



Water Ontario Regulation 453/07 Financial Plan

Municipality of Machin

Financial Plan #290-301

August 20, 2020

Watson & Associates Economists Ltd.
905-272-3600
info@watsonecon.ca

Table of Contents

	Page
1. Introduction.....	1-1
1.1 Study Purpose	1-1
1.2 Background.....	1-1
1.2.1 Financial Plan Defined	1-2
1.2.2 Financial Plan Requirements – Existing System.....	1-2
1.2.3 Financial Plan Requirements – General	1-3
1.2.4 Public Sector Accounting Board (P.S.A.B.) Requirements	1-4
2. Sustainable Financial Planning.....	2-1
2.1 Introduction	2-1
2.2 Sustainable Water and Sewage Systems Act.....	2-2
2.3 Water Opportunities Act, 2010.....	2-2
2.4 Infrastructure for Jobs and Prosperity Act (I.J.P.A.), 2015	2-3
2.5 Water Forecast	2-4
2.6 Overview of Lifecycle Costing.....	2-5
2.6.1 Definition	2-5
2.6.2 Financing Costs	2-5
2.6.3 Costing Methods	2-9
2.7 Impact on Budgets	2-11
3. Approach.....	3-1
3.1 Overview	3-1
3.2 Conversion Process.....	3-1
3.2.1 Calculate Tangible Capital Asset Balances	3-1
3.2.2 Convert Statement of Operations.....	3-2
3.2.3 Convert Statement of Financial Position	3-4
3.2.4 Convert Statement of Cash Flow and Net Financial Assets/Debt.....	3-4
3.2.5 Verification and Note Preparation	3-6
4. Financial Plan	4-1



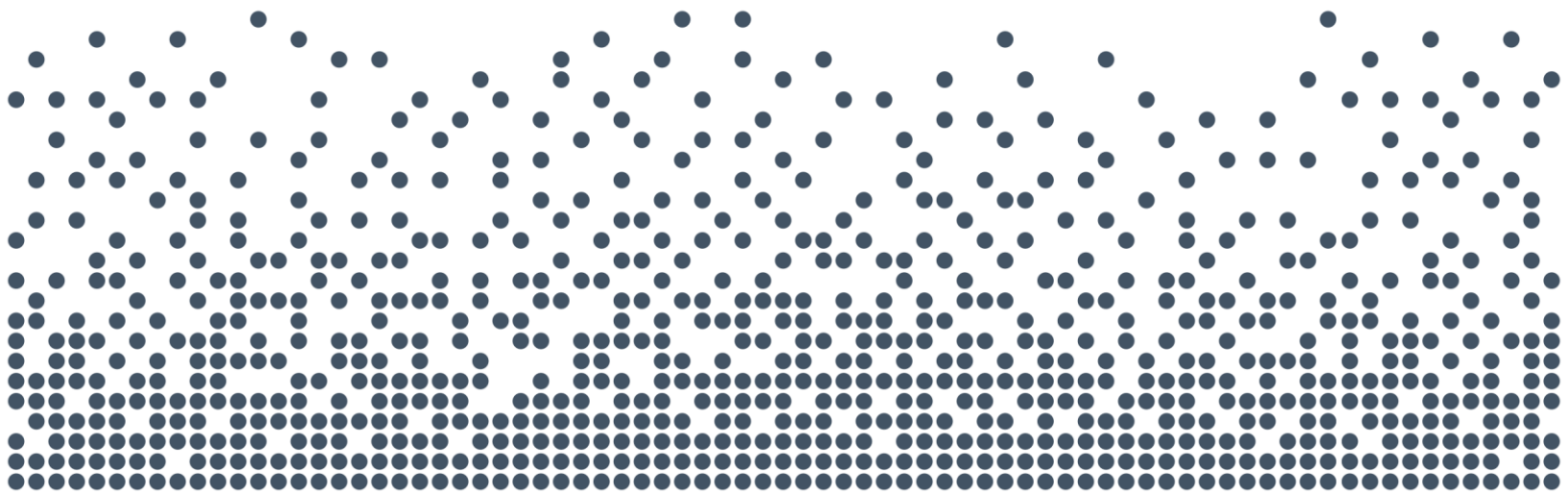
Table of Contents (Cont'd)

	Page
4.1 Introduction	4-1
4.2 Water Financial Plan.....	4-1
4.2.1 Statement of Financial Position (Table 4-1)	4-1
4.2.2 Statement of Operations (Table 4-2).....	4-2
4.2.3 Statement of Change in Net Financial Assets/Debt (Table 4-3)	4-3
4.2.4 Statement of Cash Flow (Table 4-4)	4-3
5. Process for Financial Plan Approval and Submission to the Province	5-1
6. Recommendations	6-1
Appendix A 2020 Water Budget and Forecast Summary Tables	A-1
Appendix B 2020 Water Budget and Forecast Summary Tables - With Lifecycle Reserve Contributions.....	B-1



List of Acronyms and Abbreviations

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



Report



Chapter 1

Introduction



1. Introduction

1.1 Study Purpose

Watson & Associates Economists Ltd. (Watson) was retained by the Municipality of Machin (the Municipality) 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 Municipality's water systems has already been completed based on the Municipality's 2020 Budget. The objective of the report provided herein is to convert the details of the 2020 budget into the prescribed reporting requirements for a financial plan as defined by Ontario Regulation 453/07 (O.Reg. 453/07) and project the financial position over a ten-year forecast period.

1.2 Background

The Safe Drinking Water Act (S.D.W.A.), "the Act", 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.

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 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 copy of the financial plan will be submitted to the Ministry of Municipal Affairs and Housing (MMAH) and not the MECP; however, the MECP may request it in the course of review of the licence renewal. Financial plans may be amended and additional information beyond what is prescribed can be included if deemed necessary. The financial plan must contain on the front page, the appropriate financial plan number as set out in Schedule A of the Municipal Drinking Water Licence.



1.2.4 Public Sector Accounting Board (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.”

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 Municipality's Financial Plan

The Municipality is currently in the process of renewing the drinking water license and the previous version of the financial plan no longer meets the requirements as it must apply to a period of a least six years beginning in the year that the licenses would otherwise expire therefore, this financial plan provides for the current 2020 budget and a ten-year forecast period (2021 to 2030).



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") that provides possible approaches to achieving sustainability. The Province's Principles of Financially Sustainable Water 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 services should ultimately be used to meet the needs of those services.

Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.

Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.

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



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

2.2 Sustainable Water and Sewage Systems Act

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

2.3 Water Opportunities Act, 2010

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

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 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 Municipality will need to consider the impacts during the annual budget and forecast process.

2.5 Water Forecast

The Municipality has already completed their financial planning through it's 2020 Water budget and a 10-year forecast has been developed based on anticipated inflationary impacts to both revenues and expenditures. The budget process is designed to address "full cost" principles and reflect the guiding principles toward sustainable financial planning. However, due to the level of reserves, future capital replacement needs, based on the average lifecycle of water assets, have been assumed to be zero over the forecast period. Further, discussion on lifecycle needs is presented in section 2.6.



As a result of employing this process, the 2020 Water Budget and Forecast provides the basis for a financial plan for the Municipality's water system by assessing:

- An analysis of operating costs in order to determine how they will be impacted by evolving infrastructure needs and system growth;
- An analysis of required water rates that ensure revenues are equitable and sufficient to meet system needs; and
- A public process that involves consultation with the main stakeholders including the Municipality'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.

2.6 Overview of Lifecycle Costing

2.6.1 Definition

For many years, lifecycle costing has been used in the field of maintenance engineering and to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and use in the areas of industrial decision-making and the management of physical assets.

