



# Water Ontario Regulation 453/07 Financial Plan

Township of Amaranth

Financial Plan #239-301

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# **List of Acronyms and Abbreviations**

Acronym Full Description of Acronym

O.Reg. Ontario Regulation

P.S.A.B. Public Sector Accounting Board

S.D.W.A. Safe Drinking Water Act



# Report



# Chapter 1 Introduction



### 1. Introduction

# 1.1 Study Purpose

Watson & Associates Economists Ltd. (Watson) was retained by the Township of Amaranth (Township) to prepare a water 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. This detailed financial planning and forecasting in regard to the Township's water systems has been completed and documented by Watson within the "Township of Amaranth Water Rate Study, June 29, 2020" (2020 Rate Study). The objective of the report provided herein is to convert the findings of the 2020 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.) was passed in December 2002 in order to address some of the recommendations made by the Walkerton Inquiry Part II report. 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.

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

#### 1.2.1 Financial Plan Defined

Section 30 (1) of the S.D.W.A. provides the following definition of financial plans:

"financial plans" means,

- a) financial plans that satisfy the requirements of subsection (2), but only if,
  - (i) Bill 175 (Sustainable Water and Sewage Systems Act, 2002, introduced on September 23, 2002) receives Royal Assent, and
  - (ii) sections 3 and 9 of Bill 175 (Sustainable Water and Sewage Systems Act, 2002) are in force, or
- b) financial plans that satisfy the requirements prescribed by the Minister, in any other case. 2002, c. 32, s. 30 (1).

As of time of writing, the Sustainable Water and Sewage Systems Act, 2002 cited above has been repealed (see Section 2.2 of this report) however, the standards that it directs underpin the specific requirements of s.30 (1) part b as they are outlined in O.Reg. 453/07 and which will be examined in detail below.

# 1.2.2 Financial Plan Requirements – New System

O.Reg. 453/07 provides the following parameters with regards to s.30 (1) part b of the S.D.W.A. for <u>new</u> water systems:



- Financial plans must be approved by Council resolution (or governing body) indicating that the drinking water system is financially viable;
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six-year period (commencing when the system first serves the public);
- 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 Public Sector Accounting Board (P.S.A.B.) 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; and
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing.

# 1.2.3 Financial Plan Requirements – Existing System

O.Reg. 453/07 also provides details with regards to s.30 (1) part b of the S.D.W.A. for <u>existing</u> water systems. The requirements for existing systems are summarized as follows:

- Financial plans must be approved by Council resolution (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 P.S.A.B.) 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 P.S.A.B.) 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 P.S.A.B.) 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; and
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing.

#### 1.2.4 Financial Plan Requirements – General

Given that the legislation falls under the S.D.W.A., a financial plan is <u>mandatory</u> for water systems and <u>encouraged</u> for wastewater systems. The financial plans shall be for a forecast period of at least six years but longer planning horizons are encouraged. The financial plan is to be completed, approved and submitted at the time of licence renewal (i.e. six months prior to licence expiry). 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 document.

# 1.2.5 Public Sector Accounting Board (P.S.A.B.) 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."



Both the Statement of Financial Position and the Statement of Operations were required for financial reporting purposes in pre-2009 reporting years. However, the format changed in 2009 to conform to the requirements of PS1200 and PS3150 (see Figures 1-1 and 1-2). Financial statements are now reported on a full accrual accounting basis, which will continue in future years. 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. Before 2009, financial results were reported on a modified cash basis of accounting whereby revenues and expenses are recognized when cash is paid or received and only certain accrual-type items such as payables and receivables are recognized at year-end. The difference between the methods is in the timing of when transactions are reported. This timing difference has impacted the presentation of the statements in that various accounts have been added or deleted in order to properly report the transactions.

Moreover, since the 2009 fiscal year, additional information relating to the accounting treatment of tangible capital assets is included in annual reporting, as indicated by the requirements under section PS3150. Pre-2009, the costs to acquire, develop and/or construct capital assets were expensed in the year in which they occur. Going forward, tangible capital assets will be capitalized so as to create an inventory of the assets owned and to account for their ability to provide future benefits. The reporting of tangible capital assets requires further changes to the format of existing financial statements. From a financial planning perspective, this change is significant for water assets as they can represent a significant portion of the Township's total assets.

The Statement of Cash Flow and the Statement of Change in Net Financial Assets/Debt (which is a new statement as of 2009) are required statements going forward. 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 (see Figure 1-3). 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 (see Figure 1-4).

It should be noted that the Statement of Reserves and Reserve Funds and the Statement of Capital, as used by the public sector pre-2009, have now been eliminated



by the new reporting format. The balances and transactions that make up these two statements have been transferred to either the Statement of Operations or the Statement of Financial Position depending on the nature of the account.



# Figure 1-1 Statement of Financial Position

#### **OLD FORMAT (PRE-2009)**

#### **2009 AND FUTURE**

**Assets** 

Financial Assets

Cash

Accounts Receivable

Investments

Inventory for resale

Other Assets

Total Financial Assets

**Non-Financial Assets** 

Inventory of Supplies

Prepaid Expenses

Total Non-Financial Assets

Liabilities

Accounts Payable & Accrued Liabilities

Debt (Principal only)

Other (DC Reserves-Deferred Revenue)

**Total Liabilities** 

**NET ASSETS** 

**Municipal Position** 

Fund Balances

Current Fund

Capital Fund

Reserves and Reserve Funds

Amounts to be Recovered

From Future Revenues

From Reserves & Reserve Funds

**TOTAL MUNICIPAL POSITION** 

Financial Assets

Cash

Accounts Receivable

Investments

Inventory for resale

Other Assets

Total Financial Assets

Liabilities

Accounts Payable & Accrued Liabilities

Debt (Principal only)

Other (DC Reserves-Deferred Revenue)

