



Fees and Charges

PRACTICE NOTE TW03

This Practice Note is part of a series of notes developed to assist with the use and implementation of the Central Hawke's Bay District Council's Trade Waste Bylaw 2021.

What kind of fees and charges apply to trade waste?

Current year fees and charges can be found by searching "fees and charges" on Council's website. These are reviewed on an annual basis, and apply from 1 July to 30 June each year.

Charges apply at the time of application to discharge trade waste, and for the connection to the wastewater network. An administration fee is charged each year, which covers compliance monitoring, inspections, and administration associated with your trade waste discharge.

For tankered and conditional trade waste, invoices are sent on a regular basis (normally monthly unless otherwise agreed). These invoices include operational and capital charges, which are charged according to the amount you discharge in the period (flow and load).

While the calculations behind the rates you are charged are complex, your invoice will clearly show your charges, and how they have been calculated.

What new categories for charging have been introduced in the 2021 bylaw?

New categories for trade waste charges have been introduced in the 2021 trade waste bylaw. The new categories develop on from B13 capital included in the 2018 trade waste bylaw. The new categories are summarised in Table 1.

Category	Description
B14 Inorganic Suspended Solids	Payment based on the mass of inert suspended solids \$/kg
B15 Volatile Suspended Solids	Payment based on the mass of volatile suspended solids \$/k.
B16 rbBOD	Rebate for readily biodegradable biochemical oxygen demand \$/kg
B17 Volume capex (Vc)	Payment based on the volume discharged \$/m ³
B18 Organic Loading capex (BODc)	Biochemical oxygen demand or chemical oxygen demand \$/kg
B19 Nitrogen capex (TNc)	Payment based on the defined form(s) of nitrogen \$/kg
B20 Phosphorus capex (TPc)	Payment based on the defined form(s) of phosphorus \$/kg
B21 Inorganic Suspended Solids capex (ISSc)	Payment based on the mass of inorganic suspended solids \$/kg
B22 Volatile Suspended Solids capex (VSSc)	Payment based on the mass of volatile suspended solids \$/kg

Table 1 - new categories introduced in 2021 Trade Waste bylaw

B14 and B15 have been introduced, as B3 was already in use and was being split into inorganic and volatile suspended solids at the time of invoicing.

From 1 July 2021, charges for both operational and capital cost will be included in fees and charges. Previously, only charges for operational costs were applied. This change is due to the need for trade waste dischargers to pay their share of the capital costs of the upgrades to the wastewater system as part of #thebigwastewaterstory programme of work.

Behind the rates that are being used for B17 – B22 are a complex series of calculations which apportion the cost of the wastewater capital programme to the

parameters the capital work will treat. The planned capital cost is reflected in B17-B22 from 1 July each year for the planned spend in that year.

An example of the apportionments is the new dissolved air flotation unit (DAF) which will be installed at Waipawa WWTP – this treatment unit will be addressing phosphorus removal, total suspended solids removal, and clarity for UV disinfection (apportioned to flow). The total cost of the DAF installation has been apportioned across these three parameters, and forms part of the year 1 rates that apply from 1 July 2021 for B17, B20, B21 and B22.

What fees and charges will you be charged?

There are two sets of rates you will be charged for – operational and capital. Each invoice you receive will show what you are being charged for.



How are fees and charges calculated?

Trade waste dischargers will be charged the actual cost involved with treating trade waste received by Council into the wastewater system. The total cost to Council of receiving, conveying, treating and disposing of wastewater from within its district is made up of capital, maintenance, operating consumables, labour and administration costs. The costs for each discharger of wastewater are apportioned to volume, Biochemical Oxygen Demand (BOD5), Inert Suspended Solids (ISS), Volatile Suspended Solids (VSS), total nitrogen (TN) and total phosphorous (TP) of discharged wastewater, and summed to give the total costs of reticulation to, and treatment at, the treatment plant. The rates themselves can be found in Fees and Charges. These are reviewed on an annual basis.