By definition, lifecycle costs are all the costs which are incurred during the lifecycle of a physical asset, from the time its acquisition is first considered to the time it is taken out of service for disposal or redeployment. The stages which the asset goes through in its lifecycle are specification, design, manufacture (or build), install, commission, operate, maintain and disposal. Figure 3-1 depicts these stages in a schematic form.

2.6.2 Financing Costs

This section will focus on financing mechanisms in place to fund the costs incurred throughout the asset's life.

In a municipal context, services are provided to benefit tax/rate payers. Acquisition of assets is normally timed in relation to direct needs within the community. Financing techniques such as development charges and local improvement charges have been employed in some municipalities based on the underlying principle of having tax/rate payers who benefit directly from the service paying for that service. Operating costs which reflect the cost of the service for that year are charged directly to all existing

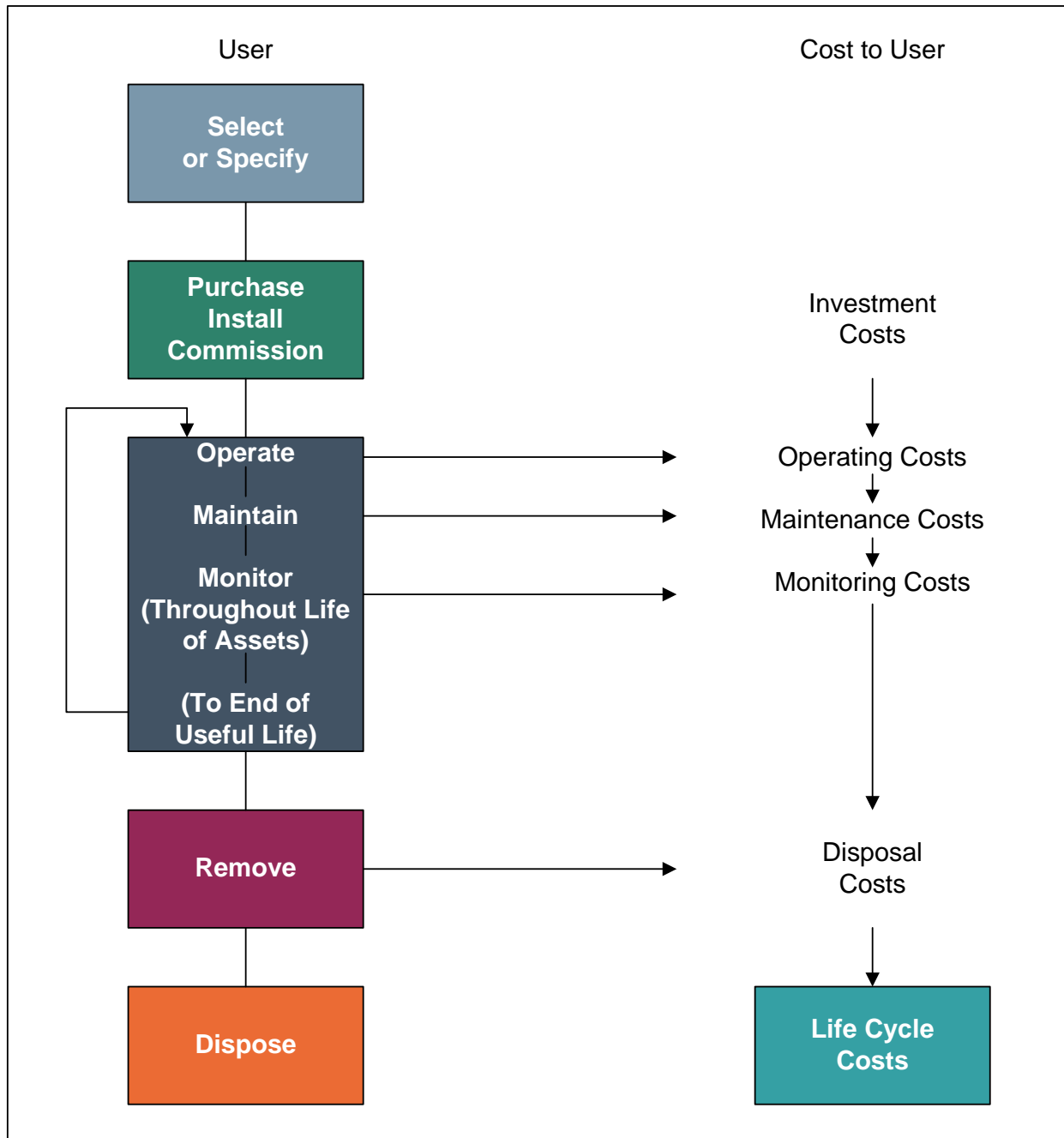


tax/rate payers who have received the benefit. Operating costs are normally charged through the tax base or user rates.

Capital expenditures are recouped through several methods, with operating budget contributions, development charges, reserves, developer contributions and debentures, being the most common.



Figure 3-1
Lifecycle Costing



Municipality are often dependent upon debentures, reserves and contributions from the operating budget to fund the capital works associated with lifecycle needs.



Figure 3-2 depicts the costs of an asset from its initial conception through to replacement and then continues to follow the associated costs through to the next replacement.

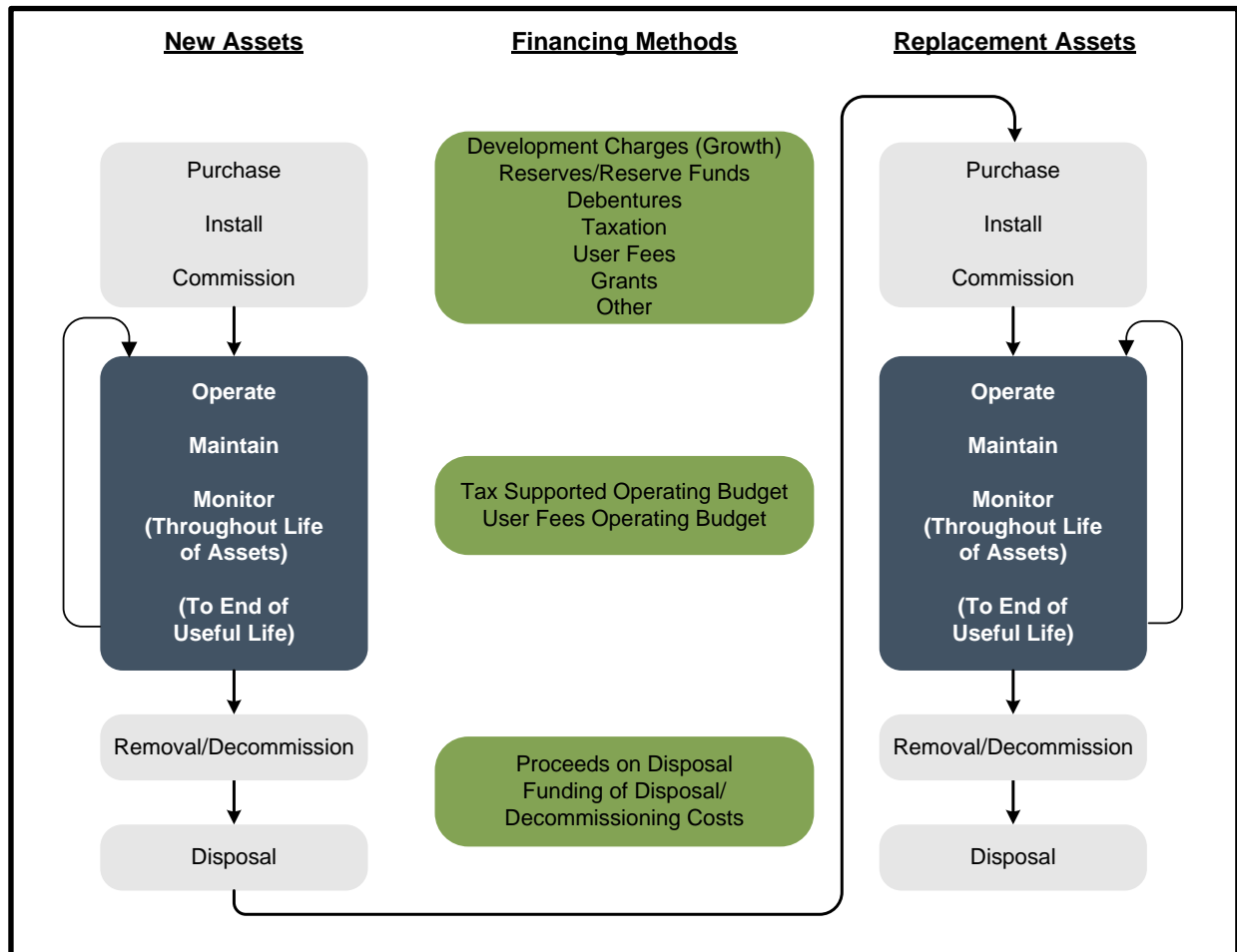
Ongoing costs for monitoring, operating, and maintaining the water assets will be charged annually to the existing rate payer.

