

Memo

From: Ryan DeVries
rdevries@bmross.net

To:	Municipality of Brockton Gregory Furtney, Director of Operations
Re:	Wastewater System Financial Plan – 2021 to 2026
File #:	20171
Date:	January 5, 2021

1.0 INTRODUCTION

1.1 Overview

The purpose of this memo is to facilitate consideration of cost recovery (i.e. sewer rate) options for the period 2021 to 2026. This memo will be incorporated as background material for a Financial Plan equivalent to the requirements of O. Reg. 453/07 (Water Financial Plans).

1. A **full cost analysis** of the provision of wastewater services.
2. A **cost recovery plan**, including a proposal for a **series of revenue increases**.

This memo summarizes the information used and assumptions made in developing the Financial Plan.

1.2 Legislated Requirements

Financial Plans for municipal drinking water systems are mandated by O. Reg. 453/07. There is no such parallel mandate for wastewater systems. Regardless, many municipalities recognize the linkage ratepayers make between water and wastewater charges and recognize the benefits of long-term financial planning for all municipal services and thus prepare Financial Plans for the wastewater system as well as the water system.

1.3 Relationship to Previous Plans

The most recent Wastewater Financial Plan for the Municipality was completed in March 2016. That plan was used to set wastewater rates for 2016 to 2021. Following presentation of several different rate alternatives, council opted to target annual rate increases of 3.0 %. That report was reviewed and compared to the actual financial situation for 2019. This summary is provided in Section 5.1.

2.0 METHODOLOGY

2.1 Available Information

Information provided by the Municipality of Brockton included;

1. 2017-2019 Capital and Operating Budgets and actual expenditures for the wastewater system.
2. 2020 Capital and Operating Budgets for the wastewater system.
3. Information concerning dedicated reserves for the wastewater system.
4. Wastewater Asset Inventory.

5. Number of customers.
6. 2020 wastewater rates.
7. Other applicable information related to the wastewater system.

2.2 Procedure

The available information listed in Section 2.1 was reviewed for inclusion in the Financial Plan. Existing wastewater assets are listed in the Municipality's asset inventory with historical financial details. The historical financial details were used to calculate the amortization expenses and net book value of the tangible capital assets and are recorded in the Financial Plan. Expenditures and revenues budgeted for 2020 were included with an inflation rate, of 2 to 5%, depending on the category, applied for future years. Forecasted capital projects and debenture principal and interest payments were included in the prediction. Revenue requirements and corresponding rate increases are suggested to the Municipality to account for historic under investment and future capital projects.

The Memo concludes with a summary showing the consequences of 4 different rate increase scenarios:

- A 0% per year rate increase (i.e. base case).
- A 2.7% per year rate increase (i.e. maintain current Rate of Replacement of 66 years).
- A 4.8% per year rate increase (i.e. set Rate of Replacement to match the Average Remaining Life Expectancy of the wastewater assets).
- A 7.2% per year rate increase (i.e. achieve Full Cost recovery by 2026).

The plan period selected was 2021-2026 which matches the period of the Water Financial Plan that was recently completed.

3.0 DESCRIPTION OF THE SYSTEM

3.1 General

The Municipality owns one wastewater system serving approximately 2100 customers in the community of Walkerton. This system is currently operated by Veolia Water Canada Inc. under an Agreement effective until June 30, 2021.

Wastewater services are provided to residents and businesses in Walkerton by means of a 40 km network of sanitary sewers and a single sewage pumping facility that conveys flow to the WWTP.

The WWTP is a conventional activated sludge process with a rated capacity of 7,560 m³ per day with a peak capacity of 18,160 m³ per day (ECA #3510-65QMGY). It has screening and grit removal with 3 primary clarifiers, 4 aeration cells and 4 secondary clarifiers. Phosphorous removal is enhanced by the addition of ferric chloride. Chlorine gas was used for disinfection during the period of April 1st to November 30th each year. The facility has two stage anaerobic digestion and additional sludge storage to ensure favorable conditions for land application. The disinfection system is scheduled to be converted to UV Disinfection in 2021.

3.2 Growth Expectations

Building permits were reviewed for 2016 – 2018. During that time, an average of 18 new customers applied for building permits per year. This growth rate was used in the Financial Plan in projecting revenue in future years.

4.0 FULL COST OF SERVICE

4.1 Cost Components

The full cost of providing wastewater services includes the following major categories¹:

1. Operating expenses
2. Interest expense
3. Funding for Debt Principal Repayment
4. Amortization of Tangible Capital Assets
5. Funding for Inflation in Asset Costs
6. Funding for Historic Under-investment
7. Funding for Service Enhancements
8. Funding for System Growth

Items 2 and 3 would apply when debt has been, or will be, incurred for capital projects. Items 4 to 6 relate to asset maintenance and replacement. The final two items, 7 and 8, relate to planned capital projects for improvements or growth. In some cases, the improvements may be driven by changing regulations, in other cases the Municipality may initiate the project.

4.2 Operating Expenses

4.2.1 Review of 2020 Budget

Budgets and actual expenses for the wastewater system were reviewed for 2017-2019. The 2020 budget is believed to reflect the cost of operating the system. The 2020 anticipated expenses for wastewater operations are summarized in Table 4.1.

¹ Ministry of the Environment, "Toward Financially Sustainable Drinking Water and Wastewater Systems", August 2007.