Total Liabilities

**NET FINANCIAL ASSETS/(DEBT)** 

**Non-Financial Assets** 

Tangible Capital Assets

Inventory of Supplies

Prepaid Expenses

Total Non-Financial Assets

ACCUMULATED SURPLUS/(DEFICIT)



#### Figure 1-2 Statement of Operations

#### **OLD FORMAT (PRE-2009)**

#### **2009 AND FUTURE**

#### Revenues

Base Charge Revenue Rate Based Revenue Transfers from Reserves Other Revenue

**Total Revenues** 

#### **Expenditures**

Operating Expenses

Capital

#### **Total Expenditures**

Net Revenues for the year Increase (decrease) in amounts to be recovered Change in fund balances

#### Revenue

Base Charge Revenue Rate Based Revenue Earned DC Revenue Other Revenue

#### **Total Revenue**

#### Expenses

Operating Expenses Interest on Debt Amortization Other

#### **Total Expenses**

Annual Surplus/(Deficit)
Accum. Surplus/(Deficit), beg. of year
Accum. Surplus/(Deficit), end of year



# Figure 1-3 Statement of Change in Net Financial Assets/Debt

#### **2009 AND FUTURE**

Annual Surplus/(Deficit)

Less: Acquisition of tangible capital assets Add: Amortization of tangible capital assets

(Gain)/Loss on disposal of tangible capital assets Add: Proceeds on sale of tangible capital assets Add: Write-downs of tangible capital assets

Sub-total

Less: Acquisition of supplies inventory Less: Acquisition of prepaid expenses Add: Consumption of supplies inventory

Add: Use of prepaid expenses

Sub-total

(Increase)/Decrease in net financial assets/net debt Net financial assets/(net debt), beginning of year Net financial assets/(net debt), end of year



# Figure 1-4 Statement of Cash Flow<sup>1</sup>

#### **DIRECT METHOD**

#### **INDIRECT METHOD**

#### Operating Transactions

Cash received from:
Water Operations
Less: Cash paid for:
Operating expenses
Finance charges

#### Cash provided by operating transactions

#### Capital Transactions

Proceeds on sale of tangible capital assets Less: Cash used to acquire tangible capital assets

#### Cash applied to capital transactions

#### Investing Transactions

Proceeds from investments

Less: Cash used to acquire investments

#### Cash provided by (applied to) investing transactions

#### Financing Transactions

Proceeds from debt issue

Less: Debt repayment (Principal only)

#### Cash applied to financing transactions

Increase in cash and cash equivalents

Cash and cash equivalents, beginning of year

Cash and cash equivalents, end of year

#### Operating Transactions

Annual Surplus/(Deficit)

Add: Amortization of Tangible Capital Assets Loss/(Gain) on sale of Tangible Capital Assets Decrease/(Increase) in Accounts Receivable Increase/(Decrease) in Accounts Payable Decrease/(Increase) in Inventories for sale

Other items

Cash provided by operating transactions

#### Capital Transactions

Proceeds on sale of tangible capital assets Less: Cash used to acquire tangible capital assets

Cash applied to capital transactions

#### Investing Transactions

Proceeds from investments

Less: Cash used to acquire investments

Cash provided by (applied to) investing transactions

#### Financing Transactions

Proceeds from debt issue

Less: Debt repayment (Principal only)

Cash applied to financing transactions

Increase in cash and cash equivalents

Cash and cash equivalents, beginning of year

Cash and cash equivalents, end of year

<sup>&</sup>lt;sup>1</sup> The statement of cash flow can be prepared using either the direct or indirect methods. The indirect method derives cash flow by making adjustments to the net surplus/deficit reported on the statement of operations. The direct method calculates cash flow identifying the direct sources and uses of cash.



# 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 S.D.W.A. requires a declaration of the financial plan's sustainability, it does not give a clear definition of what would be considered sustainable. Instead, the Ministry of the Environment 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, 2010 (W.O.A.). The W.O.A. was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010.

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, the 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 Water Rate Study

As noted above, Watson has already completed extensive financial planning as documented in the 2020 Rate Study conducted on behalf of the Township. The study process was designed to address "full cost" principles and reflect the guiding principles toward sustainable financial planning. Figure 2-1 below summarizes the process.



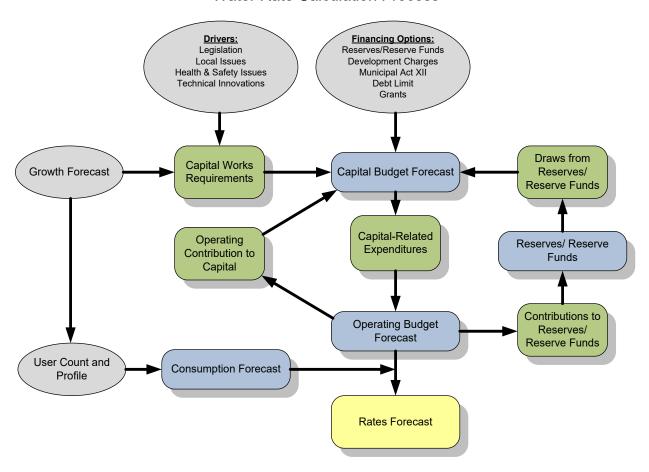


Figure 2-1
Water Rate Calculation Process

As a result of employing this process, the 2020 Rate Study provides a sound financial plan for the Township's water system by providing:

- A detailed assessment of current and future capital needs including an analysis
  of potential funding sources;
- An analysis of fixed and variable operating costs in order to determine how they will be impacted by evolving infrastructure needs and system growth;
- A review and recommendation on rate structures that ensure revenues are equitable and sufficient to meet system needs; and
- An ongoing public process that involves ongoing consultation with the main stakeholders including the Township 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 financial plan.



