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# Trade Waste Charges Policy

April 2019

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# 1. Introduction

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The Council is responsible for providing and managing wastewater services for the city. It does this by providing a wastewater transportation network comprising more than 1,000 kilometres of pipes and tunnels with 63 pumping stations. The wastewater is treated at treatment plants at Moa Point, Karori and Porirua<sup>1</sup>. The sludge from the treatment process at Moa Point and Karori is currently taken to the Council's Southern Landfill, where it is dewatered and then disposed of to landfill. In the long-term, the Council has committed funds to solutions to significantly reduce the volume of sludge disposed of to landfill.

Although trade waste is a small proportion of the total wastewater entering the wastewater system, it can lead to undesirable outcomes within the city's sewer network and treatment plants if not appropriately managed.

Discharging trade waste to the wastewater system places additional load on the system which may cause accelerated corrosion, generate odours and dangerous gases, adversely affect the treatment processes or adversely impact on the disposal of biosolids (the waste remaining after the treatment and de-watering process) and effluents. The additional load is created by the concentration of the substances discharged and their total mass.

This policy sets out a framework to determine and implement a 'mass flow charging regime' where trade waste producers will be expected to contribute to the cost of disposing of trade waste. This policy must be read in conjunction with the Trade Waste Bylaw which provides a basis for charging trade waste users and ensures that the costs of treatment and disposal are shared fairly between trade waste and domestic wastewater dischargers.

**NOTE:** The Trade Waste Charges policy should be reviewed when the Trade Waste Bylaw is next due to be reviewed in 2026.

<sup>1</sup> Wellington City Council owns one third of this plant.

## 2. Policy fundamentals

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All activities that require a trade waste consent under the Council's Trade Waste Bylaw will be liable to pay trade waste charges.

Trade waste charges will incorporate three components:

1. Volume - the amount of waste disposed through the sewer - measured in cubic metres (m<sup>3</sup>)
2. BOD - biological oxygen demand, a measure of the level of bacteria in the waste - measured in kilograms (kg)
3. Suspended solids - the content of solid material in the trade waste disposed - measured in kilograms (kg)

The revenue anticipated to be collected through trade waste charges in any year will reduce by an equivalent amount, the level of rates required to be collected through the commercial sewerage rate.

All trade waste disposers will continue to pay sewage rates, but will receive a 'domestic credit' to avoid double charging for services provided. Section 3.2 details the domestic credit calculation.

## 3. Calculating fees and charges

### 3.1 Trade waste limits and charges

Trade waste limits will be governed by a trade waste consent, which will be consistent with the Council's Trade Waste Bylaw.

Trade waste charges will be based on the following formulae:

	Charging basis	Threshold
<b>Volume (total flow)</b>	\$ per cubic meter of volume	Up to 100m <sup>3</sup> /day
		Between 100m <sup>3</sup> /day and 7,000m <sup>3</sup> /day
		Above 7,000m <sup>3</sup> /day
<b>B.O.D</b>	\$/kg based on composite daily sample	Up to 3,150 kg per day
		Above 3,150 kg per day
<b>Suspended solids</b>	\$/kg based on composite daily sample	Up to 1,575 kg per day
		Above 1,575 kg per day
<b>Council monitoring</b>	Actual and reasonable	TWI Category 4
		TWI Category 1-3 responsible for own monitoring costs as per consent conditions.

The variable/marginal pricing mechanism for volume promotes the 'polluter pays' principle and provides an incentive for low trade waste disposers to maintain trade waste discharges at or below 100m<sup>3</sup>/day.

### 3.2 Domestic sewage allowance

The domestic portion of waste is funded through sewage rates. It is therefore appropriate to provide an allowance or “credit” for the domestic portion of waste entering the sewerage system.

The domestic credit reflects the proportion of wastewater generated by employees and/or customers of trade waste disposers.

#### Domestic credit component calculation:

Base assumptions used in establishing the domestic component of waste are as follows:

a = Number of FTE’s

b = Number of hours per day per FTE

c = Average number of days worked per year per FTE

Flow = 50 litres per day (24 hours).

BOD = 220 mg/litre of water

SS = 220 mg/ litre of water

$b / 24 \text{ hours} = d\%$  = daily allowance per shift

Z litres =  $d\% \times 1.1$  (10% margin)  $\times 50 \text{ litres} \times a \text{ persons} \times c \text{ days}$

	Quantity	Rate	Credit
<b>Total flow</b>	Z/1000 m <sup>3</sup> x	\$ as per the Council current Annual Plan	= \$x,xxx
<b>SS</b>	Z*0.00022 kg x	\$ as per the Council current Annual Plan	= \$x,xxx
<b>BOD</b>	Z*0.00022 kg x	\$ as per the Council current Annual Plan	= \$x,xxx
			\$x,xxx

The domestic credit rate is based on the ‘full cost’ of sewerage activity.

## 4. Trade waste charging methodology

Trade waste charges will be based on the following calculations:

### Volume:

Cost of sewerage collection, transportation and 50% of treatment costs*	÷	Total inflow (m <sup>3</sup> ) to sewerage treatment facilities**	= flow charge per m <sup>3</sup> of waste
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Up to 100m <sup>3</sup> per day	=	based on variable cost
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Between 100m <sup>3</sup> per day and 7,000m <sup>3</sup> per day	=	based on marginal cost
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Above 7000m <sup>3</sup> per day	=	based on full costs (from 01/07/09)
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\* Total cost is per Sewage Collection and Disposal Network Activity budget per Council current Annual Plan.

\*\* Total treatment facility inflow based on three year rolling average (revised annually)

### BOD:

25% of sewerage treatment costs*	÷	Total BOD inflow (kg) to sewerage treatment facilities**	= BOD charge per kg
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Up to 3,150kg/day	=	based on variable cost
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Above 3,150kg/day	=	based on full cost (from 01/07/09)
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\* Total cost is per Sewage Collection and Disposal Network Activity budget per Council current Annual Plan.

\*\* Total treatment facility inflow based on three year rolling average (revised annually)

### Suspended solids:

25% of sewerage treatment costs plus cost of solid waste disposal*	÷	Total suspended solid inflow (kg) to sewerage treatment facilities**	= suspended solid charge per kg
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Up to 1,575kg/day	=	based on variable cost
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Above 1,575kg/day	=	based on full cost (from 01/07/09)
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\* Total cost is per Sewage Collection and Disposal Network Activity budget per Council current Annual Plan.

\*\* Total treatment facility inflow based on three year rolling average (revised annually)

