APPENDIX 1

WELLINGTON CITY COUNCIL

TRADE WASTE CHARGES POLICY

APPENDIX 1

Contents

APPENDIX 1

1. Introduction

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 62 pumping stations. The wastewater is treated at treatment plants at Moa Point, Karori and Porirua[1]. The sludge from the treatment process at Moa Point and Karori is currently taken to the Council's southern landfill, where it is combined with green waste to make compost.

The cost of transporting, processing and disposing of the City's wastewater is funded by ratepayers through a targeted rate with 60% payable by the residential sector and 40% by the commercial sector. The Council's total operating cost to collect, treat and discharge wastewater is budgeted at $34.9 million for the 2008/09 year.

Approximately 10% of total sewage treated through the Council's treatment plants is 'trade waste' – waste produced by businesses who are required to have a trade waste consent to discharge non-domestic waste into the public wastewater system.

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 reuse of bio-solids (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.

2. Policy objectives

2.1 New Zealand Waste Strategy 2002

The New Zealand Waste Strategy 2002 covers solid, liquid and gaseous waste, and recognises that moving '*towards zero waste and a sustainable New Zealand'* is a long-term challenge. It has three core goals:

- lowering the social costs and risks of waste
- reducing the damage to the environment from waste generation and disposal
- increasing economic benefit by more efficient use of materials.

Key actions from the New Zealand Waste Strategy were for territorial authorities to produce Waste Management Plans and incorporate these into the Long Term Council Community Plan. Specific targets were also set for trade wastes and hazardous wastes. A fundamental policy principle was to implement a 'polluter pays' system where disposal and treatment costs of trade waste can be recovered through consumption based charges instead of the less precise capital value based targeted rates system.

[1] Wellington City Council owns a one third share of this plant.

APPENDIX 1

2.2 Liquid Waste Management Plan

Wellington City Council agreed its Solid Waste Management Plan in August 2003 and in 2005 adopted a Liquid Waste Management Plan. This plan meets the requirements as set out in the Local Government Act 2002 and the New Zealand Waste Strategy 2002. Council operates under legislation that makes waste reduction a primary objective of any waste plan. The waste management hierarchy (in order of importance) is:

1. Reduction,
2. Reuse,
3. Recycling,
4. Recovery,
5. Treatment and
6. Disposal.

Every territorial authority is required to promote effective and efficient waste management and:-

1. have regard to environmental and economic costs and benefits for the district and
2. ensure that the management of waste does not cause a nuisance or be injurious to health.

Liquid wastes[2] are those that are generated in or converted to a liquid form for disposal. Wastewater in Wellington city is collected by a network of pipes discharging to treatment facilities at Moa Point, Karori and Porirua.

The principles underlying the Council's Liquid Waste Management Plan include:

1. *Sustainable development*
   All members of society are responsible for looking after the environment and for the impact of wastes they produce.

2. *Liquid waste is a resource*
   There are beneficial opportunities for reusing sewage and stormwater. Where opportunities are identified, the viability of any systems will need to be explored.

3. *Integrated solutions*
   Potential solutions will take into account systems that, if possible:
   - maximise use and benefits of natural catchment areas
   - are planned in conjunction with other infrastructural developments
   - are as flexible as possible
   - fit with community plans and views.

4. *Maori and Iwi values are incorporated*
   Recognise and provide for the kaitiakitanga or guardianship role of local Iwi as defined in the 1991 Resource Management Act.

