



Water and Wastewater Ontario Regulation 453/07 Financial Plans

City of Stratford

Financial Plan #074-301

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
MECP	Ministry of the Environment, Conservation and Parks
MMAH	Ministry of Municipal Affairs and Housing
O. Reg.	Ontario Regulation
PSAB	Public Sector Accounting Board
S.D.W.A.	Safe Drinking Water Act
T.C.A.	Tangible Capital Assets
W.O.A.	Water Opportunities Act



Report



Chapter 1

Introduction



1. Introduction

1.1 Study Purpose

The City of Stratford (the City) retained Watson & Associates Economists Ltd. (Watson) to prepare a water and wastewater financial plan as part of the five submission requirements for the purposes of obtaining a municipal drinking water license as per the *Safe Drinking Water Act, 2002*. In general, a financial plan requires an in-depth analysis of capital and operating needs, a review of current and future demand versus supply, and consideration of available funding sources. The detailed financial planning and forecasting regarding the City's water and wastewater systems has been completed based on the City's Water and Wastewater Rate Study, dated January 28, 2020 (Rate Study). The objective of the report provided herein is to convert the findings of the Rate Study into the prescribed reporting requirements for a financial plan as defined by Ontario Regulation 453/07 (O. Reg. 453/07).

1.2 Background

The *Safe Drinking Water Act* (S.D.W.A.), "the Act," was passed in December 2002 in order to address the recommendations made by the Walkerton Inquiry Part II report. Note that S.D.W.A. has been amended several times since 2002. One of the main requirements of the Act is the mandatory licensing of municipal water providers. Section 31 (1) specifically states:

"No person shall,

- a) establish a new municipal drinking water system or replace or carry out an alteration to a municipal drinking water system except under the authority of and in accordance with an approval under this Part or a drinking water works permit; or
- b) use or operate a municipal drinking water system that was established before or after this section comes into force except under the authority of and in accordance with an approval under this Part or municipal drinking water licence."

In order to become licensed, a municipality must satisfy five key requirements as per section 44(1):



1. Obtain a drinking water works permit.
2. Acceptance of the operational plan for the system based on the Drinking Water Quality Management Standard.
3. Accreditation of the Operating Authority.
4. Prepare and provide a financial plan.
5. Obtain permit to take water.

For licence renewals, the application must be accompanied by proof that the financial plan meets the prescribed requirements as per the Act s. 32 (5) 2.ii.

The preparation of a financial plan is a key requirement for licensing and as such, must be undertaken by all municipal water providers.

1.2.1 Financial Plan Defined

Subsection 30 of the Act provides the following definition of financial plans:

"financial plans" means financial plans that satisfy the requirements prescribed by the Minister. 2017, c. 2, Sched. 11, s. 6 (3).

As of time of writing, the *Sustainable Water and Sewage Systems Act, 2002* has been repealed (see section 2.2 of this report); however, the standards that it directs underpin the specific requirements of s. 30 as they are outlined in O. Reg. 453/07 and which will be examined in detail below.

1.2.2 Financial Plan Requirements – Existing System

The O. Reg. 453/07 provides details with regards to the financial plans for existing water systems. The requirements for existing systems are summarized as follows:

- Financial plans must be approved by resolution of Council (or governing body);
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six-year period (commencing in the year of licence expiry);
- Financial plans must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit and



accumulated surplus/deficit (i.e. the components of a “Statement of Operations” as per the Public Sector Accounting Board (PSAB)) for each year in which the financial plans apply;

- Financial plans must present financial position itemized by total financial assets, total liabilities, net debt, non-financial assets, and tangible capital assets (i.e. the components of a “Statement of Financial Position” as per PSAB) for each year in which the financial plans apply;
- Gross cash receipts/payments itemized by operating transactions, capital transactions, investing transactions and financial transactions (i.e. the components of a “Statement of Cash Flow” as per PSAB) for each year in which the financial plans apply;
- Financial plans applicable to two or more solely-owned drinking water systems can be prepared as if they are for one drinking water system;
- Financial plans are to be made available to the public upon request and at no charge;
- If a website is maintained, financial plans are to be made available to the public through publication on the Internet at no charge;
- Notice of the availability of the financial plans is to be given to the public;
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing; and
- The resolution of Council approving the Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks (MECP).

1.2.3 Financial Plan Requirements – General

Given that the requirements for a financial plan is legislated under the Act, a financial plan is mandatory for water systems and encouraged for wastewater systems. The financial plans shall be for a forecast period of at least six years but longer planning horizons are encouraged. The ten-year forecast goes above and beyond the minimum requirement. The financial plan is to be completed and approved by resolution of Council or the governing body in accordance with subsection 3 (1) 1 of O. Reg. 453/07. Confirmation of approval of the financial plan must be submitted at the time of municipal drinking water license renewal (i.e. six months prior to license expiry).

A copy of the financial plan will be submitted to the Ministry of Municipal Affairs and Housing (MMAH) and not the MECP; however, the MECP may request it in the course



of review of the licence renewal. Financial plans may be amended and additional information beyond what is prescribed can be included if deemed necessary. The financial plan must contain on the front page, the appropriate financial plan number as set out in Schedule A of the Municipal Drinking Water Licence.

1.2.4 Public Sector Accounting Board (PSAB) Requirements

The components of the financial plans indicated by the regulation are consistent with the requirements for financial statement presentation as set out in section PS1200 of the Canadian Institute of Chartered Accountants Public Sector Accounting Handbook:

“Financial statements should include a Statement of Financial Position, a Statement of Operations, a Statement of Change in Net Debt, and a Statement of Cash Flow.”

The format required is to conform to the requirements of PS1200 and PS3150. The financial statements are to be reported on a full accrual accounting basis. The accrual accounting method recognizes revenues and expenses in the same period as the activities that give rise to them regardless of when they are actually paid for. Since an exchange of cash is not necessary to report a financial transaction, the accrual method is meant to provide a more accurate picture of financial position.

The accounting treatment of tangible capital assets is prescribed under section PS3150. Tangible capital assets are to be capitalized to ensure an inventory of the assets owned are recorded and to account for their ability to provide future benefits.

The Statement of Cash Flow and the Statement of Change in Net Financial Assets/Debt are required statements. The Statement of Change in Net Financial Assets/Debt reports on whether enough revenue was generated in a period to cover the expenses in the period and whether sufficient resources have been generated to support current and future activities. The Statement of Cash Flow reports on how activities were financed for a given period providing a measure of the changes in cash for that period.

1.2.5 The City's Financial Plan

The City is currently in the process of renewing the drinking water license and the previous version of the financial plan no longer meets the requirements as it must apply to a period of a least six years beginning in the year that the licenses would otherwise



expire. Although the Act requires at least six years to be included, this financial plan provides for a ten-year forecast period 2020 to 2029.



Chapter 2

Sustainable Financial Planning



2. Sustainable Financial Planning

2.1 Introduction

In general, sustainability refers to the ability to maintain a certain position over time. While the Act requires a declaration of the financial plan's sustainability, it does not give a clear definition of what would be considered sustainable. Instead, the MECP released a guideline ("Towards Financially Sustainable Drinking-Water and Wastewater Systems") that provides possible approaches to achieving sustainability. The Province's Principles of Financially Sustainable Water and Wastewater Services are provided below:

- Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.
- Principle #2: An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.
- Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.
- Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.
- Principle #5: An asset management plan is a key input to the development of a financial plan.
- Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.
- Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.



Principle #8: Financial plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.

Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal Council.

2.2 Sustainable Water and Sewage Systems Act

The *Sustainable Water and Sewage Systems Act* (S.W.S.S.A.) was passed on December 13, 2002. The intent of the Act was to introduce the requirement for municipalities to undertake an assessment of the “full cost” of providing their water and the wastewater services. In total, there were 40 areas within the Act to which the Minister could have made Regulations. It is noted that, the regulations, which accompany the Act, were not issued and the Act was repealed on December 31, 2012.

2.3 Water Opportunities Act, 2010

Since the passage of the *Safe Drinking Water Act*, changes and refinements to the legislation have been introduced, including the *Water Opportunities Act* (W.O.A). The W.O.A. was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010, as the *Water Opportunities Act*.

The purposes of the W.O.A. are to foster innovative water, wastewater and storm water technologies, services and practices; create opportunities for economic development and clean-technology jobs; and conserve and sustain water resources. To achieve this W.O.A. provides for the creation of performance targets (financial, operational and maintenance related), which will vary by service type and location and the required submission of conservation and sustainability plans for water, wastewater and stormwater.

The sustainability plan in the W.O.A. expands on interim legislation for financial plans included in O. Reg. 453/07, to include the following:

- an asset management plan for the physical infrastructure;
- financial plan;



- water conservation plan (for water service only);
- a risk assessment;
- a strategy for maintaining and improving the services; and
- additional information considered advisable.

Where a Board has jurisdiction over a service, the plan (and any plan amendments) must be approved by the municipality in which the municipal service is provided, before submission to the Minister. The Minister may also direct preparation of joint or partially joint plans.

Regulations (still forthcoming) will prescribe details in regard to any time periods or time limits, contents of the plans, identifying which portions of the plan will require certification, the public consultation process (if required), limitations updates and refinements.

2.4 Infrastructure for Jobs and Prosperity Act (I.J.P.A.), 2015

On June 4, 2015, the Province passed the *Infrastructure for Jobs and Prosperity Act* (I.J.P.A.) which, over time, will require municipalities to undertake and implement asset management plans for all infrastructure they own. On December 27, 2017, the Province of Ontario released Ontario Regulation 588/17 under the I.J.P.A. which has three phases that municipalities must meet.

Every municipality in Ontario will have to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years and make updates as necessary. The subsequent phases are as follows:

- Phase 1 – Asset Management Plan (by July 1, 2021):
 - For core assets – Municipalities must have the following:
 - Inventory of assets;
 - Current levels of service measured by standard metrics; and
 - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2023):
 - Same steps as Phase 1 but for all assets.
- Phase 3 – Asset Management Plan (by July 1, 2024):
 - Builds on Phase 1 and 2 by adding:



- Proposed levels of service; and
- Lifecycle management and Financial strategy.

In relation to water (which is considered a core asset), municipalities will need to have an asset management plan that addresses the related infrastructure by July 1, 2021 (Phase 1). O. Reg. 588/17 specifies that the municipality's asset management plan must include the following for each asset category:

- the current levels of service being provided;
 - determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan.
- the current performance of each asset category;
- a summary of the assets in the category;
- the replacement cost of the assets in the category;
- the average age of the assets in the category, determined by assessing the average age of the components of the assets;
- the information available on the condition of the assets in the category;
- a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate; and
- the lifecycle activities that would need to be undertaken to maintain the current levels of service.

Upon completion of the asset management plan for water and wastewater, the City will need to consider the impacts during the annual budget and forecast process.

2.5 Water and Wastewater Forecast

As noted earlier, the City has undertaken a Rate Study, dated January 28, 2020. The Rate Study process is designed to address "full cost" principles and reflect the guiding principles toward sustainable financial planning.

As a result of employing this process, the 2019 water budget and ten-year forecast (2020 to 2029), included in the Rate Study, provides the basis for a sound financial plan for the City's water and wastewater system by assessing:



- A detailed assessment of current and future capital needs including an analysis of potential funding sources;
- An analysis of operating costs in order to determine how they will be impacted by evolving infrastructure needs;
- A review and recommendation on rates that ensure revenues are equitable and sufficient to meet system needs; and
- A public process that involved consultation with the main stakeholders including the City's staff, Council, the general public (specifically the users of the system) and others with the aim of gaining input and collaboration on the sustainability of the water and wastewater systems.



Chapter 3

Approach



3. Approach

3.1 Overview

The Rate Study (along with additional detailed information provided by City staff) has been used as a starting point to prepare the water and wastewater financial plan. The water and wastewater forecasts are prepared on a modified cash basis; therefore, a conversion is required in order to present a full accrual financial plan for the purposes of this report. The conversion process used will help to establish the structure of the financial plan along with the opening balances that will underpin the forecast. This chapter outlines the conversion process utilized and summarizes the adjustments made to prepare the water and wastewater financial plan.

3.2 Conversion Process

The conversion from the existing modified cash basis found in the Rate Study to the full accrual reporting format required under O. Reg. 453/07 can be summarized in the following steps:

1. Calculate Tangible Capital Asset Balances
2. Convert Statement of Operations
3. Convert Statement of Financial Position
4. Convert Statement of Cash Flow and Net Assets/Debt
5. Verification and Note Preparation

3.2.1 Calculate Tangible Capital Asset Balances

In calculating tangible capital asset balances, existing and future purchased, developed, and/or contributed assets will need to be considered. For existing water and wastewater assets, an inventory has already been compiled and summarized by the City for the purposes of their annual PSAB 3150 compliance process. As required, for PSAB 3150 reporting purposes, the asset inventory listing included historical cost (which is the original cost to purchase, develop, or construct each asset) along with an



estimated useful life for each asset and any anticipated salvage value is recorded. The following calculations are made to determine net book value:

- Accumulated amortization up to the year prior to the first forecast year.
- Amortization expense on existing assets for each year of the forecast period.
- Acquisition of new assets for each year of the forecast period.
- Disposals and related gains or losses for each year of forecast period.

Future water and wastewater capital needs have also been determined and summarized within the Rate Study. These estimates, however, only represent future assets that the City anticipates purchasing or constructing without consideration for future assets that are contributed by developers and other parties (at no or partial cost to the City). These contributed assets will form part of the infrastructure going forward in terms of the sustainability of the system and despite their non-monetary nature; future financial plans may need to be adjusted in order to properly account for these transactions. Once the sequence and total asset acquisition has been determined for the forecast period, annual amortization of these assets for each year is calculated in a similar manner as that used for existing assets.

Once the historical cost, accumulated amortization, and amortization expenses are calculated as described above, the total net book value of the tangible capital assets can be determined and recorded on the Statement of Financial Position.

3.2.2 Convert Statement of Operations

A wide range of adjustments will be considered, dependent on the size and complexity of the systems, in order to convert from the cash to full accrual basis (see Figure 3-1). For example, debt repayment costs relating to the principal payment portion only needs to be removed under the accrual basis, as they no longer qualify as an expense for reporting purposes. Principal payments are reported as a decrease in debt liability on the Statement of Financial Position. Transfers to and from reserves are removed as these transactions are represented by changes in cash and accumulated surplus. Finally, expenses relating to tangible capital assets, such as amortization, write-offs, and (gain)/loss on disposal of assets are reported on the Statement of Operations in order to capture the allocation of the cost of these assets to operating activities over their useful lives and therefore are added in under the accrual basis.



Table 3-1
Conversion Adjustments
Statement of Operations

Modified Cash Basis	Budget 2019	Adjustments		Full Accrual Budget 2019	Accrual Basis
		DR	CR		
Revenues					Revenues
Base Charge Revenue	950,244			950,244	Base Charge Revenue
Rate Based Revenue	3,791,916			3,791,916	Rate Based Revenue
Transfers from Reserves	-	-			
			-	-	Earned Development Charges and Gas Tax Revenue
			-	-	Developer Contributions
Contributions from Ratepayers	-	-		-	Interest Earned on Long-term Accounts Receivable
Other Revenue	180,620		58,589	239,209	Other Revenue
Total Revenues	4,922,780			4,981,369	Total Revenues
Expenditures					Expenses
Operating	3,895,820	77,573		3,973,393	Operating Expenses
Capital					
Transfers to Reserves	1,023,549		1,023,549		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	3,411		3,151	260	Interest on Debt
		288,961		288,961	Amortization
		-		-	Loss on Disposal of Tangible Capital Assets
Total Expenditures	4,922,780			4,262,614	Total Expenses
Net Expenditures	(0)			718,755	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			18,091,948	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	718,755	-	18,810,703	Accumulated Surplus/(Deficit), end of year

TOTAL ADJUSTMENTS	1,085,289	1,085,289
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Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



3.2.3 Convert Statement of Financial Position

Once the Statement of Operations has been converted and the net book value of tangible capital assets has been recorded, balances for the remaining items on the Statement of Financial Position are determined and recorded (see Figure 3-2). The opening/actual balances for the remaining accounts such as accounts receivable, inventory, accounts payable, outstanding debt (principal only), are recorded and classified according to the structure of the Statement of Financial Position as outlined in PS1200.

