



Water Ontario Regulation 453/07 Financial Plan

Regional Municipality of Halton

Financial Plan #004-301A

February 13, 2019

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
D.C.	Development Charges
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



Report



Chapter 1

Introduction



1. Introduction

1.1 Study Purpose

The Region of Halton (the Region) retained Watson & Associates Economists Ltd. (Watson) 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. The detailed financial planning and forecasting regarding the Region's water systems has already been completed and documented by the Region within the 2018 Budget and Business Plan. The objective of the report provided herein is to convert the findings of the 2018 Budget and Business Plan 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 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; and
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing.

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. 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 municipal election was held in Halton on October 22, 2018. In early 2018, the Region approached the Ministry of the Environment, Conservation and Parks (MECP) to request that the license renewal applications, due November 27, 2018, could be submitted without the resolution of Council so that the new Council could be presented with the financial plan. On March 1, 2018, the MECP agreed that the Region’s applications would be accepted without the resolution of Council providing that the



Region state a date, within the application review window, when the resolution of Council would be submitted. The projected date for the financial plan presentation to Council is March 27, 2019.

A copy of the financial plan will be submitted to the Ministry of Municipal Affairs and Housing (MMAH) and not the MECP however, 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 Region's Financial Plan

The Region is currently in the process of renewing the drinking water licenses 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 beginning in 2018.



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, 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 (Bill 72)

Since the passage of the *Safe Drinking Water Act*, changes and refinements to the legislation have been introduced, including Bill 72. Bill 72 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 *Water Opportunities Act* 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 Bill 72 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 Bill 72 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 I.J.P.A. which has 3 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, the Region will need to consider the impacts during the annual Water Budget and Business Plan process.



2.5 Water Budget and Business Plan

The Region has already completed extensive financial planning as documented in the 2018 Budget and Business Plan. The budget 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 2018 Budget and Business Plan provides a sound financial plan for the Region’s water system by providing:

- 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 and system growth;
- A review and recommendation on rate structures that ensure revenues are equitable and sufficient to meet system needs; and
- A public process that involves ongoing consultation with the main stakeholders including the Region’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 financial plan.



Chapter 3

Approach



3. Approach

3.1 Overview

The 2018 Budget and Business Plan (along with additional detailed information provided by Regional Staff) has been used as a starting point to prepare the water financial plan. The Budget and Business Plan is 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 budget and business 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
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 assets, an inventory has already been compiled and summarized by the Region 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 capital needs have also been determined and summarized within the 2018 Budget and Business Plan. However, these estimates only represent future assets that the Region anticipates purchasing or constructing without consideration for future assets that are contributed by developers and other parties (at no or partial cost to the Region). 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 system, in order to convert from the cash to full accrual basis. 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 2018	Adjustments		Full Accrual Budget 2018	Accrual Basis
		DR	CR		
Revenues					Revenues
Rate Based Revenue	93,658,674			93,658,674	Rate Based Revenue
Transfers from Reserves	3,918,040	3,918,040			
Adjustments: Development Charges and Gas Tax Revenue			47,797,840	47,797,840	Earned Development Charges and Gas Tax Revenue
Other Revenue	8,029,405		6,017,003	14,046,408	Other Revenue
Total Revenues	105,606,119			155,502,922	Total Revenues
Expenditures					Expenses
Operating	50,164,132	5,124,000		55,288,132	Operating Expenses
Capital related transfers					
Transfers to Reserves	40,991,206		40,991,206		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	14,450,780		11,186,975	3,263,805	Interest on Debt
Adjustment: Amortization		30,948,623		30,948,623	Amortization
		-		-	Loss on Disposal of Tangible Capital Assets
Total Expenditures	105,606,119			89,500,560	Total Expenses
Net Expenditures	-			66,002,362	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			1,623,496,630	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	66,002,362	-	1,689,498,992	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		105,993,024	105,993,024		



