

3. Trade Waste Charges Review 2022

(Report prepared by S Rooney/C Lake/M Fletcher)

W420-002-01

Purpose of Report

1. To recommend appropriate Trade Waste Charges to meet annual operating costs, fund capital requirements and recoup historic under recovery of costs associated with the provision of trade waste.

Executive Summary

2. The financial review highlighted that the annual operating charges are insufficient to meet the annual operating costs.
3. The operating deficits have been partially offset by surpluses generated in the capital charges for the Wetland and the Dissolved Air Flotation loan funding.
4. The overall financial performance over the years has generated a significant deficit in the general Reserve of \$3.3 million. This deficit was exacerbated by historic capital funding decisions. The effect of these decisions has now been rectified and together with forecast operational results for 2022-23 leaves a Reserve deficit requiring recovery of \$2.4 million.
5. The proposed charges, recommended as a result of the review of trade waste charges, in comparison to the current charges are as follows:

Operating	Current Charge (GST Inclusive)	Proposed Charge (GST Inclusive)
Flow	\$183.50 l/min	\$290.00 (l/min)
Strength	\$106.00 BOD (kg/day)	\$146 BOD (kg/day)
Capital		
Dissolved Air flotation (DAF)	\$170 BOD (kg/day) applied to difference between average annual BOD less base 2007 level.	\$0 (charge discontinued).
Wetland Charge	\$151.25 l/min with a rates credit applied.	\$180 l/min with a rates credit applied.
New Capital	\$0	\$118.00 BOD (kg/day) applied from 1 July 2023 to average annual BOD. With a further increase to \$232.00 BOD (kg/day) applied from 1 July 2026.

6. It is proposed that all charges be adjusted annually to take account of inflation and reviewed three yearly in line with Council's Long Term Plan.
7. The impact of the changes on individual trade waste customers is shown in Attachment 1. With the proposed discontinuation of the DAF charge and the introduction of a new strength charge for capital and increased operating charges for flow and strength the biggest impact is on those trade waste users that existed with a base BOD level in 2007. These users have benefited from the lower than required operational charges over the previous years.

RECOMMENDATIONS

That Council following a review of trade waste charges:

1. **Approve for consultation:**
 - (a) Increasing the flow charge (l/min) to \$290.00 (GST incl.) from \$183.50 (GST incl.).

- (b) Increasing the strength charge (kg per day) to \$146.00 (GST incl.) from \$106.00 (GST incl.).
 - (c) Ceasing the DAF charge of \$170.00 BOD (kg per day).
 - (d) Increasing the Wetland Charge (l/min) to \$180.00 (GST incl.) from \$151.25 (GST incl.).
 - (e) Introducing a new Capital Loan funding charge of \$118.00 BOD (kg per day) applied to average annual BOD.
 - (f) Agreeing that all charges are adjusted for CPI changes annually.
 - (g) Continuing the practice of applying a rates credit for Blenheim's share of the wetland charge being met via rates.
2. Note a further increase to the Capital Loan funding charge to \$232.00 BOD (kg/day) from 1 July 2026 is likely.

Background/Context

8. This paper is structured in four sections:
- a. Historic financial performance;
 - b. Changes needed to have charges equalling forecast costs;
 - c. Capital Expenditure Funding; and
 - d. Actions required to recoup historic under recoveries.

Each will be addressed in turn.

Historic Financial Performance

9. The trade waste charges have not changed since the implementation of trade waste review undertaken in 2013. Reviews undertaken in 2018 and 2021 recommended changes to the charging regime in line with this current review.
10. What follows are summarised statements for the main components of the Trade Waste Activity, i.e. Flow, Treatment, Wetland and DAF (dissolved air flotation).
11. Each component identifies the current charge, the basis of charging, income and expenditure (GST exclusive) for the years 2017/18 to 2021/22.