It is acknowledged that some of the balances required on the Statement of Financial Position will be consolidated across the City and as such, will be difficult to isolate the information that is relevant to water. An example of this is accounts receivable, which may be administered centrally by the Finance Department. Ontario Regulation 453/07 allows for the exclusion of these numbers if they are not known at the time of preparing the financial plan. Please refer to the Financial Plan Notes in Chapter 4 for more details.

3.2.4 Convert Statement of Cash Flow and Net Financial Assets/Debt

The Statement of Cash Flow summarizes how the City financed its activities or in other words, how the costs of providing services were recovered. The statement is derived using comparative Statement of Financial Position, the current Statement of Operations and other available transaction data.

The Statement of Change in Net Financial Assets/Debt is a statement which reconciles the difference between the surplus or deficit from current operations and the change in net financial assets/debt for the year. This is significant, as net debt provides an indication of future revenue requirements. In order to complete the Statement of Net Financial Assets/Debt, information regarding any gains/losses on disposals of assets, asset write-downs, acquisition/use of supplies inventory, and the acquisition use of prepaid expenses is necessary (if applicable). Although the Statement of Change in Net Financial Assets/Debt is not required under O. Reg. 453/07, it has been included in this report as a further indicator of financial viability.



**Table 3-2
Conversion Adjustments
Statement of Financial Position**

Modified Cash Basis	Budget 2019	Adjustments		Full Accrual Budget 2019	Accrual Basis
		DR	CR		
ASSETS					ASSETS
Financial Assets					Financial Assets
Cash	1,857,872			1,857,872	Cash
Accounts Receivable	1,883,189			1,883,189	Accounts Receivable
Long-term Accounts Receivable	-			-	Long-term Accounts Receivable
				-	Investments
				-	Inventory for resale
Total Financial Assets	3,741,061			3,741,061	Total Financial Assets
Non-Financial Assets					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
Total Non-Financial Assets	-				
LIABILITIES					Liabilities
Accounts Payable & Accrued Liabilities	438,566			438,566	Accounts Payable & Accrued Liabilities
Gross Long-term Liabilities	7,140			7,140	Debt (Principal only)
Deferred Revenue	463,516			463,516	Deferred Revenue
Other	-			-	Other
Total Liabilities	909,222			909,222	Total Liabilities
Net Assets/(Debt)	2,831,839			2,831,839	Net Financial Assets/(Debt)
		16,056,437	77,573	15,978,864	Non-Financial Assets
		-		-	Tangible Capital Assets
		-		-	Inventory of Supplies
				-	Prepaid Expenses
				15,978,864	Total Non-Financial Assets
Municipal Position					
Water Reserves	2,838,979	2,838,979	-		
Gas Tax Reserve Fund	-	-	-		
Development Charge Reserve Fund	463,516	463,516	-		
Amounts to be Recovered	(470,656)	-	470,656		
Total Municipal Position	2,831,839		18,810,703	18,810,703	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		19,358,932	19,358,932		

Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



3.2.5 Verification and Note Preparation

The final step in the conversion process is to ensure that all the statements created by the previous steps are in balance. The Statement of Financial Position summarizes the resources and obligations of the City at a set point in time. The Statement of Operations summarizes how these resources and obligations changed over the reporting period. To this end, the accumulated surplus/deficit reported on the Statement of Financial Position should equal the accumulated surplus/deficit reported on the Statement of Operations.

The Statement of Change in Net Financial Assets/Debt and the Statement of Financial Position are also linked in terms of reporting on net financial assets/debt. On the Statement of Financial Position, net financial assets/debt is equal to the difference between financial assets and liabilities and should equal net financial assets/debt as calculated on the Statement of Net Financial Assets/Debt.

While not part of the financial plan, the accompanying notes are important to summarize the assumptions and estimates made in preparing the financial plan. Some of the significant assumptions that need to be addressed within the financial plan are as follows:

- a) Opening Cash Balances – Opening cash balances are necessary to complete the Statement of Cash Flows and balance the Statement of Financial Position. Preferably, opening cash balances should be derived from actual information contained within the City’s ledgers. It may not be possible, however, to extract this information from the ledgers for water alone; therefore, a reasonable proxy will be needed. One approach is to assume that opening cash balances equal ending reserve and reserve fund balances from the previous year adjusted for accrual-based transactions reflected by accounts receivable/payable balances. The following equation outlines this approach:

Ending Reserve/Reserve Fund Balance
Plus: Ending Accounts Payable Balance
Less: Ending Accounts Receivable Balance
Equals: Approximate Ending Cash Balance



- b) Amortization Expense – The method and timing of amortization should be based on the City’s amortization policy.
- c) Accumulated Amortization – Will be based on the culmination of accumulated amortization expenses throughout the life of each asset however derived, along with information on construction/acquisition date and useful life obtained from the capital asset listing provided.
- d) Contributed Assets – As noted earlier, contributed assets could represent a significant part of the City’s infrastructure acquisitions. As such, a reasonable estimate of value and timing of acquisition/donation may be required in order to adequately capture these assets. In the case where contributed assets are deemed to be insignificant or unknown, an assumption of “no contributed assets within the forecast period” will be made.
- e) Accumulated Surplus – The magnitude of the surplus in this area may precipitate the need for additional explanation especially in the first year of reporting. This Accumulated Surplus captures the historical infrastructure investment which has not been reported in the past but has accumulated to significant levels. It also includes all water reserve and reserve fund balances.
- f) Other Revenues – Will represent the recognition of revenues previously deferred (i.e. development charge revenues) and/or accrued revenues (developer contributions), and/or other minor miscellaneous revenues.



Chapter 4

Financial Plan



4. Financial Plan

4.1 Introduction

The following tables provide the complete financial plan for the City's water systems. A brief description and analysis of each table is provided below. It is important to note that the financial plan that follows is a forward look at the financial position of the City's water systems. It is not an audited document¹ and it contains various estimates as detailed in the "Notes to the Financial Plan" section below. For the wastewater financial plan, please refer to Appendix B.

4.2 Water Financial Plan

4.2.1 *Statement of Financial Position (Table 4-1)*

The Statement of Financial Position provides information that describes the assets, liabilities, and accumulated surplus of the City's water systems. The first important indicator is net financial assets/(debt), which is defined as the difference between financial assets and liabilities. This indicator provides an indication of the system's "future revenue requirement." A net financial asset position is where financial assets are greater than liabilities and implies that the system has the resources to finance future operations. Conversely, a net debt position implies that the future revenues generated by the system will be needed to finance past transactions, as well as future operations. Table 4-1 indicates that in 2019, the City's water system was in a net financial asset position of \$2.83 million. The financial plan forecasts a net financial asset position for each year of the forecast period, however at a declining rate, decreasing to a net financial asset position of \$2.05 million by 2029.

Another important indicator on the Statement of Financial Position is the tangible capital asset balance under section PS3150. As noted earlier, providing this information is a requirement for municipalities as part of PS3150 compliance and is significant from a financial planning perspective for the following reasons:

- Tangible capital assets such as watermains and treatment facilities are imperative to water service delivery.

¹ O. Reg. 453/07 does not require an audited financial plan.



- These assets represent significant economic resources in terms of their historical and replacement costs. Therefore, ongoing capital asset management is essential to managing significant replacements and repairs.
- The annual maintenance required by these assets has an enduring impact on water operational budgets.

In general terms, an increase in the tangible capital asset balance indicates that assets may have been acquired either through purchase by the municipality or donation/contribution by a third party. A decrease in the tangible capital asset balance can indicate a disposal, write down, or use of assets. A use of assets is usually represented by an increase in accumulated amortization due to annual amortization expenses arising as a result of allocating the cost of the asset to operations over the asset's useful life. Table 4-1 shows tangible capital assets net book value is expected to increase over the forecast period by approximately \$15.42 million. This indicates that the City has plans to invest in tangible capital assets in excess of the anticipated use of existing assets over the forecast period.

4.2.2 Statement of Operations (Table 4-2)

The Statement of Operations summarizes the revenues and expenses generated by the water system for a given period. The annual surplus/deficit measures whether the revenues generated were sufficient to cover the expenses incurred and in turn, whether net financial assets have been maintained or depleted. Table 4-2 illustrates the ratio of expenses to revenues, generally decreasing over the forecast period from 86% in 2019 to 69% by 2029. As a result, annual surplus increases from a surplus of approximately \$719,000 to a surplus of just under \$2.34 million by 2029. This is due to a general increasing trend in amortization expense. It is important to note that an annual surplus is beneficial to ensure funding is available to non-expense costs such as tangible capital asset acquisitions and reserve/reserve fund transfers.

Another important indicator on this statement is accumulated surplus/deficit. An accumulated surplus indicates that the available net resources are sufficient to provide future capital water services. An accumulated deficit indicates that resources are insufficient to provide future services and that borrowing, or rate increases are required to finance annual deficits. From Table 4-2, the financial plan proposes to increase by approximately \$15.35 million from a 2019 accumulated surplus of \$18.09 million over the forecast period to \$33.45 million in 2029. The accumulated surplus, as indicated in



Table 4-2, is predominantly made up of reserve and reserve fund balances as well as historical investments in tangible capital assets by the municipality.

4.2.3 Statement of Change in Net Financial Assets/Debt (Table 4-3)

The Statement of Change in Net Financial Assets/Debt indicates whether revenue generated was sufficient to cover operating and non-financial asset costs (i.e. inventory supplies, prepaid expenses, tangible capital assets, etc.) and in so doing, explains the difference between the annual surplus/deficit and the change in net financial assets/debt for the period. Table 4-3 indicates that in some years, forecasted tangible capital asset acquisitions (net of amortization for the year) exceeds forecasted annual surplus, resulting in decreases in the net financial asset balance. Therefore, an overall decrease to net financial assets is anticipated over the forecast period to 2029. This is a result of more significant capital asset acquisitions forecasted between 2019 and 2029 allowing for a long-term plan of funding capital through accumulated surplus (i.e. reserves and reserve funds). This is evidenced by the ratio of cumulative annual surplus before amortization to cumulative tangible capital asset acquisitions decreasing from 0.53 to 0.92 over the forecast period.¹

4.2.4 Statement of Cash Flow (Table 4-4)

The Statement of Cash Flow summarizes how water systems are expected to generate and use cash resources during the forecast period. The transactions that provide/use cash are classified as operating, capital, investing, and financing activities as shown in Table 4-4. This statement focuses on the cash aspect of these transactions and thus is the link between cash-based and accrual-based reporting. Table 4-4 indicates that cash from operations will be used to fund capital transactions (i.e. tangible capital asset acquisitions) and build internal reserves and reserve funds over the forecast period. The financial plan projects the cash position of the City's water systems to improve from a balance of \$4.14 million at the beginning of 2019, to just under \$722,000 by the end of 2029. For further discussions, on projected cash balances please refer to the Notes to the Financial Plan.

¹ A desirable ratio is 1:1 or better.



Table 4-1
Statement of Financial Position: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets												
Cash	1	1,857,872	1,512,019	1,403,082	1,133,216	1,053,850	649,510	315,909	174,933	210,470	455,942	721,952
Accounts Receivable	1	1,883,189	1,880,023	1,992,436	2,108,524	2,228,593	2,322,035	2,433,213	2,545,763	2,659,676	2,777,274	2,898,699
Total Financial Assets		3,741,061	3,392,042	3,395,518	3,241,740	3,282,443	2,971,545	2,749,122	2,720,696	2,870,146	3,233,216	3,620,651
Liabilities												
Bank Indebtedness		-	-	-	-	-	-	-	-	-	-	-
Accounts Payable & Accrued Liabilities	1	438,566	443,044	454,391	466,054	478,065	490,471	503,271	516,509	530,153	544,214	558,747
Debt (Principal only)	2	7,140	3,906	586	-	-	-	-	-	-	-	-
Deferred Revenue	3	463,516	514,370	567,279	622,315	681,460	742,929	806,849	856,954	908,906	957,216	1,007,235
Total Liabilities		909,222	961,320	1,022,256	1,088,369	1,159,525	1,233,400	1,310,120	1,373,463	1,439,059	1,501,430	1,565,982
Net Financial Assets/(Debt)		2,831,839	2,430,722	2,373,262	2,153,371	2,122,918	1,738,145	1,439,002	1,347,233	1,431,087	1,731,786	2,054,669
Non-Financial Assets												
Tangible Capital Assets	4	15,978,864	17,097,149	18,047,768	19,341,334	20,553,450	22,266,225	24,081,215	25,841,031	27,580,623	29,379,145	31,395,951
Total Non-Financial Assets		15,978,864	17,097,149	18,047,768	19,341,334	20,553,450	22,266,225	24,081,215	25,841,031	27,580,623	29,379,145	31,395,951
Accumulated Surplus/(Deficit)	5	18,810,703	19,527,871	20,421,030	21,494,705	22,676,368	24,004,370	25,520,217	27,188,264	29,011,710	31,110,931	33,450,620
Financial Indicators	Total Change	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Increase/(Decrease) in Net Financial Assets	(1,662,521)	(885,351)	(401,117)	(57,460)	(219,891)	(30,453)	(384,773)	(299,143)	(91,769)	83,854	300,699	322,883
2) Increase/(Decrease) in Tangible Capital Assets	17,021,193	1,604,106	1,118,285	950,619	1,293,566	1,212,116	1,712,775	1,814,990	1,759,816	1,739,592	1,798,522	2,016,806
3) Increase/(Decrease) in Accumulated Surplus	15,358,672	718,755	717,168	893,159	1,073,675	1,181,663	1,328,002	1,515,847	1,668,047	1,823,446	2,099,221	2,339,689



Table 4-2
Statement of Operations: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2028

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Revenue												
Base Charge Revenue		950,244	1,103,856	1,228,365	1,355,013	1,484,271	1,535,793	1,625,187	1,713,525	1,800,903	1,888,974	1,977,723
Rate Based Revenue		3,791,916	3,800,348	3,969,695	4,146,510	4,331,118	4,523,860	4,725,092	4,930,967	5,141,365	5,360,706	5,589,367
Earned Development Charges Revenue	3	-	-	-	-	-	-	-	-	-	-	-
Other Revenue	6	239,209	58,460	56,979	51,601	50,858	41,474	34,178	31,939	33,986	41,319	49,193
Total Revenues		4,981,369	4,962,664	5,255,039	5,553,124	5,866,247	6,101,127	6,384,457	6,676,431	6,976,254	7,290,999	7,616,283
Water Expenses												
Operating Expenses	Sch. 4-1	3,973,393	3,935,600	4,036,400	4,140,000	4,326,700	4,397,900	4,470,600	4,588,200	4,709,400	4,922,300	5,008,400
Interest on Debt	2	260	181	99	15	-	-	-	-	-	-	-
Amortization	4	288,961	309,715	325,381	339,434	357,884	375,225	398,010	420,184	443,408	269,478	268,194
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Total Expenses		4,262,614	4,245,496	4,361,880	4,479,449	4,684,584	4,773,125	4,868,610	5,008,384	5,152,808	5,191,778	5,276,594
Annual Surplus/(Deficit)		718,755	717,168	893,159	1,073,675	1,181,663	1,328,002	1,515,847	1,668,047	1,823,446	2,099,221	2,339,689
Accumulated Surplus/(Deficit), beginning of year	5	18,091,948	18,810,703	19,527,871	20,421,030	21,494,705	22,676,368	24,004,370	25,520,217	27,188,264	29,011,710	31,110,931
Accumulated Surplus/(Deficit), end of year		18,810,703	19,527,871	20,421,030	21,494,705	22,676,368	24,004,370	25,520,217	27,188,264	29,011,710	31,110,931	33,450,620
Note 5:												
Accumulated Surplus/(Deficit) Reconciliation:												
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserve Balances												
Reserves: Development Charges		463,516	514,370	567,279	622,315	681,460	742,929	806,849	856,954	908,906	957,216	1,007,235
Reserves: Gas Tax		-	-	-	-	-	-	-	-	-	-	-
Reserves: Capital/Other		2,838,979	2,434,628	2,373,848	2,153,371	2,122,918	1,738,145	1,439,002	1,347,233	1,431,087	1,731,786	2,054,669
Total Reserves Balance		3,302,495	2,948,998	2,941,127	2,775,686	2,804,378	2,481,074	2,245,851	2,204,187	2,339,993	2,689,002	3,061,904
Less: Debt Obligations and Deferred Revenue		(470,656)	(518,276)	(567,865)	(622,315)	(681,460)	(742,929)	(806,849)	(856,954)	(908,906)	(957,216)	(1,007,235)
Add: Tangible Capital Assets	4	15,978,864	17,097,149	18,047,768	19,341,334	20,553,450	22,266,225	24,081,215	25,841,031	27,580,623	29,379,145	31,395,951
Total Ending Balance		18,810,703	19,527,871	20,421,030	21,494,705	22,676,368	24,004,370	25,520,217	27,188,264	29,011,710	31,110,931	33,450,620
Financial Indicators												
	Total Change	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Expense to Revenue Ratio		86%	86%	83%	81%	80%	78%	76%	75%	74%	71%	69%
2) Increase/(Decrease) in Accumulated Surplus	15,358,672	718,755	717,168	893,159	1,073,675	1,181,663	1,328,002	1,515,847	1,668,047	1,823,446	2,099,221	2,339,689