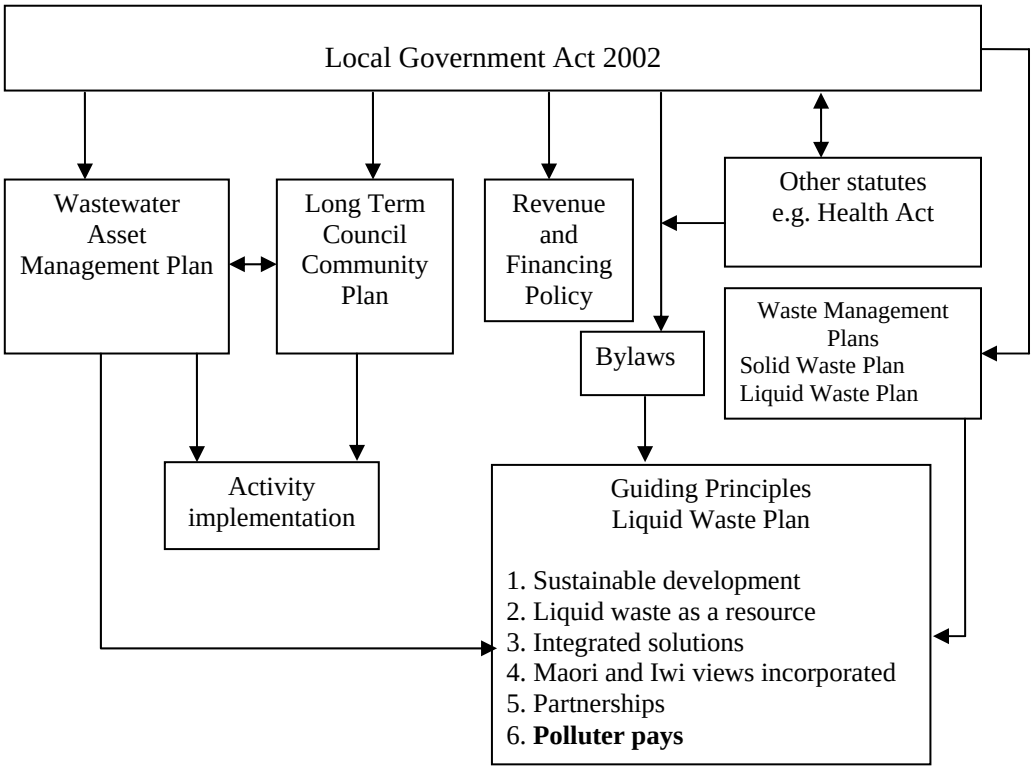
[2] New Zealand Waste Strategy (Ministry for the Environment, Local Government NZ) 2002

Sustainable Wastewater Management (Ministry for the Environment) 2003

5. *Partnerships*
   Where appropriate, a co-operative approach to liquid waste planning will be taken with other regional territorial authorities, the Greater Wellington Regional Council, local Iwi and the community to achieve joint priorities.

6. *Polluter pays*
   This reflects the concept that those who produce waste are responsible for its disposal (or otherwise). In practice, this will only be relevant for trade waste at this stage.

Framework for Waste Plans



2.3 Future Challenges

The Wellington City Council sewer and stormwater system are operating effectively and efficiently under current standards as set out under the Resource Management Act 1991 and as required by Greater Wellington Regional Council consents. However, the city faces several challenges over the next 10-15 years as new legislative requirements come into place. The Council works to continually improve its management of assets as the community's expectations about the environment and sustainability change. The challenges that need to be addressed include determining:

- the desirable stormwater quality standards for the natural waters in the city (that is, Wellington harbour, south coast and streams)
- the acceptable frequency and extent of sewage overflows into natural waters
- how sewage sludge will be disposed of in the future

- the most effective and efficient way to manage trade waste.

Given the nature of liquid waste, the concept of 'zero liquid waste' is not a realistic expectation in the foreseeable future. This means that Council will have a secondary, complementary objective to those set out under the Local Government Act and the New Zealand Waste Strategy and that is to ensure that we manage liquid waste in an environmentally, economically, socially and culturally sustainable manner.

2.4 Development of a Trade Waste Fees and Charges Policy

The Council's Liquid Waste Management Plan identified the need to determine an appropriate charging structure for the discharge of trade waste. The development and implementation of a 'polluter pays' charging policy is the logical next step in the activation of this plan.

The introduction of a trade waste charging policy will:

a) provide a mechanism by which trade waste disposers will be liable for the costs
b) provide an incentive for trade waste disposers to reduce the level of waste entering the sewer network, reducing the risk of increased degradation of the network and limiting the environmental impacts of waste disposal.

Introducing a charging system based on the amount and concentration of trade waste will bring Wellington City in line with other major cities in New Zealand. The user pays charging philosophy provides a financial incentive to waste minimisation initiatives. This is a key driver for influencing behaviour of business in Wellington City to move towards increased sustainability.

This policy is enabled by the provisions for setting trade waste charges under the Council's Trade Waste Bylaw 2004 and is consistent with the provisions for setting fees and charges under the Local Government Act 2002.

3. Policy Rationale

3.1 Policy Fundamentals

All activities that require a trade waste consent under the Council's Trade Waste Byelaw 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 (m3)

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 5.3 details the domestic credit calculation.

3.2 Existing fees and charges

The total cost of the Council's wastewater (sewage) collection, treatment and disposal is funded through a targeted rate of which 60% is met by the residential (base[3]) and 40% by non-residential property.

Prior to the introduction of this policy:

- residential ratepayers pay a fixed charge ($112.50 per connected property for 2008/09) with the balance of the sectors share being funded through a rate per dollar of capital value payable on each connected property.

- non-residential ratepayers pay for their share of wastewater activity entirely through a rate per dollar of capital value payable on each connected property.