	2017/18	2018/19	2019/20	2020/21	2021/22
Operating Charges					
Flow Charge l/min (GST incl.)	\$183.50	\$183.50	\$183.50	\$183.50	\$183.50
Flow l/min	3,053	2,970	3,014	3,155	2,562
Flow Income	487,279	473,930	480,914	503,445	408,842
Flow Expenditure	558,211	538,714	647,075	564,089	673,261
Surplus (Deficit)	(70,932)	(64,784)	(166,161)	(60,644)	(264,419)

	2017/18	2018/19	2019/20	2020/21	2021/22
Strength Charge (kg per day) (GST Incl.)	\$106.00	\$106.00	\$106.00	\$106.00	\$106.00
BOD kg per day	5,916	7,056	6,561	6,922	7,373
Trucked BOD kg per day		1,226	2,277	1,217	2,175
Treatment Income	545,315	650,392	604,746	638,001	679,571
Income From Trucked Waste	7,399	112,992	209,914	112,190	200,511
Treatment Expenditure	789,641	760,907	1,082,485	1,312,281	1,112,919
Surplus (Deficit)	(236,927)	2,477	(267,825)	(562,090)	(232,837)
Capital Charges					
Wetland Charge l/min (GST incl.)	\$151.25	\$151.25	\$151.25	\$151.25	\$151.25
Flow l/min	3,053	2,970	3,014	3,155	2,562
Wetland Income	401,623	390,620	396,376	414,947	336,974
Wetland Cost (Int. & Principal)	357,000	364,431	364,431	364,431	364,431
Surplus (Deficit)	44,623	26,189	31,945	50,516	(27,457)
DAF Income kg/day (GST incl.)					
BOD kg per day	5,916	7,056	6,561	6,922	7,373
2008 BOD Base	3,262	3,262	3,262	3,262	3,262
Trucked BOD kg per day		1,226	2,277	1,217	2,175
DAF Income	404,679	424,873	403,584	456,172	510,922
Income From Trucked Waste		181,213	336,654	179,928	321,575
DAF Cost	373,000	306,741	306,741	306,741	306,741
Surplus (Deficit)	31,679	299,345	433,497	329,359	525,756
Total Funding Surplus (Deficit)					
	(231,557)	263,227	31,456	(242,858)	1,043
Less Depreciation	302,424	300,657	322,157	340,168	365,221
Total Funding Surplus (Deficit)	(533,981)	(37,430)	(290,701)	(583,026)	(364,178)
New Capital					
Treatment Ponds	33,291	74,017	22,803	412,786	2,764,729
Desludging	-	-	-	-	450,000
Total	33,291	74,017	22,803	412,786	3,214,729
Less New Loans Raised					2,004,268
Capital Funding Shortfall	33,291	74,017	22,803	412,786	1,210,461
Total Funding Shortfall					
	(567,273)	(157,110)	(312,710)	(1,000,142)	(1,574,639)
Reserve Closing Balance					
	(1,161,602)	(1,159,255)	(1,344,092)	(2,077,631)	(3,338,493)

NB: With the correction of historic capital funding decisions together with forecast operational results for 2022-23 it leaves a Reserve deficit requiring recovery of \$2.4 million.

12. The financial performance for the last five years highlights the following significant points:
 - a. The Flow charge is insufficient to meet the cost of trade waste conveyance.
 - b. The Treatment Charge is insufficient to meet the average cost of treatment of trade waste. Further the presence of trucked waste has a bearing on the income and expenditure associated with treatment.

- c. The capital charge for the Wetland loan has been sufficient to meet the loan funding requirement. Lower interest rates have enabled a surplus to be generated. However reduced volumes (2021/22) and higher interest rates (shift from 4% to 5% Council decision October 2022 starting in the 2023/24 year) will have a bearing on the charge required in the future.
- d. The capital charge for the DAF loan generates more income than the loan funding requirement. This is due to lower interest costs and higher BOD levels than originally forecast. At the end of 2023 the funding from this loan will have been sufficient to have meet the interest and repayment of this loan in full. The balance of this loan should be recovered off all BOD, removing the discount provided to pre 2007 BOD levels.
- e. Depreciation and new capital expenditure associated with trade waste is currently not funded.
- f. New loans do not have a trade waste charge which is targeted to meet the associated loan costs.
- g. The forecast Reserve balances are overdrawn with the current deficit balance as at 30 June 2023 of \$2,436,377.