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 Region 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 Region 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	Adjustments		Full Accrual Budget	Accrual Basis
	2018	DR	CR	2018	
ASSETS					ASSETS
Financial Assets					Financial Assets
Cash	258,502,852	211,596		258,291,256	Cash
Accounts Receivable	19,254,804			19,254,804	Accounts Receivable
				-	Investments
				-	Inventory for resale
Total Financial Assets	277,757,656			277,546,060	Total Financial Assets
Non-Financial Assets					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
Total Non-Financial Assets	-				
LIABILITIES					Liabilities
Accounts Payable & Accrued Liabilities	20,013,417			20,013,417	Accounts Payable & Accrued Liabilities
Gross Long-term Liabilities	89,177,486			89,177,486	Debt (Principal only)
Deferred Revenue	83,045,294			83,045,294	Deferred Revenue
Other	-			-	Other
Total Liabilities	192,236,197			192,236,197	Total Liabilities
Net Assets/(Debt)	85,521,459			85,309,863	Net Financial Assets/(Debt)
		1,609,313,129	5,124,000	1,604,189,129	Non-Financial Assets
		-		-	Tangible Capital Assets
		-		-	Inventory of Supplies
				-	Prepaid Expenses
				1,604,189,129	Total Non-Financial Assets
Municipal Position					
Water Reserves:					
Water Capital Reserve	107,375,194	107,375,194	-		
Capital Investment Revolving Fund	49,689,800	49,689,800	-		
Vehicles	2,102,998	2,102,998	-		
Water Reserves	15,530,953	15,530,953	-		
Gas Tax Reserve Fund	5,621,963	5,621,963	-		
Development Charge Reserve Fund	77,423,331	77,423,331	-		
Amounts to be Recovered	(172,222,780)	-	172,222,780		
Total Municipal Position	85,521,459		1,689,922,184	1,689,498,992	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		1,867,268,964	1,867,268,964		



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 Region 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 Region’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:

$$\begin{array}{r} \text{Ending Reserve/Reserve Fund Balance} \\ \text{Plus: Ending Accounts Payable Balance} \\ \text{Less: Ending Accounts Receivable Balance} \\ \text{Equals: Approximate Ending Cash Balance} \end{array}$$



- b) Amortization Expense – The method and timing of amortization should be based on the Region’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 Region’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 Region'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 Region'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.

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 Region'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 2018, the Region's water system will be in a net financial asset position of approximately \$85.3 million. For the balance of the forecast, 2019-2027, the financial plan forecasts a continuing net financial asset position.

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 water mains 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 are expected to grow over \$606 million over the 10-year forecast period. This indicates that the Region 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, although fluctuating to some extent, generally increasing from 58% to 73% over the forecast period to 2027. As a result, annual surplus decreases from \$66 million to \$45 million. This is due to fluctuating earned development charge revenue annually as well as a general increasing trend in amortization expense (from planned asset acquisitions). 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 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 add approximately \$794 million to a 2018 accumulated surplus of \$1.623 billion over the



forecast period. This 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.

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 the forecasted annual surplus/(deficit) exceeds the forecasted tangible capital asset acquisitions (net of amortization for the year), resulting in an increase to net financial assets over the forecast period. 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 1.08 to 1.12 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- 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 Region's water system to improve from a balance of approximately \$258.7 million at the beginning of 2018, to just under \$254.8 million by the end of 2027. 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
2018-2027