**Table 4.1
Brockton 2020 Operations Budget**

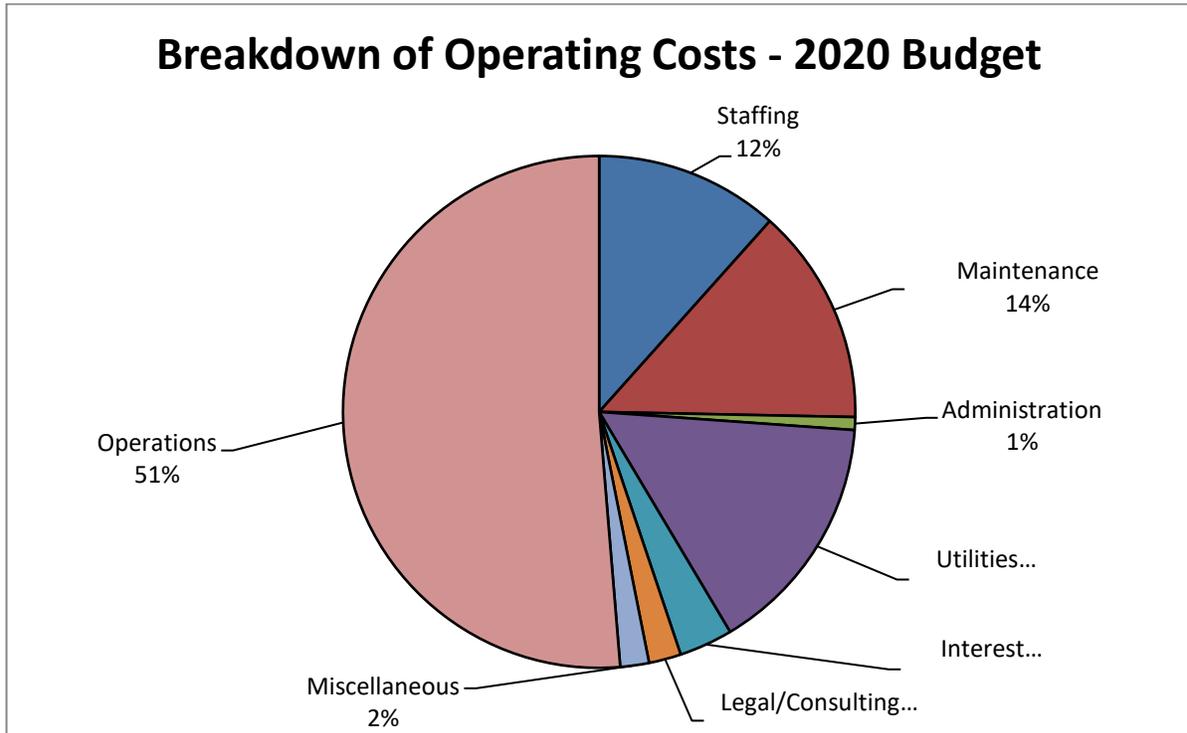
Item¹	2020 (\$)	Category²
Wages	83,180	Staffing
Wages-Public Works	450	Staffing
Benefits	24,057	Staffing
Benefits-Public Works	158	Staffing
Clothing Allowance	250	Staffing
Mileage	-	Staffing
Training and Seminars	3,200	Staffing
Supplies	2,000	Administration
Engineering Services	20,000	Legal/Consulting
Maintenance and Purchase-Equipment	43,000	Maintenance
Maintenance-Buildings	9,000	Maintenance
Maintenance-Grounds	6,000	Maintenance
Maintenance-Vehicle	1,000	Maintenance
Maintenance-Health & Safety	1,000	Maintenance
Maintenance-Sewers	75,000	Maintenance
Postage	6,000	Administration
Service Agreement-Veolia	463,400	Operations
Telephone	874	Utilities
Fuel	1,800	Operations
Utilities-Hydro	45,000	Utilities
Utilities-Natural Gas	60,000	Utilities
Utilities-Water	45,000	Utilities
Insurance	17,857	Miscellaneous
Sludge Handling	40,000	Operations
Sewer Write-offs	0	Miscellaneous
Public Works Equipment Costs	3,000	Staffing
Miscellaneous Expenses	0	Miscellaneous
Long Term Debt Charges-Interest	33,316	Interest
TOTAL	\$984,542	

Note: 1. Grouping provided by Brockton
2. Category assignments by BMROSS

The budget can be divided approximately 15% for the collection system and 85% for wastewater treatment.

The following Figure presents the general categorization of the various budget items.

Figure 4.1
Wastewater Works Operational Expenses



4.2.2 Operations Contract

The current operations contract with Veolia represents a significant proportion of the operational costs. The contract is up for renewal in 2021.

4.3 Interest Expense and Debt Repayment

The Municipality currently has two loans (debentures) related to wastewater works projects completed between 2004 and 2008. Table 4.2 provides a summary of the debt information.

Table 4.2
Summary of Wastewater Works Related Debt

Loan No.	Debenture Date	Maturity Date	Balance Dec/20
#2004-34	2004	July 15/24	\$18,095
#2008-73	2008	Nov. 28/23	\$8,164
Total Debt			\$26,259

Note: 1. Only the wastewater balance of the above noted debenture is shown. For #2004-35, 9.87% of the total debenture amount is being charged to the wastewater account and for #2008-73, 9.75% of the total debenture amount is being charged to the wastewater account.

4.4 Amortization of Tangible Capital Assets

Amortization is defined as "...the accounting process of allocating the cost less the residual value of a tangible capital asset to operating periods as an expense over its useful life in a rational and systematic manner appropriate to its nature and use."²

The current value (sometimes referred to as "net book value") of the asset is; its original cost less depreciation. It can be calculated as, original cost times current age divided by its life expectancy. This is a method traditionally called straight line depreciation.

Using the above approach, the annual Amortization Expense and Net Book Value for the wastewater system, as of 2020, is as follows:

Table 4.3
2020 Net Book Value and Amortization Expense for Wastewater Works

System Component	Amortization Expense (2020)	Net Book Value (2020) ¹ .
Collection Systems	\$80,462	\$4,244,883
Treatment Systems	76,856	1,685,102
Totals	\$157,318	\$5,929,985

Note: 1. Start of year

4.5 Reserve Funds

A single utility (i.e. water and wastewater) reserve fund is in place. The balance in reserves at the end of 2019 was \$2,268,887. For purposes of this Plan, we have divided the reserve equally between water and wastewater.

4.6 Replacement Costs

The replacement cost of the Brockton Wastewater System, as of 2020, is estimated to be approximately \$22.7M. This value increases annually as construction costs increase. The annual increment would be roughly \$454,000 (based on inflation in construction costs at approximately 2% per year).

5.0 REVIEW OF 2017 TO 2019 OPERATING PERIOD

5.1 2016 Financial Plan

Table 5.1 compares the 2019 predicted financial picture with actual results.

Table 5.1
2016 Financial Plan – Predicted vs Actual for 2019

Item	2019 Predicted	2019 Actual
Revenue	\$ 1,256,724	\$ 1,080,628 ¹
Operating Expenditures	\$ 945,431	\$ 684,971
Cash Reserves (end of year)	\$ 38,313	\$ 1,134,443
Financial Position	\$ 5,460,096	\$ 6,098,521 ²

Note: 1. Excludes grants
2. Approximate

² MOE, August 2007

5.2 Current Rate Structure and Charges

Current rates are established in Bylaw No. 2020-018.

A summary is as follows:

Metered Water Use

All those who are connected to the Walkerton wastewater collection system and use metered municipal water will pay, in addition to the water bill provisions set out above;

- 1) A fixed wastewater charge as set out below and,
- 2) A volumetric charge as set out below

Fixed Wastewater Charge per Annum

5/8 x 3/4 inch - \$238
 3/4 inch - \$270
 1 inch - \$333
 1.5 inch - \$429
 2 inch - \$714
 3 inch - \$3,333
 4 inch - \$5,000
 6 inch - \$7,143

Volumetric Wastewater Charge

This charge applies to all water that passes through the meter.

- for water use for the first 292 cubic meters per month - \$1.40 per cubic meter
- for water use over 292 cubic meters per month - \$1.15 per cubic meter
- for water use over 1,400 cubic meters per month - \$0.98 per cubic meter

Flat Wastewater Rate

This rate applies to those who are connected to the Municipality's wastewater system but are not metered or not connected to a municipally owned water system.

Annual Fee - \$750

Minimum Fixed Wastewater Charge

This charge applies to all consumers connected to a municipal water system and/or the municipal wastewater collection system and will be assessed whether or not any water has been used.

Annual Fee - \$238

5.3 Revenue Breakdown

The 2020 budget anticipates approximately \$1,220,000 in wastewater revenue. In 2020 the revenue is expected to be approximately 24% greater than operating costs excluding amortization, resulting in net revenue exclusive of the amortization amount of approximately \$235,000. Out of this value capital replacement and improvement projects will be funded. When amortization is considered, the surplus declines to approximately \$78,000.