Schedule 4-1
Statement of Operating Expenses: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Expenses												
4300 Water Admin		-	-	-	-	-	-	-	-	-	-	-
G-350-4300-2100 F.T. SALARIES & WAGES		336,880	-	-	-	-	-	-	-	-	-	-
G-350-4300-2110 P.T. SALARIES & WAGES		-	-	-	-	-	-	-	-	-	-	-
G-350-4300-2500 F.T. BENEFITS		115,330	21,950	22,400	22,800	23,300	23,800	24,300	24,800	25,300	25,800	26,300
G-350-4300-2510 P.T. BENEFITS		-	-	-	-	-	-	-	-	-	-	-
G-350-4300-2700 OTHER PAYROLL EXPENSES		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
G-350-4300-3010 CLOTHING		5,100	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300
G-350-4300-3050 MATERIALS		5,000	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
G-350-4300-3070 OFFICE SUPPLIES AND PAPER		1,200	800	800	800	800	800	800	800	800	800	800
G-350-4300-3090 PHOTOCOPIER EXPENSE		280	300	300	300	300	300	300	300	300	300	300
G-350-4300-3100 POSTAGE		1,000	500	500	500	500	500	500	500	500	500	500
G-350-4300-3110 PRINTING		900	700	700	700	700	700	700	700	700	700	700
G-350-4300-3120 MEALS & MEETING COSTS		220	300	300	300	300	300	300	300	300	300	300
G-350-4300-4020 SERVICE CONTRACTS		3,500	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400
G-350-4300-4040 CONSULTANTS		5,100	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	6,000
G-350-4300-4050 CONTRACTORS		545,000	545,000	555,900	567,000	578,300	589,900	601,700	613,700	626,000	638,500	651,300
G-350-4300-4060 COURIER/FREIGHT		100	100	100	100	100	100	100	100	100	100	100
G-350-4300-4090 LEGAL		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
G-350-4300-4097 MEMBERSHIPS		3,830	5,400	5,500	5,600	5,700	5,800	5,900	6,000	6,100	6,200	6,300
G-350-4300-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-
G-350-4300-4101 CONSERVATION AUTHORITY LEVY		417,600	438,500	447,300	456,200	465,300	474,600	484,100	493,800	503,700	513,800	524,100
G-350-4300-4107 BUILDING MAINTENANCE		-	-	-	-	-	-	-	-	-	-	-
G-350-4300-4110 TELEPHONE - BASIC		5,290	2,060	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100
G-350-4300-4120 TELEPHONE - CELL PHONES		8,000	7,680	7,800	8,000	8,200	8,400	8,600	8,800	9,000	9,200	9,400
G-350-4300-4142 TRAINING - EXPENSES		35,000	36,000	36,700	37,400	38,100	38,900	39,700	40,500	41,300	42,100	42,900
G-350-4300-7850 CITY OWNED RENTAL EXPENSE		1,250	-	-	-	-	-	-	-	-	-	-
G-350-4300-7900 INTERFUNCTIONAL TRANSFERS		189,500	193,300	197,200	201,100	205,100	209,200	213,400	217,700	222,100	226,500	231,000
G-350-4300-9010 OFFICE EQUIPMENT AND FURNISHINGS		500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
G-350-4300-9040 TOOLS & SMALL EQUIPMENT		5,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900
4325 WATER SUPPLY												
G-350-4325-2100 F.T. SALARIES & WAGES		154,160	-	-	-	-	-	-	-	-	-	-
G-350-4325-2110 P.T. SALARIES & WAGES		2,180	-	-	-	-	-	-	-	-	-	-
G-350-4325-2500 F.T. BENEFITS		42,860	-	-	-	-	-	-	-	-	-	-
G-350-4325-2510 P.T. BENEFITS		180	-	-	-	-	-	-	-	-	-	-
G-350-4325-3040 HYDRO		325,000	340,750	357,800	375,700	394,500	414,200	434,900	456,600	479,400	503,400	528,600
G-350-4325-3050 MATERIALS		120,000	120,000	126,000	132,300	138,900	145,800	153,100	160,800	168,800	177,200	186,100
G-350-4325-3120 MEALS & MEETING COSTS		500	500	500	500	500	500	500	500	500	500	500
G-350-4325-3140 R & M - BUILDINGS & EQUIP (EXCL VEHICLES)		15,000	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700
G-350-4325-3180 VEHICLE - FUEL		2,000	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900
G-350-4325-4020 SERVICE CONTRACTS		213,000	230,000	234,600	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000
G-350-4325-4040 CONSULTANTS		15,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800
G-350-4325-4050 CONTRACTORS		30,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800
G-350-4325-4060 COURIER/FREIGHT		200	200	200	200	200	200	200	200	200	200	200
G-350-4325-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-
G-350-4325-4110 TELEPHONE - BASIC		5,290	-	-	-	-	-	-	-	-	-	-
G-350-4325-7850 CITY OWNED RENTAL EXPENSE		35,000	35,000	35,700	36,400	37,100	37,800	38,600	39,400	40,200	41,000	41,800
G-350-4325-7900 INTERFUNCTIONAL TRANSFERS		-	-	-	-	-	-	-	-	-	-	-
4350 WATER DISTRIBUTION												
G-350-4350-2100 F.T. SALARIES & WAGES		462,480	971,620	991,100	1,010,900	1,031,100	1,051,700	1,072,700	1,094,200	1,116,100	1,138,400	1,161,200



Schedule 4-1 (Con't)
Statement of Operating Expenses: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
G-350-4350-2110 P.T. SALARIES & WAGES		6,550	9,360	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100
G-350-4350-2500 F.T. BENEFITS		128,590	267,450	272,800	278,300	283,900	289,600	295,400	301,300	307,300	313,400	319,700
G-350-4350-2510 P.T. BENEFITS		550	800	800	800	800	800	800	800	800	800	800
G-350-4350-3040 HYDRO		10,080	9,000	9,500	10,000	10,500	11,000	11,600	12,200	12,800	13,400	14,100
G-350-4350-3050 MATERIALS		230,000	230,000	241,500	253,600	266,300	279,600	293,600	308,300	323,700	339,900	356,900
G-350-4350-3080 MISCELLANEOUS		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-3100 POSTAGE		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-3120 MEALS & MEETING COSTS		820	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
G-350-4350-3180 VEHICLE - FUEL		35,000	35,000	36,800	38,600	40,500	42,500	44,600	46,800	49,100	51,600	54,200
G-350-4350-3190 VEHICLE - REPAIRS & EXPENSES		20,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800
G-350-4350-4020 SERVICE CONTRACTS		63,000	78,500	80,100	81,700	83,300	85,000	86,700	88,400	90,200	92,000	93,800
G-350-4350-4040 CONSULTANTS		-	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900
G-350-4350-4050 CONTRACTORS		60,000	117,000	119,300	121,700	124,100	126,600	129,100	131,700	134,300	137,000	139,700
G-350-4350-4060 COURIER/FREIGHT		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-4095 MAINTENANCE CONTRACTS		5,000	-	-	-	-	-	-	-	-	-	-
G-350-4350-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-4142 TRAINING EXPENSES		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-5040 RENTAL OF BLDG MACHINERY & EQUIPMENT		-	-	-	-	-	-	-	-	-	-	-
G-350-4350-7850 CITY OWNED RENTAL EXPENSE		129,500	-	-	-	-	-	-	-	-	-	-
G-350-4350-7900 INTERFUNCTIONAL TRANSFERS		95,300	96,730	98,700	100,700	102,700	104,800	106,900	109,000	111,200	113,400	115,700
G-350-4350-9040 TOOLS & SMALL EQUIPMENT		-	-	-	-	-	-	-	-	-	-	-
Non TCA - Expenses from Capital Budget	7	77,573	-	-	-	80,000	41,000	-	-	-	88,000	45,000
TOTAL OPERATING EXPENSES		3,973,393	3,935,600	4,036,400	4,140,000	4,326,700	4,397,900	4,470,600	4,588,200	4,709,400	4,922,300	5,008,400



Table 4-3
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual Surplus/(Deficit)		718,755	717,168	893,159	1,073,675	1,181,663	1,328,002	1,515,847	1,668,047	1,823,446	2,099,221	2,339,689
Less: Acquisition of Tangible Capital Assets	4	(1,893,067)	(1,428,000)	(1,276,000)	(1,633,000)	(1,570,000)	(2,088,000)	(2,213,000)	(2,180,000)	(2,183,000)	(2,068,000)	(2,285,000)
Add: Amortization of Tangible Capital Assets	4	288,961	309,715	325,381	339,434	357,884	375,225	398,010	420,184	443,408	269,478	268,194
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
		(1,604,106)	(1,118,285)	(950,619)	(1,293,566)	(1,212,116)	(1,712,775)	(1,814,990)	(1,759,816)	(1,739,592)	(1,798,522)	(2,016,806)
Less: Acquisition of Supplies Inventory		-	-	-	-	-	-	-	-	-	-	-
Less: Acquisition of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-	-
Add: Consumption of Supplies Inventory		-	-	-	-	-	-	-	-	-	-	-
Add: Use of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-	-
Increase/(Decrease) in Net Financial Assets/(Net Debt)		(885,351)	(401,117)	(57,460)	(219,891)	(30,453)	(384,773)	(299,143)	(91,769)	83,854	300,699	322,883
Net Financial Assets/(Net Debt), beginning of year		3,717,190	2,831,839	2,430,722	2,373,262	2,153,371	2,122,918	1,738,145	1,439,002	1,347,233	1,431,087	1,731,786
Net Financial Assets/(Net Debt), end of year		2,831,839	2,430,722	2,373,262	2,153,371	2,122,918	1,738,145	1,439,002	1,347,233	1,431,087	1,731,786	2,054,669
Financial Indicators		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Acquisition of Tangible Capital Assets (Cumulative)		1,893,067	3,321,067	4,597,067	6,230,067	7,800,067	9,888,067	12,101,067	14,281,067	16,464,067	18,532,067	20,817,067
2) Annual Surplus/Deficit before Amortization (Cumulative)		1,007,716	2,034,599	3,253,139	4,666,248	6,205,795	7,909,022	9,822,879	11,911,110	14,177,964	16,546,663	19,154,546
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)		0.53	0.61	0.71	0.75	0.80	0.80	0.81	0.83	0.86	0.89	0.92



Table 4-4
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
2019-2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Transactions												
Annual Surplus/Deficit		718,755	717,168	893,159	1,073,675	1,181,663	1,328,002	1,515,847	1,668,047	1,823,446	2,099,221	2,339,689
Add: Amortization of TCA's	4	288,961	309,715	325,381	339,434	357,884	375,225	398,010	420,184	443,408	269,478	268,194
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Less: Earned Deferred Revenue	3	-	-	-	-	-	-	-	-	-	-	-
Less: Developer Contributions		-	-	-	-	-	-	-	-	-	-	-
Add: Deferred Revenue Proceeds		48,851	50,854	52,909	55,036	59,145	61,469	63,920	50,105	51,952	48,310	50,019
Change in A/R (Increase)/Decrease		(1,883,189)	3,166	(112,413)	(116,088)	(120,069)	(93,442)	(111,178)	(112,550)	(113,913)	(117,598)	(121,425)
Change in A/P Increase/(Decrease)		438,566	4,478	11,347	11,663	12,011	12,406	12,800	13,238	13,644	14,061	14,533
Less: Interest Proceeds		(58,589)	(48,161)	(46,679)	(41,301)	(40,558)	(31,174)	(23,878)	(21,639)	(23,685)	(31,019)	(38,894)
Cash Provided by Operating Transactions		(446,645)	1,037,220	1,123,704	1,322,419	1,450,076	1,652,486	1,855,521	2,017,385	2,194,852	2,282,453	2,512,116
Capital Transactions												
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	(1,893,067)	(1,428,000)	(1,276,000)	(1,633,000)	(1,570,000)	(2,088,000)	(2,213,000)	(2,180,000)	(2,183,000)	(2,068,000)	(2,285,000)
Cash Applied to Capital Transactions		(1,893,067)	(1,428,000)	(1,276,000)	(1,633,000)	(1,570,000)	(2,088,000)	(2,213,000)	(2,180,000)	(2,183,000)	(2,068,000)	(2,285,000)
Investing Transactions												
Proceeds from Investments		58,589	48,161	46,679	41,301	40,558	31,174	23,878	21,639	23,685	31,019	38,894
Less: Cash Used to Acquire Investments		-	-	-	-	-	-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		58,589	48,161	46,679	41,301	40,558	31,174	23,878	21,639	23,685	31,019	38,894
Financing Transactions												
Proceeds from Debt Issue	2	-	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (Principal only)	2	(3,151)	(3,234)	(3,320)	(586)	-	-	-	-	-	-	-
Cash Applied to Financing Transactions		(3,151)	(3,234)	(3,320)	(586)	-						
Increase in Cash and Cash Equivalents		(2,284,274)	(345,853)	(108,937)	(269,866)	(79,366)	(404,340)	(333,601)	(140,976)	35,537	245,472	266,010
Cash and Cash Equivalents, beginning of year	1	4,142,146	1,857,872	1,512,019	1,403,082	1,133,216	1,053,850	649,510	315,909	174,933	210,470	455,942
Cash and Cash Equivalents, end of year	1	1,857,872	1,512,019	1,403,082	1,133,216	1,053,850	649,510	315,909	174,933	210,470	455,942	721,952



Notes to Financial Plan

The financial plan format as outlined in Chapter 4 closely approximates the full accrual format used by municipalities on their audited financial statements. The financial plan, however, is not an audited document and contains various estimates. In this regard, section 3 (2) of O. Reg. 453/07 states the following:

“Each of the following sub-subparagraphs applies only if the information referred to in the sub-subparagraph is known to the owner at the time the financial plans are prepared:

1. Sub-subparagraphs 4 i A, B and C of subsection (1)
2. Sub-subparagraphs 4 iii A, C, E and F of subsection (1).”

The information referred to in sub-subparagraphs 4 i A, B and C of subsection (1) includes:

- A. Total financial assets (i.e. cash and receivables);
- B. Total liabilities (i.e. payables, debt and deferred revenue); and
- C. Net debt (i.e. the difference between A and B above).

The information referred to in sub-subparagraphs 4 iii A, C, E and F of subsection (1) includes:

- A. Operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges;
- C. Investing transactions that are acquisitions and disposal of investments;
- E. Change in cash and cash equivalents during the year; and
- F. Cash and cash equivalents at the beginning and end of the year.