	Notes	Forecast									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Financial Assets:											
Cash	1	258,291,256	286,503,554	295,482,219	294,309,182	283,859,338	237,014,176	214,432,880	200,892,308	210,160,056	254,797,048
Accounts Receivable	1	19,254,804	20,092,802	20,986,321	21,903,556	22,861,890	23,507,874	24,430,620	25,347,580	26,289,367	27,271,985
Total Financial Assets		277,546,060	306,596,356	316,468,540	316,212,738	306,721,228	260,522,050	238,863,500	226,239,888	236,449,423	282,069,033
Liabilities:											
Bank Indebtedness		-	-	-	-	-	-	-	-	-	-
Accounts Payable & Accrued Liabilities	1	20,013,417	20,676,303	21,365,192	22,109,810	22,874,389	23,746,048	24,695,942	25,674,863	26,744,684	27,885,521
Debt (Principal and Sinking Fund)	2	89,177,486	79,360,054	69,610,485	60,401,477	51,707,794	45,312,736	39,830,340	36,085,474	32,264,207	31,509,116
Deferred Revenue	3	83,045,294	119,339,465	113,733,345	116,903,660	109,219,662	55,942,467	54,383,880	14,925,803	14,014,437	15,285,191
Total Liabilities		192,236,197	219,375,822	204,709,022	199,414,947	183,801,845	125,001,251	118,910,162	76,686,140	73,023,328	74,679,828
Net Financial Assets/(Debt)		85,309,863	87,220,534	111,759,518	116,797,791	122,919,383	135,520,799	119,953,338	149,553,748	163,426,095	207,389,205
Non-Financial Assets:											
Tangible Capital Assets	4	1,604,189,129	1,651,526,472	1,707,991,631	1,736,070,984	1,777,580,395	1,954,106,977	2,046,489,173	2,102,581,662	2,209,382,867	2,210,434,549
Inventory of Supplies		-	-	-	-	-	-	-	-	-	-
Prepaid Expenses		-	-	-	-	-	-	-	-	-	-
Total Non-Financial Assets		1,604,189,129	1,651,526,472	1,707,991,631	1,736,070,984	1,777,580,395	1,954,106,977	2,046,489,173	2,102,581,662	2,209,382,867	2,210,434,549
Accumulated Surplus/(Deficit)	5	1,689,498,992	1,738,747,006	1,819,751,149	1,852,868,775	1,900,499,778	2,089,627,776	2,166,442,511	2,252,135,410	2,372,808,962	2,417,823,754
Financial Indicators	Total Change	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1) Increase/(Decrease) in Net Financial Assets	129,316,327	7,236,985	1,910,671	24,538,984	5,038,273	6,121,592	12,601,416	(15,567,461)	29,600,410	13,872,347	43,963,110
2) Increase/(Decrease) in Tangible Capital Assets	665,010,797	58,765,377	47,337,343	56,465,159	28,079,353	41,509,411	176,526,582	92,382,196	56,092,489	106,801,205	1,051,682
3) Increase/(Decrease) in Accumulated Surplus	794,327,124	66,002,362	49,248,014	81,004,143	33,117,626	47,631,003	189,127,998	76,814,735	85,692,899	120,673,552	45,014,792



Table 4-2
Statement of Operations: Water Services
UNAUDITED: For Financial Planning Purposes Only
2018-2027

	Notes	Forecast									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Water Revenue											
Rate Based Revenue		93,658,674	98,222,193	103,084,211	108,075,327	113,294,936	118,189,252	123,211,566	128,201,051	133,329,660	138,681,060
Earned Development Charges and Gas Tax Revenue*	3	47,797,840	30,268,540	62,522,190	8,331,040	20,059,040	160,597,109	48,608,048	57,146,209	90,013,088	14,290,158
Other Revenue	6	14,046,408	13,251,106	13,404,787	13,621,899	13,545,719	13,644,037	13,434,553	13,554,617	14,191,599	15,119,803
Total Revenues		155,502,922	141,741,839	179,011,188	130,028,266	146,899,695	292,430,398	185,254,167	198,901,877	237,534,347	168,091,021
Water Expenses											
Operating Expenses	Sch. 4-1	55,288,132	56,138,672	60,895,391	58,921,795	60,546,230	63,303,065	64,522,000	67,948,690	70,178,222	73,817,760
Interest on Debt	2	3,263,805	3,016,496	2,776,813	2,544,198	2,322,873	2,135,917	1,995,628	1,892,777	1,814,778	1,774,151
Amortization	4	30,948,623	33,338,657	34,334,841	35,444,647	36,399,589	37,863,418	41,921,804	43,367,511	44,867,795	47,484,318
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Total Expenses		89,500,560	92,493,825	98,007,045	96,910,640	99,268,692	103,302,400	108,439,432	113,208,978	116,860,795	123,076,229
Annual Surplus/(Deficit)		66,002,362	49,248,014	81,004,143	33,117,626	47,631,003	189,127,998	76,814,735	85,692,899	120,673,552	45,014,792
Accumulated Surplus/(Deficit), beginning of year	5	1,623,496,630	1,689,498,992	1,738,747,006	1,819,751,149	1,852,868,775	1,900,499,778	2,089,627,776	2,166,442,511	2,252,135,410	2,372,808,962
Accumulated Surplus/(Deficit), end of year		1,689,498,992	1,738,747,006	1,819,751,149	1,852,868,775	1,900,499,778	2,089,627,776	2,166,442,511	2,252,135,410	2,372,808,962	2,417,823,754
Note 5:											
Accumulated Surplus/(Deficit) Reconciliation:		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Reserve Balances											
Reserves: Development Charges		77,423,331	113,526,357	107,722,591	110,688,542	102,793,230	49,297,535	47,513,020	7,821,333	6,668,415	7,689,404
Reserves: Gas Tax		5,621,963	5,813,110	6,010,756	6,215,122	6,426,436	6,644,935	6,870,863	7,104,472	7,346,024	7,595,789
Reserves: Water Capital		107,375,194	97,707,478	110,676,065	104,622,594	100,103,754	104,297,174	81,165,939	104,869,338	112,695,100	153,602,140
Reserves: Capital Investment Revolving Fund		49,689,800	51,379,253	53,126,148	54,932,437	56,800,140	58,731,345	60,728,211	62,792,970	64,927,931	67,135,481
Reserves: Vehicles		2,102,998	2,174,500	2,248,433	2,324,880	2,403,926	2,485,659	2,570,171	2,657,557	2,747,914	2,841,343
Reserves: Rate Stabilization		15,530,953	15,530,953	15,530,953	15,530,953	15,530,953	15,530,953	15,530,953	15,530,953	15,530,953	15,530,953
Total Reserves Balance		257,744,239	286,131,651	295,314,946	294,314,528	284,058,439	236,987,601	214,379,157	200,776,623	209,916,337	254,395,110
Less: Debt Obligations (including sinking fund investment) and Deferred Revenue		(172,434,376)	(198,911,117)	(183,555,428)	(177,516,737)	(161,139,056)	(101,466,802)	(94,425,819)	(51,222,875)	(46,490,242)	(47,005,905)
Add: Long-term Accounts Receivable		-	-	-	-	-	-	-	-	-	-
Add: Tangible Capital Assets	4	1,604,189,129	1,651,526,472	1,707,991,631	1,736,070,984	1,777,580,395	1,954,106,977	2,046,489,173	2,102,581,662	2,209,382,867	2,210,434,549
Total Ending Balance		1,689,498,992	1,738,747,006	1,819,751,149	1,852,868,775	1,900,499,778	2,089,627,776	2,166,442,511	2,252,135,410	2,372,808,962	2,417,823,754
Financial Indicators	Total Change	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1) Expense to Revenue Ratio		58%	65%	55%	75%	68%	35%	59%	57%	49%	73%
2) Increase/(Decrease) in Accumulated Surplus	794,327,124	66,002,362	49,248,014	81,004,143	33,117,626	47,631,003	189,127,998	76,814,735	85,692,899	120,673,552	45,014,792