The details of the financial plan arising from the 2020 Rate Study are contained in Appendix A. A summary of the water rates projected for the Township are as follows:

#### Table 2-1 Township of Amaranth Water Rate Forecast – Inflated

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Rates											
10-Year Replacement											
Captial Charge - 10-year	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Flat Rate	\$680.00	\$876.00	\$911.04	\$947.48	\$985.38	\$1,024.79	\$1,065.79	\$1,108.42	\$1,152.75	\$1,198.86	\$1,246.82
Total Annual Bill	\$680.00	\$876.00	\$911.04	\$947.48	\$985.38	\$1,024.79	\$1,065.79	\$1,108.42	\$1,152.75	\$1,198.86	\$1,246.82
% Increase - Annual Bill		28.8%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
\$ Increase - Annual Bill		\$196.00	\$35.04	\$36.44	\$37.90	\$39.42	\$40.99	\$42.63	\$44.34	\$46.11	\$47.95
20-Year Replacement											
Captial Charge - 20-year	\$287.00	\$287.00	\$287.00	\$287.00	\$287.00	\$287.00	\$287.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Flat Rate	\$680.00	\$876.00	\$911.04	\$947.48	\$985.38	\$1,024.79	\$1,065.79	\$1,108.42	\$1,152.75	\$1,198.86	\$1,246.82
Total Annual Bill	\$967.00	\$1,163.00	\$1,198.04	\$1,234.48	\$1,272.38	\$1,311.79	\$1,352.79	\$1,108.42	\$1,152.75	\$1,198.86	\$1,246.82
% Increase - Annual Bill		20.3%	3.0%	3.0%	3.1%	3.1%	3.1%	-18.1%	4.0%	4.0%	4.0%
\$ Increase - Annual Bill		\$196.00	\$35.04	\$36.44	\$37.90	\$39.42	\$40.99	-\$244.37	\$44.34	\$46.11	\$47.95



# Chapter 3 Approach



# 3. Approach

#### 3.1 Overview

The 2020 Rate Study has been prepared on a modified cash basis; therefore, a conversion was 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 financial plan.

#### 3.2 Conversion Process

The conversion from the existing modified cash basis financial plan 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
- 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 assets, an inventory has already been compiled as part of the Township's 2016 Asset Management Plan as well as part of the Township's annual P.S.A.B. 3150 compliance processes. Given the prospective nature of the 2020 Rate Study, replacement costs for each asset are the basis for the annual lifecycle replacement costs calculations. However, historical cost (which is the original cost to purchase, develop, or construct



each asset) is required for financial reporting purposes. Once historical cost is established, 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 capital needs have also been determined and summarized within the 2020 Rate Study. However, these estimates only represent future assets that the Township anticipates purchasing or constructing without consideration for assets that are contributed by developers and other parties (at no or partial cost to the Township). These contributed assets could form a significant part of the infrastructure going forward in terms of the sustainability of the system as a whole and despite their non-monetary nature; the financial plan 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. The financial plan contained herein, accounts for contributed assets of \$1.78 million in 2022.

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

As per section 1.2.5 above, the new Statement of Operations eliminates and/or adds certain transactions that have been reported differently by municipalities since 2009 (see Figure 3-1). A wide range of adjustments will be considered and will depend on the size and complexity of the system. For example, the revenues and expenses associated with the now obsolete Statement of Capital and Statement of Reserves and Reserve Funds (see section 1.2.5) will need to be adjusted for and included within the Statement of Operations. This includes all non-tangible capital asset costs previously included in the capital statement (i.e. expenses related to various studies) while at the



same time eliminating all expenditures incurred to acquire tangible capital assets which will now form part of the tangible capital asset balance discussed in section 3.2.1. Transfers to and from reserves are no longer explicitly reported on the Statement of Operations. Instead, these transactions are represented by changes in cash and accumulated surplus. Also, debt repayment costs relating to the principal payment portion only need to be removed, as they no longer qualify as an expense for reporting purposes. Principal payments will now be reported as a decrease in debt liability on the Statement of Financial Position. Finally, expenses relating to tangible capital assets, such as amortization, write-offs, and (gain)/loss on disposal of assets will be 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.



## Table 3-1 Conversion Adjustments Statement of Operations (Water)

Modified Cash Basis	Budget	Adjustments  DR CR		Full Accrual Budget	Accrual Basis
	2020			2020	
Revenues					Revenues
Base Charge Revenue	78,880			78,880	Base Charge Revenue
Rate Based Revenue	-			-	Rate Based Revenue
Transfers from Reserves	20,520	20,520			
			_	_	Developer Contributions
Other Revenue	6,027		-	6,026	Other Revenue
Total Revenues	105,427			84,906	Total Revenues
Expenditures					Expenses
Operating	99,400	7,000		106,400	Operating Expenses
Capital					
Transfers to Reserves	-		-		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	6,027	••••	3,620	2,407	Interest on Debt
		66,508		66,508	Amortization
		-		-	Loss on Disposal of Tangible Capital Assets
Total Expenditures	105,427			175,315	Total Expenses
Net Expenditures	-			(90,409)	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			3,144,527	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	-	90,409	3,054,118	Accumulated Surplus/(Deficit), end of year

TOTAL ADJUSTMENTS	94,028	94,029
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#### 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). As noted earlier, the applicable balances from the Statement of Capital and the Statement of Reserve and Reserve Funds will need to be transferred to this statement. 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 Township 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 Township 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 new 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, additional 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 Statements of Financial Position (Water)