Existing trade waste consent fees set under the Council's trade waste bylaw will continue to apply, as follows:

Service	*Charge*
Trade Waste Consent Fee – Initial application fee	$161.25
Trade Waste Consent Fee – High risk	$1,612.50
Trade Waste Consent Fee – Medium risk	$806.25
Trade Waste Consent Fee – Low risk	$268.75
Trade Waste Consent – Low risk (where a restaurants grease trap is discharging more than 500g/m3 of BOD or suspended solids and/or more than 100g/m3 animal oil, fat and grease)	$250.00
Trade Waste Consent Fee – Minimal risk	$86.00
Grease and Grease Traps – Initial application fee	Nil
Trade Waste: Grease traps	$107.50
Trade Waste: Shared grease trap (per premises)	$26.88
Trade Waste: Charge after first hour (per hour)	$107.50
Trade Waste: Monitoring (lab) charges	Actual

[3] The base sector incorporates all land used for residential purposes, but excluding short-stay accommodation, vacant residential land and land used for recreation, sporting or community purposes and which does not generate any pecuniary benefit.

4. Policy Application

The method and frequency of monitoring of trade waste discharge on which trade waste charges will be based will vary dependant on the disposer's trade waste index (TWI). TWI is a function of average historical daily BOD multiplied by the average historical daily suspended solids.

TWI category	TWI range	Monitoring basis	Billing frequency
1	TWI of less than 3	Flow: Annual – based on water in (meter) less domestic credit. If unmetered – based on Flow meter. (Flow meter costs will apply) BOD: Annual - grab sample SS: Annual - grab sample	Annual
2	TWI between 3 and 50	Flow: Annual – Flow meter BOD: Quarterly - grab sample SS: Quarterly – grab sample	Quarterly
3	TWI between 50 and 2000	Flow: Quarterly – Flow meter BOD: Quarterly – 24 hour sampler SS: Quarterly – 24 hour sampler	Quarterly
4	TWI greater than 2000	Flow: Daily – in line meter BOD: Daily – 24 hour auto-sampler SS: Daily – 24 hour auto-sampler sample	Monthly

All trade disposer's will be subject to the same charging regime irrespective of TWI category.

The responsibility to comply with the prescribed monitoring regime rests with the trade waste disposer. This will be a condition of maintaining a trade waste consent.

Monitoring costs will continue to remain the responsibility of the trade waste disposer, as per the exiting requirements of the trade waste consent with the exception of TWI Category 4 disposers: the Council will conduct monitoring and recover the cost from the disposer on an "actual and reasonable" basis.

5. Calculating fees and charges

5.1 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 Policy.

APPENDIX 1

Trade waste charges will be based on the following formulae:

	Charging basis	Threshold	Maximum pricing based on 2008/09 budgets
Volume (total flow)	$ per cubic meter of volume	Up to 100m3/day	$0.20/m3 (variable cost)
		Between 100m^3/day and 7,000m^3/day	$0.10 /m3 (marginal cost)
		Above 7,000m3/day	$0.73/m3 (full cost – applicable from 1/07/09)
B.O.D	$/kg based on composite daily sample	Up to 3,150 kg per day	$0.24/kg (variable cost)
		Above 3,150 kg per day	$0.57/kg (full cost –applicable from 1/07/09)
Suspended solids	$/kg based on composite daily sample	Up to 1,575 kg per day	$0.24/kg (variable cost)
		Above 1,575 kg per day	$0.54/kg (full cost –applicable from 1/07/09)
Council Monitoring	Actual and reasonable	TWI Category 4	TWI Category 1-3 responsible for own monitoring costs per consent conditions.

- For the purposes of establishing charges for BOD and suspended solids, variable costs and marginal costs are the same.
- 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 100m3/day.

5.2 Additional monitoring

In addition to the measurements above, the following monitoring will also be conducted for TWI Category 4 disposers and results provided to the Council:

	Measurement method	Frequency	Guideline
BOD	In-line meter	Hourly composite sample	Less than 150kg/hour
Sulphate	Random grab samples	To be agreed	Less than 200mg/l
Temperature	Temperature logger	Variable	Less than 35 degrees celsius

The additional monitoring recognises that:

- spikes in BOD levels may have an impact on sewer degradation. Accordingly trade waste disposers will attempt to limit maximum BOD discharge to 150 kg/hr.

- high sulphate and temperature levels may contribute to accelerated sewer degradation, particularly when experienced in conjunction with high BOD levels.

    - 2007 monitoring showed no evidence of accelerated degradation in the area of the sewer potentially most at risk (the Ngaio Interceptor sewer).