Schedule 4-1
Statement of Operating Expenses: Water Services
UNAUDITED: For Financial Planning Purposes Only
2018-2027

	Notes	Forecast									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Expenses											
Personnel Services		8,164,310	8,450,061	8,745,813	9,051,916	9,368,733	9,696,639	10,036,021	10,387,282	10,750,837	11,127,116
Chemicals		992,448	1,012,297	1,032,543	1,053,194	1,074,258	1,095,743	1,117,658	1,140,011	1,162,811	1,186,067
Plant Maintenance Materials		927,419	945,967	964,887	984,185	1,003,869	1,023,946	1,044,425	1,065,314	1,086,620	1,108,352
Operations Maintenance Materials		113,123	115,385	117,693	120,047	122,448	124,897	127,395	129,943	132,542	135,193
Unshrinkable Fill		50,628	51,641	52,673	53,726	54,801	55,897	57,015	58,155	59,318	60,504
Other Materials & Supplies		2,023,352	2,063,819	2,105,096	2,147,198	2,190,142	2,233,945	2,278,624	2,324,196	2,370,680	2,418,094
Hydro		7,230,897	7,596,772	7,967,279	8,459,916	8,987,442	9,663,597	10,492,097	11,386,456	12,393,468	13,515,949
Other Purchased Services		4,370,002	4,457,402	4,546,550	4,637,481	4,730,231	4,824,836	4,921,333	5,019,760	5,120,155	5,222,558
LDC Charges		2,926,000	2,999,061	3,073,106	3,147,129	3,221,101	3,298,562	3,379,255	3,453,874	3,531,430	3,610,699
Plant Maintenance Purchases		2,339,147	2,385,930	2,433,649	2,482,322	2,531,968	2,582,607	2,634,259	2,686,944	2,740,683	2,795,497
Operations Maintenance Purchases		742,285	757,131	772,273	787,718	803,472	819,541	835,932	852,651	869,704	887,098
Professional Services		8,750	8,750	8,750	8,750	8,750	8,750	8,750	8,750	8,750	8,750
Property Taxes		1,558,775	1,589,951	1,621,750	1,654,185	1,687,269	1,721,014	1,755,434	1,790,543	1,826,354	1,862,881
Financial and Rent Expenses		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Grants & Assistance		-	-	-	-	-	-	-	-	-	-
Allocated Charges / Recoveries		15,485,291	15,975,359	16,581,116	17,184,792	17,783,391	18,477,378	19,190,344	19,894,066	20,687,138	21,517,419
Corporate Support		3,121,205	3,230,447	3,343,513	3,460,536	3,581,655	3,707,013	3,836,758	3,971,045	4,110,032	4,253,883
Contracted Services		-	-	-	-	-	-	-	-	-	-
Transfer to Reserves - Operating Liability Reserve		10,500	85,700	85,700	85,700	85,700	85,700	85,700	85,700	85,700	85,700
Non TCA - Expenses from Capital Budget	7	5,124,000	4,313,000	7,343,000	3,503,000	3,211,000	3,783,000	2,621,000	3,594,000	3,142,000	3,922,000
TOTAL OPERATING EXPENSES		55,288,132	56,138,672	60,895,391	58,921,795	60,546,230	63,303,065	64,522,000	67,948,690	70,178,222	73,817,760