Modified Cash Basis	Budget	Adjust	ments	Full Accrual Budget	Accrual Basis	
	2020	DR	CR	2020		
<u>ASSETS</u>					<u>ASSETS</u>	
Financial Assets					Financial Assets	
Cash	(72,210)			(72,210)		
Accounts Receivable	39,815			39,815	Accounts Receivable	
Total Financial Assets	(32,395)			(32,395)	Total Financial Assets	
Non-Financial Assets						
Total Non-Financial Assets	-					
LIABILITIES					Liabilities	
Accounts Payable & Accrued Liabilities	24,406			24,406	Accounts Payable & Accrued Liabilities	
Gross Long-term Liabilities	31,408			31,408	Debt (Principal only)	
Total Liabilities	55,814			55,814	Total Liabilities	
Net Assets/(Debt)	(88,209)			(88,209)	Net Financial Assets/(Debt)	
					Non-Financial Assets	
		3,149,327	7,000	3,142,327	Tangible Capital Assets	
				3,142,327	Total Non-Financial Assets	
Municipal Position						
Water Reserves	(56,801)	-	56,801			
Amounts to be Recovered	(31,408)	_	31,408			
Total Municipal Position	(88,209)		2 054 110	2 054 440	Accumulated Surplus//Deficit), and of year	
Total Municipal Position		3,054,118	3,054,118	Accumulated Surplus/(Deficit), end of year		
		0.110.65=	2 4 4 2 2 2 -			
TOTAL ADJUSTMENTS	3,149,327	3,149,327				



#### 3.2.5 Verification and Note Preparation

The final step in the conversion process is to ensure that all of the statements created by the previous steps are in balance. The Statement of Financial Position summarizes the resources and obligations of the Township 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 Township's ledgers. However, it may not be possible 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) <u>Amortization Expense</u> The method and timing of amortization should be based on the Township's amortization policy. Otherwise, an assumption will need to be made and applied consistently throughout the financial plan.
- c) <u>Accumulated Amortization</u> 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 2020 Rate Study.
- d) <u>Contributed Assets</u> As noted earlier, contributed assets could represent a significant part of the Township'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) <u>Accumulated Surplus</u> 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 Township's water system. 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 Township's water system. It is not an audited document<sup>1</sup> and contains various estimates as detailed in the "Notes to the Financial Plan" section below.

#### 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 Township's water system. 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 2020, the Township's water system will be in a net financial position of \$3,054,118. After 2020, the financial plan forecasts an improving net financial asset position by 2024 of \$4.6 million followed by decreases in the financial asset position in each subsequent year of the forecast period. Net financial assets are projected to be \$4.2 million by the end of 2029.

Another important indicator on the Statement of Financial Position is the tangible capital asset balance. 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:

<sup>&</sup>lt;sup>1</sup> O.Reg. 453/07 does not require an audited financial plan.



- Tangible capital assets such as water mains and treatment plants are imperative to water service delivery.
- 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 are expected to grow over \$4.2 million over the 10-year forecast period. This indicates that the Township is anticipating receiving contributed 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 decreasing from 206% to 110% over the forecast period and as a result, annual deficits decrease from \$90,400 to \$21,400 over the forecast period. 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, reserve/reserve fund transfers and debt principal payments.

Another important indicator on this statement is accumulated surplus/deficit. An accumulated surplus indicates that the available net resources are sufficient to provide future 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 add approximately \$1.1



million over the forecast period to a 2020 accumulated surplus of \$3.1 million. This accumulated surplus, as indicated in Table 4-2, is entirely made up contributed assets as annual deficits occur in all other years of the forecast.

#### 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 forecasted tangible capital asset acquisitions (net of amortization for the year) are less than the forecasted annual deficit for 2020, resulting in a decrease in net financial assets. This is due to the planned use of debt to construct tangible capital assets in 2020. With the exception of 2023 in which there is a small increase in net financial assets, each year between 2021 and 2025 results in a further decrease in the net financial assets due to the planned use of debt. In each of the subsequent years (2026 – 2029), forecasted net annual tangible capital asset acquisitions exceed annual deficits. This allows 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 improving from a negative value of 4.35 to 1.00 over the forecast period.<sup>1</sup>

# 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- 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 Township's water system to improve from a deficit balance of approximately \$42,100 at the beginning of 2020, to just under

<sup>&</sup>lt;sup>1</sup> A desirable ratio is 1:1 or better.



\$9,500 by the end of 2029. For further discussions, on projected cash balances please refer to the Notes to the Financial Plan.



Table 4-1
Statement of Financial Position: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2029

	Notes					Forec	cast				
	Notes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets											
Cash	1	-	-	-	-	-	-	-	-	-	9,536
Accounts Receivable	1	39,815	40,652	42,187	43,783	48,421	55,556	62,114	66,836	74,299	82,251
Total Financial Assets		39,815	40,652	42,187	43,783	48,421	55,556	62,114	66,836	74,299	91,787
<u>Liabilities</u>											
Bank Indebtedness		72,210	72,557	73,600	74,681	78,146	83,607	68,770	41,862	40,379	-
Accounts Payable & Accrued Liabilities	1	24,406	24,896	25,388	25,903	27,076	28,750	30,267	31,822	33,414	35,074
Debt (Principal only)	2	31,408	49,418	57,948	52,545	130,267	137,851	126,963	121,746	116,321	110,678
Deferred Revenue	3	-	-	-	-	-	-	-	-	-	-
Total Liabilities		128,024	146,871	156,936	153,129	235,489	250,208	226,000	195,430	190,114	145,752
Net Financial Assets/(Debt)		(88,209)	(106,219)	(114,749)	(109,346)	(187,068)	(194,652)	(163,886)	(128,594)	(115,815)	(53,965)
Non-Financial Assets											
Tangible Capital Assets	4	3,142,327	3,093,709	3,027,731	2,961,733	4,735,715	4,635,877	4,534,724	4,436,732	4,349,654	4,266,372
Total Non-Financial Assets		3,142,327	3,093,709	3,027,731	2,961,733	4,735,715	4,635,877	4,534,724	4,436,732	4,349,654	4,266,372
Accumulated Surplus/(Deficit)	5	3,054,118	2,987,490	2,912,982	2,852,387	4,548,647	4,441,225	4,370,838	4,308,138	4,233,839	4,212,407

Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Increase/(Decrease) in Net Financial Assets	4,843	(29,401)	(18,010)	(8,530)	5,403	(77,722)	(7,584)	30,766	35,292	12,779	61,850
2) Increase/(Decrease) in Tangible Capital Assets	1,063,037	(61,008)	(48,618)	(65,978)	(65,998)	1,773,982	(99,838)	(101,153)	(97,992)	(87,078)	(83,282)
3) Increase/(Decrease) in Accumulated Surplus	1,067,880	(90,409)	(66,628)	(74,508)	(60,595)	1,696,260	(107,422)	(70,387)	(62,700)	(74,299)	(21,432)



Table 4-2 Statement of Operations: Water Services UNAUDITED: For Financial Planning Purposes Only 2020-2029

	Natas					Forec	ast				
	Notes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Revenue											
Base Charge Revenue		78,880	101,616	105,680	109,908	122,187	141,080	158,447	176,977	196,737	217,794
Developer Contributions	4	-	-	-	-	1,780,000	-	-	-	-	-
Other Revenue	6	6,026	6,027	6,027	6,027	6,026	6,028	6,028	-	4	563
Total Revenues		84,906	107,643	111,707	115,935	1,908,213	147,108	164,475	176,977	196,741	218,357
Water Expenses											
Operating Expenses	Sch. 4-1	106,400	105,400	116,400	106,500	142,277	145,094	127,274	135,606	172,092	145,854
Interest on Debt	2	2,407	2,253	2,837	3,032	2,658	5,598	5,435	5,079	4,870	4,653
Amortization	4	66,508	66,618	66,978	66,998	67,018	103,838	102,153	98,992	94,078	89,282
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Total Expenses		175,315	174,271	186,215	176,530	211,953	254,530	234,862	239,677	271,040	239,789
Annual Surplus/(Deficit)		(90,409)	(66,628)	(74,508)	(60,595)	1,696,260	(107,422)	(70,387)	(62,700)	(74,299)	(21,432)
Accumulated Surplus/(Deficit), beginning of year	5	3,144,527	3,054,118	2,987,490	2,912,982	2,852,387	4,548,647	4,441,225	4,370,838	4,308,138	4,233,839
Accumulated Surplus/(Deficit), end of year		3,054,118	2,987,490	2,912,982	2,852,387	4,548,647	4,441,225	4,370,838	4,308,138	4,233,839	4,212,407
Note 5:											
Accumulated Surplus/(Deficit) Reconciliation:		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserve Balances											
Reserves: Development Charges		-	-	-	-	-	-	-	-	-	-
Reserves: Gas Tax		-	-	-	-	-	-	-	-	-	-
Reserves: Capital/Other		(56,801)	(56,801)	(56,801)	(56,801)	(56,801)	(56,801)	(36,923)	(6,848)	506	56,713
Total Reserves Balance		(56,801)	(56,801)	(56,801)	(56,801)	(56,801)	(56,801)	(36,923)	(6,848)	506	56,713
Less: Debt Obligations and Deferred Revenue		(31,408)	(49,418)	(57,948)	(52,545)	(130,267)	(137,851)	(126,963)	(121,746)	(116,321)	(110,678)
Add: Tangible Capital Assets	4	3,142,327	3,093,709	3,027,731	2,961,733	4,735,715	4,635,877	4,534,724	4,436,732	4,349,654	4,266,372
Total Ending Balance		3,054,118	2,987,490	2,912,982	2,852,387	4,548,647	4,441,225	4,370,838	4,308,138	4,233,839	4,212,407
Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Expense to Revenue Ratio		206%	162%	167%	152%	11%	173%	143%	135%	138%	110%
2) Ingrasso/(Degrasso) in Acquirulated Surplus	1 067 990	(00,400)	(66 629)	(74 509)	(60 505)	1 606 260	(107 422)	(70 207)	(62.700)	(74.200)	(21 422)

Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1) Expense to Revenue Ratio		206%	162%	167%	152%	11%	173%	143%	135%	138%	110%
Increase/(Decrease) in Accumulated Surplus	1,067,880	(90,409)	(66,628)	(74,508)	(60,595)	1,696,260	(107,422)	(70,387)	(62,700)	(74,299)	(21,432)



# Schedule 4-1 Statement of Operating Expenses: Water Services UNAUDITED: For Financial Planning Purposes Only 2020-2029

	Notes					Forec	ast				
	Notes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Expenses											
Bell Canada		1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Hydro		12,800	13,100	13,400	13,700	14,000	14,300	14,600	14,900	15,200	15,500
General1		84,700	86,400	88,100	89,900	91,700	93,500	95,400	97,300	99,200	101,200
Growth Related Operating Costs		-	-	-	-	2,677	7,394	11,374	15,506	19,792	24,254
Non TCA - Expenses from Capital Budget	7	7,000	4,000	13,000	1,000	32,000	28,000	4,000	6,000	36,000	3,000
					•		•				
TOTAL OPERATING EXPENSES		106,400	105,400	116,400	106,500	142,277	145,094	127,274	135,606	172,092	145,854



Table 4-3
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2029

	Mata					Fore	cast				
	Notes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual Surplus/(Deficit)		(90,409)	(66,628)	(74,508)	(60,595)	1,696,260	(107,422)	(70,387)	(62,700)	(74,299)	(21,432)
Less: Acquisition of Tangible Capital Assets	4	(5,500)	(18,000)	(1,000)	(1,000)	(1,841,000)	(4,000)	(1,000)	(1,000)	(7,000)	(6,000)
Add: Amortization of Tangible Capital Assets	4	66,508	66,618	66,978	66,998	67,018	103,838	102,153	98,992	94,078	89,282
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
		61,008	48,618	65,978	65,998	(1,773,982)	99,838	101,153	97,992	87,078	83,282
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)		(29,401)	(18,010)	(8,530)	5,403	(77,722)	(7,584)	30,766	35,292	12,779	61,850
Net Financial Assets/(Net Debt), beginning of year		(58,808)	(88,209)	(106,219)	(114,749)	(109,346)	(187,068)	(194,652)	(163,886)	(128,594)	(115,815)
Net Financial Assets/(Net Debt), end of year		(88,209)	(106,219)	(114,749)	(109,346)	(187,068)	(194,652)	(163,886)	(128,594)	(115,815)	(53,965