    - Accordingly no sulphate or temperature based charges are proposed at this time. However it is prudent to maintain guidelines to limit the potential for accelerated degradation and associated charges at some time in the future.

    - Being within the guidelines indicated above does not exclude a trade waste disposer from the possibility of charges for temperature and/or sulphate components of trade waste should these be required to reflect accelerated degradation of the sewer in the future.

- TWI Category 4 disposers will be required to meet the cost of camera and/or manual inspections of pre-specified sewers. The timing of each inspection will be at the discretion of the Council but shall be at an average frequency of not less than seven years.

- Should future sewer inspections indicate accelerated degradation of the sewer (i.e. beyond reasonable depreciation expectations) the Council reserves the right to introduce trade waste charges for temperature and/or sulphate components of trade waste to reflect the incurring of any costs directly related to this accelerated degradation.

5.3 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 hours = *d*% = daily allowance per shift
Z litres = ***d*%** x 1.1 (10% margin) x 50 litres x ***a*** persons x ***c*** days

	Quantity			*Rate*		*Credit*
Total Flow	Z/1000	m3	x	$ 0.73	=	$x,xxx

APPENDIX 1

SS	Z*0.00022	kg	x	$ 0.54	=	$x,xxx
BOD	Z*0.00022	kg	x	$ 0.57	=	$x,xxx
						$x,xxx

- The domestic credit rate is based on the 'full cost' of sewerage activity.
- Any adjustment to this rate will be as per section 6 of this schedule.

6. 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*	divided by	Total inflow (m3) to sewerage treatment facilities**	= flow charge per m^3 of waste
Up to 100m3 per day	=	based on variable cost	
Between 100m3 per day and 7,000m3 per day	=	based on marginal cost	
Above 7000m3 per day	=	based on full costs (from 01/07/09)	

* Total cost is per Sewerage Activity budget per Council 2008/09 Annual Plan.
** Total treatment facility inflow based on 3 year rolling average (revised annually)

BOD:

25% of sewerage treatment costs*	divided by	Total BOD inflow (kg) to sewerage treatment facilities**	= BOD charge per kg
Up to 3,150kg/day	=	based on variable cost	
Above 3,150kg/day	=	based on full cost (from 01/07/09)	

* Total cost is per Sewerage Activity budget per Council 2008/09 Annual Plan.
** Total treatment facility BOD based on 3 year rolling average (revised annually)

Suspended solids:

25% of sewerage treatment costs plus cost of solid waste disposal*	divide by	Total suspended solid inflow (kg) to sewerage treatment facilities**	= suspended solid charge per kg
Up to 1,575kg/day	=	based on variable cost	
Above 1,575kg/day	=	based on full cost (from 01/07/09)	

* Total cost is per Sewerage Activity budget per Council 2008/09 Annual Plan.
** Total treatment facility suspended solids based on 3 year rolling average (revised annually)

APPENDIX 1

7. Introduction, review and transitional provisions

7.1 Policy initiation

Base level trade waste charges (marginal/variable cost basis) will be applicable from 1 July 2008. The charges will be derived from the operating costs shown in the Council's 2008/09 Annual Plan.

Trade waste charge based on full cost will be applicable from 1 July 2009. Between 1 July 2008 and 30 June 2009 trade waste charges for exceeding permitted limits will be charged as follows:

1. Volume: at marginal cost charge rate and
2. BOD & suspended solids: at the variable cost charge rate.

7.2 Policy review

Charges will be reviewed annually to reflect changes in:

a) the cost of delivery of sewage transportation, treatment and disposal services
b) the volume of liquid waste delivered to Council's treatment plants
c) the mass of BOD delivered to Council's treatment plants
d) The mass of suspended solids delivered to Council's treatment plants.