When an asset requires replacement, the sources of financing are limited to reserves, debentures, and contributions from the operating budget. At this point, the question is raised: "If the cost of replacement is to be assessed against the rate payer who benefits from the replacement of the asset, should the past rate payer pay for this cost or should future rate payers assume this cost?" If the position is taken that the past user has used up the asset, hence he should pay for the cost of replacement, then a charge should be assessed annually through the life of the asset, to have funds available to replace it when the time comes. If the position is taken that the future rate payer should assume this cost, then debenturing and, possibly, a contribution from the operating budget should be used to fund this work.

Charging for the cost of using up an asset is the fundamental concept behind depreciation methods utilized by the private sector. This concept allows for expending the asset as it is used up in the production process. The tracking of these costs forms part of the product's selling price and, hence, end-users are charged for the asset's depreciation. The same concept can be applied in a municipal setting to charge existing users for the asset's use and set those funds aside in a reserve to finance the cost of replacing the asset in the future.



Figure 3-2
Financing Lifecycle Costs



2.6.3 Costing Methods

There are two fundamental methods of calculating the cost of the usage of an asset and for the provision of the revenue required when the time comes to retire and replace it. The first method is the Depreciation Method. This method recognizes the reduction in the value of the asset through wear and tear and aging. There are two commonly used forms of depreciation: the straight-line method and the reducing balance method (shown graphically in Figure 3-3).

The straight-line method is calculated by taking the original cost of the asset, subtracting its estimated salvage value (estimated value of the asset at the time it is disposed of) and dividing this by the estimated number of years of useful life. The



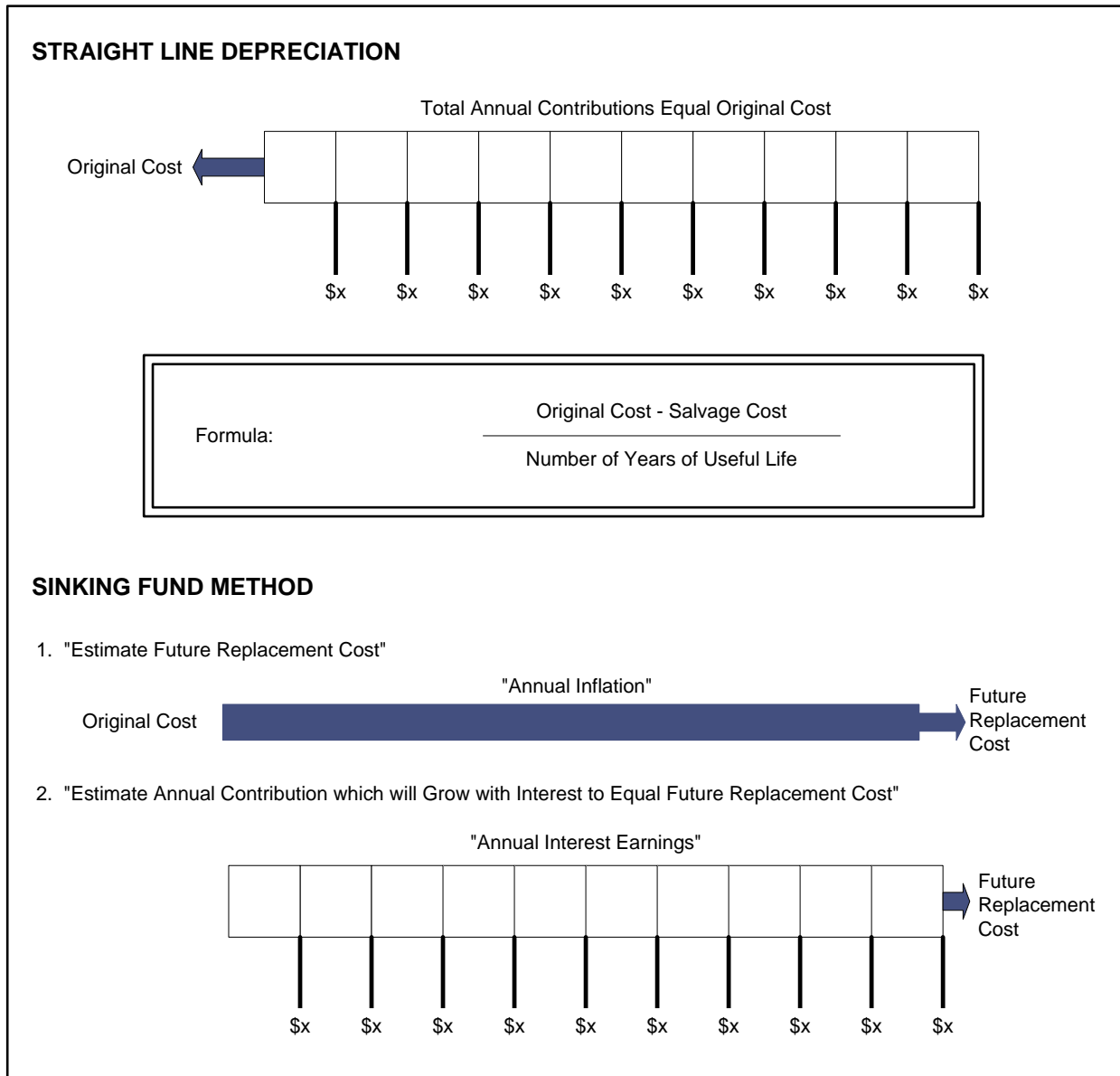
reducing balance method is calculated by utilizing a fixed percentage rate and this rate is applied annually to the undepreciated balance of the asset value. This is the method utilized by the Municipality for purposes of financial reporting.

The second method of lifecycle costing is the sinking fund method. This method first estimates the future value of the asset at the time of replacement. This is done by inflating the original cost of the asset at an assumed annual inflation rate. A calculation is then performed to determine annual contributions (equal or otherwise) which, when invested, will grow with interest to equal the future replacement cost.

The preferred method used for forecasting purposes is the sinking fund method of lifecycle costing.



Figure 3-3



2.7 Impact on Budgets

Detailed water system inventory information was obtained from the Municipality. The age of the water system dates back to the mid 1970s. The water system has been maintained and replacements have taken place throughout the years as required. The total value of existing water infrastructure is \$14.5 million.