In order to show a balanced financial plan in a full accrual format for the City, some of the items listed above have been estimated given that the City does not maintain all financial asset and liability data separately for water. Usually, this type of data is combined with the financial assets and liabilities of other departments and services given that there is not a current obligation to disclose this data separately (as there is with revenue and expenses).



The assumptions used have been documented below:

1. Cash, Receivables and Payables

It is assumed that the opening cash balances required to complete the financial plan are equal to:

Ending Reserve/Reserve Fund Balance
Plus: Ending Accounts Payable Balance
Less: Ending Accounts Receivable Balance
Equals: *Approximate Ending Cash Balance*

For the City, receivable and payable balances were estimated for each year of the forecast based on the following factors:

- a) Receivables: Based on the historical levels of City-wide receivables as a percentage of annual City-wide revenue earned; and
- b) Payables: Based on historical levels of City-wide payables as a percentage of annual City-wide expenses.

2. Debt

Outstanding water related debt at the end of 2018 was amortized to just under \$10,300. Principal repayments, for existing debt required over the forecast period are scheduled as follows:

Year	Principal Payments
2019	3,151
2020	3,234
2021	3,320
2022	586
2023	-
2024	-
2025	-
2026	-
2027	-
2028	-
2029	-
Total	10,291



No additional debt proceeds are anticipated over the forecast period based on the City's Rate Study.

For financial reporting purposes, debt principal payments represent a decrease in debt liability and the interest payments represent a current year operating expense.

3. Deferred Revenue

Deferred revenue is typically made up of water development charge reserve balances which are considered to be a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected. If future years provide for a negative balance in the water development charge reserve fund balance it would be shown as an asset ("accounts receivable – other") for financial reporting purposes, representing future amounts to be collected from developers. Currently, the forecast does not anticipate a negative balance in the water development charges reserve fund.

4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
 - i. Water Facilities;
 - ii. Watermains;
 - iii. Hydrants; and
 - iv. Valves, Chambers, and Curb Stops.
- Amortization is calculated based on using the straight-line approach with no amortization in the year of acquisition or construction.
- Given the planned asset replacement forecast in the Rate Study, useful life on acquisitions is assumed to be equal to the weighted average useful life for all assets on hand in each respective asset category.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net basis. It is assumed that disposals occur when the asset is being replaced. To calculate the value of each asset disposal, the replacement value (of each new asset that has been identified as a "replacement") has been deflated (by weighted average useful life for all assets on hand in the respective asset category)



to an estimated historical cost. This figure was used to calculate disposals only. Future assets are disposed of when fully amortized.

- Gains/losses on disposal are assumed to be \$0 (it is assumed that historical cost is equal to accumulated amortization for all disposals).
- Residual value is assumed to be \$0 for all assets contained within the forecast period.
- Contributed assets, as described in section 3.2.1, are deemed to be insignificant/unknown during the forecast period and are therefore assumed to be \$0.
- The City is unaware of any specific lead service piping in the municipal water system. When older portions of the watermain system is replaced as part of the ongoing replacement program, however, any lead service pipes will be replaced if and when found.



- The balance of tangible capital assets is summarized as follows:

Asset Historical Cost	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Tangible Capital Asset Balance	22,350,005	24,166,521	25,527,832	26,735,739	28,292,367	29,780,991	31,771,868	33,875,698	35,948,372	38,023,029	39,981,269
Acquisitions	1,893,067	1,428,000	1,276,000	1,633,000	1,570,000	2,088,000	2,213,000	2,180,000	2,183,000	2,068,000	2,285,000
Disposals	76,551	66,689	68,093	76,372	81,376	97,123	109,170	107,326	108,343	109,760	124,869
Closing Tangible Capital Asset Balance	24,166,521	25,527,832	26,735,739	28,292,367	29,780,991	31,771,868	33,875,698	35,948,372	38,023,029	39,981,269	42,141,400
Opening Accumulated Amortization	7,975,247	8,187,657	8,430,683	8,687,971	8,951,033	9,227,541	9,505,643	9,794,483	10,107,341	10,442,406	10,602,124
Amortization Expense	288,961	309,715	325,381	339,434	357,884	375,225	398,010	420,184	443,408	269,478	268,194
Amortization on Disposal	76,551	66,689	68,093	76,372	81,376	97,123	109,170	107,326	108,343	109,760	124,869
Ending Accumulated Amortization	8,187,657	8,430,683	8,687,971	8,951,033	9,227,541	9,505,643	9,794,483	10,107,341	10,442,406	10,602,124	10,745,449
Net Book Value	15,978,864	17,097,149	18,047,768	19,341,334	20,553,450	22,266,225	24,081,215	25,841,031	27,580,623	29,379,145	31,395,951



5. Accumulated Surplus

Opening accumulated surplus for the forecast period is reconciled as follows:

Water	2019 Opening Accumulated Surplus
Reserve Balances	
Reserves: Development Charges	414,665
Reserves: Capital/Other	3,727,481
Total Reserves Balance	4,142,146
Less: Debt Obligations and Deferred Revenue	(424,956)
Add: Tangible Capital Assets	14,374,758
Total Opening Balance	18,091,948

The accumulated surplus reconciliation for all years within the forecast period is contained in Table 4-2.

6. Other Revenue

Other revenues include minor revenues from user fees, rental revenue, and recoverables from landowners, these revenues (excluding rental revenue) have been held constant over the forecast period. Rental revenue was only identified in 2019 and not anticipated to continue over the forecast period.

7. Operating Expenses

Capital expenditures for items not meeting the definition of tangible capital assets have been reclassified as operating expenses and have been expensed in the year in which they occur.



Chapter 5

Process for Financial Plan Approval and Submission to the Province



5. Process for Financial Plan Approval and Submission to the Province

As mentioned in section 1.2, preparation of and approval of a financial plan for water assets that meets the requirements of the Act is mandatory for municipal water providers. Proof of the plan preparation and approval is a key submission requirement for municipal drinking water licensing and, upon completion, must be submitted to the MECP. The process established for plan approval, public circulation and filing is set out in O. Reg. 453/07 and can be summarized as follows:

1. The financial plan must be approved by resolution of Council of the municipality who owns the drinking water system or the governing body of the owner. (O. Reg. 453/07, section 3 (1) 1)
2. The owner of the drinking water system must provide notice advertising the availability of the financial plan. The plans will be made available to the public upon request and without charge. The plans must also be made available to the public on the municipality's website. (O. Reg. 453/07, section 3 (1) 5)
3. The owner of the drinking water system must provide a copy of the financial plan to the Director of Policy Branch, Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6)
4. The owner of the drinking water system must provide proof satisfactory to the Director that the financial plans for the system satisfy the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.)



Chapter 6

Recommendations



6. Recommendations

This report presents the water financial plan for the City in accordance with the mandatory reporting formats for water systems as detailed in O. Reg. 453/07. It is important to note that while mandatory, the financial plan is provided for Council's interest and approval however, for decision making purposes, it may be more informative to rely on the information contained within the City's Water and Wastewater Rate Study, dated January 28, 2020. Nevertheless, Council is required to pass certain resolutions with regard to this plan and regulations and it is recommended that:

1. The City of Stratford's Water and Wastewater Financial Plans prepared by Watson & Associates Economists Ltd. dated February 12, 2020 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated February 12, 2020 be submitted to the MMAH. (O. Reg. 453/07, section 3 (1) 6).
4. The resolution of Council approving the Financial Plan be submitted to the MECP, satisfying the requirements under the *Safe Drinking Water Act*. (S.D.W.A. section 32 (5) 2.ii.).



Appendices



Appendix A

2020 Water and Wastewater Rate Study – Summary Tables



**Table C-1
City of Stratford
Water Service
Capital Budget Forecast
Uninflated \$**

Description	Budget 2019	Total	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Capital Expenditures												
Asphalt Resurfacing		925,000	75,000	75,000	75,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
House Service Applications		900,000	-	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Miscellaneous Repairs	125,000	950,000	100,000	100,000	100,000	100,000	50,000	100,000	100,000	100,000	100,000	100,000
Romeo Reservoir Works	120,000	750,000	-	100,000	75,000	100,000	100,000	75,000	75,000	75,000	75,000	75,000
Mechanical Upgrades to Wells		100,000	100,000									
Watermain Relining Various Streets		3,525,000	175,000	250,000	-	350,000	250,000	500,000	500,000	500,000	500,000	500,000
Frederick Street from Romeo to Burritt and Burritt to Douro	340,000	-										
St Vincent Street	255,535											
St Vincent WM from Patricia to Redford add funds	250,000	-										
Ballantyne Street	612,532											
Pleasant Drive from Ontario to Devon	190,000	-										
Hydrant Distribution Monitoring		150,000	30,000	30,000	30,000	30,000	30,000					
Redford Crescent - at St. Vincent		540,000	540,000									
Huron Street - Matilda to Douglas		1,582,500	332,500					620,000	630,000			
Queen Street Storm Trunk Sewer		75,000	75,000									
Avondale Ave from Huron to Cemetery		375,000		375,000								
MacKenzie - St. David to Cambria		220,000		220,000								
Jones Street LI from Caledonia to Britannia		225,000			225,000							
Queen Street local reconstruction Lakeside to Ontario		350,000			350,000							
Willow Street from Pleasant to Devon - WM Relining		615,000			615,000							
Brunswick Street from Queen to King		270,000				270,000						
Mercer Street from Caledonia to Britannia		230,000				230,000						
Lorne Downie Intersection Improvements		-										
Ontario from Queen to Parkview -WM replacement		200,000				200,000						
St. Vincent St. South - Redford to West Gore		290,000					290,000					
Queen Street from Ontario to Brunswick		170,000					170,000					
Argyle Street - St. David to Cambria		220,000					220,000					
Daly Avenue, Birmingham to Worsely		300,000						300,000				
Water Street from Parkview to Queen		200,000						200,000				
McDonald Street Willow to Devon		200,000							200,000			
Mowat Street from West Gore to Brydges		340,000							340,000			
Perth Street - Downie to Borden		520,000							520,000			
Laurier Street - East Gore to Norfolk		150,000								150,000		
Brunswick Street - King to Romeo		240,000								240,000		
Douglas Street - Huntingdon to Avondale		360,000								360,000		
Birmingham St - Cambria to Daly		275,000								275,000		
Woods Street - Birmingham to St. Vincent		270,000									270,000	
Norfolk Street Borden to Romeo		400,000									400,000	
Stratford Street		220,000									220,000	
Avon St - Avondale to McLagan		360,000										360,000
Grange Street - Waterloo to Front		450,000										450,000
Queen Street - Brunswick to Douro		225,000										225,000
Studies:												
Water & Wastewater Rate Study (Water Portion)	27,500	75,000					37,500					37,500
Water Model / Master Plan	50,073	-										
Water Needs Assessment Update		150,000				75,000					75,000	
Total Capital Expenditures	1,970,640	17,397,500	1,427,500	1,250,000	1,570,000	1,555,000	1,967,500	2,005,000	1,935,000	1,900,000	1,840,000	1,947,500

**Table C-2
City of Stratford
Water Service
Capital Budget Forecast
Inflated \$**

Description	Budget 2019	Total	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Capital Expenditures												
Asphalt Resurfacing	-	1,019,000	75,000	77,000	78,000	106,000	108,000	110,000	113,000	115,000	117,000	120,000
House Service Applications	-	995,000	-	102,000	104,000	106,000	108,000	110,000	113,000	115,000	117,000	120,000
Miscellaneous Repairs	125,000	1,041,000	100,000	102,000	104,000	106,000	54,000	110,000	113,000	115,000	117,000	120,000
Romeo Reservoir Works	120,000	825,000	-	102,000	78,000	106,000	108,000	83,000	84,000	86,000	88,000	90,000
Mechanical Upgrades to Wells	-	100,000	100,000	-	-	-	-	-	-	-	-	-
Watermain Relining Various Streets	-	3,945,000	175,000	255,000	-	371,000	271,000	552,000	563,000	574,000	586,000	598,000
Frederick Street from Romeo to Burritt and Burritt to Douro	340,000	-	-	-	-	-	-	-	-	-	-	-
St Vincent Street	255,535	-	-	-	-	-	-	-	-	-	-	-
St Vincent WM from Patricia to Redford add funds	250,000	-	-	-	-	-	-	-	-	-	-	-
Ballantyne Street	612,532	-	-	-	-	-	-	-	-	-	-	-
Pleasant Drive from Ontario to Devon	190,000	-	-	-	-	-	-	-	-	-	-	-
Hydrant Distribution Monitoring	-	156,000	30,000	31,000	31,000	32,000	32,000	-	-	-	-	-
Redford Crescent - at St. Vincent	-	540,000	540,000	-	-	-	-	-	-	-	-	-
Huron Street - Matilda to Douglas	-	1,700,000	333,000	-	-	-	671,000	696,000	-	-	-	-
Queen Street Storm Trunk Sewer	-	75,000	75,000	-	-	-	-	-	-	-	-	-
Avondale Ave from Huron to Cemetery	-	383,000	-	383,000	-	-	-	-	-	-	-	-
MacKenzie - St. David to Cambria	-	224,000	-	224,000	-	-	-	-	-	-	-	-
Jones Street LI from Caledonia to Britannia	-	234,000	-	-	234,000	-	-	-	-	-	-	-
Queen Street local reconstruction Lakeside to Ontario	-	364,000	-	-	364,000	-	-	-	-	-	-	-
Willow Street from Pleasant to Devon - WM Relining	-	640,000	-	-	640,000	-	-	-	-	-	-	-
Brunswick Street from Queen to King	-	287,000	-	-	-	287,000	-	-	-	-	-	-
Mercer Street from Caledonia to Britannia	-	244,000	-	-	-	244,000	-	-	-	-	-	-
Ontario from Queen to Parkview -WM replacement	-	212,000	-	-	-	212,000	-	-	-	-	-	-
St. Vincent St. South - Redford to West Gore	-	314,000	-	-	-	-	314,000	-	-	-	-	-
Queen Street from Ontario to Brunswick	-	184,000	-	-	-	-	184,000	-	-	-	-	-
Argyle Street - St. David to Cambria	-	238,000	-	-	-	-	238,000	-	-	-	-	-
Daly Avenue, Birmingham to Worsely	-	331,000	-	-	-	-	-	331,000	-	-	-	-
Water Street from Parkview to Queen	-	221,000	-	-	-	-	-	221,000	-	-	-	-
McDonald Street Willow to Devon	-	225,000	-	-	-	-	-	-	225,000	-	-	-
Mowat Street from West Gore to Brydges	-	383,000	-	-	-	-	-	-	383,000	-	-	-
Perth Street - Downie to Borden	-	586,000	-	-	-	-	-	-	586,000	-	-	-
Laurier Street - East Gore to Norfolk	-	172,000	-	-	-	-	-	-	-	172,000	-	-
Brunswick Street - King to Romeo	-	276,000	-	-	-	-	-	-	-	276,000	-	-
Douglas Street - Huntingdon to Avondale	-	414,000	-	-	-	-	-	-	-	414,000	-	-
Birmingham St - Cambria to Daly	-	316,000	-	-	-	-	-	-	-	316,000	-	-
Woods Street - Birmingham to St. Vincent	-	316,000	-	-	-	-	-	-	-	-	316,000	-
Norfolk Street Borden to Romeo	-	469,000	-	-	-	-	-	-	-	-	469,000	-
Stratford Street	-	258,000	-	-	-	-	-	-	-	-	258,000	-
Avon St - Avondale to McLagan	-	430,000	-	-	-	-	-	-	-	-	-	430,000
Grange Street - Waterloo to Front	-	538,000	-	-	-	-	-	-	-	-	-	538,000
Queen Street - Brunswick to Douro	-	269,000	-	-	-	-	-	-	-	-	-	269,000
Studies:												
Water & Wastewater Rate Study (Water Portion)	27,500	86,000	-	-	-	-	41,000	-	-	-	-	45,000
Water Model / Master Plan	50,073	-	-	-	-	-	-	-	-	-	-	-
Water Needs Assessment Update	-	168,000	-	-	-	80,000	-	-	-	-	88,000	-
Total Capital Expenditures	1,970,640	19,178,000	1,428,000	1,276,000	1,633,000	1,650,000	2,129,000	2,213,000	2,180,000	2,183,000	2,156,000	2,330,000
Capital Financing												
Provincial/Federal Grants		-										
Development Charges Reserve Fund		-										
Non-Growth Related Debenture Requirements		-										
Growth Related Debenture Requirements		-										
Operating Contributions		-										
Lifecycle Reserve Fund		-										
Water Reserve	1,970,640	19,178,000	1,428,000	1,276,000	1,633,000	1,650,000	2,129,000	2,213,000	2,180,000	2,183,000	2,156,000	2,330,000
Total Capital Financing	1,970,640	19,178,000	1,428,000	1,276,000	1,633,000	1,650,000	2,129,000	2,213,000	2,180,000	2,183,000	2,156,000	2,330,000