Table 4-3
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2018-2027

	Notes	Forecast									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Annual Surplus/(Deficit)		66,002,362	49,248,014	81,004,143	33,117,626	47,631,003	189,127,998	76,814,735	85,692,899	120,673,552	45,014,792
Less: Acquisition of Tangible Capital Assets	4	(89,714,000)	(80,676,000)	(90,800,000)	(63,524,000)	(77,909,000)	(214,390,000)	(134,304,000)	(99,460,000)	(151,669,000)	(48,536,000)
Add: Amortization of Tangible Capital Assets	4	30,948,623	33,338,657	34,334,841	35,444,647	36,399,589	37,863,418	41,921,804	43,367,511	44,867,795	47,484,318
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
		(58,765,377)	(47,337,343)	(56,465,159)	(28,079,353)	(41,509,411)	(176,526,582)	(92,382,196)	(56,092,489)	(106,801,205)	(1,051,682)
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)		7,236,985	1,910,671	24,538,984	5,038,273	6,121,592	12,601,416	(15,567,461)	29,600,410	13,872,347	43,963,110
Net Financial Assets/(Net Debt), beginning of year		78,072,878	85,309,863	87,220,534	111,759,518	116,797,791	122,919,383	135,520,799	119,953,338	149,553,748	163,426,095
Net Financial Assets/(Net Debt), end of year		85,309,863	87,220,534	111,759,518	116,797,791	122,919,383	135,520,799	119,953,338	149,553,748	163,426,095	207,389,205
Financial Indicators		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1) Acquisition of Tangible Capital Assets (Cumulative)		89,714,000	170,390,000	261,190,000	324,714,000	402,623,000	617,013,000	751,317,000	850,777,000	1,002,446,000	1,050,982,000
2) Annual Surplus/Deficit before Amortization (Cumulative)		96,950,985	179,537,656	294,876,640	363,438,913	447,469,505	674,460,921	793,197,460	922,257,870	1,087,799,217	1,180,298,327
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)		1.08	1.05	1.13	1.12	1.11	1.09	1.06	1.08	1.09	1.12