Average reserve transfers for 2017-2019 were approximately -\$21,000 annually. Reserve transfers occur after contributions to capital. In this case, capital purchases exceeded the difference between revenue and operating expenses, so withdrawals from reserves were necessary to make up the difference.

6.0 FULL COST PROJECTIONS

6.1 General

It is proposed the Wastewater Financial Plan be developed for a six year period beginning in 2021 (i.e. 2021 to 2026).

The purpose of this Section is to identify the expected cost of service during that period.

6.2 Assumptions

Assumptions regarding full cost of service for the Plan period are as follows:

1. The starting point for operating expenses was the 2020 Budget.
2. With the following exception, costs were assumed to increase at 2% per year.
 - Utility expenses (natural gas and hydro) – 5% per year.

6.3 Funding for Historic Under-Investment

In recent years there have been some infrastructure replacement projects funded from reserves. Historically, neither the amortization expense nor the inflation of asset costs for tangible capital assets was completely funded each year. As well, maintenance and replacement may have been deferred. These two factors combined are the historic under-investment in the system. As with amortization and inflation of asset costs there is no legislated requirement to generate a surplus which funds historic under-investment. If this amount is recovered, along with amortization and inflation of asset costs, the full cost of ongoing system replacement could be funded through reserves.

Table 6.1 summarizes the various components of the full cost of replacement including funding for historic under-investment. The values shown in the following table are based on the assumption that items that are overdue for replacement, based on their theoretical useful life, are replaced in 2027. The annual full cost of replacement is calculated assuming \$0 in reserves and enough cash must be available in the asset replacement year to pay 100% of the costs of replacement. It should be noted there is currently a total water reserve balance of approximately \$1.1M, so part of this allowance has been covered.

**Table 6.1
Annual Full Cost of Replacement for Wastewater Works**

System Component	2020 Annual Funding Requirements Breakdown			
	Amortization Expense	Funding for Inflation of Asset Costs	Funding for Historic Under Investment	Annual Full Cost of Replacement ^{2.}
Collection Systems	\$80,462	\$112,834	\$285,146	\$478,442
Treatment Systems	\$76,856	\$72,196	\$243,565	\$392,617
Total	\$157,318	\$185,030	\$528,711	\$871,059

Note: 1. Inflation assumed to be 2% per year

2. Assumes \$0 in reserves in 2020 and enough cash must be available in replacement year to pay 100% of the costs of replacement.

3. Earned interest on reserves = 2% per year.

Amortization Expense is described in Section 4.4 and is calculated by dividing the original cost of the asset over the estimated useful life.

Funding for Inflation of Asset Costs is derived from its Annual Allowance, which is the annual amount set aside to replace the asset once it has reached its estimated useful life. It considers that the savings will earn interest and the cost of the asset is increasing due to compounding inflation over the life of the asset. The formula used to calculate the Annual Allowance is:

$$PMT = FV \left[\frac{i}{((1+i)^n - 1)} \right]$$

Where:

- PMT = Annual Allowance
- FV = Future Value
- i = annual interest
- n = Estimated Useful Life

The Funding for Inflation of Asset Costs is the Annual Allowance less the Amortization Expense.

Annual Full Cost of Replacement is similar to the Annual Allowance calculation described above, however it assumes that the annual amount set aside was not started in year one. The value for n has been reduced to the Estimated Remaining Life of the asset.

Funding for Historical Under Investment is the Annual Full Cost of Replacement less the Annual Allowance.

In addition to the average amount being transferred to reserves (-\$21,000), a total of approximately \$363,000 has, on average, been put towards replacing wastewater infrastructure during each of the past three years. This is still less than the annual full cost of replacement.

The average total weighted life expectancy as expressed in the Wastewater Asset Inventory database of all of the water assets is approximately 80 years. The remaining average life expectancy is 45 years.

The Rate of Replacement has been defined as the current replacement cost of the water assets (i.e. \$22.7M) divided by the sum of the average annual capital expenditure on replacement plus the contribution to reserves. Based on the 2017 to 2019 capital expenditures and reserve contributions the current Rate of Replacement is:

Rate of Replacement (2020)	=	$\frac{\text{2020 Replacement Cost}}{\text{Average Capital Investment + Transfer to Reserves}}$
	=	$\frac{\$22,695,934}{\$-20021 + \$363,018}$
	=	66 Years

It is generally recommended to target a replacement rate that is equal to or lower than the remaining average life expectancy (i.e. lower than 45 years).

6.4 Proposed Capital Program

A detailed capital plan was not provided by the Municipality. The Financial Plan was completed using the average capital investment over the past three years, inflated by 2% for each year of the plan.

7.0 COST RECOVERY

7.1 General

The intent of this Financial Plan is to create a long-term “Cost Recovery Plan” that will ensure adequate funding to operate, maintain and replace wastewater related infrastructure. This section of the memo identifies the revenue increase required to achieve the goals of the Plan.

7.2 Options for Cost Recovery

The required rate increase in the Plan period is dependent on what the Municipality wants to achieve. As discussed in Sections 1.2 and 6.3, the Province has advocated for full cost recovery (i.e. full funding of asset replacement) but there is no legislated requirement to do so.

Possible Options include:

1. A 0% rate increase (the base case).
2. A 2.7% annual rate increase (i.e. maintain current rate of replacement of 66 years).
3. A 4.8% increase (i.e. set rate of replacement to match average remaining life expectancy of the assets)
4. Full Cost recovery (as per Section 6.3 of this Memo).

7.3 Basis of Comparison

When comparing the effect of each option on the required wastewater rates it is assumed that there would be a series of uniform increases.

For each option we have considered the following:

- Annual % increase required
- Reserves at end of planning period (2026)
- Financial Position at 2026 (Asset value + Reserves)
- Financial Position change (\$ and %)
- Rate of Replacement

7.4 Summary of Results

Table 7.1 A to D, which are attached to this Memo provides year by year details of the wastewater system financial position. Table 7.2 summarizes the effect of selecting each option.

**Table 7.2
Summary of Outcomes for Rate Alternatives**

Option No.	Description	% Annual Increase Required	Reserves at 2026	Financial Position (2026)			Rate of Replacement ² (Years)
				\$	Change ¹		
					\$	%	
	2020 Position	-	\$1.3M	\$6.1M	-	-	66
1	0% Rate Increase (Status Quo)	0	\$0.4M	\$6.6M	\$0.5M	8	136
2	2.7% Annual Rate Increase (Maintain current RoR)	2.7	\$1.2M	\$7.3M	\$1.2M	20	66
3	4.8% Annual Rate Increase (RoR matching remaining life expectancy)	4.8	\$1.8M	\$8.0M	\$1.9M	31	45
4	Full Cost Recovery as per MECP Definition	7.2	\$2.6M	\$8.8M	\$2.7M	44	32

Notes: 1. Difference between 2020 and 2026.
2. Rate of Replacement in year 2026 based on method described in Section 6.3.