Financial Indicators	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Acquisition of Tangible Capital Assets (Cumulative)	5,500	23,500	24,500	25,500	1,866,500	1,870,500	1,871,500	1,872,500	1,879,500	1,885,500
Annual Surplus/Deficit before Amortization (Cumulative)	(23,901)	(23,911)	(31,441)	(25,038)	1,738,240	1,734,656	1,766,422	1,802,714	1,822,493	1,890,343
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)	(4.35)	(1.02)	(1.28)	(0.98)	0.93	0.93	0.94	0.96	0.97	1.00



Table 4-4
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2029

	Notes					Fore	cast				
	Notes	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Transactions											
Annual Surplus/Deficit		(90,409)	(66,628)	(74,508)	(60,595)	1,696,260	(107,422)	(70,387)	(62,700)	(74,299)	(21,432)
Add: Amortization of TCA's	4	66,508	66,618	66,978	66,998	67,018	103,838	102,153	98,992	94,078	89,282
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Less: Earned Deferred Revenue	3	-	-	-	-	-	-	-	-	-	-
Less: Developer Contributions		-	-	-	-	(1,780,000)	-	-	-	-	-
Add: Deferred Revenue Proceeds		-	-	-	-	-	-	-	-	-	-
Change in A/R (Increase)/Decrease		-	(837)	(1,535)	(1,596)	(4,638)	(7,135)	(6,558)	(4,722)	(7,462)	(7,952)
Change in A/P Increase/(Decrease)		-	490	492	515	1,173	1,674	1,517	1,555	1,592	1,660
Less: Interest Proceeds		-	-	-	-	-	-	-	-	(5)	(562)
Cash Provided by Operating Transactions		(23,901)	(357)	(8,573)	5,322	(20,187)	(9,045)	26,725	33,125	13,904	60,996
Capital Transactions											
Proceeds on sale of Tangible Capital Assets		-	_	-	-	-	-	-	-	-	_
Less: Cash Used to acquire Tangible Capital Assets	4	(5,500)	(18,000)	(1,000)	(1,000)	(61,000)	(4,000)	(1,000)	(1,000)	(7,000)	(6,000)
Cash Applied to Capital Transactions		(5,500)	(18,000)	(1,000)	(1,000)	(61,000)	(4,000)	(1,000)	(1,000)	(7,000)	(6,000)
Investing Transactions											
Proceeds from Investments		-	-	-	-	-	-	-	-	5	562
Less: Cash Used to Acquire Investments		-	-	-	-	-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		-	-	-	-	-	-	-	-	5	562
Financing Transactions											
Proceeds from Debt Issue	2	2,934	22,000	13,554	424	83,954	17,054	-	-	-	-
Less: Debt Repayment (Principal only)	2	(3,620)	(3,990)	(5,024)	(5,827)	(6,232)	(9,470)	(10,888)	(5,217)	(5,426)	(5,643)
Cash Applied to Financing Transactions		(686)	18,010	8,530	(5,403)	77,722	7,584	(10,888)	(5,217)	(5,426)	(5,643)
Increase in Cash and Cash Equivalents		(30,087)	(347)	(1,043)	(1,081)	(3,465)	(5,461)	14,837	26,908	1,483	49,915
Cash and Cash Equivalents, beginning of year	1	(42,123)	(72,210)	(72,557)	(73,600)	(74,681)	(78,146)	(83,607)	(68,770)	(41,862)	(40,379)
Cash and Cash Equivalents, end of year	1	(72,210)	(72,557)	(73,600)	(74,681)	(78,146)	(83,607)	(68,770)	(41,862)	(40,379)	9,536



#### Water

#### **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
- B. Investing transactions that are acquisitions and disposal of investments
- C. Change in cash and cash equivalents during the year
- D. 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 Township of Amaranth, some of the items listed above have been estimated given that the Township 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

Receivable and payable balances were estimated for each year of the forecast based on the following factors:

- a) Receivables: Based on historical levels of receivables as a percentage of annual revenue earned (source: 2016-2018 audited financial statements);
   and
- b) Payables: Based on historical levels of payables as a percentage of annual expenses incurred (source: 2016-2018 audited financial statements).

#### 2. Debt

Outstanding water related debt at the end of 2019 was \$32,094, with additional debt proceeds anticipated throughout the forecast period. *Principal* repayments for existing and new debt over the forecast period are scheduled as follows:



Year	Principal Payments
2020	3,620
2021	3,990
2022	5,024
2023	5,827
2024	6,232
2025	9,470
2026	10,888
2027	5,217
2028	5,426
2029	5,643
Total	61,337

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 fund and gas tax 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.

The Township of Amaranth does not collect water development charges, therefore deferred revenue is assumed to be zero over the forecast period.

#### 4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
  - Infrastructure (water mains, lateral lines, water fitting, water valves, and water hydrants)
  - ii. Facilities
- 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 2020 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, 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 \$1.78 million in 2024.
- The Township is unaware of any specific lead service piping in the municipal water system.

