	Plant Nursery/Garden Supplies/Market Ga	25	Tourist Information Centre	95
Dairy	95	Police Stn & Dwelling	90	Trotting Track	90
Depot	95	Post Office	95	University or TAFE	95
Disability Centre	90	Pottery	50	Veterinary Clinic	90
Dry Cleaners	75	Poultry Shed	75	Vineyard	50
Emergency Services (incl Fire Station)	75	Pre school/Kindergarten	75	Water Sport Facilities	90
Factory	95	Printing/Photography processing	95	Weighbridge	95
Farm (incl House)/Cattle troughs	25	Quarry	75	Wood Yard	75
Food Processing/Manufacturing	90	Race Course	50	Workshop	95
Foundry	75	Railway Station	90	Wrecking Yard	95
Funeral Parlor	90	Recreation/Sporting Ground no function/change rooms	25	Yacht Club/Marina	75
Gymnasium/Spa/Sauna	95			Youth Club	95
Hairdresser/Barber/Beauty Salon	95				

6. CALCULATING THE EQT FOR A PROPERTY

To calculate the number of EQT's for a property the property's average water use from the last 3 years is multiplied by the discharge factor for the industry type and then divided by the discharge for a residential property from the last 3 years.

EQT charges will apply to all properties where a wastewater service is available. Extra costs will be charged for treatment of wastewater that is a higher strength (composition) than domestic sewerage.

Table 3: EQT Calculation for non-residential wastewater pricing

Detail	Calculation Basis	Result	Discharge factor	Volume to sewer	EQT's
Residential	Volume of water at the 75% percentile of all residential customers (average over last 3 years)	236kL	75% (household discharge into sewer)	177kL	1
Non Residential	Average water volume of residential properties from past 3 years	(A) kL - Property average	(B) % - As per industry type	(A)*(B) kL	<u>(A)*(B)</u> <u>177kL</u>

Example:

Residential water use at the 75 percentile of all customers (3 year average) = 236 kL

Discharge factor into the sewer for residential customers = 75%

236 kL X 75% = 177kL equal to one Equivalent Tenement (EQT) (load into the sewer of a residential household).

The formula is then applied to determine the number of EQTs see following example;

Example:

**Average 3 year use X Industry Type discharge factor (%)
Divided by average residential usage allowance = # EQT's**

For example, a Restaurant (Average usage 1977.3kL) would be calculated as follows:-
1977.3kL * 90% ÷ 177kL = 10 EQT's

For example, a Hotel (Average usage 3711.3kL) would be calculated as follows:-
3711.3kL * 95% ÷ 177kL = 19 EQT's

Example: CHARGE = EQT * Average¹ charge = Wastewater Service Charge

Charge = 10EQT * \$664.99² = \$6,649

Charge = 19 EQT * \$664.99 = \$12,634

¹ Charge has been averaged, however charge applied would be as approved in ESC price determination for appropriate financial year

² \$664 average wastewater charge 2020/21, actual charge will be used as approved in ESC price determination

7. ASSESSMENT OF EQT DETERMINATION EVERY 3 YEARS

An assessment of contribution to sewer will be carried out every 3 years for each property (other than Major Trade Waste Customers) based on volumetric water use. Property use (industry type) will be re-assessed periodically and EGW reserves the right to alter the discharge factor used.

8. UNDEVELOPED PROPERTIES – VACANT LAND

All Vacant Land are assessed as being 50% (or 0.50) of a full EQT charge.

9. ASSESSMENT OF EQT'S FOR A NEW NON-RESIDENTIAL PROPERTY

Where a new business is established within a district, an assessment of industry type will occur so that the EQT determination can be made. This may be triggered from implementation of a new wastewater scheme, from a large tapping, PIC Consent number or when a Trade Waste application is received.

The Manager Customer Business Team will make the assessment of the EQT's to be applied to the property based on a comparison to industry type.

10. TRADE WASTE

A Major Trade Waste customer shall be determined by the volume and load concentration of waste discharged into the sewer.

A Major Trade Waste customer will incur extra costs for treatment of trade waste discharged into the sewer that has higher load concentrations and volume than that determined for domestic wastewater.

11. CHARGES

All residential wastewater customers shall be charged on the basis of EQT calculation.

All non-residential wastewater customers including major and minor trade waste customers shall be charged on the basis of EQT calculation.