The lifecycle “sinking fund” contribution amounts for each piece of infrastructure have also been calculated and summarized. These calculations determine the level of investment the Municipality may wish to consider as part of its budgeting practices. This level of investment is estimated at \$1.14 million annually. This information is summarized in Figure 3-4.

Figure 3-4
Summary of Water and Wastewater Infrastructure

Area	Total Replacement Value	Suggested Amount to be Included in 10-year Forecast based on Estimated Life	Amount included in 10-year forecast	Annual Lifecycle Replacement
Water				
Water Facilities	11,788,801	1,526,176	-	960,122
Watermains	2,030,750	-	-	131,975
Hydrants	202,420	-	-	13,979
Water Gate Valves	84,920	-	-	5,598
Water Service Connections	441,700	-	-	30,690
Total Water	14,548,591	1,526,176	-	1,142,363

With respect to lifecycle costing contained in the Appendices, the following information was taken into consideration:

- approximate age;
- estimated useful life; and
- estimated replacement costs.

It is noted that there are a number of water assets, with a value of over \$1.5 million, reaching their average useful life over the 10-year forecast period within the water facility. Municipal staff monitor these assets and budget for their replacement based on condition. Therefore, the capital forecast does not currently include financing these replacements.

Budgeting annually for transfers to a lifecycle reserve assists municipalities in reaching full cost pricing and provides municipalities with the financial resources to replace assets as required. Currently Machin is forecasting rate increases of 2% annually over the forecast period (see Appendix A). This level of rate increase does not allow for lifecycle reserve contributions and as such, an alternative rate forecast has been provided which identifies a 5% annual increase to rates, thus allowing for lifecycle reserve transfers to begin (see Appendix B). It is noted that this alternative rate forecast



has been developed for demonstration purposes and Council would need to consider the impact on the rates in future budget processes and way the cost to rate payers. As such, the forecast that projects the rate increases at 2% annually has been used to undertake this financial plan.



Chapter 3

Approach



3. Approach

3.1 Overview

The 2020 Water Budget (along with additional detailed information provided by Municipality Staff) has been used as a starting point to prepare the water financial plan. The Water forecast is prepared on a modified cash basis; therefore, a conversion is required in order to present a full accrual financial plan for the purposes of this report. The conversion process used will help to establish the structure of the financial plan along with the opening balances that will underpin the forecast. This chapter outlines the conversion process utilized and summarizes the adjustments made to prepare the 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
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 Municipality 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 were reviewed, and based on future replacement needs, there is no capital anticipated over the forecast period to 2030. If, over the forecast period, capital needs arise, the financial plan may need to be adjusted in order to properly account for these transactions. Once the timing and total asset acquisition value has been determined for the forecast period, annual amortization of these assets for each year would be 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 (Water)

Modified Cash Basis	Budget 2020	Adjustments		Full Accrual Budget 2020	Accrual Basis
		DR	CR		
Revenues					Revenues
Rate Based Revenue	213,052			213,052	Rate Based Revenue
Transfers from Reserves	56,850	56,850			
			56,850	56,850	Earned Gas Tax Revenue
Other Revenue	99,458		-	99,458	Other Revenue
Total Revenues	369,360			369,360	Total Revenues
Expenditures					Expenses
Operating	292,360	-		292,360	Operating Expenses
Capital					
Transfers to Reserves	-		-		
Transfers to Capital	-		-		
Debt Repayment (Principal & Interest)	77,000		34,006	42,994	Interest on Debt
		322,342		322,342	Amortization
Total Expenditures	369,360			657,696	Total Expenses
Net Expenditures	-			(288,336)	Annual Surplus/(Deficit)
Increase (decrease) in amounts to be recovered	-			3,979,403	Accumulated Surplus/(Deficit), beginning of year
Change in Fund Balances	-	-	288,336	3,691,067	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		379,192	379,192		

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



3.2.3 Convert Statement of Financial Position

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

It is acknowledged that some of the balances required on the Statement of Financial Position will be consolidated across the Municipality 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 Municipality 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
Statements of Financial Position (Water)**

Modified Cash Basis	Budget 2020	Adjustments		Full Accrual Budget 2020	Accrual Basis
		DR	CR		
ASSETS					ASSETS
Financial Assets					Financial Assets
Cash	-			-	Cash
Accounts Receivable	70,771			70,771	Accounts Receivable
Total Financial Assets	70,771			70,771	Total Financial Assets
Non-Financial Assets					
Inventory of Supplies	-		-		
Prepaid Expenses	-		-		
Total Non-Financial Assets	-				
LIABILITIES					Liabilities
Accounts Payable & Accrued Liabilities	25,133			25,133	Accounts Payable & Accrued Liabilities
Gross Long-term Liabilities	847,164			847,164	Debt (Principal only)
Deferred Revenue	-			-	Deferred Revenue
Bank Indebtedness	22,911			22,911	Bank Indebtedness
Total Liabilities	895,208			895,208	Total Liabilities
Net Assets/(Debt)	(824,437)			(824,437)	Net Financial Assets/(Debt)
		4,515,504	-	4,515,504	Non-Financial Assets
					Tangible Capital Assets
				4,515,504	Total Non-Financial Assets
Municipal Position					
Water Reserves	22,727	22,727	-		
Gas Tax Reserve Fund	-	-	-		
Development Charge Reserve Fund	-	-	-		
Amounts to be Recovered	(847,164)	-	847,164		
Total Municipal Position	(824,437)		3,691,067	3,691,067	Accumulated Surplus/(Deficit), end of year
TOTAL ADJUSTMENTS		4,538,231	4,538,231		

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



3.2.5 Verification and Note Preparation

The final step in the conversion process is to ensure that all the statements created by the previous steps are in balance. The Statement of Financial Position summarizes the resources and obligations of the Municipality 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 Municipality’s ledgers. It may not, however, 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:

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

- b) Amortization Expense – The method and timing of amortization should be based on the Municipality’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 Municipality’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 minor miscellaneous revenues.



Chapter 4

Financial Plan



4. Financial Plan

4.1 Introduction

The following tables provide the complete financial plan for the Municipality'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 Municipality's water systems. It is not an audited document 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 Municipality'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 2020 due to the existing water debt principal balance and low reserve balance, the Municipality's water system was in a net debt position of \$824,437. However, this net debt position improves to a net debt position of \$342,643 by 2030. The net debt position is projected to improve by over \$231,000 over the forecast period.

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:



- 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 that there are no current plans to purchase or construct water tangible capital assets during the forecast period. As a result, the tangible capital asset net book value is anticipated to decrease by over \$3.4 million during this time, due to annual amortization amounts. This indicates that the Municipality has no plans to invest in water tangible capital asset 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 at 178% in 2020 and decreases over the forecast period to 142% by 2030. As a result, annual deficit amounts are shown at \$288,336 in 2020 and reducing slightly over the forecast period to \$182,838 by 2030. Deficit are shown due to the fact that the Municipality is not currently contributing to water reserves at amounts equalling or exceeding amortization expense each year. Amortization, which is a non-cash expense from a full accrual reporting standpoint, is included in operating expenses as shown in Table 4-2. 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 in the future.