The balance of tangible capital assets is summarized as follows:

Asset Historical Cost	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Tangible Capital Asset Balance	5,420,314	5,425,229	5,441,156	5,442,032	5,442,898	7,274,099	7,277,419	7,278,254	7,279,090	7,284,869
Acquisitions	5,500	18,000	1,000	1,000	1,841,000	4,000	1,000	1,000	7,000	6,000
Disposals	585	2,073	124	134	9,799	680	165	164	1,221	1,137
Closing Tangible Capital Asset Balance	5,425,229	5,441,156	5,442,032	5,442,898	7,274,099	7,277,419	7,278,254	7,279,090	7,284,869	7,289,732
Opening Accumulated Amortization	2,216,979	2,282,902	2,347,447	2,414,301	2,481,165	2,538,384	2,641,542	2,743,530	2,842,358	2,935,215
Amortization Expense	66,508	66,618	66,978	66,998	67,018	103,838	102,153	98,992	94,078	89,282
Amortization on Disposal	585	2,073	124	134	9,799	680	165	164	1,221	1,137
Ending Accumulated Amortization	2,282,902	2,347,447	2,414,301	2,481,165	2,538,384	2,641,542	2,743,530	2,842,358	2,935,215	3,023,360
Net Book Value	3,142,327	3,093,709	3,027,731	2,961,733	4,735,715	4,635,877	4,534,724	4,436,732	4,349,654	4,266,372

#### 5. Accumulated Surplus

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

Water	2020 Opening Accumulated Surplus
Reserve Balances	
Reserves: Capital/Other	(26,714)
Total Reserves Balance	(26,714)
Less: Debt Obligations and Deferred Revenue	(32,094)
Less: Unfinanced Capital	-
Add: Long-term Accounts Receivable	-
Add: Tangible Capital Assets	3,203,335
Total Opening Balance	3,144,527



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

#### 6. Other Revenue

Other revenue includes capital charge recovery payments and transfers from general taxation reserves.

#### 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, the requirement to prepare the financial plan is provided in Section 32 (5) 2 ii of the S.D.W.A. Proof of the preparation of a financial plan is one of the submission requirements for municipal drinking water licensing and upon completion, must be submitted to the Ministry of the Environment. As part of O.Reg. 453/07, the process established for plan approval, public circulation and filing is set out as follows:

- 1. The financial plan must be approved by resolution 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 Ministry of the Environment 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

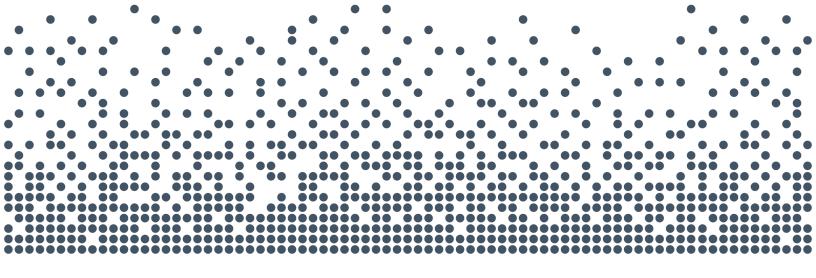


#### 6. Recommendations

This report presents the water financial plan for the Township of Amaranth 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 2020 Rate Study. Nevertheless, Council is required to pass certain resolutions with regard to this plan and regulations and it is recommended that:

- 1. The Township of Amaranth Water Financial Plan prepared by Watson & Associates Economists Ltd. dated June 29, 2020 be approved.
- 2. Notice of availability of the Financial Plan be advertised.
- 3. The Financial Plan, the Council Resolution approving the Financial Plan, and the Water Rate Study underpinning the Financial Plan be submitted to the Ministry of Municipal Affairs and Housing. (O.Reg. 453/07, Section 3 (1) 6)
- 4. The Council Resolution approving the Financial Plan be submitted to the Ministry of the Environment, satisfying the requirements under the Safe Drinking Water Act. (S.D.W.A. Section 32 (5) 2 ii))<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Note: The Ministry of the Environment does not require the Council Resolution for the initial financial plan submission. We encourage the municipality to contact the Ministry of the Environment to verify all requirements have been met.



# Appendices



## Appendix A 2020 Water Rate Study – Water Summary Tables



#### Table 1 Township of Amaranth Water Service Capital Budget Forecast Inflated \$

				Inflated	\$							
Description	Budget	Total					Fore	cast				
Description	2020	lotai	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital Expenditures												
Well One - Camera inspection of well casing	-	4,000	-	-	-	-	-	-	-	4,000	-	-
Well One - Submersible pump replacement	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Well One - Transmission main repairs	_	3,000	-	-	-	3.000	_	_	-	-	_	_
Well Two - Camera inspection of well casing	_	4.000	-	-	-	-	_	_	-	4.000	_	-
Well Two - Submersible pump replacement	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Well Two - Transmission main repairs	_	4.000	-	-	-	-	-	-	_	4.000	_	_
Well Three - Camera inspection of well casing	-	4,000	-	-	-	-	-	-	-	4,000	-	-
Well Three - Submersible pump replacement	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Well Three - Transmission main repairs	-	3,000	-	-	-	3,000	-	-	-	-	-	-
Pumphouse Raw - Replace pressure gauges	-	2,000	2,000	-	-	-	-	-	-	-	-	-
Water Piping - Service pressure relief valve	5,000	-		-	-	-	-	-	-	-	-	-
Water Piping - Replace raw water meters	-	11,000	-	-	-	11,000	-	-	-	-	-	-
Pumphouse Treatment Equipment - Chemical metering pumps	-	15,000	15,000	-	-	-	-	-	-	-	-	-
Pumphouse Treatment Equipment - Centreline Injectors	500	9,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-
Treated Water Process - Replace pressure gauges	_	2,000	-	-	-	-	-	-	-	2,000	-	-
Treated Water Process - Service flow control valves	-	6,000	-	-	-	-	-	-	-	6,000	-	-
Treated Water Process - Service pressure relief valve	-	6,000	-	-	-	-	-	-	-	6,000	-	-
Treated Water Process - Rebuild high lift pumps	5,000	11,000	-	-	-	11,000	-	-	-	1	-	-
Treated Water Process - Service emergency pump	-	6,000	-	-	-	3,000	-	-	-	3,000	-	-
Treated Water Process - Replace treated w ater meters	-	5,000	-	-	-	-	-	-	-	-	5,000	-
Instrumentation and SCADA - Replace free chlorine analyzer	-	8,000	-	-	-	8,000	-	-	-	-	-	-
Instrumentation and SCADA - Replace laptop	-	3,000	-	-	-	3,000	-	-	-	-	-	-
Instrumentation and SCADA - Replace datalogger	-	6,000	-	-	-	3,000	3,000	-	-	-	-	-
Building Services - Electrical	-	12,000	3,000	-	-	3,000	-	3,000	-	3,000	-	-
Building Services - Heating	500	9,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-
Building Services - Lighting	500	5,000	-	1,000	-	1,000	1,000	-	1,000	-	1,000	-
Building Services - Generator Service	1,000	5,000	-	1,000	-	1,000	1,000	-	1,000	-	1,000	-
Treated Water Distribution - Distribution mains leak repairs	-	12,000	-	5,000	-	6,000	-	-	1,000	-	-	-
Treated Water Distribution - Valve repair	-	4,000	-	-	-	2,000	-	-	2,000	-	-	-
Treated Water Distribution - Hydrant repair	-	12,000	-	3,000	-	6,000	-	-	-	3,000	-	-
Treated Water Distribution - Service repairs	-	9,000	-	2,000	-	3,000	2,000	-	-	2,000	-	-
Provision	-	24,000	-	-	-	-	-	-	-	-	-	24,000
Studies:		-	-	-	-	-	-	-	-	-	-	-
Rate Studies and Financial Plan	-	49,000	-	-	-	-	23,000	-	-	-	-	26,000
Total Capital Expenditures	12,500	277,000	22,000	14,000	2,000	93,000	32,000	5,000	7,000	43,000	9,000	50,000
Capital Financing												
Provincial/Federal Grants		-										
Developer Contributions	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	2,934	136,986	22,000	13,554	424	83,954	17,054			-		
Water Reserve	9,566	140,014	-	446	1,576	9,046	14,946	5,000	7,000	43,000	9,000	50,000
Total Capital Financing	12,500	277,000	22,000	14,000	2,000	93,000	32,000	5,000	7,000	43,000	9,000	50,000