7.3 Additional charges

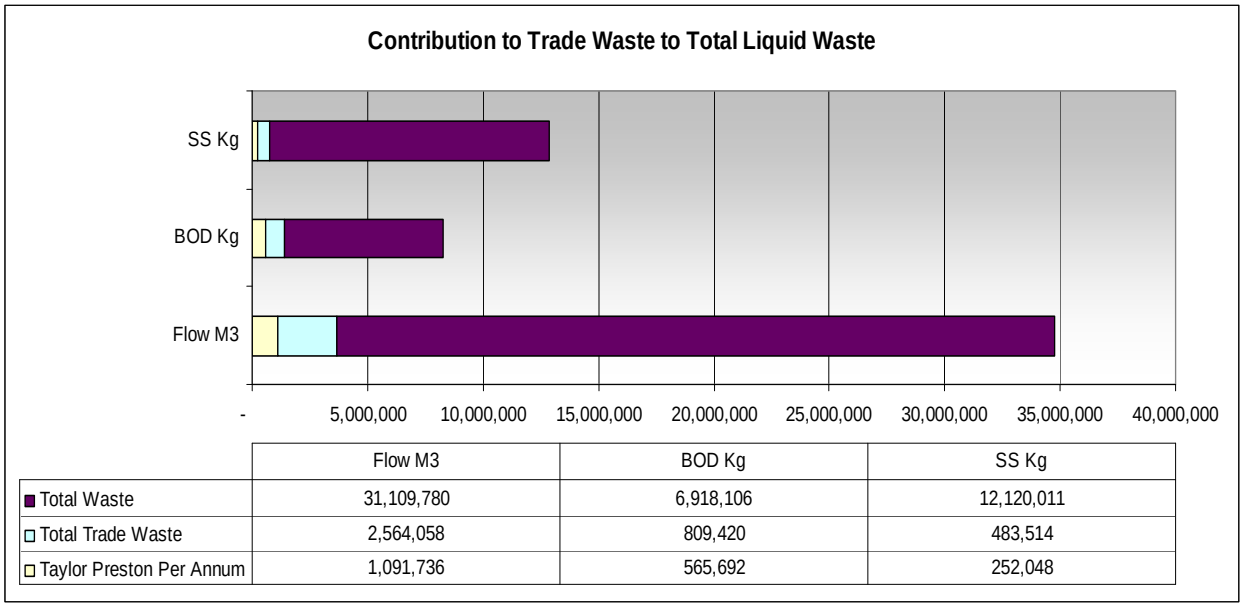
The introduction of charges based on temperature and sulphate in trade waste will be considered on a periodic basis and in response to inspections of sewers. Trade waste component charges for temperature and/or sulphate will only be introduced if evidence of accelerated sewer degradation is detected.

For the purposes of this policy "accelerated degradation" is defined as the situation where sewer infrastructure is deteriorating at a faster rate than the anticipated life of the infrastructure components as reflected in Council's Asset Management Plans. Where accelerated degradation occurs, additional charges will be required to fund the increased rate of depreciation on the asset.

APPENDIX 1

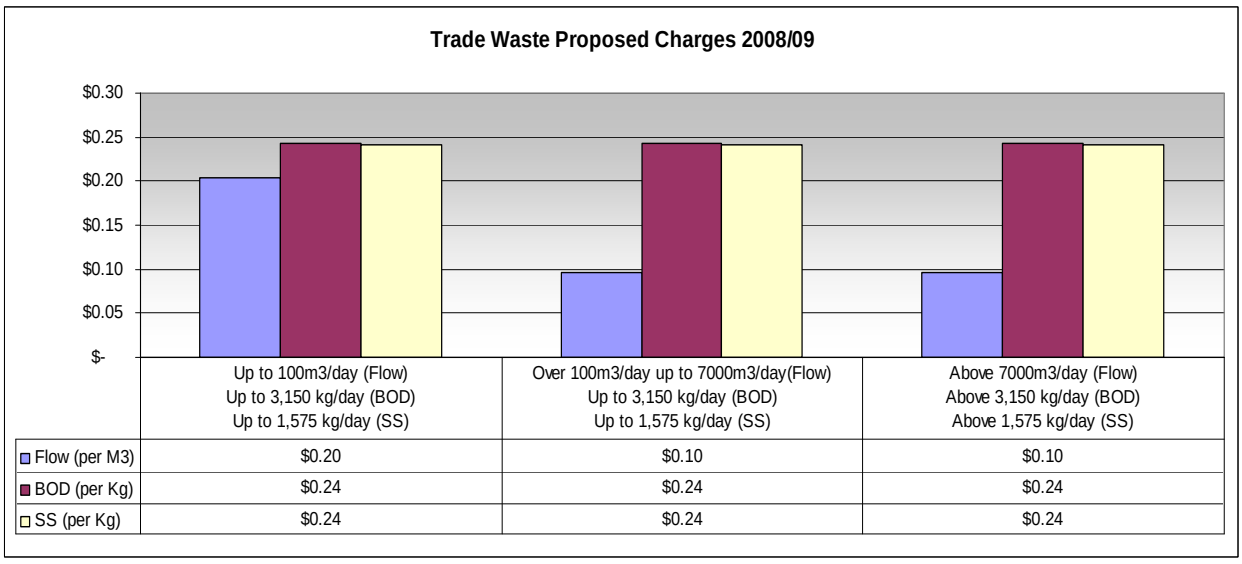
8. Indicative Charges

Chart 1. Contribution of trade waste to total liquid waste



	Flow M3	BOD Kg	SS Kg
Total Waste	31,109,780	6,918,106	12,120,011
Total Trade Waste	2,564,058	809,420	483,514
Taylor Preston Per Annum	1,091,736	565,692	252,048