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 illustrates a reduction in accumulated surplus of approximately \$2.9 million over the forecast period. This is due to the projection of annual deficits as well as the decreasing tangible capital asset net book value over the forecast period. The existing accumulated surplus, as indicated in Table 4-2, is predominately made up of reserve 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 forecasted tangible capital asset amortization exceeds the forecasted annual deficit for each year of the forecast period, resulting in an increase in net financial assets each year. This trend of improving the net financial asset position will eventually allow for a long-term plan of funding capital through accumulated surplus (i.e. reserve balances)

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 make required debt payments over the forecast period. The financial plan projects the cash position of the Municipality's water system to decline from a balance of approximately \$16,863 at the beginning of 2020 to \$15,644 by 2030. 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
2020-2030

	Notes	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Financial Assets												
Cash	1	-	-	-	-	-	-	-	-	-	-	-
Accounts Receivable	1	70,771	73,212	75,758	78,411	81,195	84,097	87,143	90,319	93,632	97,108	100,734
Total Financial Assets		70,771	73,212	75,758	78,411	81,195	84,097	87,143	90,319	93,632	97,108	100,734
Liabilities												
Bank Indebtedness		22,911	24,811	26,182	27,018	27,164	26,699	25,656	24,036	21,850	19,027	15,644
Accounts Payable & Accrued Liabilities	1	25,133	25,644	26,143	26,650	27,157	27,681	28,223	28,773	29,332	29,899	30,484
Debt (Principal only)	2	847,164	811,447	773,932	734,530	693,145	649,678	604,024	556,073	505,708	452,810	397,249
Deferred Revenue	3	-	-	-	-	-	-	-	-	-	-	-
Total Liabilities		895,208	861,902	826,257	788,198	747,466	704,058	657,903	608,882	556,890	501,736	443,377
Net Financial Assets/(Debt)		(824,437)	(788,690)	(750,499)	(709,787)	(666,271)	(619,961)	(570,760)	(518,563)	(463,258)	(404,628)	(342,643)
Non-Financial Assets												
Tangible Capital Assets	4	4,515,504	4,193,162	3,870,820	3,548,478	3,226,136	2,903,794	2,588,492	2,273,190	1,971,457	1,669,724	1,424,901
Total Non-Financial Assets		4,515,504	4,193,162	3,870,820	3,548,478	3,226,136	2,903,794	2,588,492	2,273,190	1,971,457	1,669,724	1,424,901
Accumulated Surplus/(Deficit)	5	3,691,067	3,404,472	3,120,321	2,838,691	2,559,865	2,283,833	2,017,732	1,754,627	1,508,199	1,265,096	1,082,258
Financial Indicators	Total Change	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1) Increase/(Decrease) in Net Financial Assets	515,800	34,006	35,747	38,191	40,712	43,516	46,310	49,201	52,197	55,305	58,630	61,985
2) Increase/(Decrease) in Tangible Capital Assets	(3,412,945)	(322,342)	(322,342)	(322,342)	(322,342)	(322,342)	(322,342)	(315,302)	(315,302)	(301,733)	(301,733)	(244,823)
3) Increase/(Decrease) in Accumulated Surplus	(2,897,145)	(288,336)	(286,595)	(284,151)	(281,630)	(278,826)	(276,032)	(266,101)	(263,105)	(246,428)	(243,103)	(182,838)



Table 4-2
Statement of Operations: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

	Notes	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Revenue												
Rate Based Revenue		213,052	217,313	221,659	226,093	230,614	235,226	239,930	244,729	249,623	254,615	259,707
Earned Gas Tax Revenue	3	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Other Revenue	6	99,458	101,500	103,601	105,700	107,900	110,100	112,400	114,700	117,001	119,400	121,801
Total Revenues		369,360	375,713	382,160	388,693	395,414	402,226	409,230	416,329	423,524	430,915	438,408
Water Expenses												
Operating Expenses	Sch. 4-1	292,360	298,300	304,100	310,000	315,900	322,000	328,300	334,700	341,200	347,800	354,600
Interest on Debt	2	42,994	41,666	39,869	37,981	35,998	33,916	31,729	29,432	27,019	24,485	21,823
Amortization	4	322,342	322,342	322,342	322,342	322,342	322,342	315,302	315,302	301,733	301,733	244,823
Loss on Disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Total Expenses		657,696	662,308	666,311	670,323	674,240	678,258	675,331	679,434	669,952	674,018	621,246
Annual Surplus/(Deficit)		(288,336)	(286,595)	(284,151)	(281,630)	(278,826)	(276,032)	(266,101)	(263,105)	(246,428)	(243,103)	(182,838)
Accumulated Surplus/(Deficit), beginning of year	5	3,979,403	3,691,067	3,404,472	3,120,321	2,838,691	2,559,865	2,283,833	2,017,732	1,754,627	1,508,199	1,265,096
Accumulated Surplus/(Deficit), end of year		3,691,067	3,404,472	3,120,321	2,838,691	2,559,865	2,283,833	2,017,732	1,754,627	1,508,199	1,265,096	1,082,258
Note 5:												
Accumulated Surplus/(Deficit) Reconciliation:												
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reserve Balances												
Reserves: Development Charges		-	-	-	-	-	-	-	-	-	-	-
Reserves: Gas Tax		-	-	-	-	-	-	-	-	-	-	-
Reserves: Capital/Other		22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182	54,606
Total Reserves Balance		22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182	54,606
Less: Debt Obligations and Deferred Revenue		(847,164)	(811,447)	(773,932)	(734,530)	(693,145)	(649,678)	(604,024)	(556,073)	(505,708)	(452,810)	(397,249)
Add: Tangible Capital Assets	4	4,515,504	4,193,162	3,870,820	3,548,478	3,226,136	2,903,794	2,588,492	2,273,190	1,971,457	1,669,724	1,424,901
Total Ending Balance		3,691,067	3,404,472	3,120,321	2,838,691	2,559,865	2,283,833	2,017,732	1,754,627	1,508,199	1,265,096	1,082,258
Financial Indicators												
	Total Change	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1) Expense to Revenue Ratio		178%	176%	174%	172%	171%	169%	165%	163%	158%	156%	142%
2) Increase/(Decrease) in Accumulated Surplus	(2,897,145)	(288,336)	(286,595)	(284,151)	(281,630)	(278,826)	(276,032)	(266,101)	(263,105)	(246,428)	(243,103)	(182,838)



Schedule 4-1
Statement of Operating Expenses: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

	Notes	Forecast											
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Operating Expenses													
WATER- Wages		109,000	111,200	113,400	115,700	118,000	120,400	122,800	125,300	127,800	130,400	133,000	
WATER- Benefits		7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER-WSIB		3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	
WATER-EHT		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
WATER- OMERS		9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP- Green Shield		9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP-Telephone 227-2829		3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP- Internet Charges		750	800	800	800	800	800	800	800	800	800	800	
WATER EXP- Cell Phone		1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	
WATER EXP- Union Gas		7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER EXP- Hydro J085851		22,500	23,000	23,500	24,000	24,500	25,000	25,500	26,000	26,500	27,000	27,500	
WATER EXP- Insurance		4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	
WATER EXP- Postage		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Freight/Courier		3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP-Advertising		250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Office Supplies		500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Conference/Meals/Mote		4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	
WATER EXP- Hired Equipment		2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	
WATER EXP- DWQMS Audit		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP-Waste Water		6,000	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	
WATER EXP-Annual Calibrations		600	600	600	600	600	600	600	600	600	600	600	
WATER EXP-Taxes		44,000	44,900	45,800	46,700	47,600	48,600	49,600	50,600	51,600	52,600	53,700	
WATER EXP- Building Maintenance		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
WATER EXP- Plant Maintenance		15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100	
WATER EXP- Cleaning Supplies		210	200	200	200	200	200	200	200	200	200	200	
WATER EXP- Small Tools/Equipment		500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Lab Charges		15,500	15,800	16,100	16,400	16,700	17,000	17,300	17,600	18,000	18,400	18,800	
WATER EXP- Chemicals		13,000	13,300	13,600	13,900	14,200	14,500	14,800	15,100	15,400	15,700	16,000	
WATER EXP- Distribution Parts and M		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Gen Set Maintenance		250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Half Ton Maintenance		500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- HalfTon Fuel		500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Diesel Fuel		300	300	300	300	300	300	300	300	300	300	300	
WATER EXP- License Plate		100	100	100	100	100	100	100	100	100	100	100	
TOTAL OPERATING EXPENSES		292,360	298,300	304,100	310,000	315,900	322,000	328,300	334,700	341,200	347,800	354,600	