7.5 Discussion of Results

A review of the outcomes of various rate increases presented in Table 7.2 indicates the following:

- With no increase in revenue, the current rate of reserve fund growth combined with the proposed capital replacement will result in an 8% increase in the financial position and an increase in the rate of replacement to 136 years. This is not a sustainable approach and is not recommended.
- Increasing revenue by 2.7% per year (i.e. maintain current rate of replacement of 66 years) will further improve the financial position and approximately maintain current reserve levels.
- Setting a 4.8% annual rate increase would result in a 31% increase in the financial position and result in a rate of replacement of 45 years (approximately matching the current remaining life expectancy of the assets).
- To achieve Full Cost Recovery by 2026 would require an annual rate increase of 7.2%. Theoretically, no increases would be required beyond 2025.

All of which is respectfully submitted.

B. M. ROSS AND ASSOCIATES LIMITED

Per 
Ryan P. DeVries, P. Eng.

Per 
Ann Gibson, MES, EIT

:es
Encl.

**TABLE 7.1A - OPTION - 1
BROCKTON FINANCIAL PLAN FOR WASTEWATER WORKS
BASE CASE - 0% Revenue Increase**

	2021	2022	2023	2024	2025	2026
FINANCIAL POSITION						
Financial assets						
Cash and cash equivalents	1,202,096	1,091,463	958,758	809,299	638,481	441,740
Total FINANCIAL ASSETS	1,202,096	1,091,463	958,758	809,299	638,481	441,740
Liabilities						
Long-term debt	19,644	11,908	3,159	0	0	0
Total LIABILITIES	19,644	11,908	3,159	0	-	-
NET DEBT (Liabilities - Assets)	(1,182,452)	(1,079,556)	(955,598)	(809,299)	(638,481)	(441,740)
Non-financial assets (Tangible capital assets)						
Existing sewers and facilities - book value	4,864,786	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062
New sewers and facilities - at cost	363,018	370,278	377,684	385,238	392,942	400,801
Less: Amortization	(157,318)	(161,856)	(166,484)	(171,205)	(176,021)	(180,933)
Total NON-FINANCIAL ASSETS	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062	6,140,931
Financial position (Non-Financial assets - Net Debt)	6,252,938	6,358,464	6,445,707	6,513,440	6,559,544	6,582,671
Analysis of financial position						
Equity in tangible capital assets	5,050,842	5,267,001	5,486,949	5,704,141	5,921,062	6,140,931
Reserves and reserve funds	1,202,096	1,091,463	958,758	809,299	638,481	441,740
General surplus (deficit)	-	-	-	-	-	-
Financial position (from analysis)	6,252,938	6,358,464	6,445,707	6,513,440	6,559,544	6,582,671

	2021	2022	2023	2024	2025	2026
FINANCIAL OPERATIONS						
REVENUE						
Treatment Plant						
01-3140-0125 Subsidy	-	-	-	-	-	-
01-3140-0133 Licenses & Permits	-	-	-	-	-	-
01-3140-0135 Sewer Penalty-Treatment Plant	-	-	-	-	-	-
01-3140-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3140-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3140-0190 Agreements	-	-	-	-	-	-
01-3140-0194 Agreements-Brewery Waste	11,550	11,550	11,550	11,550	11,550	11,550
01-3140-0255 Meter revenue	1,079,362	1,088,536	1,097,709	1,106,882	1,116,055	1,125,228
01-3140-0256 Unit charges	5,500	5,500	5,500	5,500	5,500	5,500
Sewers						
01-3141-0133 Permits	-	-	-	-	-	-
01-3141-0135 Sewer Penalty-Collection System	-	-	-	-	-	-
01-3141-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3141-0145 Recoveries	-	-	-	-	-	-
01-3141-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3141-0255 Meter revenue	133,404	134,538	135,672	136,806	137,939	139,073
01-3141-0256 Unit charges	-	-	-	-	-	-
Total REVENUE	1,229,817	1,240,124	1,250,430	1,260,737	1,271,044	1,281,351
EXPENSES						
Treatment Plant						
01-3140-1200 Wages	72,358	73,805	75,281	76,787	78,322	79,889
01-3140-1235 Wages-Public Works	459	468	478	487	497	507
01-3140-1240 Benefits	20,921	21,340	21,766	22,202	22,646	23,099
01-3140-1244 Benefits-Public works	161	164	168	171	174	178
01-3140-1260 Clothing allowance	255	260	265	271	276	282
01-3140-1270 Mileage	-	-	-	-	-	-
01-3140-1271 Training & Seminars	3,264	3,329	3,396	3,464	3,533	3,604
01-3140-1305 Supplies	2,040	2,081	2,122	2,165	2,208	2,252
01-3140-1317 Engineering Services	10,200	10,404	10,612	10,824	11,041	11,262
01-3140-1320 Maintenance & Purchase - Equipment	43,860	44,737	45,632	46,545	47,475	48,425
01-3140-1322 Maintenance - Building	9,180	9,364	9,551	9,742	9,937	10,135
01-3140-1325 Maintenance - Grounds	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1330 Maintenance - Vehicle	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1335 Maintenance - Health and Safety	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1337 Maintenance - Sewers	-	-	-	-	-	-
01-3140-1340 Postage	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1344 Service Agreement - Veolia	436,560	445,291	454,197	463,281	472,547	481,998
01-3140-1350 Telephone	891	909	927	946	965	984
01-3140-1358 Fuel	1,836	1,873	1,910	1,948	1,987	2,027
01-3140-1360 Utilities - Hydro	47,250	49,613	52,093	54,698	57,433	60,304
01-3140-1365 Utilities - Natural Gas	63,000	66,150	69,458	72,930	76,577	80,406
01-3140-1366 Utilities - Water	45,900	46,818	47,754	48,709	49,684	50,677
01-3140-1380 Insurance	18,214	18,578	18,950	19,329	19,716	20,110
01-3140-1385 Sludge Handling	40,800	41,616	42,448	43,297	44,163	45,046
01-3140-1390 Sewer Write-offs	-	-	-	-	-	-
01-3140-1470 Public works equipment costs	3,060	3,121	3,184	3,247	3,312	3,378
01-3140-1530 Miscellaneous expenses	-	-	-	-	-	-
Sewers						
01-3141-1200 Wages	12,486	12,736	12,990	13,250	13,515	13,785
01-3141-1235 Wages - Public Works	-	-	-	-	-	-
01-3141-1240 Benefits	3,617	3,689	3,763	3,838	3,915	3,993
01-3141-1246 Benefits - Public Works	-	-	-	-	-	-
01-3141-1271 Training & Seminars	-	-	-	-	-	-
01-3141-1317 Engineering Services	10,200	10,200	10,404	10,612	10,824	11,041
01-3141-1337 Maintenance - Sewers	76,500	78,030	79,591	81,182	82,806	84,462
01-3141-1344 Service Agreement - Veolia	36,108	36,830	37,567	38,318	39,084	39,866
01-3141-1390 Sewer Write-offs	-	-	-	-	-	-
01-3141-1470 Public works equipment costs	-	-	-	-	-	-
Subtotal Operating Expense	973,401	995,972	1,019,364	1,043,398	1,068,095	1,093,477
01-3141-1301 Longterm Debt Charges - Interest	3,820	2,698	1,381	230	-	-
Loss (gain) on disposal of tangible capital assets	-	-	-	-	-	-
Amortization-Treatment	76,856	76,856	76,856	76,856	76,856	76,856
Amortization-Collection System	80,462	85,000	89,628	94,349	99,165	104,077
Total EXPENSES	1,134,538	1,160,526	1,187,230	1,214,833	1,244,116	1,274,410
Net Revenue (Deficit) for the year	95,278	79,598	63,200	45,904	26,928	6,941