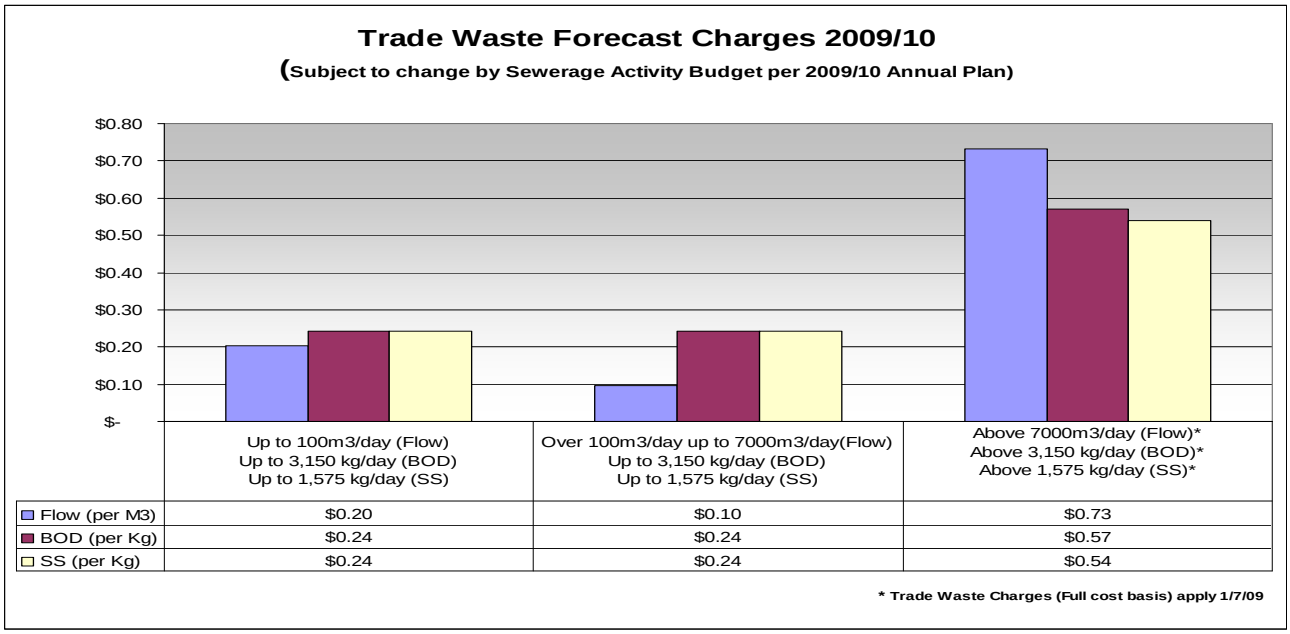
Chart 2a. Trade Waste Charges for 2008/09 (GST exclusive)



	Up to 100m3/day (Flow) Up to 3,150 kg/day (BOD) Up to 1,575 kg/day (SS)	Over 100m3/day up to 7000m3/day(Flow) Up to 3,150 kg/day (BOD) Up to 1,575 kg/day (SS)	Above 7000m3/day (Flow) Above 3,150 kg/day (BOD) Above 1,575 kg/day (SS)
Flow (per M3)	$0.20	$0.10	$0.10
BOD (per Kg)	$0.24	$0.24	$0.24
SS (per Kg)	$0.24	$0.24	$0.24