The annual trade waste charge (operational) is calculated using the following formula:

$$\left(C_1 \times \frac{V}{Q} \right) + \left[C_2 \times \left[\left(\frac{V}{Q} \times Volume \right) + \left(\frac{B_T}{B_w} \times BOD_5 \right) + \left(\frac{D_T}{D_w} \times ISS \right) + \left(\frac{E_T}{E_w} \times VSS \right) + \left(\frac{F_T}{F_w} \times TN \right) + \left(\frac{G_T}{G_w} \times TP \right) \right] \right]$$

The variables in the formula above are defined in Table 2 below.

Variable	Units	Description
Q	m3/year	The average annual volume in cubic metres of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each subsequent financial year
BW	kg/year	The average annual BOD5 in kilograms of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each financial year
DW	kg/year	The average annual ISS in kilograms of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each financial year
EW	kg/year	The average annual VSS in kilograms of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each financial year
FW	kg/year	The average annual TN in kilograms of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each financial year
GW	kg/year	The average annual TP in kilograms of all wastewater received at the Council's treatment plant where the Trade Wastes are treated, during each financial year
C1	\$	The estimated annual cost of receiving and disposing of (but not treatment) all such wastewater during each subsequent financial year
C2	\$	The estimated annual costs to the Council for treatment of all wastewater during each financial year, apportioned to volume, BOD5, ISS, VSS, TN and TP on a site specific basis relating to wastewater treatment processes
V	m3/year	Volume of wastes shall be based on either the measured volume of wastewater discharged from the premises or the volume estimated from the measured volume of water entering the premises during the period corresponding most closely with each financial year

Table 2 - definitions of variables used in calculations for operational rates

Where “T” is used in the calculations, this is the annual load (kilograms) discharged by the trade waste discharger for each parameter. The estimated apportionment of costs for C2 is shown in Table 3 below.

WwTP	% of total operational treatment cost apportioned to						
	Volume	BOD5	ISS	VSS	TN	TP	
Waipukurau*	33%	45%	14%	6%	1%	1%	
Waipawa*	46%	26%	17%	7%	2%	2%	
Other WwTP	To be confirmed on an individual basis						

* Based on existing pond-based treatment processes; to be revised following future upgrades

Table 3 - apportionment of costs by parameter for C2.

The charges in respect of BOD5, ISS, VSS, TN and TP is based on the measured composition of wastewater discharged from the premises during the period corresponding most closely with each financial year. This BOD5, ISS, VSS, TN and TP are respectively designated BT, DT, ET, FT, and GT (kg/year).

How are operational charges invoiced?

While the calculations behind the rates used in Fees and Charges is complex, invoicing for trade waste discharges is relatively straightforward. There are two sets of rates you will be charged for – operational and capital. Each invoice you receive will show what you are being charged for.

Operational charges in each charging period are calculated based on:

$$(V \times B1) + (BOD \times B4) + (TN \times B5) + (TP \times B6) + (ISS \times B14) + (VSS \times B15)$$

Components of the formula are defined in C.2 and in the table below.

Variable	Definition
V	Volume discharged in charging period, m3
BOD	Mass of each parameter discharged in charging period, kg
TN	
TP	
SS	Mass of SS discharged in charging period, kg Consisting of the sum of ISS and VSS, kg

Table 4 - definition of variables used in each charging period

How are capital charges invoiced?

Capital cost charges in each charging period will be calculated much as they are for the operational costs:

$$(V \times B1) + (BOD \times B18) + (TN \times B19) + (TP \times B20) + (ISS \times B21) + (VSS \times B22)$$

With the same definitions as per Table 4.

During the deliberations for the fees and charges to be used for the Long Term Plan 2021-2031 (LTP), the decision was made to phase in the capital cost rates B17-B22 as per Table 5. This will be applied to the capital rates only at the time of invoicing.

This allows trade waste dischargers time before the full rates are applied. This means that the districts' ratepayers will be subsidising the capital cost of trade waste discharges for the first 3 years of the LTP.

Year	Weight/differential
Year 1 – 2021/2022	0.50
Year 2 – 2022/2023	0.60
Year 3 – 2023/ 2024	0.85
Year 4 – 2024/2025	1.0
Year 5 – 2025/2026	1.0

Table 5 - capital cost rate multiplier for trade waste discharges