	2021	2022	2023	2024	2025	2026
CASH FLOW						
Operating Transactions						
Net revenue (deficit) for the year	95,278	79,598	63,200	45,904	26,928	6,941
Add back (deduct) non-cash expense:	-	-	-	-	-	-
Add back Loss (gain) on disposal of tangible cap	-	-	-	-	-	-
Add back Amortization of Capital Assets	157,318	161,856	166,484	171,205	176,021	180,933
Total OPERATING TRANSACTIONS	252,596	241,454	229,685	217,109	202,949	187,874
Capital Transactions						
Various sewer replacements	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Various treatment plant replacements	-	-	-	-	-	-
Total CAPITAL TRANSACTIONS	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Investing transactions						
Proceeds from portfolio investments	22,689	25,929	24,042	21,829	19,175	16,186
Total INVESTING TRANSACTIONS	22,689	25,929	24,042	21,829	19,175	16,186
Financing transactions						
Federal/Provincial grants	-	-	-	-	-	-
Debt repayment - principal	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Total FINANCING TRANSACTIONS	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Net Cash Receipts (Payments) for the year	(94,347)	(110,632)	(132,706)	(149,458)	(170,818)	(196,742)
Cash at beginning of year	1,296,443	1,202,096	1,091,463	958,758	809,299	638,481
Cash at end of year	1,202,096	1,091,463	958,758	809,299	638,481	441,740

Notes:
1. Financial plan assumes expenses increase at 2% per year (except hydro and gas at 5%).
2. At the end of 2019 there was approx. \$2,268,887 in the Utility Reserve Fund for the purpose of this Financial Plan, assume that half of that will be used for the water system and half for the wastewater system.

**TABLE 7.1B - OPTION - 2
BROCKTON FINANCIAL PLAN FOR WASTEWATER WORKS
2.7% REVENUE INCREASE - MAINTAIN ROR OF 66 YEARS**

	2021	2022	2023	2024	2025	2026
FINANCIAL POSITION						
Financial assets						
Cash and cash equivalents	1,234,841	1,191,146	1,161,720	1,154,112	1,166,035	1,195,339
Total FINANCIAL ASSETS	1,234,841	1,191,146	1,161,720	1,154,112	1,166,035	1,195,339
Liabilities						
Long-term debt	19,644	11,908	3,159	0	0	0
Total LIABILITIES	19,644	11,908	3,159	0	-	-
NET DEBT (Liabilities - Assets)	(1,215,196)	(1,179,238)	(1,158,561)	(1,154,112)	(1,166,035)	(1,195,339)
Non-financial assets (Tangible capital assets)						
Existing sewers and facilities - book value	4,864,786	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062
New sewers and facilities - at cost	363,018	370,278	377,684	385,238	392,942	400,801
Less: Amortization	(157,318)	(161,856)	(166,484)	(171,205)	(176,021)	(180,933)
Total NON-FINANCIAL ASSETS	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062	6,140,931
Financial position (Non-Financial assets - Net Debt)	6,285,682	6,458,147	6,648,669	6,858,253	7,087,097	7,336,270
Analysis of financial position						
Equity in tangible capital assets	5,050,842	5,267,001	5,486,949	5,704,141	5,921,062	6,140,931
Reserves and reserve funds	1,234,841	1,191,146	1,161,720	1,154,112	1,166,035	1,195,339
General surplus (deficit)	-	-	-	-	-	-
Financial position (from analysis)	6,285,682	6,458,147	6,648,669	6,858,253	7,087,097	7,336,270

	2021	2022	2023	2024	2025	2026
FINANCIAL OPERATIONS						
REVENUE						
Treatment Plant						
01-3140-0125 Subsidy	-	-	-	-	-	-
01-3140-0133 Licenses & Permits	-	-	-	-	-	-
01-3140-0135 Sewer Penalty-Treatment Plant	-	-	-	-	-	-
01-3140-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3140-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3140-0190 Agreements	-	-	-	-	-	-
01-3140-0194 Agreements-Brewery Waste	11,550	11,550	11,550	11,550	11,550	11,550
01-3140-0255 Meter revenue	1,108,505	1,148,110	1,189,045	1,231,354	1,275,081	1,320,271
01-3140-0256 Unit charges	5,500	5,500	5,500	5,500	5,500	5,500
Sewers						
01-3141-0133 Permits	-	-	-	-	-	-
01-3141-0135 Sewer Penalty-Collection System	-	-	-	-	-	-
01-3141-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3141-0145 Recoveries	-	-	-	-	-	-
01-3141-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3141-0255 Meter revenue	137,006	141,901	146,961	152,190	157,594	163,180
01-3141-0256 Unit charges	-	-	-	-	-	-
Total REVENUE	1,262,562	1,307,061	1,353,056	1,400,594	1,449,725	1,500,501
EXPENSES						
Treatment Plant						
01-3140-1200 Wages	72,358	73,805	75,281	76,787	78,322	79,889
01-3140-1235 Wages-Public Works	459	468	478	487	497	507
01-3140-1240 Benefits	20,921	21,340	21,766	22,202	22,646	23,099
01-3140-1244 Benefits-Public works	161	164	168	171	174	178
01-3140-1260 Clothing allowance	255	260	265	271	276	282
01-3140-1270 Mileage	-	-	-	-	-	-
01-3140-1271 Training & Seminars	3,264	3,329	3,396	3,464	3,533	3,604
01-3140-1305 Supplies	2,040	2,081	2,122	2,165	2,208	2,252
01-3140-1317 Engineering Services	10,200	10,404	10,612	10,824	11,041	11,262
01-3140-1320 Maintenance & Purchase - Equipment	43,860	44,737	45,632	46,545	47,475	48,425
01-3140-1322 Maintenance - Building	9,180	9,364	9,551	9,742	9,937	10,135
01-3140-1325 Maintenance - Grounds	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1330 Maintenance - Vehicle	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1335 Maintenance - Health and Safety	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1337 Maintenance - Sewers	-	-	-	-	-	-
01-3140-1340 Postage	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1344 Service Agreement - Veolia	436,560	445,291	454,197	463,281	472,547	481,998
01-3140-1350 Telephone	891	909	927	946	965	984
01-3140-1358 Fuel	1,836	1,873	1,910	1,948	1,987	2,027
01-3140-1360 Utilities - Hydro	47,250	49,613	52,093	54,698	57,433	60,304
01-3140-1365 Utilities - Natural Gas	63,000	66,150	69,458	72,930	76,577	80,406
01-3140-1366 Utilities - Water	45,900	46,818	47,754	48,709	49,684	50,677
01-3140-1380 Insurance	18,214	18,578	18,950	19,329	19,716	20,110
01-3140-1385 Sludge Handling	40,800	41,616	42,448	43,297	44,163	45,046
01-3140-1390 Sewer Write-offs	-	-	-	-	-	-
01-3140-1470 Public works equipment costs	3,060	3,121	3,184	3,247	3,312	3,378
01-3140-1530 Miscellaneous expenses	-	-	-	-	-	-
Sewers						
01-3141-1200 Wages	12,486	12,736	12,990	13,250	13,515	13,785
01-3141-1235 Wages - Public Works	-	-	-	-	-	-
01-3141-1240 Benefits	3,617	3,689	3,763	3,838	3,915	3,993
01-3141-1246 Benefits - Public Works	-	-	-	-	-	-
01-3141-1271 Training & Seminars	-	-	-	-	-	-
01-3141-1317 Engineering Services	10,200	10,200	10,404	10,612	10,824	11,041
01-3141-1337 Maintenance - Sewers	76,500	78,030	79,591	81,182	82,806	84,462
01-3141-1344 Service Agreement - Veolia	36,108	36,830	37,567	38,318	39,084	39,866
01-3141-1390 Sewer Write-offs	-	-	-	-	-	-
01-3141-1470 Public works equipment costs	-	-	-	-	-	-
Subtotal Operating Expense	973,401	995,972	1,019,364	1,043,398	1,068,095	1,093,477
01-3141-1301 Longterm Debt Charges - Interest	3,820	2,698	1,381	230	-	-
Loss (gain) on disposal of tangible capital assets	-	-	-	-	-	-
Amortization-Treatment	76,856	76,856	76,856	76,856	76,856	76,856
Amortization-Collection System	80,462	85,000	89,628	94,349	99,165	104,077
Total EXPENSES	1,134,538	1,160,526	1,187,230	1,214,833	1,244,116	1,274,410
Net Revenue (Deficit) for the year	128,023	146,535	165,826	185,761	205,609	226,091