APPENDIX 1

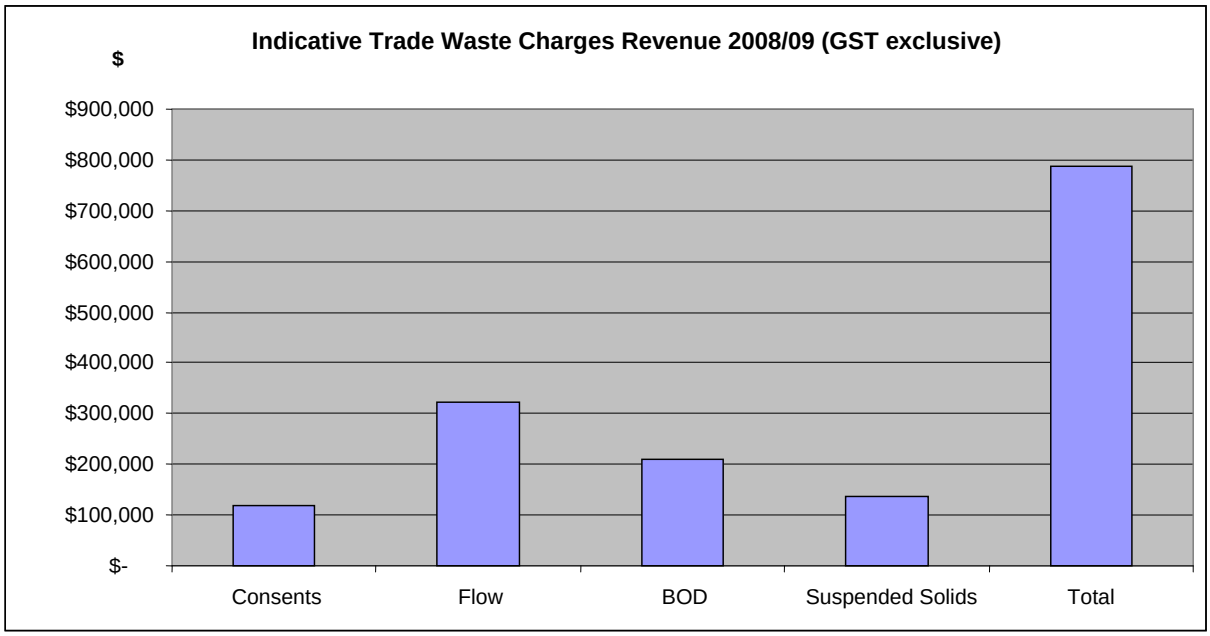
Chart 2b. Trade Waste Charges for 2009/10 (GST exclusive)



	Up to 100m3/day (Flow) Up to 3,150 kg/day (BOD) Up to 1,575 kg/day (SS)	Over 100m3/day up to 7000m3/day(Flow) Up to 3,150 kg/day (BOD) Up to 1,575 kg/day (SS)	Above 7000m3/day (Flow)* Above 3,150 kg/day (BOD)* Above 1,575 kg/day (SS)*
Flow (per M3)	$0.20	$0.10	$0.73
BOD (per Kg)	$0.24	$0.24	$0.57
SS (per Kg)	$0.24	$0.24	$0.54

*** Trade Waste Charges (Full cost basis) apply 1/7/09**

Chart 3. Indicative Trade Waste Charge Revenue 2008/09 (GST exclusive)



APPENDIX 1

Chart 4. Incidence of Trade Waste Charges – including consent costs (GST exclusive)

APPENDIX 1

Appendix 1 –2008/09 Trade Waste Charge Input Calculation

1. Calculation of charges applying to:
   Volume: Up to 100m^3 per day
   BOD: Up to 3,150kg per day
   Suspended solids: Up to 1,575 kg per day

TRADE WASTE CHARGE CALCULATION - ACTIVITIES 6.4.3 + 6.4.4 VARIABLE COSTS

Reception, Conveyancing & Discharing Cost 08/09 Draft Annual Plan			Total AP Opex	Exclude Fixed Costs	Total	Flow	BOD	SS
KAA	**Project**	**Project Name**						
6.4.3	A041	Sewerage Network Asset Stewardship	11,725,350	(11,664,390)	60,960	60,960		
6.4.3	C084	Trade Waste Enforcement	260,039	(75,135)	184,904	184,904		
6.4.3	C085	SPE Unplanned Maintenance	292,581	(68,803)	223,778	223,778		
6.4.3	C086A	Sewerage Network Unplanned Maintenance	1,641,860	(237,453)	1,404,407	1,404,407		
6.4.3	C089	Sewer Interceptor Flow Monitoring	115,986	(21,056)	94,930	94,930		
6.4.3	C495	Critical Drain Inspections	461,094	(98,576)	362,518	362,518		
6.4.3	C497	Sewer Network Asset Information	292,744	(77,779)	214,965	214,965		
6.4.3	C501	Pollution Detection & Monitoring	60,925	(7,148)	53,777	53,777		
6.4.3	C502	Pump Station Ops & Maintenance	790,521	(63,716)	726,805	726,805		
Treatment Costs of Sewage 07/08 DAP								
6.4.4	C087	Clearwater Operations & Maintenance	15,976,713	(11,462,902)	4,513,811	2,256,906	1,128,453	1,128,453
6.4.4	C088	Porirua Sewage Treatment Contribution	1,428,331	(2,653)	1,425,678	712,839	356,420	356,420
Suspended Solids Cost								
6.4.4	C347	Living Earth Green waste Contract	1,943,649	(990,448)	953,201			953,201
Total Opex Cost			34,989,793	(24,770,059)	10,219,734	6,296,789	1,484,872	2,438,073