Table C-3
City of Stratford
Water Service
Schedule of Non-Growth Related Debenture Repayments
 Inflated \$

Debenture Year	2019	Principal (Inflated)	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020		-	-	-	-	-	-	-	-	-	-	-
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
Total Annual Debt Charges	-	-	-	-	-	-	-	-	-	-	-	-

potential for WW to cashflow W

Table C-4
City of Stratford
Water Service
Schedule of Growth Related Debenture Repayments
 Inflated \$

Debenture Year	2019	Principal (Inflated)	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020		-	-	-	-	-	-	-	-	-	-	-
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
Total Annual Debt Charges	-	-	-	-	-	-	-	-	-	-	-	-

Table C-5
City of Stratford
Water Service
Water Reserves/ Reserve Funds Continuity
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	3,557,589		2,378,957	1,974,607	1,913,827	1,693,350	1,662,898	1,278,125	978,982	887,213	971,066	1,271,765
Transfer from Operating	733,420		975,489	1,168,541	1,371,222	1,578,989	1,713,053	1,889,979	2,066,592	2,243,168	2,425,680	2,613,990
Transfer to Capital	1,970,640		1,428,000	1,276,000	1,633,000	1,650,000	2,129,000	2,213,000	2,180,000	2,183,000	2,156,000	2,330,000
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	2,320,369		1,926,446	1,867,148	1,652,049	1,622,339	1,246,951	955,104	865,574	947,382	1,240,746	1,555,755
Interest	58,589		48,161	46,679	41,301	40,558	31,174	23,878	21,639	23,685	31,019	38,894

Table C-6
City of Stratford
Water Service
Water Development Charges Reserve Fund Continuity
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	414,665		463,516	514,370	567,279	622,315	681,460	742,929	806,849	856,955	908,907	957,217
Development Charge Proceeds	37,546		38,308	39,073	39,858	42,524	43,349	44,241	29,204	29,784	24,963	25,452
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	452,211		501,825	553,443	607,137	664,839	724,809	787,170	836,053	886,739	933,870	982,669
Interest	11,305		12,546	13,836	15,178	16,621	18,120	19,679	20,901	22,168	23,347	24,567
Required from Development Charges	-		-	-	-	-	-	-	-	-	-	-

Table C-7
City of Stratford
Water Service
Water Rate Stabilization Reserve
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	169,892		460,021	460,021	460,021	460,021	460,021	460,021	460,021	460,021	460,021	460,021
Transfer from Operating	290,129		-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	460,021		460,021									



**Table C-8
City of Stratford
Water Services
Operating Budget Forecast
Inflated \$**

Description	Budget 2019	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Expenditures												
Operating Costs												
4300 Water Admin												
G-350-4300-2100 F.T. SALARIES & WAGES	336,880	-	-	-	-	-	-	-	-	-	-	-
G-350-4300-2110 P.T. SALARIES & WAGES	-	-	-	-	-	-	-	-	-	-	-	-
G-350-4300-2500 F.T. BENEFITS	115,330	21,950	22,400	22,800	23,300	23,800	24,300	24,800	25,300	25,800	26,300	
G-350-4300-2510 P.T. BENEFITS	-	-	-	-	-	-	-	-	-	-	-	
G-350-4300-2700 OTHER PAYROLL EXPENSES	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
G-350-4300-3010 CLOTHING	5,100	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	
G-350-4300-3050 MATERIALS	5,000	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	
G-350-4300-3070 OFFICE SUPPLIES AND PAPER	1,200	800	800	800	800	800	800	800	800	800	800	
G-350-4300-3090 PHOTOCOPIER EXPENSE	280	300	300	300	300	300	300	300	300	300	300	
G-350-4300-3100 POSTAGE	1,000	500	500	500	500	500	500	500	500	500	500	
G-350-4300-3110 PRINTING	900	700	700	700	700	700	700	700	700	700	700	
G-350-4300-3120 MEALS & MEETING COSTS	220	300	300	300	300	300	300	300	300	300	300	
G-350-4300-4020 SERVICE CONTRACTS	3,500	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	
G-350-4300-4040 CONSULTANTS	5,100	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	6,000	
G-350-4300-4050 CONTRACTORS	545,000	545,000	555,900	567,000	578,300	589,900	601,700	613,700	626,000	638,500	651,300	
G-350-4300-4060 COURIER/FREIGHT	100	100	100	100	100	100	100	100	100	100	100	
G-350-4300-4090 LEGAL	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
G-350-4300-4097 MEMBERSHIPS	3,830	5,400	5,500	5,600	5,700	5,800	5,900	6,000	6,100	6,200	6,300	
G-350-4300-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	
G-350-4300-4101 CONSERVATION AUTHORITY LEVY	417,600	438,500	447,300	456,200	465,300	474,600	484,100	493,800	503,700	513,800	524,100	
G-350-4300-4107 BUILDING MAINTENANCE	-	-	-	-	-	-	-	-	-	-	-	
G-350-4300-4110 TELEPHONE - BASIC	5,290	2,060	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	
G-350-4300-4120 TELEPHONE - CELL PHONES	8,000	7,680	7,800	8,000	8,200	8,400	8,600	8,800	9,000	9,200	9,400	
G-350-4300-4142 TRAINING - EXPENSES	35,000	36,000	36,700	37,400	38,100	38,900	39,700	40,500	41,300	42,100	42,900	
G-350-4300-7850 CITY OWNED RENTAL EXPENSE	1,250	-	-	-	-	-	-	-	-	-	-	
G-350-4300-7900 INTERFUNCTIONAL TRANSFERS	189,500	193,300	197,200	201,100	205,100	209,200	213,400	217,700	222,100	226,500	231,000	
G-350-4300-9010 OFFICE EQUIPMENT AND FURNISHINGS	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
G-350-4300-9040 TOOLS & SMALL EQUIPMENT	5,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	
4325 WATER SUPPLY												
G-350-4325-2100 F.T. SALARIES & WAGES	154,160	-	-	-	-	-	-	-	-	-	-	
G-350-4325-2110 P.T. SALARIES & WAGES	2,180	-	-	-	-	-	-	-	-	-	-	
G-350-4325-2500 F.T. BENEFITS	42,860	-	-	-	-	-	-	-	-	-	-	
G-350-4325-2510 P.T. BENEFITS	180	-	-	-	-	-	-	-	-	-	-	
G-350-4325-3040 HYDRO	325,000	340,750	357,800	375,700	394,500	414,200	434,900	456,600	479,400	503,400	528,600	
G-350-4325-3050 MATERIALS	120,000	120,000	126,000	132,300	138,900	145,800	153,100	160,800	168,800	177,200	186,100	
G-350-4325-3120 MEALS & MEETING COSTS	500	500	500	500	500	500	500	500	500	500	500	
G-350-4325-3140 R & M - BUILDINGS & EQUIP (EXCL VEHICLES)	15,000	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	
G-350-4325-3180 VEHICLE - FUEL	2,000	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	
G-350-4325-4020 SERVICE CONTRACTS	213,000	230,000	234,600	239,300	244,100	249,000	254,000	259,100	264,300	269,600	275,000	
G-350-4325-4040 CONSULTANTS	15,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800	
G-350-4325-4050 CONTRACTORS	30,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800	
G-350-4325-4060 COURIER/FREIGHT	200	200	200	200	200	200	200	200	200	200	200	
G-350-4325-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	
G-350-4325-4110 TELEPHONE - BASIC	5,290	-	-	-	-	-	-	-	-	-	-	
G-350-4325-7850 CITY OWNED RENTAL EXPENSE	35,000	35,000	35,700	36,400	37,100	37,800	38,600	39,400	40,200	41,000	41,800	
G-350-4325-7900 INTERFUNCTIONAL TRANSFERS	-	-	-	-	-	-	-	-	-	-	-	
4350 WATER DISTRIBUTION												
G-350-4350-2100 F.T. SALARIES & WAGES	462,480	971,620	991,100	1,010,900	1,031,100	1,051,700	1,072,700	1,094,200	1,116,100	1,138,400	1,161,200	
G-350-4350-2110 P.T. SALARIES & WAGES	6,550	9,360	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	
G-350-4350-2500 F.T. BENEFITS	128,590	267,450	272,800	278,300	283,900	289,600	295,400	301,300	307,300	313,400	319,700	
G-350-4350-2510 P.T. BENEFITS	550	800	800	800	800	800	800	800	800	800	800	
G-350-4350-3040 HYDRO	10,080	9,000	9,500	10,000	10,500	11,000	11,600	12,200	12,800	13,400	14,100	
G-350-4350-3050 MATERIALS	230,000	230,000	241,500	253,600	266,300	279,600	293,600	308,300	323,700	339,900	356,900	
G-350-4350-3080 MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-3100 POSTAGE	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-3120 MEALS & MEETING COSTS	820	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
G-350-4350-3180 VEHICLE - FUEL	35,000	35,000	36,800	38,600	40,500	42,500	44,600	46,800	49,100	51,600	54,200	
G-350-4350-3190 VEHICLE - REPAIRS & EXPENSES	20,000	30,000	30,600	31,200	31,800	32,400	33,000	33,700	34,400	35,100	35,800	
G-350-4350-4020 SERVICE CONTRACTS	63,000	78,500	80,100	81,700	83,300	85,000	86,700	88,400	90,200	92,000	93,800	
G-350-4350-4040 CONSULTANTS	-	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	
G-350-4350-4050 CONTRACTORS	60,000	117,000	119,300	121,700	124,100	126,600	129,100	131,700	134,300	137,000	139,700	
G-350-4350-4060 COURIER/FREIGHT	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-4095 MAINTENANCE CONTRACTS	5,000	-	-	-	-	-	-	-	-	-	-	
G-350-4350-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-4142 TRAINING EXPENSES	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-5040 RENTAL OF BLDG MACHINERY & EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-7850 CITY OWNED RENTAL EXPENSE	129,500	-	-	-	-	-	-	-	-	-	-	
G-350-4350-7900 INTERFUNCTIONAL TRANSFERS	95,300	96,730	98,700	100,700	102,700	104,800	106,900	109,000	111,200	113,400	115,700	
G-350-4350-9040 TOOLS & SMALL EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	
Sub Total Operating	3,895,820	3,935,600	4,036,400	4,140,000	4,246,700	4,356,900	4,470,600	4,588,200	4,709,400	4,834,300	4,963,400	
Capital-Related												
Existing Debt (Principal) - Growth Related	-	-	-	-	-	-	-	-	-	-	-	
Existing Debt (Interest) - Growth Related	-	-	-	-	-	-	-	-	-	-	-	
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-	
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-	
Existing Debt (Principal) - Non-Growth Related	3,151	3,234	3,320	586	-	-	-	-	-	-	-	
Existing Debt (Interest) - Non-Growth Related	260	181	99	15	-	-	-	-	-	-	-	
New Non-Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-	
New Non-Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-	
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-	
Transfer to Stabilization Reserve	290,129	-	-	-	-	-	-	-	-	-	-	
Transfer to Capital Reserve Fund	733,420	975,489	1,168,541	1,371,222	1,578,989	1,713,053	1,889,979	2,066,592	2,243,168	2,425,680	2,613,990	
Sub Total Capital Related	1,026,960	978,904	1,171,960	1,371,823	1,578,989	1,713,053	1,889,979	2,066,592	2,243,168	2,425,680	2,613,990	
Total Expenditures	4,922,780	4,914,504	5,208,360	5,511,823	5,825,689	6,069,953	6,360,579	6,654,792	6,952,568	7,259,980	7,577,390	
Revenues												
Base Charge	950,244	1,103,856	1,228,365	1,355,013	1,484,271	1,535,793	1,625,187	1,713,525	1,800,903	1,888,974	1,977,723	
G-350-4300-1130 ONTARIO GRANTS	-	-	-	-	-	-	-	-	-	-	-	
G-350-4300-1770 RECOVERABLES	-	-	-	-	-	-	-	-	-	-	-	
G-350-4325-1405 USER FEES	2,400	-	-	-	-	-	-	-	-	-	-	
G-350-4325-1470 RENTALS & LEASES	-	-	-	-	-	-	-	-	-	-	-	
G-350-4325-1770 RECOVERABLES	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-1405 USER FEES	2,220	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	
G-350-4350-1470 RENTALS & LEASES	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-1765 GAIN ON DISPOSAL OF ASSETS	-	-	-	-	-	-	-	-	-	-	-	
G-350-4350-1770 RECOVERABLES	6,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	
G-350-4350-1850 CITY OWN RENTAL REVENUE	170,000	-	-	-	-	-	-	-	-	-	-	
Other Revenue	-	-	-	-	-	-</						



Table C-9
City of Stratford
Water Services
Water Rate Forecast
Inflated \$

Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Water Billing Recovery	3,791,916	3,800,348	3,969,695	4,146,510	4,331,118	4,523,860	4,725,092	4,930,967	5,141,365	5,360,706	5,589,367
Declining Block Structure											
<i>Volume Forecast By Block (m³)</i>											
First 3 m ³ per month	450,000	451,548	454,608	457,668	460,728	463,788	466,848	469,296	471,132	472,968	474,804
After 3 m ³ per month	2,614,624	2,619,096	2,627,936	2,636,776	2,645,616	2,654,456	2,663,296	2,670,368	2,675,672	2,680,976	2,686,280
Block Total Volume	3,064,624	3,070,644	3,082,544	3,094,444	3,106,344	3,118,244	3,130,144	3,139,664	3,146,804	3,153,944	3,161,084
Minimum Charge (Below 3m³ of usage per month)	7.50	7.50	7.80	8.11	8.44	8.77	9.12	9.49	9.87	10.26	10.67
Declining Block Rates (\$/m³)											
Block 1	2.50	2.50	2.60	2.70	2.81	2.92	3.04	3.16	3.29	3.42	3.56
Block 2	1.02	1.02	1.06	1.10	1.15	1.19	1.24	1.29	1.34	1.40	1.45
Annual Percentage Change		0%	4%								
Block Revenue											
Block 1	1,125,000	1,128,870	1,181,981	1,237,534	1,295,641	1,356,416	1,419,980	1,484,523	1,549,944	1,618,223	1,689,485
Block 2	2,666,916	2,671,478	2,787,714	2,908,975	3,035,477	3,167,444	3,305,113	3,446,444	3,591,421	3,742,482	3,899,882
Block Total Revenue	3,791,916	3,800,348	3,969,695	4,146,510	4,331,118	4,523,860	4,725,092	4,930,967	5,141,365	5,360,706	5,589,367