Changes needed to have revenue equalling forecast costs

- 13. Using a similar format to that used to identify the historic results for each component in paragraph 11, this section identifies the proposed new charge, assumed volumes/strength, estimated revenue and expenditure.

Conveyance

- 14. The proposed charges for conveyance and treatment are impacted by the projected volume of trade waste. The following has been used to determine the proposed charges recommended by this review:
 - a. Flow l/min 2,800 (after allowance for domestic use)
 - b. Strength BOD (kg per day) 8,700 (includes 1,200 kg per day for trucked waste)
- 15. The flow and strength amounts have been derived using the last three years averages for waste conveyed to the treatment system plus an allowance for a continuation of some trucked trade waste.

Flow Charge

- 16. The current flow charge is \$183.50 l/min after domestic allowance of 0.63 l/min. The rationale for this charge is to meet costs of additional flow from trade waste customers in excess of domestic flow.
- 17. The modelled results of the flow costs to determine an appropriate flow charge is as follows:

	2023/24	2024/25	2025/26	2026/27	2027/28
Flow Charge l/min (GST incl.)	\$290	\$302	\$314	\$327	\$340
Flow l/min	2,800	2,828	2,856	2,885	2,914
Conveyance Income	706,087	742,657	779,889	820,299	861,439
Conveyance Expenditure	672,110	704,720	730,395	703,930	671,347
Surplus (Deficit)	33,977	37,937	49,494	116,369	190,092

Strength Charge

- 18. The current strength charge is \$106.00 BOD kg per day. The rationale for this charge is to meet treatment costs of the additional strength required for trade waste customers in excess of that needed for domestic customers.

19. The modelled results of the strength costs to determine an appropriate strength charge is as follows:

	2023/24	2024/25	2025/26	2026/27	2027/28
Strength Charge (kg per day) (GST Incl.)	\$146	\$152	\$158	\$164	\$171
BOD kg per day	7,500	7,575	7,651	7,727	7,805
Trucked BOD kg per day	1,200	1,212	1,224	1,236	1,249
Treatment Income	952,174	1,001,217	1,051,147	1,101,974	1,160,500
Income From Trucked Waste	152,348	160,195	168,183	176,316	185,680
Treatment Expenditure	1,099,031	1,146,529	1,186,444	1,452,379	1,987,899
Surplus (Deficit)	5,490	14,883	32,886	(174,089)	(641,720)

Capital Expenditure Funding

Dissolved Air Flotation (DAF)

20. The current charge for the DAF is \$170 BOD (kg/day) which is applied to the difference between average annual BOD less base 2007 level. This is applied to trade waste customers to meet the capital costs associated with treating trade waste. The 2007 base is used to ensure that the cost of upgrades to meet increased loadings is applied to the increased loadings from trade waste customers above the 2007 base.
21. The review shows that the DAF Charge has generated more income than the loan funding requirements. This is due to lower interest costs and higher BOD levels than originally forecast. The surplus funds have been used to offset the overall deficit funding primarily associated with treatment operating costs.
22. It is no longer appropriate to use the 2007 base so the best option for this is to refinance the DAF loan to be funded from all BOD (kg / day). This \$3,877,049 to be added to the new capital charge.

Wetland Charge

23. The current value for the Wetland charge is \$151.25 l/min with a rates credit applied for Blenheim's share of the wetland charge met via rates.
24. The following Loan balances exist as at 30 June 2022:

Loan	Original Loan Balance	Current Loan Balance	Annual Funding Requirement
Wetland Loan	\$4,823,090	\$3,309,869	\$383,917

25. The cost of the wetland system is apportioned between trade waste customers and residential. The wetland charge applied to trade waste customers meets their share of the capital cost involved. A credit is applied to reimburse the rates charged to ensure trade waste customers are not charged twice as Trade Waste property owners are also paying Combined Sewerage Scheme Capital Works Rate.
26. The review shows that the Wetland charge has been sufficient to meet the funding requirements of the wetland loans to date. However, a reduction in flow volumes and an increase in interest costs (increase from 4% to 5%) requires an increase in the charge to meet the future funding requirements.