	2021	2022	2023	2024	2025	2026
CASH FLOW						
Operating Transactions						
Net revenue (deficit) for the year	128,023	146,535	165,826	185,761	205,609	226,091
Add back (deduct) non-cash expense:	-	-	-	-	-	-
Add back Loss (gain) on disposal of tangible cap	-	-	-	-	-	-
Add back Amortization of Capital Assets	157,318	161,856	166,484	171,205	176,021	180,933
Total OPERATING TRANSACTIONS	285,341	308,391	332,310	356,966	381,630	407,023
Capital Transactions						
Various sewer replacements	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Various treatment plant replacements	-	-	-	-	-	-
Total CAPITAL TRANSACTIONS	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Investing transactions						
Proceeds from portfolio investments	22,689	25,929	24,697	23,823	23,234	23,082
Total INVESTING TRANSACTIONS	22,689	25,929	24,697	23,823	23,234	23,082
Financing transactions						
Federal/Provincial grants	-	-	-	-	-	-
Debt repayment - principal	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Total FINANCING TRANSACTIONS	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Net Cash Receipts (Payments) for the year	(61,603)	(43,695)	(29,425)	(7,608)	11,922	29,304
Cash at beginning of year	1,296,443	1,234,841	1,191,146	1,161,720	1,154,112	1,166,035
Cash at end of year	1,234,841	1,191,146	1,161,720	1,154,112	1,166,035	1,195,339

Notes:
1. Financial plan assumes expenses increase at 2% per year (except hydro and gas at 5%).
2. At the end of 2019 there was approx. \$2,268,887 in the Utility Reserve Fund for the purpose of this Financial Plan, assume that half of that will be used for the water system and half for the wastewater system.

**TABLE 7.1C - OPTION - 3
BROCKTON FINANCIAL PLAN FOR WASTEWATER WORKS
4.8% REVENUE INCREASE - SET ROR TO MATCH REMAINING LIFE EXPECTANCY**

	2021	2022	2023	2024	2025	2026
FINANCIAL POSITION						
Financial assets						
Cash and cash equivalents	1,260,309	1,269,909	1,324,636	1,435,284	1,603,055	1,829,545
Total FINANCIAL ASSETS	1,260,309	1,269,909	1,324,636	1,435,284	1,603,055	1,829,545
Liabilities						
Long-term debt	19,644	11,908	3,159	0	0	0
Total LIABILITIES	19,644	11,908	3,159	0	-	-
NET DEBT (Liabilities - Assets)	(1,240,664)	(1,258,001)	(1,321,477)	(1,435,284)	(1,603,055)	(1,829,545)
Non-financial assets (Tangible capital assets)						
Existing sewers and facilities - book value	4,864,786	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062
New sewers and facilities - at cost	363,018	370,278	377,684	385,238	392,942	400,801
Less: Amortization	(157,318)	(161,856)	(166,484)	(171,205)	(176,021)	(180,933)
Total NON-FINANCIAL ASSETS	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062	6,140,931
Financial position (Non-Financial assets - Net Debt)	6,311,150	6,536,910	6,811,585	7,139,425	7,524,117	7,970,476
Analysis of financial position						
Equity in tangible capital assets	5,050,842	5,267,001	5,486,949	5,704,141	5,921,062	6,140,931
Reserves and reserve funds	1,260,309	1,269,909	1,324,636	1,435,284	1,603,055	1,829,545
General surplus (deficit)	-	-	-	-	-	-
Financial position (from analysis)	6,311,150	6,536,910	6,811,585	7,139,425	7,524,117	7,970,476