**Table D-1
City of Stratford
Wastewater Service
Capital Budget Forecast
Uninflated \$**

Description	Budget 2019	Total	Forecast										
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Capital Expenditures													
Asphalt Resurfacing	40,000	850,000		75,000	75,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
House Service Applications	100,000	1,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Sewer Relining Various Streets	60,000	3,650,000		250,000	350,000	350,000	300,000	400,000	500,000	500,000	500,000	500,000	500,000
Pumping Station Upgrades	75,000	900,000	100,000	75,000	75,000	75,000	75,000	100,000	100,000	100,000	100,000	100,000	100,000
Residential Service Upgrades - sewer subsidy program	144,000	750,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Basement Isolation	35,000	300,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
WPCP Improvements	200,000	3,500,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
WPCP Process Review		250,000		250,000									
Grit Removal System	350,000	500,000		500,000									
Frederick Street from Romeo to Burritt and Burritt to Douro	60,000	-											
St Vincent WM from Patricia to Redford add funds	170,000	-											
Pleasant Drive from Ontario to Devon	350,000	-											
Filter Bed Replacement		300,000			150,000			150,000					
SCADA and PLC Upgrades		20,000	20,000										
Redford Crescent - at St. Vincent		410,000	410,000										
Huron Street - Matilda to Douglas		810,000					500,000	310,000					
Queen Street Storm Trunk Sewer		220,000	220,000										
Avondale Ave from Huron to Cemetery		300,000		300,000									
MacKenzie - St. David to Cambria		160,000		160,000									
Waldies Lane		200,000			200,000								
Jones Street LI from Caledonia to Britannia		170,000			170,000								
Queen Street local reconstruction Lakeside to Ontario		120,000			120,000								
Brunswick Street from Queen to King		200,000				200,000							
Mercer Street from Caledonia to Britannia		155,000				155,000							
St. Vincent St. South - Redford to West Gore		50,000					50,000						
Queen Street from Ontario to Brunswick		140,000					140,000						
Argyle Street - St. David to Cambria		160,000					160,000						
Daly Avenue, Birmingham to Worsely		285,000						285,000					
Water Street from Parkview to Queen		150,000						150,000					
McDonald Street Willow to Devon		160,000							160,000				
Mowat Street from West Gore to Brydges		250,000							250,000				
Perth Street - Downie to Borden		380,000							380,000				
Laurier Street - East Gore to Norfolk		150,000								150,000			
Brunswick Street - King to Romeo		190,000								190,000			
Douglas Street - Huntingdon to Avondale		270,000								270,000			
Birmingham St - Cambria to Daly		200,000								200,000			
Woods Street - Birmingham to St. Vincent		220,000									220,000		
Norfolk Street Borden to Romeo		300,000									300,000		
Stratford Street		160,000									160,000		
Avon St - Avondale to McLagan		300,000										300,000	
Grange Street - Waterloo to Front		410,000										410,000	
Queen Street - Brunswick to Douro		190,000										190,000	
Studies:													
Water & Wastewater Rate Study (Wastewater Portion)	27,500	75,000					37,500						37,500
Total Capital Expenditures	1,611,500	18,805,000	1,305,000	2,165,000	1,695,000	1,435,000	1,917,500	2,050,000	2,045,000	2,065,000	1,935,000	2,192,500	

**Table D-2
City of Stratford
Wastewater Service
Capital Budget Forecast
Inflated \$**

Description	Budget 2019	Total	Forecast										
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Capital Expenditures													
Asphalt Resurfacing	40,000	944,000	-	77,000	78,000	106,000	108,000	110,000	113,000	115,000	117,000	117,000	120,000
House Service Applications	100,000	1,095,000	100,000	102,000	104,000	106,000	108,000	110,000	113,000	115,000	117,000	117,000	120,000
Sewer Relining Various Streets	60,000	4,078,000	-	255,000	364,000	371,000	325,000	442,000	563,000	574,000	586,000	598,000	598,000
Pumping Station Upgrades	75,000	991,000	100,000	77,000	78,000	80,000	81,000	110,000	113,000	115,000	117,000	117,000	120,000
Residential Service Upgrades - sewer subsidy program	144,000	822,000	75,000	77,000	78,000	80,000	81,000	83,000	84,000	86,000	88,000	90,000	90,000
Basement Isolation	35,000	328,000	30,000	31,000	31,000	32,000	32,000	33,000	34,000	34,000	35,000	36,000	36,000
WPCP Improvements	200,000	3,831,000	350,000	357,000	364,000	371,000	379,000	386,000	394,000	402,000	410,000	418,000	418,000
WPCP Process Review		255,000		255,000									
Grit Removal System	350,000	510,000		510,000									
Frederick Street from Romeo to Burritt and Burritt to Douro	60,000	-											
St Vincent WM from Patricia to Redford add funds	170,000	-											
Pleasant Drive from Ontario to Devon	350,000	-											
Filter Bed Replacement		322,000			156,000			166,000					
SCADA and PLC Upgrades		20,000	20,000										
Redford Crescent - at St. Vincent		410,000	410,000										
Huron Street - Matilda to Douglas		883,000					541,000	342,000					
Queen Street Storm Trunk Sewer		220,000	220,000										
Avondale Ave from Huron to Cemetery		306,000		306,000									
MacKenzie - St. David to Cambria		163,000		163,000									
Waldies Lane		208,000			208,000								
Jones Street LI from Caledonia to Britannia		177,000			177,000								
Queen Street local reconstruction Lakeside to Ontario		125,000			125,000								
Brunswick Street from Queen to King		212,000				212,000							
Mercer Street from Caledonia to Britannia		164,000				164,000							
St. Vincent St. South - Redford to West Gore		54,000					54,000						
Queen Street from Ontario to Brunswick		152,000					152,000						
Argyle Street - St. David to Cambria		173,000					173,000						
Daly Avenue, Birmingham to Worsely		315,000						315,000					
Water Street from Parkview to Queen		166,000						166,000					
McDonald Street Willow to Devon		180,000							180,000				
Mowat Street from West Gore to Brydges		282,000							282,000				
Perth Street - Downie to Borden		428,000							428,000				
Laurier Street - East Gore to Norfolk		172,000								172,000			
Brunswick Street - King to Romeo		218,000								218,000			
Douglas Street - Huntingdon to Avondale		310,000								310,000			
Birmingham St - Cambria to Daly		230,000								230,000			
Woods Street - Birmingham to St. Vincent		258,000									258,000		
Norfolk Street Borden to Romeo		351,000									351,000		
Stratford Street		187,000									187,000		
Avon St - Avondale to McLagan		359,000										359,000	
Grange Street - Waterloo to Front		490,000										490,000	
Queen Street - Brunswick to Douro		227,000										227,000	
Studies:													
Water & Wastewater Rate Study (Wastewater Portion)	27,500	86,000					41,000						45,000
Total Capital Expenditures	1,611,500	20,702,000	1,305,000	2,210,000	1,763,000	1,522,000	2,075,000	2,263,000	2,304,000	2,371,000	2,266,000	2,623,000	
Capital Financing													
Provincial/Federal Grants													
Development Charges Reserve Fund													
Non-Growth Related Debenture Requirements													
Growth Related Debenture Requirements													
Operating Contributions													
Lifecycle Reserve Fund													
Wastewater Reserve	1,611,500	20,702,000	1,305,000	2,210,000	1,763,000	1,522,000	2,075,000	2,263,000	2,304,000	2,371,000	2,266,000	2,623,000	
Total Capital Financing	1,611,500	20,702,000	1,305,000	2,210,000	1,763,000	1,522,000	2,075,000	2,263,000	2,304,000	2,371,000	2,266,000	2,623,000 </	



Table D-3
City of Stratford
Wastewater Service
Schedule of Non-Growth Related Debenture Repayments
 Inflated \$

Debenture Year	2019	Principal (Inflated)	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020		-	-	-	-	-	-	-	-	-	-	-
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
Total Annual Debt Charges		-	-	-	-	-	-	-	-	-	-	-

Table D-4
City of Stratford
Wastewater Service
Schedule of Growth Related Debenture Repayments
 Inflated \$

Debenture Year	2019	Principal (Inflated)	Forecast									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020		-	-	-	-	-	-	-	-	-	-	-
2021		-	-	-	-	-	-	-	-	-	-	-
2022		-	-	-	-	-	-	-	-	-	-	-
2023		-	-	-	-	-	-	-	-	-	-	-
2024		-	-	-	-	-	-	-	-	-	-	-
2025		-	-	-	-	-	-	-	-	-	-	-
2026		-	-	-	-	-	-	-	-	-	-	-
2027		-	-	-	-	-	-	-	-	-	-	-
2028		-	-	-	-	-	-	-	-	-	-	-
2029		-	-	-	-	-	-	-	-	-	-	-
Total Annual Debt Charges		-	-	-	-	-	-	-	-	-	-	-

Table D-5
City of Stratford
Wastewater Service
Wastewater Reserves/ Reserve Funds Continuity
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	(1,554,101)		(1,047,758)	(106,206)	(341,946)	241,478	1,407,946	2,377,112	3,518,986	5,020,618	6,936,313	9,414,183
Transfer from Operating	2,356,197		2,249,143	1,982,600	2,340,534	2,654,128	2,986,188	3,319,045	3,683,178	4,117,517	4,514,255	5,200,025
Transfer to Capital	1,611,500		1,305,000	2,210,000	1,763,000	1,522,000	2,075,000	2,263,000	2,304,000	2,371,000	2,266,000	2,623,000
Transfer to Operating	212,800		-	-	-	-	-	-	-	-	-	-
Closing Balance	(1,022,203)		(103,615)	(333,605)	235,588	1,373,606	2,319,134	3,433,157	4,898,164	6,767,135	9,184,568	11,991,208
Interest	(25,555)		(2,590)	(8,340)	5,890	34,340	57,978	85,829	122,454	169,178	229,614	299,780

Table D-6
City of Stratford
Wastewater Service
Wastewater Development Charges Reserve Fund Continuity
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	645,479		977,005	1,323,098	1,684,284	2,061,037	2,469,595	2,895,480	3,339,295	3,667,786	4,009,390	4,319,440
Development Charge Proceeds	307,697		313,822	320,106	326,485	348,324	355,263	362,369	239,032	243,815	204,698	208,776
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	953,175		1,290,827	1,643,204	2,010,768	2,409,361	2,824,859	3,257,849	3,578,328	3,911,600	4,214,088	4,528,216
Interest	23,829		32,271	41,080	50,269	60,234	70,621	81,446	89,458	97,790	105,352	113,205
Required from Development Charges	-		-	-	-	-	-	-	-	-	-	-

Table D-7
City of Stratford
Wastewater Service
Wastewater Stabilization Reserve
 Inflated \$

Description	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	295,914		295,914	295,914	295,914	295,914	295,914	295,914	295,914	295,914	295,914	295,914
Transfer from Operating	-		-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-		-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-		-	-	-	-	-	-	-	-	-	-
Closing Balance	295,914		295,914									



**Table D-8
City of Stratford
Wastewater Services
Operating Budget Forecast
Inflated \$**

Description	Budget 2019	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Expenditures												
Operating Costs												
4100 SANITARY ADMIN												
G-330-4100-2100 F.T. SALARIES & WAGES	47,900	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2110 P.T. SALARIES & WAGES	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2500 F.T. BENEFITS	19,600	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2510 P.T. BENEFITS	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2700 OTHER PAYROLL EXPENSES	300	300	300	300	300	300	300	300	300	300	300	300
G-330-4100-3010 CLOTHING	1,500	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
G-330-4100-3050 MATERIALS	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
G-330-4100-4020 SERVICE CONTRACTS	4,000	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,300
G-330-4100-4050 CONTRACTORS	1,500	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
G-330-4100-4097 MEMBERSHIPS	900	900	900	900	900	900	900	900	900	900	900	900
G-330-4100-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-4110 TELEPHONE - BASIC	1,760	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-4142 TRAINING - EXPENSES	12,000	12,000	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400	14,400
G-330-4100-7850 CITY OWNED RENTAL EXPENSE	1,500	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-7900 INTERFUNCTIONAL TRANSFER	-	10,200	10,400	10,600	10,800	11,000	11,200	11,400	11,600	11,800	12,000	12,000
G-330-4100-9040 TOOLS & SMALL EQUIPMENT	4,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
4125 SANITARY TREAT												
G-330-4125-2100 F.T. SALARIES & WAGES	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-2500 F.T. BENEFITS	-	-	-	-	-	-	-	-	-	-	-	-
G 330 4125 3040 HYDRO	499,920	500,000	525,000	551,300	578,900	607,800	638,200	670,100	703,600	738,800	775,700	775,700
G-330-4125-3120 MEETING COSTS	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-4020 SERVICE CONTRACTS	25,000	25,000	25,500	26,000	26,500	27,000	27,500	28,100	28,700	29,300	29,900	29,900
G-330-4125-4040 CONSULTANTS	-	25,000	25,500	26,000	26,500	27,000	27,500	28,100	28,700	29,300	29,900	29,900
G-330-4125-4050 CONTRACTORS - OCWA	978,600	998,100	1,018,100	1,038,500	1,059,300	1,080,500	1,102,100	1,124,100	1,146,600	1,169,500	1,192,900	1,192,900
G-330-4125-4090 LEGAL	5,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
G-330-4125-4095 MAINTENANCE CONTRACTS	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-7850 CITY OWNED RENTAL EXPENSE	-	-	-	-	-	-	-	-	-	-	-	-
4150 SANITARY COLLECT												
G-330-4150-2100 F.T. SALARIES & WAGES	308,140	323,950	330,400	337,000	343,700	350,600	357,600	364,800	372,100	379,500	387,100	387,100
G-330-4150-2110 P.T. SALARIES & WAGES	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-2500 F.T. BENEFITS	84,270	82,940	84,600	86,300	88,000	89,800	91,600	93,400	95,300	97,200	99,100	99,100
G-330-4150-2510 P.T. BENEFITS	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-3040 HYDRO	48,300	50,710	53,200	55,900	58,700	61,600	64,700	67,900	71,300	74,900	78,600	78,600
G-330-4150-3045 WATER / SEWAGE	400	400	400	400	400	400	400	400	400	400	400	400
G-330-4150-3050 MATERIALS	30,000	50,000	51,000	52,000	53,000	54,100	55,200	56,300	57,400	58,500	59,700	59,700
G-330-4150-3080 MISCELLANEOUS	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-3140 R & M - BUILDINGS & EQUIP (EXCL VEH	35,000	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	17,700
G-330-4150-3180 VEHICLE - FUEL	12,000	18,000	18,900	19,800	20,800	21,800	22,900	24,000	25,200	26,500	27,800	27,800
G-330-4150-3190 VEHICLE - REPAIRS & EXPENSES	30,000	40,000	40,800	41,600	42,400	43,200	44,100	45,000	45,900	46,800	47,700	47,700
G-330-4150-4020 SERVICE CONTRACTS	50,000	56,500	57,600	58,800	60,000	61,200	62,400	63,600	64,900	66,200	67,500	67,500
G-330-4150-4040 CONSULTANTS	8,000	8,000	8,200	8,400	8,600	8,800	9,000	9,200	9,400	9,600	9,800	9,800
G-330-4150-4050 CONTRACTORS	45,000	87,500	89,300	91,100	92,900	94,800	96,700	98,600	100,600	102,600	104,700	104,700
G-330-4150-4060 COURIER/FREIGHT	50	200	200	200	200	200	200	200	200	200	200	200
G-330-4150-4100 SERVICES - OTHER	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-4110 TELEPHONE - BASIC	1,760	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-4120 TELEPHONE - CELL PHONES	1,920	1,620	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
G-330-4150-5040 RENTAL OF BLDG, MACHINERY & EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-7850 CITY OWNED RENTAL EXPENSE	59,000	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-7900 INTERFUNCTIONAL TRANSFERS	66,000	67,300	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400	80,400
G-330-4150-9040 TOOLS & SMALL EQUIPMENT	-	-	-	-	-	-	-	-	-	-	-	-
Sub Total Operating	2,385,320	2,397,420	2,462,300	2,529,400	2,598,500	2,670,000	2,744,000	2,820,400	2,899,600	2,981,300	3,065,800	3,065,800
Capital-Related												
Existing Debt (Principal) - Growth Related	-	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Interest) - Growth Related	-	-	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-	-
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-	-
Existing Debt (Principal) - Non-Growth Related	2,088,307	2,092,440	2,432,779	2,340,479	2,321,799	2,323,219	2,324,678	2,326,177	2,248,596	2,250,179	1,962,600	1,962,600
Existing Debt (Interest) - Non-Growth Related	684,689	630,289	755,220	688,643	624,399	560,626	496,816	432,967	369,079	307,556	245,991	245,991
New Non-Growth Related Debt (Principal)	-	-	-	-	-	-	-	-	-	-	-	-
New Non-Growth Related Debt (Interest)	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Stabilization Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital Reserve Fund	2,356,197	2,249,143	1,982,600	2,340,534	2,654,128	2,986,188	3,319,045	3,683,178	4,117,517	4,514,255	5,200,025	5,200,025
Sub Total Capital Related	5,129,194	4,971,872	5,170,599	5,369,656	5,600,326	5,870,033	6,140,538	6,442,322	6,735,192	7,071,990	7,408,617	7,408,617
Total Expenditures	7,514,514	7,369,292	7,632,899	7,899,056	8,198,826	8,540,033	8,884,538	9,262,722	9,634,792	10,053,290	10,474,417	10,474,417
Revenues												
Base Charge	900,000	1,053,612	1,174,404	1,296,726	1,420,578	1,584,609	1,750,680	1,955,400	2,159,355	2,404,254	2,650,989	2,650,989
G-330-4125-1770 RECOVERABLES	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
G-330-4150-1405 USER FEES	-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-1770 RECOVERABLES	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
G-330-4150-1850 CITY OWN RENTAL REVENUE	100,000	-	-	-	-	-	-	-	-	-	-	-
Other Revenue	-	-	-	-	-	-	-	-	-	-	-	-
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-
Contributions from Reserves / Reserve Funds	212,800	-	-	-	-	-	-	-	-	-	-	-
Total Operating Revenue	1,232,800	1,073,612	1,194,404	1,316,726	1,440,578	1,604,609	1,770,680	1,975,400	2,179,355	2,424,254	2,670,989	2,670,989
Wastewater Billing Recovery - Operating	6,281,714	6,295,680	6,438,495	6,582,330	6,758,248	6,935,424	7,113,858	7,287,322	7,455,437	7,629,036	7,803,428	7,803,428