27. The following table shows the values once the wetland charge is increased in 2023/24 to \$180 per l/min:

	2023/24	2024/25	2025/26	2026/27	2027/28
Wetland Charge l/min (GST incl.)	\$180.00	\$187.20	\$194.69	\$202.48	\$210.57
Flow l/min	2,800	2,828	2,856	2,885	2,914
Wetland Income	438,261	460,349	483,551	507,922	533,521
Wetland Cost (Int. & Principal)	393,277	393,277	393,277	393,277	393,277
Surplus (Deficit)	44,983	67,072	90,273	114,644	140,244

New Capital Charge

28. With the dissolution of the DAF charge and the continuation of capex purchase a new capital charge is required.

Existing Loan Balances

29. The following Loan balances exist as at 30 June 2022:

Loan	Original Loan Balance	Current Loan Balance	Annual Funding Requirement
DAF Loan	\$4,874,887	\$3,877,049	\$332,269
New Loan for Treatment Plant Upgrades undertaken in 2022	\$2,004,268	\$1,963,155	\$158,765

30. In addition to existing loans Council has forecast the following capital expenditure:

Year	Capital Expenditure	New Loans
2023	1,406,801	1,394,990
2024	156,739	
2025	177,687	
2026	9,981,000	9,646,503
2027	3,606,590	3,456,663
2028	183,662	
2029	195,458	
2030	193,173	
2031	-	
2032	-	
Total	19,144,867	16,502,424

31. Depreciation expense has been funded and offset against the loan funding requirement in the modelling undertaken to determine the proposed charges. This has a beneficial smoothing effect on the funding requirement.
32. The capital expenditure relates to the current upgrade to the treatment ponds and desludging 2022 and 2023 and capital expenditure in relation to proposed treatment upgrades in 2026 and 2027 to meet new regulatory requirements to improve effluent discharge quality.

33. The current value of the DAF loan at 30 June 2022 was \$3,877,049. Adding this to the loans above gives us the following:

	2023/24	2024/25	2025/26	2026/27	2027/28
Income kg/day (GST incl.)	\$118.00	\$123.00	\$128.00	\$232.00	\$241.00
BOD kg per day	7500	7575	7651	7727	7805
Trucked BOD kg per day	1200	1212	1224	1236	1249
Income	769,565	810,196	851,562	1,558,890	1,635,558
Income From Trucked Waste	123,130	129,631	136,250	249,422	261,689
Cost	862,969	871,957	975,302	1,447,349	1,815,247
Surplus (Deficit)	29,726	67,870	12,510	360,963	82,000

34. The alternative to the stepped increase for the new loan funding charge is to apply a higher average charge from 1 July 2023 to meet the cost of loan funding over the 10 year forecast. This would require a charge of \$155.00 BOD (kg/day) applied from 1 July 2023 adjusted annually for CPI.

	2023/24	2024/25	2025/26	2026/27	2027/28
Income kg/day (GST incl.)	\$155.00	\$161.00	\$167.00	\$174.00	\$181.00
BOD kg per day	7500	7575	7651	7727	7805
Trucked BOD kg per day	1200	1212	1224	1236	1249
Income	1,010,870	1,060,500	1,111,022	1,169,168	1,228,365
Income From Trucked Waste	161,739	169,680	177,764	187,067	196,538
Cost	862,969	871,957	975,302	1,447,349	1,815,247
Surplus (Deficit)	309,639	358,223	313,484	(91,115)	(390,344)

Actions required to recoup historic under recoveries

35. It is forecast that the deficit at the end of 2022/23 the deficit will be \$2,436,377. The following table shows the surplus deficits from the 4 charges should Council adopt the recommended changes in charges.

	2023/24	2024/25	2025/26	2026/27	2027/28
Flow	33,977	37,937	49,494	116,369	190,092
Strength	5,490	14,883	32,886	(174,089)	(641,720)
Wetland charge	44,983	67,072	90,273	114,644	140,244
New capital charge	29,726	67,870	12,510	360,963	82,000
Total	114,177	187,763	185,163	417,887	(229,384)

36. The first 4 years are forecast to have a surplus which will repay a portion of the deficit.
37. The charges will be reviewed in the 2024-34 Long Term Plan and include the option of converting the remaining deficit to a loan to be repaid over a 10 year period.

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