	2021	2022	2023	2024	2025	2026
FINANCIAL OPERATIONS						
REVENUE						
Treatment Plant						
01-3140-0125 Subsidy	-	-	-	-	-	-
01-3140-0133 Licenses & Permits	-	-	-	-	-	-
01-3140-0135 Sewer Penalty-Treatment Plant	-	-	-	-	-	-
01-3140-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3140-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3140-0190 Agreements	-	-	-	-	-	-
01-3140-0194 Agreements-Brewery Waste	11,550	11,550	11,550	11,550	11,550	11,550
01-3140-0255 Meter revenue	1,131,172	1,195,543	1,263,487	1,335,200	1,410,886	1,490,761
01-3140-0256 Unit charges	5,500	5,500	5,500	5,500	5,500	5,500
Sewers						
01-3141-0133 Permits	-	-	-	-	-	-
01-3141-0135 Sewer Penalty-Collection System	-	-	-	-	-	-
01-3141-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3141-0145 Recoveries	-	-	-	-	-	-
01-3141-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3141-0255 Meter revenue	139,808	147,764	156,161	165,025	174,379	184,251
01-3141-0256 Unit charges	-	-	-	-	-	-
Total REVENUE	1,288,030	1,360,357	1,436,699	1,517,275	1,602,315	1,692,063
EXPENSES						
Treatment Plant						
01-3140-1200 Wages	72,358	73,805	75,281	76,787	78,322	79,889
01-3140-1235 Wages-Public Works	459	468	478	487	497	507
01-3140-1240 Benefits	20,921	21,340	21,766	22,202	22,646	23,099
01-3140-1244 Benefits-Public works	161	164	168	171	174	178
01-3140-1260 Clothing allowance	255	260	265	271	276	282
01-3140-1270 Mileage	-	-	-	-	-	-
01-3140-1271 Training & Seminars	3,264	3,329	3,396	3,464	3,533	3,604
01-3140-1305 Supplies	2,040	2,081	2,122	2,165	2,208	2,252
01-3140-1317 Engineering Services	10,200	10,404	10,612	10,824	11,041	11,262
01-3140-1320 Maintenance & Purchase - Equipment	43,860	44,737	45,632	46,545	47,475	48,425
01-3140-1322 Maintenance - Building	9,180	9,364	9,551	9,742	9,937	10,135
01-3140-1325 Maintenance - Grounds	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1330 Maintenance - Vehicle	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1335 Maintenance - Health and Safety	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1337 Maintenance - Sewers	-	-	-	-	-	-
01-3140-1340 Postage	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1344 Service Agreement - Veolia	436,560	445,291	454,197	463,281	472,547	481,998
01-3140-1350 Telephone	891	909	927	946	965	984
01-3140-1358 Fuel	1,836	1,873	1,910	1,948	1,987	2,027
01-3140-1360 Utilities - Hydro	47,250	49,613	52,093	54,698	57,433	60,304
01-3140-1365 Utilities - Natural Gas	63,000	66,150	69,458	72,930	76,577	80,406
01-3140-1366 Utilities - Water	45,900	46,818	47,754	48,709	49,684	50,677
01-3140-1380 Insurance	18,214	18,578	18,950	19,329	19,716	20,110
01-3140-1385 Sludge Handling	40,800	41,616	42,448	43,297	44,163	45,046
01-3140-1390 Sewer Write-offs	-	-	-	-	-	-
01-3140-1470 Public works equipment costs	3,060	3,121	3,184	3,247	3,312	3,378
01-3140-1530 Miscellaneous expenses	-	-	-	-	-	-
Sewers						
01-3141-1200 Wages	12,486	12,736	12,990	13,250	13,515	13,785
01-3141-1235 Wages - Public Works	-	-	-	-	-	-
01-3141-1240 Benefits	3,617	3,689	3,763	3,838	3,915	3,993
01-3141-1246 Benefits - Public Works	-	-	-	-	-	-
01-3141-1271 Training & Seminars	-	-	-	-	-	-
01-3141-1317 Engineering Services	10,200	10,200	10,404	10,612	10,824	11,041
01-3141-1337 Maintenance - Sewers	76,500	78,030	79,591	81,182	82,806	84,462
01-3141-1344 Service Agreement - Veolia	36,108	36,830	37,567	38,318	39,084	39,866
01-3141-1390 Sewer Write-offs	-	-	-	-	-	-
01-3141-1470 Public works equipment costs	-	-	-	-	-	-
Subtotal Operating Expense	973,401	995,972	1,019,364	1,043,398	1,068,095	1,093,477
01-3141-1301 Longterm Debt Charges - Interest	3,820	2,698	1,381	230	-	-
Loss (gain) on disposal of tangible capital assets	-	-	-	-	-	-
Amortization-Treatment	76,856	76,856	76,856	76,856	76,856	76,856
Amortization-Collection System	80,462	85,000	89,628	94,349	99,165	104,077
Total EXPENSES	1,134,538	1,160,526	1,187,230	1,214,833	1,244,116	1,274,410
Net Revenue (Deficit) for the year	153,491	199,831	249,469	302,442	358,199	417,653

	2021	2022	2023	2024	2025	2026
CASH FLOW						
Operating Transactions						
Net revenue (deficit) for the year	153,491	199,831	249,469	302,442	358,199	417,653
Add back (deduct) non-cash expense:	-	-	-	-	-	-
Add back Loss (gain) on disposal of tangible capit	-	-	-	-	-	-
Add back Amortization of Capital Assets	157,318	161,856	166,484	171,205	176,021	180,933
Total OPERATING TRANSACTIONS	310,809	361,687	415,953	473,647	534,220	598,586
Capital Transactions						
Various sewer replacements	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Various treatment plant replacements	-	-	-	-	-	-
Total CAPITAL TRANSACTIONS	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Investing transactions						
Proceeds from portfolio investments	22,689	25,929	25,206	25,398	26,493	28,706
Total INVESTING TRANSACTIONS	22,689	25,929	25,206	25,398	26,493	28,706
Financing transactions						
Federal/Provincial grants	-	-	-	-	-	-
Debt repayment - principal	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Total FINANCING TRANSACTIONS	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Net Cash Receipts (Payments) for the year	(36,135)	9,601	54,727	110,648	167,770	226,490
Cash at beginning of year	1,296,443	1,260,309	1,269,909	1,324,636	1,435,284	1,603,055
Cash at end of year	1,260,309	1,269,909	1,324,636	1,435,284	1,603,055	1,829,545

Notes:
1. Financial plan assumes expenses increase at 2% per year (except hydro and gas at 5%).
2. At the end of 2019 there was approx. \$2,268,887 in the Utility Reserve Fund for the purpose of this Financial Plan, assume that half of that will be used for the water system and half for the wastewater system.

**TABLE 7.1D - OPTION - 4
BROCKTON FINANCIAL PLAN FOR WASTEWATER WORKS
7.2% REVENUE INCREASE - SET ROR TO MATCH REMAINING LIFE EXPECTANCY**

	2021	2022	2023	2024	2025	2026
FINANCIAL POSITION						
Financial assets						
Cash and cash equivalents	1,289,415	1,361,246	1,516,338	1,771,032	2,132,661	2,609,607
Total FINANCIAL ASSETS	1,289,415	1,361,246	1,516,338	1,771,032	2,132,661	2,609,607
Liabilities						
Long-term debt	19,644	11,908	3,159	0	0	0
Total LIABILITIES	19,644	11,908	3,159	0	-	-
NET DEBT (Liabilities - Assets)	(1,269,771)	(1,349,338)	(1,513,179)	(1,771,031)	(2,132,661)	(2,609,607)
Non-financial assets (Tangible capital assets)						
Existing sewers and facilities - book value	4,864,786	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062
New sewers and facilities - at cost	363,018	370,278	377,684	385,238	392,942	400,801
Less: Amortization	(157,318)	(161,856)	(166,484)	(171,205)	(176,021)	(180,933)
Total NON-FINANCIAL ASSETS	5,070,486	5,278,909	5,490,108	5,704,141	5,921,062	6,140,931
Financial position (Non-Financial assets - Net Debt)	6,340,257	6,628,247	7,003,287	7,475,172	8,053,724	8,750,538
Analysis of financial position						
Equity in tangible capital assets	5,050,842	5,267,001	5,486,949	5,704,141	5,921,062	6,140,931
Reserves and reserve funds	1,289,415	1,361,246	1,516,338	1,771,032	2,132,661	2,609,607
General surplus (deficit)	-	-	-	-	-	-
Financial position (from analysis)	6,340,257	6,628,247	7,003,287	7,475,172	8,053,724	8,750,538