**Table D-9
City of Stratford
Wastewater Services
Wastewater Rate Forecast
Inflated \$**

Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Wastewater Billing Recovery	6,281,714	6,295,680	6,438,495	6,582,330	6,758,248	6,935,424	7,113,858	7,287,322	7,455,437	7,629,036	7,803,428
Declining Block Structure											
<i>Volume Forecast By Block (m³)</i>											
First 3 m ³ per month	450,000	451,548	454,608	457,668	460,728	463,788	466,848	469,296	471,132	472,968	474,804
After 3 m ³ per month	2,614,624	2,619,096	2,627,936	2,636,776	2,645,616	2,654,456	2,663,296	2,670,368	2,675,672	2,680,976	2,686,280
Block Total Volume	3,064,624	3,070,644	3,082,544	3,094,444	3,106,344	3,118,244	3,130,144	3,139,664	3,146,804	3,153,944	3,161,084
Minimum Charge (Below 3m³ of usage per month)	12.42	12.42	12.66	12.90	13.17	13.44	13.71	13.98	14.25	14.55	14.85
Declining Block Rates (\$/m³)											
Block 1	4.14	4.14	4.22	4.30	4.39	4.48	4.57	4.66	4.75	4.85	4.95
Block 2	1.69	1.69	1.72	1.75	1.79	1.					



Appendix B

Wastewater Financial Plan



Figure B-1
Conversion Adjustments
Statement of Operations (Wastewater)

Modified Cash Basis	Budget 2019	Adjustments		Full Accrual Budget 2019	Accrual Basis
		DR	CR		
Revenues					Revenues
Base Charge Revenue	900,000			900,000	Base Charge Revenue
Rate Based Revenue	6,281,714			6,281,714	Rate Based Revenue
Transfers from Reserves	212,800	212,800			
			-	-	Earned Development Charges and Gas Tax Revenue
			-	-	Developer Contributions
Contributions from Ratepayers	-	-		-	Interest Earned on Long-term Accounts Receivable
Other Revenue	120,000		(25,555)	94,444	Other Revenue
Total Revenues	7,514,514			7,276,158	Total Revenues
Expenditures					Expenses
Operating	2,385,320	27,500		2,412,820	Operating Expenses
Capital					
Transfers to Reserves	2,356,197		2,356,197		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	2,772,997		2,088,307	684,689	Interest on Debt
		588,328		588,328	Amortization
		-		-	Loss on Disposal of Tangible Capital Assets
Total Expenditures	7,514,514			3,685,837	Total Expenses
Net Expenditures	(0)			3,590,321	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			2,708,836	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	3,590,321	-	6,299,157	Accumulated Surplus/(Deficit), end of year

TOTAL ADJUSTMENTS	4,418,949	4,418,949
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Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



**Figure B-2
Conversion Adjustments
Statement of Financial Position (Wastewater)**

Modified Cash Basis	Budget 2019	Adjustments		Full Accrual Budget 2019	Accrual Basis
		DR	CR		
ASSETS					ASSETS
Financial Assets					Financial Assets
Cash	-			-	Cash
Accounts Receivable	2,874,645			2,874,645	Accounts Receivable
Long-term Accounts Receivable	-			-	Long-term Accounts Receivable
				-	Investments
				-	Inventory for resale
Total Financial Assets	2,874,645			2,874,645	Total Financial Assets
Non-Financial Assets					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
Total Non-Financial Assets	-				
LIABILITIES					Liabilities
Accounts Payable & Accrued Liabilities	268,524			268,524	Accounts Payable & Accrued Liabilities
Bank Indebtedness	2,380,961			2,380,961	Bank Indebtedness
Gross Long-term Liabilities	24,181,652			24,181,652	Debt (Principal only)
Deferred Revenue	977,004			977,004	Deferred Revenue
Other	-			-	Other
Total Liabilities	27,808,141			27,808,141	Total Liabilities
Net Assets/(Debt)	(24,933,496)			(24,933,496)	Net Financial Assets/(Debt)
		31,260,153	27,500	31,232,653	Non-Financial Assets
		-		-	Tangible Capital Assets
		-		-	Inventory of Supplies
				-	Prepaid Expenses
				31,232,653	Total Non-Financial Assets
Municipal Position					
Wastewater Reserves	(751,844)	-	751,844		
Gas Tax Reserve Fund	-	-	-		
Development Charge Reserve Fund	977,004	977,004	-		
Amounts to be Recovered	(25,158,656)	-	25,158,656		
Total Municipal Position	(24,933,496)		6,299,157	6,299,157	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		32,237,157	32,237,157		

Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



Table B-1
Statement of Financial Position: Wastewater Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets												
Cash	1	-	-	-	-	1,329,551	2,602,123	4,064,353	5,758,402	7,882,284	10,519,305	13,566,505
Accounts Receivable	1	2,874,645	2,819,092	2,919,933	3,021,750	3,136,426	3,266,953	3,398,742	3,543,415	3,685,749	3,845,844	4,006,944
Total Financial Assets		2,874,645	2,819,092	2,919,933	3,021,750	4,465,977	5,869,076	7,463,095	9,301,817	11,568,033	14,365,149	17,573,449
Liabilities												
Bank Indebtedness		2,380,961	1,036,400	1,004,492	138,577	-	-	-	-	-	-	-
Accounts Payable & Accrued Liabilities	1	268,524	269,886	277,189	284,743	292,522	300,571	308,901	317,502	326,418	335,615	345,128
Debt (Principal only)	2	24,181,652	22,089,212	19,656,433	17,315,954	14,994,155	12,670,936	10,346,257	8,020,081	5,771,485	3,521,306	1,558,706
Deferred Revenue	3	977,004	1,323,097	1,684,283	2,061,037	2,469,595	2,895,479	3,339,294	3,667,784	4,009,389	4,319,439	4,641,420
Total Liabilities		27,808,141	24,718,595	22,622,397	19,800,311	17,756,272	15,866,986	13,994,452	12,005,367	10,107,292	8,176,360	6,545,254
Net Financial Assets/(Debt)		(24,933,496)	(21,899,503)	(19,702,464)	(16,778,561)	(13,290,295)	(9,997,910)	(6,531,357)	(2,703,550)	1,460,741	6,188,789	11,028,195
Non-Financial Assets												
Tangible Capital Assets	4	31,232,653	31,929,914	33,515,620	34,619,277	35,457,421	36,786,991	38,323,482	39,874,630	41,467,848	43,166,700	45,178,350
Total Non-Financial Assets		31,232,653	31,929,914	33,515,620	34,619,277	35,457,421	36,786,991	38,323,482	39,874,630	41,467,848	43,166,700	45,178,350
Accumulated Surplus/(Deficit)	5	6,299,157	10,030,411	13,813,156	17,840,716	22,167,126	26,789,081	31,792,125	37,171,080	42,928,589	49,355,489	56,206,545
Financial Indicators												
	Total Change	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Increase/(Decrease) in Net Financial Assets	69,494,075	2,594,649	3,033,993	2,197,039	2,923,903	3,488,266	3,292,385	3,486,553	10,586,745	11,458,651	12,720,146	13,731,745
2) Increase/(Decrease) in Tangible Capital Assets	27,331,505	995,672	697,261	1,585,706	1,103,657	838,144	1,329,570	1,536,491	4,417,209	4,680,857	4,843,218	5,303,720
3) Increase/(Decrease) in Accumulated Surplus	96,825,580	3,590,321	3,731,254	3,782,745	4,027,560	4,326,410	4,621,955	5,003,044	15,003,954	16,139,508	17,563,364	19,035,465



Table B-2
Statement of Operations: Wastewater Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Wastewater Revenue												
Base Charge Revenue		900,000	1,053,612	1,174,404	1,296,726	1,420,578	1,584,609	1,750,680	1,955,400	2,159,355	2,404,254	2,650,989
Rate Based Revenue		6,281,714	6,295,680	6,438,495	6,582,330	6,758,248	6,935,424	7,113,858	7,287,322	7,455,437	7,629,036	7,803,428
Earned Development Charges Revenue	3	-	-	-	-	-	-	-	-	-	-	-
Other Revenue	6	94,444	17,410	11,660	25,890	54,339	77,978	105,831	142,452	189,178	249,614	319,780
Total Revenues		7,276,158	7,366,702	7,624,559	7,904,946	8,233,165	8,598,011	8,970,369	9,385,174	9,803,970	10,282,904	10,774,197
Wastewater Expenses												
Operating Expenses	Sch. 4-1	2,412,820	2,397,420	2,462,300	2,529,400	2,598,500	2,711,000	2,744,000	2,820,400	2,899,600	2,981,300	3,110,800
Interest on Debt	2	684,689	630,289	755,220	688,643	624,399	560,626	496,816	432,967	369,079	307,556	245,991
Amortization	4	588,328	607,739	624,294	659,343	683,856	704,430	726,509	752,852	777,782	567,148	566,350
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Total Expenses		3,685,837	3,635,448	3,841,814	3,877,386	3,906,755	3,976,056	3,967,325	4,006,219	4,046,461	3,856,004	3,923,141
Annual Surplus/(Deficit)		3,590,321	3,731,254	3,782,745	4,027,560	4,326,410	4,621,955	5,003,044	5,378,955	5,757,509	6,426,900	6,851,056
Accumulated Surplus/(Deficit), beginning of year	5	2,708,836	6,299,157	10,030,411	13,813,156	17,840,716	22,167,126	26,789,081	31,792,125	37,171,080	42,928,589	49,355,489
Accumulated Surplus/(Deficit), end of year		6,299,157	10,030,411	13,813,156	17,840,716	22,167,126	26,789,081	31,792,125	37,171,080	42,928,589	49,355,489	56,206,545
Note 5:												
Accumulated Surplus/(Deficit) Reconciliation:												
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserve Balances												
Reserves: Development Charges		977,004	1,323,097	1,684,283	2,061,037	2,469,595	2,895,479	3,339,294	3,667,784	4,009,389	4,319,439	4,641,420
Reserves: Gas Tax		-	-	-	-	-	-	-	-	-	-	-
Reserves: Capital/Other		(751,844)	189,709	(46,031)	537,393	1,703,860	2,673,026	3,814,900	5,316,531	7,232,226	9,710,095	12,586,901
Total Reserves Balance		225,160	1,512,806	1,638,252	2,598,430	4,173,455	5,568,505	7,154,194	8,984,315	11,241,615	14,029,534	17,228,321
Less: Debt Obligations and Deferred Revenue		(25,158,656)	(23,412,309)	(21,340,716)	(19,376,991)	(17,463,750)	(15,566,415)	(13,685,551)	(11,687,865)	(9,780,874)	(7,840,745)	(6,200,126)
Add: Long-term Accounts Receivable		-	-	-	-	-	-	-	-	-	-	-
Add: Tangible Capital Assets	4	31,232,653	31,929,914	33,515,620	34,619,277	35,457,421	36,786,991	38,323,482	39,874,630	41,467,848	43,166,700	45,178,350
Total Ending Balance		6,299,157	10,030,411	13,813,156	17,840,716	22,167,126	26,789,081	31,792,125	37,171,080	42,928,589	49,355,489	56,206,545
Financial Indicators												
	Total Change	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Expense to Revenue Ratio		51%	49%	50%	49%	47%	46%	44%	43%	41%	37%	36%
2) Increase/(Decrease) in Accumulated Surplus	53,497,709	3,590,321	3,731,254	3,782,745	4,027,560	4,326,410	4,621,955	5,003,044	5,378,955	5,757,509	6,426,900	6,851,056



Schedule B-1
 Schedule of Operating Expenses: Wastewater Services
 UNAUDITED: For Financial Planning Purposes Only
 2019 to 2029