Table 4-3
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

	Notes	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Surplus/(Deficit)		(288,336)	(286,595)	(284,151)	(281,630)	(278,826)	(276,032)	(266,101)	(263,105)	(246,428)	(243,103)	(182,838)
Less: Acquisition of Tangible Capital Assets	4	-	-	-	-	-	-	-	-	-	-	-
Add: Amortization of Tangible Capital Assets	4	322,342	322,342	322,342	322,342	322,342	322,342	315,302	315,302	301,733	301,733	244,823
(Gain)/Loss on disposal of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Proceeds on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
		322,342	322,342	322,342	322,342	322,342	322,342	315,302	315,302	301,733	301,733	244,823
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)		34,006	35,747	38,191	40,712	43,516	46,310	49,201	52,197	55,305	58,630	61,985
Net Financial Assets/(Net Debt), beginning of year		(858,443)	(824,437)	(788,690)	(750,499)	(709,787)	(666,271)	(619,961)	(570,760)	(518,563)	(463,258)	(404,628)
Net Financial Assets/(Net Debt), end of year		(824,437)	(788,690)	(750,499)	(709,787)	(666,271)	(619,961)	(570,760)	(518,563)	(463,258)	(404,628)	(342,643)
Financial Indicators		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1) Acquisition of Tangible Capital Assets (Cumulative)		-	-	-	-	-	-	-	-	-	-	-
2) Annual Surplus/Deficit before Amortization (Cumulative)		34,006	69,753	107,944	148,656	192,172	238,482	287,683	339,880	395,185	453,815	515,800
3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative)		-	-	-	-	-	-	-	-	-	-	-



Table 4-4
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

	Notes	Forecast										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Transactions												
Annual Surplus/Deficit		(288,336)	(286,595)	(284,151)	(281,630)	(278,826)	(276,032)	(266,101)	(263,105)	(246,428)	(243,103)	(182,838)
Add: Amortization of TCA's	4	322,342	322,342	322,342	322,342	322,342	322,342	315,302	315,302	301,733	301,733	244,823
Less: Earned Deferred Revenue	3	(56,850)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)	(56,900)
Add: Deferred Revenue Proceeds		56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Change in A/R (Increase)/Decrease		(15,703)	(2,441)	(2,547)	(2,653)	(2,784)	(2,902)	(3,046)	(3,176)	(3,314)	(3,476)	(3,627)
Change in A/P Increase/(Decrease)		(24,071)	511	499	507	507	524	542	550	559	567	585
Less: Interest Proceeds		-	-	-	-	-	-	-	-	-	-	-
Cash Provided by Operating Transactions		(5,768)	33,817	36,143	38,566	41,239	43,932	46,697	49,571	52,550	55,722	58,943
Capital Transactions												
Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Less: Cash Used to acquire Tangible Capital Assets	4	-	-	-	-	-	-	-	-	-	-	-
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	2	-	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (Principal only)	2	(34,006)	(35,717)	(37,514)	(39,402)	(41,385)	(43,467)	(45,654)	(47,951)	(50,364)	(52,899)	(55,560)
Cash Applied to Financing Transactions		(34,006)	(35,717)	(37,514)	(39,402)	(41,385)	(43,467)	(45,654)	(47,951)	(50,364)	(52,899)	(55,560)
Increase in Cash and Cash Equivalents		(39,774)	(1,900)	(1,371)	(836)	(146)	465	1,043	1,620	2,186	2,823	3,383
Cash and Cash Equivalents, beginning of year	1	16,863	(22,911)	(24,811)	(26,182)	(27,018)	(27,164)	(26,699)	(25,656)	(24,036)	(21,850)	(19,027)
Cash and Cash Equivalents, end of year	1	(22,911)	(24,811)	(26,182)	(27,018)	(27,164)	(26,699)	(25,656)	(24,036)	(21,850)	(19,027)	(15,644)



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 Municipality, some of the items listed above have been estimated given that the Municipality 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 Machin, 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 Municipal-wide receivables as a percentage of annual Municipal-wide revenue from user fees earned (as per the 2016 to 2018 Financial Information Returns); and
- b) Payables: Based on historical levels of Municipal-wide payables as a percentage of annual Municipal-wide expenses (as per the 2016 to 2018 Financial Information Returns).

2. Debt

Outstanding water related debt at the end of 2019 was \$881,170. There are currently no 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	34,006
2021	35,717
2022	37,514
2023	39,402
2024	41,385
2025	43,467
2026	45,654
2027	47,951
2028	50,364
2029	52,899
2030	55,560
Total	483,919



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

3. Deferred Revenue

Deferred revenue is typically made up of water development charge reserve balances and/or gas tax reserve fund balances, which are considered to be a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected.

The Municipality of Machin does not collect water development charges however, they do use some gas tax funding for water services, the amount budgeted for recovery related to water is assumed to be used each year, resulting in a zero balance in the gas tax reserve fund related to water services over the forecast period. The ten-year water service forecast assumes that the 2020 budget amount of gas tax funding will remain constant over the forecast period.

4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
 - i. Facility Assess;
 - ii. Hydrants Assets;
 - iii. Distribution (watermains) Assets;
 - iv. Valves Assets; and
 - v. Water Connection Assets
- Amortization is calculated based on the straight-line approach.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net book value basis.
- Gains/losses on disposal are assumed to be \$0.
- Contributed Assets are assumed to be \$0.
- The Municipality does not have any lead 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	2030
Opening Tangible Capital Asset Balance	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Disposals	-	-	-	-	-	-	-	-	-	-	-
Closing Tangible Capital Asset Balance	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777	8,530,777
Opening Accumulated Amortization	3,692,931	4,015,273	4,337,615	4,659,957	4,982,299	5,304,641	5,626,983	5,942,285	6,257,587	6,559,320	6,861,053
Amortization Expense	322,342	322,342	322,342	322,342	322,342	322,342	315,302	315,302	301,733	301,733	244,823
Amortization on Disposal	-	-	-	-	-	-	-	-	-	-	-
Ending Accumulated Amortization	4,015,273	4,337,615	4,659,957	4,982,299	5,304,641	5,626,983	5,942,285	6,257,587	6,559,320	6,861,053	7,105,876
Net Book Value	4,515,504	4,193,162	3,870,820	3,548,478	3,226,136	2,903,794	2,588,492	2,273,190	1,971,457	1,669,724	1,424,901

5. Accumulated Surplus

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

Water	2020 Opening Accumulated Surplus
Reserve Balances	
Reserves: Capital/Other	22,727
Total Reserves Balance	22,727
Less: Debt Obligations and Deferred Revenue	(881,170)
Add: Tangible Capital Assets	4,837,846
Total Opening Balance	3,979,403

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

6. Other Revenue

Other revenue includes hydrant charge revenue, minor sale of water, water meter sales, and other sundry operating general revenues.