Table 4-4
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
2018-2027

	Notes	Forecast									
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Transactions											
Annual Surplus/Deficit		66,002,362	49,248,014	81,004,143	33,117,626	47,631,003	189,127,998	76,814,735	85,692,899	120,673,552	45,014,792
Add: Amortization of TCA's	4	30,948,623	33,338,657	34,334,841	35,444,647	36,399,589	37,863,418	41,921,804	43,367,511	44,867,795	47,484,318
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Less: Earned Deferred Revenue	3	(47,797,840)	(30,268,540)	(62,522,190)	(8,331,040)	(20,059,040)	(160,597,109)	(48,608,048)	(57,146,209)	(90,013,088)	(14,290,158)
Less: Developer Contributions		-	-	-	-	-	-	-	-	-	-
Add: Deferred Revenue Proceeds		51,589,478	66,562,711	56,916,070	11,501,355	12,375,042	107,319,913	47,049,461	17,688,131	89,101,722	15,560,912
Change in A/R (Increase)/Decrease		-	(837,998)	(893,519)	(917,235)	(958,334)	(645,984)	(922,746)	(916,960)	(941,788)	(982,618)
Change in A/P Increase/(Decrease)		-	662,886	688,889	744,618	764,579	871,659	949,894	978,921	1,069,822	1,140,837
Less: Interest Proceeds		(6,017,003)	(5,189,082)	(5,304,132)	(5,481,632)	(5,368,920)	(5,429,670)	(5,181,548)	(5,261,879)	(5,862,088)	(6,752,358)
Cash Provided by Operating Transactions		94,725,620	113,516,648	104,224,102	66,078,339	70,783,919	168,510,226	112,023,552	84,402,414	158,895,927	87,175,725
Capital Transactions											
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	(89,714,000)	(80,676,000)	(90,800,000)	(63,524,000)	(77,909,000)	(214,390,000)	(134,304,000)	(99,460,000)	(151,669,000)	(48,536,000)
Cash Applied to Capital Transactions		(89,714,000)	(80,676,000)	(90,800,000)	(63,524,000)	(77,909,000)	(214,390,000)	(134,304,000)	(99,460,000)	(151,669,000)	(48,536,000)
Investing Transactions											
Proceeds from Investments		6,017,003	5,189,082	5,304,132	5,481,632	5,368,920	5,429,670	5,181,548	5,261,879	5,862,088	6,752,358
Less: Cash Used to Acquire Investments		-	-	-	-	-	-	-	-	-	-
Cash Provided by (applied to) Investing Transactions		6,017,003	5,189,082	5,304,132	5,481,632	5,368,920	5,429,670	5,181,548	5,261,879	5,862,088	6,752,358
Financing Transactions											
Proceeds from Debt Issue	2	-	-	-	-	-	-	-	-	-	-
Add: Long-term Accounts Receivable Proceeds (recovery of debt)	2	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (Principal only including sinking fund investment earnings)	2	(11,398,570)	(9,817,432)	(9,749,569)	(9,209,008)	(8,693,683)	(6,395,058)	(5,482,396)	(3,744,865)	(3,821,267)	(755,091)
Cash Applied to Financing Transactions		(11,398,570)	(9,817,432)	(9,749,569)	(9,209,008)	(8,693,683)	(6,395,058)	(5,482,396)	(3,744,865)	(3,821,267)	(755,091)
Increase in Cash and Cash Equivalents		(369,947)	28,212,298	8,978,665	(1,173,037)	(10,449,844)	(46,845,162)	(22,581,296)	(13,540,572)	9,267,748	44,636,992
Cash and Cash Equivalents, beginning of year	1	258,661,203	258,291,256	286,503,554	295,482,219	294,309,182	283,859,338	237,014,176	214,432,880	200,892,308	210,160,056
Cash and Cash Equivalents, end of year	1	258,291,256	286,503,554	295,482,219	294,309,182	283,859,338	237,014,176	214,432,880	200,892,308	210,160,056	254,797,048



Notes to Financial Plan

The financial plan format asnic outlined in Chapter 4 closely approximates the full accrual format used by municipalities 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 Region, some of the items listed above have been estimated given that the Region 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 Region, 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 water receivables as a percentage of annual water revenue earned; and
- b) Payables: Based on historical levels of Region-wide payables as a percentage of annual Region-wide expenses.

Therefore, the opening cash balance was estimated based on the above calculations.

2. Debt

Outstanding water related debt at the end of 2017 was \$100,576,057. Principal repayments, including sinking fund debt and excluding the sinking fund investment earnings, for existing debt over the forecast period are scheduled as follows



Year	Principal Payments
2018	11,186,975
2019	9,817,432
2020	9,749,569
2021	9,209,008
2022	8,693,683
2023	6,395,058
2024	5,482,396
2025	3,744,865
2026	3,821,267
2027	755,091
Total	\$ 68,855,345

No additional debt proceeds are anticipated over the forecast period based on the Region's projected debt financing requirements from 2018 to 2027.

For financial reporting purposes, debt principal payments represent a decrease in debt liability and the interest payments represent a current year operating expense. Investment income on the sinking fund debt is assumed to assist in decreasing the debt liability.

3. Deferred Revenue

Deferred revenue is 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. Region staff have estimated annual development charge proceeds to equal the total of each year's transfers to operating and capital from the development charge reserve fund for the purposes of this financial plan. Note that the 2012 allocation program expenditures are not included.