	Flow	BOD	SS
	M^3	Kg	Kg
Total Volume for 12 mths	30,860,600	6,101,703	10,081,473
Unit Rate	0.20	0.24	0.24

2. Calculation of charges applying to:
   Volume: Between 100m^3 per day and 7,000m^3 per day
   BOD: Up to 3,150kg per day
   Suspended solids: Up to 1,575 kg per day

TRADE WASTE CHARGE CALCULATION - ACTIVITY 6.4.4 MARGINAL COST

Reception, Conveyancing & Discharing Cost 08/09 Annual Plan			Total AP Opex	Less fixed & non-marginal	Total	Flow	BOD	SS
KAA	**Project**	**Project Name**						
6.4.3	A041	Sewerage Network Asset Stewardship	11,725,350	(11,664,390)	60,960			
6.4.3	C084	Trade Waste Enforcement	260,039	(75,135)	184,904			
6.4.3	C085	SPE Unplanned Maintenance	292,581	(68,803)	223,778			
6.4.3	C086A	Sewerage Network Unplanned Maintenance	1,641,860	(237,453)	1,404,407			
6.4.3	C089	Sewer Interceptor Flow Monitoring	115,986	(21,056)	94,930			
6.4.3	C495	Critical Drain Inspections	461,094	(98,576)	362,518			
6.4.3	C497	Sewer Network Asset Information	292,744	(77,779)	214,965			
6.4.3	C501	Pollution Detection & Monitoring	60,925	(7,148)	53,777			
6.4.3	C502	Pump Station Ops & Maintenance	790,521	(63,716)	726,805			
Treatment Costs of Sewage 07/08 DAP								
6.4.4	C087	Clearwater Operations & Maintenance	15,976,713	(11,462,902)	4,513,811	2,256,906	1,128,453	1,128,453
6.4.4	C088	Porirua Sewage Treatment Contribution	1,428,331	(2,653)	1,425,678	712839.2	356,420	356,420
Suspended Solids Cost								
6.4.4	C347	Living Earth Green waste Contract	1,943,649	(990,448)	953,201			953,201
Total Opex Cost			34,989,793	-24,770,059	10,219,734	2,969,745	1,484,872	2,438,073

	Flow	BOD	SS
	M^3	Kg	Kg
Total Volume for 12 mths	30,860,600	6,101,703	10,081,473
Unit Rate	0.10	0.24	0.24

APPENDIX 1

3. Calculation of charges applying to:
   Volume: Above 7,000m^3 per day
   BOD: Above 3,150kg per day
   Suspended solids: Above 1,575 kg per day

Reception, Conveyancing & Discharing Cost 08/09 Annual Plan			Total AP Opex	Adjustments*	Total	Flow	BOD	SS
KAA	**Project**	**Project Name**						
6.4.3	A041	Sewerage Network Asset Stewardship	11,725,350		11,725,350	11,725,350		
6.4.3	C084	Trade Waste Enforcement	260,039		260,039	260,039		
6.4.3	C085	SPE Unplanned Maintenance	292,581		292,581	292,581		
6.4.3	C086A	Sewerage Network Unplanned Maintenance	1,641,860		1,641,860	1,641,860		
6.4.3	C089	Sewer Interceptor Flow Monitoring	115,986		115,986	115,986		
6.4.3	C495	Critical Drain Inspections	461,094		461,094	461,094		
6.4.3	C497	Sewer Network Asset Information	292,744		292,744	292,744		
6.4.3	C501	Pollution Detection & Monitoring	60,925		60,925	60,925		
6.4.3	C502	Pump Station Ops & Maintenance	790,521		790,521	790,521		
Treatment Costs of Sewage 07/08 DAP								
6.4.4	C087	Clearwater Operations & Maintenance	15,976,713	(3,447,000)	12,529,713	6,264,857	3,132,428	3,132,428
6.4.4	C088	Porirua Sewage Treatment Contribution	1,428,331		1,428,331	714,166	357,083	357,083
Suspended Solids Cost								
6.4.4	C347	Living Earth Green waste Contract	1,943,649		1,943,649			1,943,649
Total Opex Cost			**34,989,793**	**-3,447,000**	**31,542,793**	**22,620,122**	**3,489,511**	**5,433,160**

	Flow	BOD	SS
	M^3	Kg	Kg
Total Volume for 12 mths	30,860,600	6,101,703	10,081,473
Unit Rate	0.73	0.57	0.54