Major and Minor Trade Waste customers will also be charged an annual fee for trade waste compliance audit inspection, for monitoring of sites and testing the strength of the waste.

Non Residential customers may also be charged a capacity loading factor where increased investments of capital and operations and maintenance costs have been made to cater for high strength waste water or peak load periods.

Table 4: Form of Pricing for Trade Waste Customers

Type	Extra Cost to Treat Higher than Domestic Waste Strength	Capacity Factor	EQT wastewater charge	Trade waste Compliance Audit/Inspection fee and Strength Charge
Major Trade Waste Customers	Yes	Yes	According to volume using Industry discharge % to sewer	Yes
Minor Trade Waste Customers	No	Yes	Multiple charge depending on volume and industry discharge % to sewer.	Yes

12. CUSTOMER REVIEW PROCESS

Customers will have the opportunity to request a review of their EQT calculation if they believe their discharge differs from the industry average.

EGW will require customers to enter into a trade waste agreement where the wastewater disposed into the sewer exceeds normal domestic trade waste parameters.

13. REVIEW

This document is reviewed by exception or on a five yearly basis and revised as needed to ensure operational control and compliance with regulations and standards.

Appendix A

Definitions	
Allowance	An allowance refers to an allowable volume applied to minor trade waste customers.
Discharge Factor	Is an estimate of the percentage of the metered volume delivered to the property that is discharged to sewer, and is based on industry type. Some of the metered water delivered is used and does not enter the sewer (eg water used outside for watering lawns etc.)
Capacity Load Factor	Is a loading placed on wastewater or trade waste customers where increased investments of capital and operations and maintenance costs have been made by the Corporation to cater for peak load periods. This factor is used to calculate the peak volume load where the average load used in the EQT calculation does not sufficiently represent the true demand on the sewer network.
EGW	East Gippsland Water
Equivalent Tenement - EQT	A unit of measure that is based on normal household use being 1.0 EQT which is the equivalent of one typical house on an allotment.
Industry Type	Is the category of the different types of business i.e. Caravan Parks, Motels, Hotels & Café.
Major Trade Waste	Businesses that discharge an unusually large volume and/or high load concentration of trade waste. These businesses (generally larger commercial or industrial type businesses) are required to hold a trade waste agreement before discharging trade waste. The trade waste agreement will be specifically tailored to their business process and the wastes they discharge
Minor Trade Waste	A business that has a trade waste apparatus or other form of on-site treatment of the waste discharged to sewer. This includes businesses that should have such a device. These businesses (generally small commercial type businesses) are required to hold a trade waste agreement before discharging trade waste to the sewer. These businesses produce a trade waste that is greater in volume or strength than domestic sewage, but not to a large degree.
Trade Waste Pricing Formula	Is a formula to calculate charges for discharging trade waste to the sewer and the costs for the treatment of this waste. The formula determines the cost according to the volume and strength of effluent discharged. This formula or similar may be used to determine costs of treating higher wastewater load concentrations.
Non Residential – Developed	A parcel of land occupied or used as the site of a business/industry (i.e. is not primarily used as a domestic dwelling) and has services available for connection.
Non Residential & Residential– Vacant Land	Is a parcel of land that is located within a largely business/industry predominates or residential area that has no no structure erected/connected located on it and has services available for connection.
Peak Load Discharge	Is the maximum load demand requirement discharged to a system.
Residential – Developed	A parcel of land developed with buildings occupied or used solely as a residential/domestic dwelling including flats, units a boarding or lodging house, and has services available for connection.
Sewer Network	Sewerage system is EGW's network of sewage collection and conveyance and the treatment and reuse facilities owned and/or operated by the Corporation.
Strength Charge	Strength charge is a charge applied for the composition of the waste discharged compared to normal domestic sewage.
Trade Waste	Trade Waste is any liquid or any substance contained within it, discharged to the sewerage system other than normal domestic sewage.

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Annual Trade Waste Compliance Audit Inspection	Is applicable to all trade waste customers. The fee is to cover the annual inspection of wastewater barriers to ensure that they meet compliance.
Wastewater Service Charge	Is the EQT charge which contributes to the maintenance of the sewerage network including sewer mains, pumping stations to ensure the reliable transport of sewage from the customer to the treatment plant for treatment and disposal.