4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
 - i. Linear Infrastructure
 - ii. Facilities
 - iii. Vehicles
 - iv. Equipment



v. Land

The Region is using three amortization methods based on asset type as follows:

- i. Vehicles: the straight-line approach with ½ year amortization in the year of acquisition or construction. A residual value has been allocated to each specific asset.
 - ii. Equipment: the straight-line approach with ½ year amortization in the year of acquisition or construction with no residual value allocated.
 - iii. Facilities and Infrastructure: the straight-line approach with no amortization in the year of acquisition or construction and no residual value has been allocated.
- Given the planned asset replacement forecast provided by the Region, 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.
 - Gains/losses on disposal are assumed to be \$0 (it is assumed that historical cost is equal to accumulated amortization for all disposals).
 - As noted above, with the exception of vehicles, 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 1998-2007 Accelerated Cast Iron Watermain Replacement Program previously addressed nearly all public-side lead water service issues. Nearly a decade ago, the MECP mandated an ongoing lead sampling program across the province. Under the Ministry’s program, the Region tests for lead in the municipal water distribution systems and, where required, in residential and non-residential plumbing.



- The opening Tangible Capital Assets (T.C.A.) balance and opening accumulated amortization values have been adjusted to include capital work in progress as completed works in 2018 but exclude assets under construction. There is no mechanism available to allocate the water only percentage of assets under construction to the opening T.C.A balance, therefore to avoid overstatement assets under construction have not been included.

The balance of tangible capital assets is summarized as follows:

Description	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Opening Tangible Capital Asset Balance	2,007,054,922	2,094,351,583	2,171,323,847	2,259,000,290	2,318,968,012	2,389,585,063	2,594,940,240	2,714,773,175	2,805,642,827	2,947,260,869
Acquisitions	89,714,000	80,676,000	90,800,000	63,524,000	77,909,000	214,390,000	134,304,000	99,460,000	151,669,000	48,536,000
Disposals	2,417,339	3,703,736	3,123,557	3,556,278	7,291,949	9,034,823	14,471,065	8,590,348	10,050,958	5,960,191
Closing Tangible Capital Asset Balance	2,094,351,583	2,171,323,847	2,259,000,290	2,318,968,012	2,389,585,063	2,594,940,240	2,714,773,175	2,805,642,827	2,947,260,869	2,989,836,678
Opening Accumulated Amortization	461,631,170	490,162,454	519,797,375	551,008,659	582,897,028	612,004,668	640,833,263	668,284,002	703,061,165	737,878,002
Amortization Expense	30,948,623	33,338,657	34,334,841	35,444,647	36,399,589	37,863,418	41,921,804	43,367,511	44,867,795	47,484,318
Amortization on Disposal	2,417,339	3,703,736	3,123,557	3,556,278	7,291,949	9,034,823	14,471,065	8,590,348	10,050,958	5,960,191
Ending Accumulated Amortization	490,162,454	519,797,375	551,008,659	582,897,028	612,004,668	640,833,263	668,284,002	703,061,165	737,878,002	779,402,129
Net Book Value	1,604,189,129	1,651,526,472	1,707,991,631	1,736,070,984	1,777,580,395	1,954,106,977	2,046,489,173	2,102,581,662	2,209,382,867	2,210,434,549



5. Accumulated Surplus

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

Water	2018 Opening Accumulated Surplus
Reserve Balances	
Reserves: Development Charges	73,816,553
Reserves: Gas Tax	5,437,102
Reserves: Capital/Other	178,648,935
Total Reserves Balance	257,902,590
Less: Debt Obligations (including sinking fund investment) and Deferred Revenue	(179,829,712)
Add: Long-term Accounts Receivable	-
Add: Tangible Capital Assets	1,545,423,752
Total Opening Balance	1,623,496,630

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

6. Other Revenue

Other revenue includes interest, program revenue, compliance fees, application fees and other non-operating general revenues.

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 Region 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 2018 Budget and Business Plan. Nevertheless, Council is required to pass certain resolutions with regard to this plan and regulations and it is recommended that:

1. The Region of Halton Water Financial Plan prepared by Watson & Associates Economists Ltd. dated February 13, 2019 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated February 13, 2019 be submitted to the Ministry of Municipal Affairs and Housing. (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.).