#### Table 2 Township of Amaranth Water Service

#### Schedule of Non-Growth Related Debenture Repayments

Debenture	2020	Principal	Forecast									
Year	2020	(Inflated)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2020		2,934	216	216	216	216	216	216	216	216	216	216
2021		22,000		1,619	1,619	1,619	1,619	1,619	1,619	1,619	1,619	1,619
2022		13,554			997	997	997	997	997	997	997	997
2023		424				31	31	31	31	31	31	31
2024		83,954					6,177	6,177	6,177	6,177	6,177	6,177
2025		17,054						1,255	1,255	1,255	1,255	1,255
2026		-							-	-	-	-
2027		-								-	-	-
2028		-									-	-
2029		-										-
2030		-										
Total Annual Debt Charges	-	139,920	216	1,835	2,832	2,863	9,041	10,296	10,296	10,296	10,296	10,296

#### Table 3 Township of Amaranth Water Service

#### Water Reserves/ Reserve Funds Continuity

#### Inflated \$

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	9,566	-	-	-	-	-	-	-	-	506	56,713
Transfer from Operating		ı	446	1,576	9,046	14,946	5,000	7,000	43,501	64,645	79,279
Transfer to Capital	9,566		446	1,576	9,046	14,946	5,000	7,000	43,000	9,000	50,000
Transfer to Operating			-	1	-	_	-	-	_	-	_
Closing Balance	-	-	-	-	-		-		501	56,151	85,991
Interest	-	-	-	-	-	-	-	-	5	562	860



#### Table 4 Township of Amaranth Water Services Operating Budget Forecast Inflated \$

initated \$													
	Budget		Forecast										
Description	2020		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Expenditures													
Operating Costs			-	-	-	-	-	-	-	-	-	-	
Bell Canada	1,900		1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	
Hydro	12,800		13,100	13,400	13,700	14,000	14,300	14,600	14,900	15,200	15,500	15,800	
General <sup>1</sup>	84,700		86,400	88,100	89,900	91,700	93,500	95,400	97,300	99,200	101,200	103,200	
Growth Related Operating Costs			-	-	-	2,677	7,394	11,374	15,506	19,792	24,254	28,499	
Sub Total Operating	99,400		101,400	103,400	105,500	110,277	117,094	123,274	129,606	136,092	142,854	149,399	
Capital-Related													
Existing Debt (Principal) - Part XII Repayment	3,620		3,892	4,183	4,497	4,834	5,197	5,872					
Existing Debt (Interest) - Part XII Repayment	2,407		2,135	1,844	1,530	1,193	830	155					
New Non-Growth Related Debt (Principal)			99	841	1,330	1,398	4,273	5,016	5,217	5,426	5,643	5,868	
New Non-Growth Related Debt (Interest)			117	993	1,502	1,466	4,768	5,279	5,079	4,870	4,653	4,427	
Transfer to General Reserves	-		-	-	-	-	-	19,878	30,075	6,848		-	
Transfer to Capital Reserve				446	1,576	9,046	14,946	5,000	7,000	43,501	64,645	79,279	
Sub Total Capital Related	6,027		6,243	8,307	10,435	17,937	30,014	41,200	47,371	60,645	74,940	89,574	
Total Expenditures	105,427		107,643	111,707	115,935	128,214	147,107	164,474	176,977	196,737	217,794	238,974	
Revenues													
Base Charge	78,880		101,616	105,680	109,908	122,187	141,080	158,447	176,977	196,737	217,794	238,974	
Part XII Capital Charge Recovery	6,027		6,027	6,027	6,027	6,027	6,027	6,027	-	-	-	-	
Contributions from General Reserves	20,520					-	-	-	-	-	-	-	
Contributions from Reserves / Reserve Funds	-		-	-	-	-	-	-	-	-	-	-	
Total Operating Revenue	105,427		107,643	111,707	115,935	128,214	147,107	164,474	176,977	196,737	217,794	238,974	
Water Billing Recovery - Operating	-			-	-	-		-	-	-	-	-	

<sup>&</sup>lt;sup>1</sup> Includes the operating contract, NSF Audits, Meter Calibrations, and emegency contingency