	2021	2022	2023	2024	2025	2026
FINANCIAL OPERATIONS						
REVENUE						
Treatment Plant						
01-3140-0125 Subsidy	-	-	-	-	-	-
01-3140-0133 Licenses & Permits	-	-	-	-	-	-
01-3140-0135 Sewer Penalty-Treatment Plant	-	-	-	-	-	-
01-3140-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3140-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3140-0190 Agreements	-	-	-	-	-	-
01-3140-0194 Agreements-Brewery Waste	11,550	11,550	11,550	11,550	11,550	11,550
01-3140-0255 Meter revenue	1,157,077	1,250,928	1,352,295	1,461,774	1,580,008	1,707,690
01-3140-0256 Unit charges	5,500	5,500	5,500	5,500	5,500	5,500
Sewers						
01-3141-0133 Permits	-	-	-	-	-	-
01-3141-0135 Sewer Penalty-Collection System	-	-	-	-	-	-
01-3141-0142 Transfer from reserve fund	-	-	-	-	-	-
01-3141-0145 Recoveries	-	-	-	-	-	-
01-3141-0150 Miscellaneous revenue	-	-	-	-	-	-
01-3141-0255 Meter revenue	143,009	154,609	167,138	180,669	195,282	211,063
01-3141-0256 Unit charges	-	-	-	-	-	-
Total REVENUE	1,317,136	1,422,587	1,536,482	1,659,493	1,792,340	1,935,803

	2021	2022	2023	2024	2025	2026
EXPENSES						
Treatment Plant						
01-3140-1200 Wages	72,358	73,805	75,281	76,787	78,322	79,889
01-3140-1235 Wages-Public Works	459	468	478	487	497	507
01-3140-1240 Benefits	20,921	21,340	21,766	22,202	22,646	23,099
01-3140-1244 Benefits-Public works	161	164	168	171	174	178
01-3140-1260 Clothing allowance	255	260	265	271	276	282
01-3140-1270 Mileage	-	-	-	-	-	-
01-3140-1271 Training & Seminars	3,264	3,329	3,396	3,464	3,533	3,604
01-3140-1305 Supplies	2,040	2,081	2,122	2,165	2,208	2,252
01-3140-1317 Engineering Services	10,200	10,404	10,612	10,824	11,041	11,262
01-3140-1320 Maintenance & Purchase - Equipment	43,860	44,737	45,632	46,545	47,475	48,425
01-3140-1322 Maintenance - Building	9,180	9,364	9,551	9,742	9,937	10,135
01-3140-1325 Maintenance - Grounds	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1330 Maintenance - Vehicle	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1335 Maintenance - Health and Safety	1,020	1,040	1,061	1,082	1,104	1,126
01-3140-1337 Maintenance - Sewers	-	-	-	-	-	-
01-3140-1340 Postage	6,120	6,242	6,367	6,495	6,624	6,757
01-3140-1344 Service Agreement - Veolia	436,560	445,291	454,197	463,281	472,547	481,998
01-3140-1350 Telephone	891	909	927	946	965	984
01-3140-1358 Fuel	1,836	1,873	1,910	1,948	1,987	2,027
01-3140-1360 Utilities - Hydro	47,250	49,613	52,093	54,698	57,433	60,304
01-3140-1365 Utilities - Natural Gas	63,000	66,150	69,458	72,930	76,577	80,406
01-3140-1366 Utilities - Water	45,900	46,818	47,754	48,709	49,684	50,677
01-3140-1380 Insurance	18,214	18,578	18,950	19,329	19,716	20,110
01-3140-1385 Sludge Handling	40,800	41,616	42,448	43,297	44,163	45,046
01-3140-1390 Sewer Write-offs	-	-	-	-	-	-
01-3140-1470 Public works equipment costs	3,060	3,121	3,184	3,247	3,312	3,378
01-3140-1530 Miscellaneous expenses	-	-	-	-	-	-
Sewers						
01-3141-1200 Wages	12,486	12,736	12,990	13,250	13,515	13,785
01-3141-1235 Wages - Public Works	-	-	-	-	-	-
01-3141-1240 Benefits	3,617	3,689	3,763	3,838	3,915	3,993
01-3141-1246 Benefits - Public Works	-	-	-	-	-	-
01-3141-1271 Training & Seminars	-	-	-	-	-	-
01-3141-1317 Engineering Services	10,200	10,200	10,404	10,612	10,824	11,041
01-3141-1337 Maintenance - Sewers	76,500	78,030	79,591	81,182	82,806	84,462
01-3141-1344 Service Agreement - Veolia	36,108	36,830	37,567	38,318	39,084	39,866
01-3141-1390 Sewer Write-offs	-	-	-	-	-	-
01-3141-1470 Public works equipment costs	-	-	-	-	-	-
Subtotal Operating Expense	973,401	995,972	1,019,364	1,043,398	1,068,095	1,093,477
01-3141-1301 Longterm Debt Charges - Interest	3,820	2,698	1,381	230	-	-
Loss (gain) on disposal of tangible capital assets	-	-	-	-	-	-
Amortization-Treatment	76,856	76,856	76,856	76,856	76,856	76,856
Amortization-Collection System	80,462	85,000	89,628	94,349	99,165	104,077
Total EXPENSES	1,134,538	1,160,526	1,187,230	1,214,833	1,244,116	1,274,410
Net Revenue (Deficit) for the year	182,598	262,061	349,253	444,660	548,225	661,394

	2021	2022	2023	2024	2025	2026
CASH FLOW						
Operating Transactions						
Net revenue (deficit) for the year	182,598	262,061	349,253	444,660	548,225	661,394
Add back (deduct) non-cash expense:	-	-	-	-	-	-
Add back Loss (gain) on disposal of tangible capit	-	-	-	-	-	-
Add back Amortization of Capital Assets	157,318	161,856	166,484	171,205	176,021	180,933
Total OPERATING TRANSACTIONS	339,916	423,917	515,737	615,865	724,245	842,326
Capital Transactions						
Various sewer replacements	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Various treatment plant replacements	-	-	-	-	-	-
Total CAPITAL TRANSACTIONS	(363,018)	(370,278)	(377,684)	(385,238)	(392,942)	(400,801)
Investing transactions						
Proceeds from portfolio investments	22,689	25,929	25,788	27,225	30,327	35,421
Total INVESTING TRANSACTIONS	22,689	25,929	25,788	27,225	30,327	35,421
Financing transactions						
Federal/Provincial grants	-	-	-	-	-	-
Debt repayment - principal	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Total FINANCING TRANSACTIONS	(6,615)	(7,737)	(8,748)	(3,159)	-	-
Net Cash Receipts (Payments) for the year	(7,028)	71,831	155,093	254,693	361,630	476,946
Cash at beginning of year	1,296,443	1,289,415	1,361,246	1,516,338	1,771,032	2,132,661
Cash at end of year	1,289,415	1,361,246	1,516,338	1,771,032	2,132,661	2,609,607

Notes:
1. Financial plan assumes expenses increase at 2% per year (except hydro and gas at 5%).
2. At the end of 2019 there was approx. \$2,268,887 in the Utility Reserve Fund for the purpose of this Financial Plan, assume that half of that will be used for the water system and half for the wastewater system.