	Notes	Forecast											
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Operating Expenses													
4100 SANITARY ADMIN		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2100 F.T. SALARIES & WAGES		47,900	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2110 P.T. SALARIES & WAGES		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2500 F.T. BENEFITS		19,600	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2510 P.T. BENEFITS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-2700 OTHER PAYROLL EXPENSES		300	300	300	300	300	300	300	300	300	300	300	300
G-330-4100-3010 CLOTHING		1,500	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
G-330-4100-3050 MATERIALS		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
G-330-4100-4020 SERVICE CONTRACTS		4,000	4,400	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,300
G-330-4100-4050 CONTRACTORS		1,500	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
G-330-4100-4097 MEMBERSHIPS		900	900	900	900	900	900	900	900	900	900	900	900
G-330-4100-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-4110 TELEPHONE - BASIC		1,760	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-4142 TRAINING - EXPENSES		12,000	12,000	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400	14,400
G-330-4100-7850 CITY OWNED RENTAL EXPENSE		1,500	-	-	-	-	-	-	-	-	-	-	-
G-330-4100-7900 INTERFUNCTIONAL TRANSFER		-	10,200	10,400	10,600	10,800	11,000	11,200	11,400	11,600	11,800	12,000	12,000
G-330-4100-9040 TOOLS & SMALL EQUIPMENT		4,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
4125 SANITARY TREAT		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-2100 F.T. SALARIES & WAGES		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-2500 F.T. BENEFITS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-3040 HYDRO		499,920	500,000	525,000	551,300	578,900	607,800	638,200	670,100	703,600	738,800	775,700	775,700
G-330-4125-3120 MEETING COSTS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-4020 SERVICE CONTRACTS		25,000	25,000	25,500	26,000	26,500	27,000	27,500	28,100	28,700	29,300	29,900	29,900
G-330-4125-4040 CONSULTANTS		-	25,000	25,500	26,000	26,500	27,000	27,500	28,100	28,700	29,300	29,900	29,900
G-330-4125-4050 CONTRACTORS - OCWA		978,600	998,100	1,018,100	1,038,500	1,059,300	1,080,500	1,102,100	1,124,100	1,146,600	1,169,500	1,192,900	1,192,900
G-330-4125-4090 LEGAL		5,000	5,000	5,100	5,200	5,300	5,400	5,500	5,600	5,700	5,800	5,900	5,900
G-330-4125-4095 MAINTENANCE CONTRACTS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4125-7850 CITY OWNED RENTAL EXPENSE		-	-	-	-	-	-	-	-	-	-	-	-
4150 SANITARY COLLECT		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-2100 F.T. SALARIES & WAGES		308,140	323,950	330,400	337,000	343,700	350,600	357,600	364,800	372,100	379,500	387,100	387,100
G-330-4150-2110 P.T. SALARIES & WAGES		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-2500 F.T. BENEFITS		84,270	82,940	84,600	86,300	88,000	89,800	91,600	93,400	95,300	97,200	99,100	99,100
G-330-4150-2510 P.T. BENEFITS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-3040 HYDRO		48,300	50,710	53,200	55,900	58,700	61,600	64,700	67,900	71,300	74,900	78,600	78,600
G-330-4150-3045 WATER / SEWAGE		400	400	400	400	400	400	400	400	400	400	400	400
G-330-4150-3050 MATERIALS		30,000	50,000	51,000	52,000	53,000	54,100	55,200	56,300	57,400	58,500	59,700	59,700
G-330-4150-3080 MISCELLANEOUS		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-3140 R & M - BUILDINGS & EQUIP (EXCL VEHICLES)		35,000	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	17,700
G-330-4150-3180 VEHICLE - FUEL		12,000	18,000	18,900	19,800	20,800	21,800	22,900	24,000	25,200	26,500	27,800	27,800
G-330-4150-3190 VEHICLE - REPAIRS & EXPENSES		30,000	40,000	40,800	41,600	42,400	43,200	44,100	45,000	45,900	46,800	47,700	47,700
G-330-4150-4020 SERVICE CONTRACTS		50,000	56,500	57,600	58,800	60,000	61,200	62,400	63,600	64,900	66,200	67,500	67,500
G-330-4150-4040 CONSULTANTS		8,000	8,000	8,200	8,400	8,600	8,800	9,000	9,200	9,400	9,600	9,800	9,800
G-330-4150-4050 CONTRACTORS		45,000	87,500	89,300	91,100	92,900	94,800	96,700	98,600	100,600	102,600	104,700	104,700
G-330-4150-4060 COURIER/FREIGHT		50	200	200	200	200	200	200	200	200	200	200	200
G-330-4150-4100 SERVICES - OTHER		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-4110 TELEPHONE - BASIC		1,760	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-4120 TELEPHONE - CELL PHONES		1,920	1,620	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
G-330-4150-5040 RENTAL OF BLDG, MACHINERY & EQUIPMENT		-	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-7850 CITY OWNED RENTAL EXPENSE		59,000	-	-	-	-	-	-	-	-	-	-	-
G-330-4150-7900 INTERFUNCTIONAL TRANSFERS		66,000	67,300	68,600	70,000	71,400	72,800	74,300	75,800	77,300	78,800	80,400	80,400
G-330-4150-9040 TOOLS & SMALL EQUIPMENT		-	-	-	-	-	-	-	-	-	-	-	-
Non TCA - Expenses from Capital Budget	7	27,500	-	-	-	-	41,000	-	-	-	-	-	45,000
TOTAL OPERATING EXPENSES		2,412,820	2,397,420	2,462,300	2,529,400	2,598,500	2,711,000	2,744,000	2,820,400	2,899,600	2,981,300	3,110,800	3,110,800



Table B-3
Statement of Changes in Net Financial Assets/Debt: Wastewater Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual Surplus/(Deficit)		3,590,321	3,731,254	3,782,745	4,027,560	4,326,410	4,621,955	5,003,044	5,378,955	5,757,509	6,426,900	6,851,056
Less: Acquisition of Tangible Capital Assets	4	(1,584,000)	(1,305,000)	(2,210,000)	(1,763,000)	(1,522,000)	(2,034,000)	(2,263,000)	(2,304,000)	(2,371,000)	(2,266,000)	(2,578,000)
Add: Amortization of Tangible Capital Assets	4	588,328	607,739	624,294	659,343	683,856	704,430	726,509	752,852	777,782	567,148	566,350
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
		(995,672)	(697,261)	(1,585,706)	(1,103,657)	(838,144)	(1,329,570)	(1,536,491)	(1,551,148)	(1,593,218)	(1,698,852)	(2,011,650)
Less: Acquisition of Supplies Inventory		-	-	-	-	-	-	-	-	-	-	-
Less: Acquisition of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-	-
Add: Consumption of Supplies Inventory		-	-	-	-	-	-	-	-	-	-	-
Add: Use of Prepaid Expenses		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
Increase/(Decrease) in Net Financial Assets/(Net Debt)		2,594,649	3,033,993	2,197,039	2,923,903	3,488,266	3,292,385	3,466,553	3,827,807	4,164,291	4,728,048	4,839,406
Net Financial Assets/(Net Debt), beginning of year		(27,528,145)	(24,933,496)	(21,899,503)	(19,702,464)	(16,778,561)	(13,290,295)	(9,997,910)	(6,531,357)	(2,703,550)	1,460,741	6,188,789
Net Financial Assets/(Net Debt), end of year		(24,933,496)	(21,899,503)	(19,702,464)	(16,778,561)	(13,290,295)	(9,997,910)	(6,531,357)	(2,703,550)	1,460,741	6,188,789	11,028,195
Financial Indicators		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Acquisition of Tangible Capital Assets (Cumulative)		1,584,000	2,889,000	5,099,000	6,862,000	8,384,000	10,418,000	12,681,000	14,985,000	17,356,000	19,622,000	22,200,000
2) Annual Surplus/Deficit before Amortization (Cumulative)		4,178,649	8,517,642	12,924,681	17,611,584	22,621,850	27,948,235	33,677,788	39,809,595	46,344,886	53,338,934	60,756,340
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)		2.64	2.95	2.53	2.57	2.70	2.68	2.66	2.66	2.67	2.72	2.74



Table B-4
Statement of Cash Flow – Indirect Method: Wastewater Services
UNAUDITED: For Financial Planning Purposes Only
2019 to 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Transactions												
Annual Surplus/Deficit		3,590,321	3,731,254	3,782,745	4,027,560	4,326,410	4,621,955	5,003,044	5,378,955	5,757,509	6,426,900	6,851,056
Add: Amortization of TCA's	4	588,328	607,739	624,294	659,343	683,856	704,430	726,509	752,852	777,782	567,148	566,350
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Less: Earned Deferred Revenue	3	-	-	-	-	-	-	-	-	-	-	-
Less: Developer Contributions		-	-	-	-	-	-	-	-	-	-	-
Add: Deferred Revenue Proceeds		331,526	346,093	361,186	376,754	408,558	425,884	443,815	328,490	341,605	310,050	321,981
Change in A/R (Increase)/Decrease		(2,874,646)	55,553	(100,841)	(101,817)	(114,676)	(130,527)	(131,790)	(144,672)	(142,334)	(160,095)	(161,100)
Change in A/P (Increase)/(Decrease)		268,524	1,362	7,303	7,554	7,779	8,049	8,330	8,601	8,916	9,197	9,513
Less: Interest Proceeds		25,555	2,590	8,340	(5,890)	(34,340)	(57,978)	(85,829)	(122,454)	(169,178)	(229,614)	(299,780)
Cash Provided by Operating Transactions		1,929,608	4,744,591	4,683,027	4,963,504	5,277,587	5,571,813	5,964,079	6,201,772	6,574,300	6,923,586	7,288,020
Capital Transactions												
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	(1,584,000)	(1,305,000)	(2,210,000)	(1,763,000)	(1,522,000)	(2,034,000)	(2,263,000)	(2,304,000)	(2,371,000)	(2,266,000)	(2,578,000)
Cash Applied to Capital Transactions		(1,584,000)	(1,305,000)	(2,210,000)	(1,763,000)	(1,522,000)	(2,034,000)	(2,263,000)	(2,304,000)	(2,371,000)	(2,266,000)	(2,578,000)
Investing Transactions												
Proceeds from Investments		(25,555)	(2,590)	(8,340)	5,890	34,340	57,978	85,829	122,454	169,178	229,614	299,780
Less: Cash Used to Acquire Investments		-	-	-	-	-	-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		(25,555)	(2,590)	(8,340)	5,890	34,340	57,978	85,829	122,454	169,178	229,614	299,780
Financing Transactions												
Proceeds from Debt Issue	2	-	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (Principal only)	2	(2,088,307)	(2,092,440)	(2,432,779)	(2,340,479)	(2,321,799)	(2,323,219)	(2,324,678)	(2,326,177)	(2,248,596)	(2,250,179)	(1,962,600)
Cash Applied to Financing Transactions		(2,088,307)	(2,092,440)	(2,432,779)	(2,340,479)	(2,321,799)	(2,323,219)	(2,324,678)	(2,326,177)	(2,248,596)	(2,250,179)	(1,962,600)
Increase in Cash and Cash Equivalents		(1,768,254)	1,344,561	31,908	865,915	1,468,128	1,272,572	1,462,230	1,694,049	2,123,882	2,637,021	3,047,200
Cash and Cash Equivalents, beginning of year	1	(612,707)	(2,380,961)	(1,036,400)	(1,004,492)	(138,577)	1,329,551	2,602,123	4,064,353	5,758,402	7,882,284	10,519,305
Cash and Cash Equivalents, end of year	1	(2,380,961)	(1,036,400)	(1,004,492)	(138,577)	1,329,551	2,602,123	4,064,353	5,758,402	7,882,284	10,519,305	13,566,505



Wastewater

Notes to Financial Plan

The financial plan format as outlined in Chapter 4 closely approximates the full accrual format used by municipalities (2009 onward) on their audited financial statements. However, the financial plan is not an audited document and contains various estimates. In this regard, Section 3 (2) of O. Reg. 453/07 states the following:

“Each of the following sub-subparagraphs applies only if the information referred to in the sub-subparagraph is known to the owner at the time the financial plans are prepared:

1. Sub-subparagraphs 4 i A, B and C of subsection (1)
2. Sub-subparagraphs 4 iii A, C, E and F of subsection (1).”

The information referred to in sub-subparagraphs 4 i A, B and C of subsection (1) includes:

- A. Total financial assets (i.e. cash and receivables);
- B. Total liabilities (i.e. payables, debt and deferred revenue);
- C. Net debt (i.e. the difference between A and B above).

The information referred to in sub-subparagraphs 4 iii A, C, E and F of subsection (1) includes:

- A. Operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges
- C. Investing transactions that are acquisitions and disposal of investments
- E. Change in cash and cash equivalents during the year
- F. Cash and cash equivalents at the beginning and end of the year

In order to show a balanced financial plan in a full accrual format for the City of Stratford, some of the items listed above have been estimated given that the City does not maintain all financial asset and liability data separately for wastewater. Usually, this type of data is combined with the financial assets and liabilities of other departments and services given that there is not a current obligation to disclose this data separately (as there is with revenue and expenses). The assumptions used have been documented below:



1. Cash, Receivables and Payables

It is assumed that the opening cash balances required to complete the financial plan are equal to:

Ending Reserve/Reserve Fund Balance
Plus: Ending Accounts Payable Balance
Less: Ending Accounts Receivable Balance
Equals: Approximate Ending Cash Balance

For the City of Stratford, receivable and payable balances were estimated for each year of the forecast based on the following factors:

- a) Receivables: Based on historical levels of City-wide receivables as a percentage of annual City-wide revenue earned; and
- b) Payables: Based on historical levels of City-wide payables as a percentage of annual City-wide expenses incurred.

2. Debt

Wastewater related outstanding debt at the end of 2018 was over \$26.3 million. Principal repayments for existing debt over the forecast period scheduled as follows:

Year	Principal Payments
2019	2,088,307
2020	2,092,440
2021	2,432,779
2022	2,340,479
2023	2,321,799
2024	2,323,219
2025	2,324,678
2026	2,326,177
2027	2,248,596
2028	2,250,179
2029	1,962,600
Total	24,711,253

No additional debt proceeds are anticipated over the forecast period based on the City's Rate Study.



For financial reporting purposes, debt principal payments represent a decrease in debt liability and the interest payments represent a current year operating expense.

3. Deferred Revenue

Deferred revenue is typically made up of wastewater development charge reserve fund balances which are considered to be a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected. In years when the wastewater development charge reserve fund balance is negative, it is shown as an asset (“accounts receivable – other”) for financial reporting purposes, representing future amounts to be collected from developers. Currently, the forecast does not anticipate a negative balance in the wastewater development charges reserve fund.

4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes wastewater related assets in the following categories:
 - i. Facilities;
 - ii. Sanitary Sewers; and
 - iii. Manholes.
- Amortization is calculated based on the straight-line approach with no amortization in the year of acquisition or construction.
- Given the planned asset replacement forecast in the Rate Study, useful life on acquisitions is assumed to be equal to the weighted average useful life for all assets on hand in the respective asset category.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net basis. It is assumed that disposals occur when the asset is being replaced, unless the asset is documented as a new asset. The value of each asset disposal is calculated by estimating the original purchase/construction date and deflating current replacement cost values to those estimated dates in order to calculate original historical cost.
- Gains/losses on disposal are assumed to be \$0 (it is assumed that historical cost is equal to accumulated amortization for all disposals).



- Residual value is assumed to be \$0 for all assets contained within the forecast period.
- Contributed Assets, as described in section 3.2.1, are deemed to be insignificant/unknown during the forecast period and are therefore assumed to be \$0.



The balance of tangible capital assets is summarized as follows:

Asset Historical Cost	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Tangible Capital Asset Balance	48,306,868	49,785,995	50,997,728	53,016,619	54,653,483	56,064,435	57,955,569	60,031,296	62,173,851	64,379,943	66,474,366
Acquisitions	1,584,000	1,305,000	2,210,000	1,763,000	1,522,000	2,034,000	2,263,000	2,304,000	2,371,000	2,266,000	2,578,000
Disposals	104,873	93,267	191,109	126,136	111,048	142,866	187,273	161,445	164,908	171,577	196,255
Closing Tangible Capital Asset Balance	49,785,995	50,997,728	53,016,619	54,653,483	56,064,435	57,955,569	60,031,296	62,173,851	64,379,943	66,474,366	68,856,111
Opening Accumulated Amortization	18,069,887	18,553,342	19,067,814	19,500,999	20,034,206	20,607,014	21,168,578	21,707,814	22,299,221	22,912,095	23,307,666
Amortization Expense	588,328	607,739	624,294	659,343	683,856	704,430	726,509	752,852	777,782	567,148	566,350
Amortization on Disposal	104,873	93,267	191,109	126,136	111,048	142,866	187,273	161,445	164,908	171,577	196,255
Ending Accumulated Amortization	18,553,342	19,067,814	19,500,999	20,034,206	20,607,014	21,168,578	21,707,814	22,299,221	22,912,095	23,307,666	23,677,761
Net Book Value	31,232,653	31,929,914	33,515,620	34,619,277	35,457,421	36,786,991	38,323,482	39,874,630	41,467,848	43,166,700	45,178,350



5. Accumulated Surplus

Opening accumulated surplus for the forecast period is reconciled as follows:

Wastewater	2019 Opening Accumulated Surplus
Reserve Balances	
Reserves: Development Charges	645,479
Reserves: Capital/Other	(1,258,186)
Total Reserves Balance	(612,707)
Less: Debt Obligations and Deferred Revenue	(26,915,438)
Add: Tangible Capital Assets	30,236,981
Total Opening Balance	2,708,836

The accumulated surplus reconciliation for all years within the forecast period is contained in Table B-2.

6. Other Revenue

Other revenues include recoverables from landowners and rental revenue. Recoverables have been held constant over the forecast period. Rental revenue was only identified in 2019 and not anticipated to continue over the forecast period.

7. Operating Expenses

Capital expenditures for items not meeting the definition of tangible capital assets have been reclassified as operating expenses and have been expensed in the year in which they occur.