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

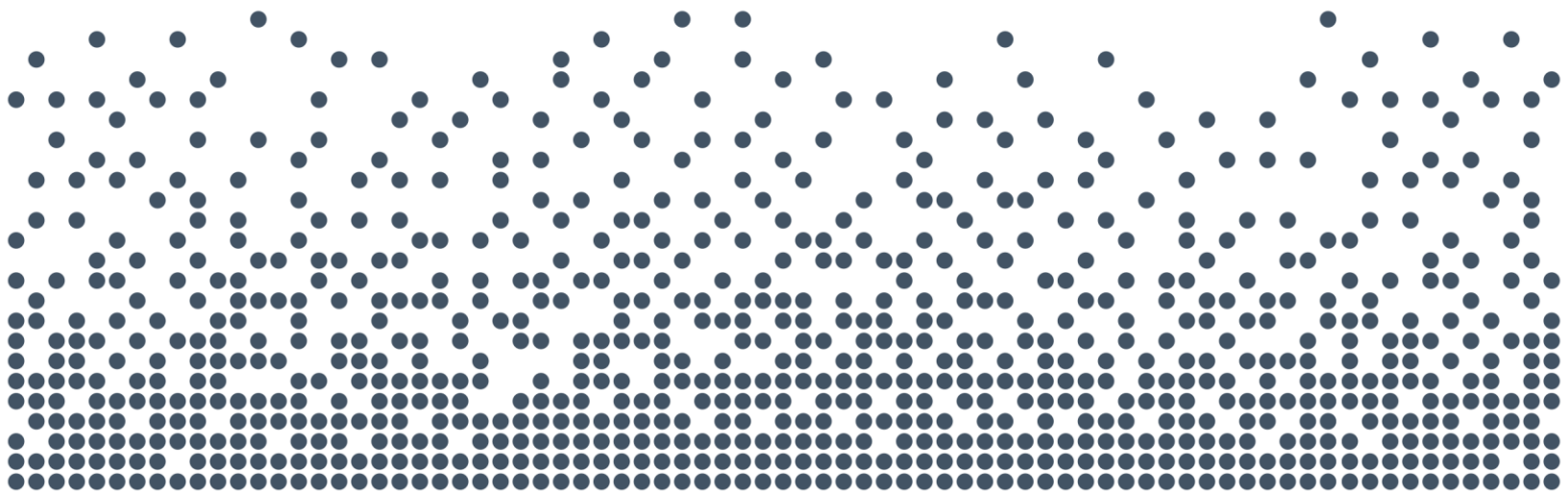
Recommendations



6. Recommendations

This report presents the water financial plan for the Municipality 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 water budget. Nevertheless, Council is required to pass certain resolutions with regard to this plan and regulations and it is recommended that:

1. The Municipality of Machin Water Financial Plan prepared by Watson & Associates Economists Ltd. date August 20, 2020 be approved.
2. Notice of availability of the Financial Plan be advertised.
3. The Financial Plan dated August 20, 2020 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.).



Appendices



Appendix A

2020 Water Budget and Forecast Summary Tables



Appendix A-1 Water Operating Budget and Forecast 2020-2030

Description	Budget 2020	Forecast										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Expenditures												
Operating Costs												
WATER- Wages	109,000	111,200	113,400	115,700	118,000	120,400	122,800	125,300	127,800	130,400	133,000	
WATER- Benefits	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER-WSIB	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	
WATER-EHT	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
WATER- OMERS	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP- Green Shield	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP-Telephone 227-2829	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP- Internet Charges	750	800	800	800	800	800	800	800	800	800	800	
WATER EXP- Cell Phone	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	
WATER EXP- Union Gas	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER EXP- Hydro J085851	22,500	23,000	23,500	24,000	24,500	25,000	25,500	26,000	26,500	27,000	27,500	
WATER EXP- Insurance	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	
WATER EXP- Postage	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Freight/Courier	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP-Advertising	250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Office Supplies	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Conference/Meals/Mote	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	
WATER EXP- Hired Equipment	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	
WATER EXP- DWQMS Audit	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP-Waste Water	6,000	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	
WATER EXP-Annual Calibrations	600	600	600	600	600	600	600	600	600	600	600	
WATER EXP-Taxes	44,000	44,900	45,800	46,700	47,600	48,600	49,600	50,600	51,600	52,600	53,700	
WATER EXP- Building Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
WATER EXP- Plant Maintenance	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100	
WATER EXP- Cleaning Supplies	210	200	200	200	200	200	200	200	200	200	200	
WATER EXP- Small Tools/Equipment	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Lab Charges	15,500	15,800	16,100	16,400	16,700	17,000	17,300	17,600	18,000	18,400	18,800	
WATER EXP- Chemicals	13,000	13,300	13,600	13,900	14,200	14,500	14,800	15,100	15,400	15,700	16,000	
WATER EXP- Distribution Parts and M	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Gen Set Maintenance	250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Half Ton Maintenance	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- HalfTon Fuel	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Diesel Fuel	300	300	300	300	300	300	300	300	300	300	300	
WATER EXP- License Plate	100	100	100	100	100	100	100	100	100	100	100	
Sub Total Operating	292,360	298,300	304,100	310,000	315,900	322,000	328,300	334,700	341,200	347,800	354,600	



Appendix A-1 Continued
Water Operating Budget and Forecast
2020-2030

Description	Budget 2020	Forecast										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Capital-Related												
Existing Debt (Principal) - OSIFA	34,006	35,717	37,514	39,402	41,385	43,467	45,654	47,951	50,364	52,899	55,560	
Existing Debt (Interest) - OSIFA	42,994	41,666	39,869	37,981	35,998	33,916	31,729	29,432	27,019	24,485	21,823	
Transfer to Capital Reserve	-	30	676	1,310	2,131	2,843	3,547	4,246	4,940	5,732	6,424	
Sub Total Capital Related	77,000	77,413	78,059	78,693	79,514	80,226	80,930	81,629	82,323	83,115	83,807	
Total Expenditures	369,360	375,713	382,159	388,693	395,414	402,226	409,230	416,329	423,523	430,915	438,407	
WATER- Sundry	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300	9,500	
WATER REV-Water Meter	88,758	90,500	92,300	94,100	96,000	97,900	99,900	101,900	103,900	106,000	108,100	
WATER REV- Sale of Water	500	500	500	500	500	500	500	500	500	500	500	
WATER REV- Hydrant Charge	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	
WATER- Federal Gas Tax Fund	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	
Total Operating Revenue	156,308	158,400	160,500	162,600	164,800	167,000	169,300	171,600	173,900	176,300	178,700	
Water Billing Recovery - Operating	213,052	217,313	221,659	226,093	230,614	235,226	239,930	244,729	249,623	254,615	259,707	
Change in Water Billing Recovery	-	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	

Appendix A-2
Water Reserve Continuity
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	22,727	22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182
Transfer from Operating	-	30	676	1,310	2,131	2,843	3,547	4,246	4,940	5,732	6,424
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
Closing Balance	22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182	54,606



Appendix A-3
Federal Gas Tax Reserve Fund Continuity – Water Services
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	-	-	-	-	-	-	-	-	-	-	-
Proceeds from Federal Gas Tax	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Closing Balance	-	-	-	-	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-	-	-	-	-

Appendix A-4
Water Rate Budget and Forecast
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Water Billing Recovery	213,052	217,313	221,659	226,093	230,614	235,226	239,930	244,729	249,623	254,615	259,707
Base Charge	\$111.45	\$113.68	\$115.95	\$118.27	\$120.64	\$123.05	\$125.51	\$128.02	\$130.58	\$133.19	\$135.86
Minimum Charge	\$169.20	\$172.58	\$176.04	\$179.56	\$183.15	\$186.81	\$190.55	\$194.36	\$198.24	\$202.21	\$206.25
<i>Declining Block Rates (\$/m³)</i>											
Block 1	\$0.017228	\$0.017573	\$0.017924	\$0.018282	\$0.018648	\$0.019021	\$0.019402	\$0.019790	\$0.020185	\$0.020589	\$0.021001
Block 2	\$0.015413	\$0.015721	\$0.016036	\$0.016356	\$0.016684	\$0.017017	\$0.017358	\$0.017705	\$0.018059	\$0.018420	\$0.018788
Block 3	\$0.007114	\$0.007256	\$0.007401	\$0.007549	\$0.007700	\$0.007854	\$0.008012	\$0.008172	\$0.008335	\$0.008502	\$0.008672
Annual Rate Increase		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%



Appendix B

2020 Water Budget and Forecast Summary Tables - With Lifecycle Reserve Contributions



Appendix B-1
Water Operating Budget and Forecast with Lifecycle Reserve Contributions
2020-2030

Description	Budget	Forecast										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Expenditures												
Operating Costs												
WATER- Wages	109,000	111,200	113,400	115,700	118,000	120,400	122,800	125,300	127,800	130,400	133,000	
WATER- Benefits	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER-WSIB	3,500	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	
WATER-EHT	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
WATER- OMERS	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP- Green Shield	9,500	9,700	9,900	10,100	10,300	10,500	10,700	10,900	11,100	11,300	11,500	
WATER EXP-Telephone 227-2829	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP- Internet Charges	750	800	800	800	800	800	800	800	800	800	800	
WATER EXP- Cell Phone	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	
WATER EXP- Union Gas	7,000	7,100	7,200	7,300	7,400	7,500	7,700	7,900	8,100	8,300	8,500	
WATER EXP- Hydro J085851	22,500	23,000	23,500	24,000	24,500	25,000	25,500	26,000	26,500	27,000	27,500	
WATER EXP- Insurance	4,000	4,100	4,200	4,300	4,400	4,500	4,600	4,700	4,800	4,900	5,000	
WATER EXP- Postage	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Freight/Courier	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000	
WATER EXP-Advertising	250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Office Supplies	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Conference/Meals/Mote	4,500	4,600	4,700	4,800	4,900	5,000	5,100	5,200	5,300	5,400	5,500	
WATER EXP- Hired Equipment	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	
WATER EXP- DWQMS Audit	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP-Waste Water	6,000	6,100	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	
WATER EXP-Annual Calibrations	600	600	600	600	600	600	600	600	600	600	600	
WATER EXP-Taxes	44,000	44,900	45,800	46,700	47,600	48,600	49,600	50,600	51,600	52,600	53,700	
WATER EXP- Building Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
WATER EXP- Plant Maintenance	15,000	15,300	15,600	15,900	16,200	16,500	16,800	17,100	17,400	17,700	18,100	
WATER EXP- Cleaning Supplies	210	200	200	200	200	200	200	200	200	200	200	
WATER EXP- Small Tools/Equipment	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Lab Charges	15,500	15,800	16,100	16,400	16,700	17,000	17,300	17,600	18,000	18,400	18,800	
WATER EXP- Chemicals	13,000	13,300	13,600	13,900	14,200	14,500	14,800	15,100	15,400	15,700	16,000	
WATER EXP- Distribution Parts and M	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
WATER EXP- Gen Set Maintenance	250	300	300	300	300	300	300	300	300	300	300	
WATER EXP- Half Ton Maintenance	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- HalfTon Fuel	500	500	500	500	500	500	500	500	500	500	500	
WATER EXP- Diesel Fuel	300	300	300	300	300	300	300	300	300	300	300	
WATER EXP- License Plate	100	100	100	100	100	100	100	100	100	100	100	
Sub Total Operating	292,360	298,300	304,100	310,000	315,900	322,000	328,300	334,700	341,200	347,800	354,600	



Appendix B-1 Continued
Water Operating Budget and Forecast with Lifecycle Reserve Contributions
2020-2030

Description	Budget 2020	Forecast										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Capital-Related												
Existing Debt (Principal) - OSIFA	34,006	35,717	37,514	39,402	41,385	43,467	45,654	47,951	50,364	52,899	55,560	
Existing Debt (Interest) - OSIFA	42,994	41,666	39,869	37,981	35,998	33,916	31,729	29,432	27,019	24,485	21,823	
Transfer to Capital Reserve	-	30	676	1,310	2,131	2,843	3,547	4,246	4,940	5,732	6,424	
Sub Total Capital Related	77,000	77,413	78,059	78,693	79,514	80,226	80,930	81,629	82,323	83,115	83,807	
Total Expenditures	369,360	375,713	382,159	388,693	395,414	402,226	409,230	416,329	423,523	430,915	438,407	
WATER- Sundry	7,500	7,700	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300	9,500	
WATER REV-Water Meter	88,758	90,500	92,300	94,100	96,000	97,900	99,900	101,900	103,900	106,000	108,100	
WATER REV- Sale of Water	500	500	500	500	500	500	500	500	500	500	500	
WATER REV- Hydrant Charge	2,700	2,800	2,900	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	
WATER- Federal Gas Tax Fund	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	
Total Operating Revenue	156,308	158,400	160,500	162,600	164,800	167,000	169,300	171,600	173,900	176,300	178,700	
Lifecycle Reserve Contribution (\$)		6,391	13,231	20,541	28,351	36,688	45,581	55,058	65,154	75,902	87,337	
Water Billing Recovery - Total	213,052	223,704	234,890	246,634	258,965	271,914	285,511	299,787	314,777	330,517	347,044	
Change in Water Billing Recovery - Total	-	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	

Appendix B-2
Water Reserve Continuity
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	22,727	22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182
Transfer from Operating	-	30	676	1,310	2,131	2,843	3,547	4,246	4,940	5,732	6,424
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
Closing Balance	22,727	22,757	23,433	24,743	26,874	29,717	33,264	37,510	42,450	48,182	54,606



Appendix B-3
Federal Gas Tax Reserve Fund Continuity – Water Services
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	-	-	-	-	-	-	-	-	-	-	-
Proceeds from Federal Gas Tax	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	56,850	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900	56,900
Closing Balance	-	-	-	-	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-	-	-	-	-

Appendix B-4
Water Lifecycle Reserve Continuity
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	-	-	6,519	20,145	41,500	71,248	110,094	158,789	218,124	288,943	372,142
Transfer from Operating	-	6,391	13,231	20,541	28,351	36,688	45,581	55,058	65,154	75,902	87,337
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-
Closing Balance	-	6,391	19,750	40,686	69,851	107,936	155,675	213,847	283,278	364,845	459,479
Interest	-	128	395	814	1,397	2,159	3,114	4,277	5,666	7,297	9,190



Appendix B-5
Water Rate Budget and Forecast with Lifecycle Reserve Contributions
2020-2030

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Water Billing Recovery	213,052	223,704	234,890	246,634	258,965	271,914	285,511	299,787	314,777	330,517	347,044
Base Charge	\$111.45	\$117.02	\$122.87	\$129.02	\$135.47	\$142.24	\$149.35	\$156.82	\$164.66	\$172.90	\$181.54
Minimum Charge	\$169.20	\$177.66	\$186.54	\$195.87	\$205.66	\$215.95	\$226.74	\$238.08	\$249.99	\$262.48	\$275.61
<i>Declining Block Rates (\$/m³)</i>											
Block 1	\$0.017228	\$0.018089	\$0.018994	\$0.019944	\$0.020941	\$0.021988	\$0.023087	\$0.024242	\$0.025454	\$0.026726	\$0.028063
Block 2	\$0.015413	\$0.016184	\$0.016993	\$0.017842	\$0.018735	\$0.019671	\$0.020655	\$0.021688	\$0.022772	\$0.023911	\$0.025106
Block 3	\$0.007114	\$0.007470	\$0.007843	\$0.008235	\$0.008647	\$0.009079	\$0.009533	\$0.010010	\$0.010511	\$0.011036	\$0.011588
Annual Rate Increase		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%