

2019 Water Financial Plan

No. 071-301A





This Financial Plan was approved by Oxford County Council on October 9, 2019

The Plan will be published on the County's website and submitted to the Ministry of Municipal Affairs and Housing as required by the legislation. Hardcopies are available to the public on request.

Table of Contents

Introduction	1
Purpose	1
Financial Plan Requirements	1
Oxford Municipal Drinking Water System Background	1
Sustainable Financial Planning	3
Introduction	3
Approach	7
Overview	7
Tangible Capital Asset Balances	7
Statement of Operations and Accumulated Surplus	7
Statement of Financial Position	8
Statement of Cash Flow	8
Verification	8
Capital Plan	8
Financial Plan	9
Introduction	9
Projected Statement of Financial Position	9
Projected Statement of Operations and Accumulated Surplus	11
Projected Statement of Cash Flows	14
Projected Schedule of Tangible Capital Assets	16
Summary	18

Introduction

Purpose

The County of Oxford (County) staff prepared the Water Financial Plan as part of the five elements the Ministry requires to issue a municipal drinking water license as per the Safe Drinking Water Act, 2002. These elements include:

- 1. A drinking-water works permit (DWWP): A permit to establish or alter a drinking-water system.
- 2. **An accepted operational plan:** The Drinking-Water Quality Management Standard (DWQMS) will be the standard upon which operational plans will be based. The plan will document an operating authority's quality management system (QMS).
- 3. **An accredited operating authority**: A third-party audit of an operating authority's QMS will be the basis for accreditation.
- 4. **A Financial Plan:** This must be prepared in accordance with the prescribed requirements in the Financial Plans Regulation, including an indication that the drinking water system is viable
- 5. A permit to take water (PTTW): Requirements as outlined in the Ontario Water Resources Act.

The County encloses its Financial Plan herein. It is prepared in accordance with the Ministry of the Environment Financial Plans Regulation (O. Reg. 453/07).

Financial Plan Requirements

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:

- Must indicate financial viability of the system
- Must be approved by resolution of Council (or governing body)
- Must apply to a period of at least six years (commencing the year of license expiry)
- Details of the proposed or projected financial position
- Details of the proposed or projected financial operations
- Details of the proposed or projected gross cash receipts and gross cash payments
- 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
- Made available to the public through publication on the internet
- Notice of availability to be given to the public
- Submitted to the Ministry of Municipal Affairs and Housing

Oxford Municipal Drinking Water System Background

The County currently operates an amalgamated water system that serves 21 communities with approximately 33,579 customers. These communities are grouped into four systems for financial accounting including: Woodstock, Tillsonburg, Ingersoll, and the Township systems. Currently, each of the four financial water systems is managed as a fiscally independent entity with unique service charges, revenues, debts and operating expenses.

The previous water financial plan was approved by County Council in 2014. A revised financial plan is required six months prior to the expiration of the County's municipal drinking water licences. The County maintains 17 municipal drinking water licences, all of which are set to expire between May and June 2020.

A summary of the water systems are detailed below:

Table 1: Oxford County Drinking Water Systems

Water Financial System	Water System Name	Customers
Woodstock	City of Woodstock	15,727
Tillsonburg	Town of Tillsonburg	6,275
Ingersoll	Town of Ingersoll	5,117
Townships	Beachville	72
	Bright	153
	Brownsville	126
	Dereham Centre	21
	Drumbo-Princeton	500
	Embro	305
	Hickson	32
	Innerkip	445
	Lakeside	110
	Mount Elgin	213
	Oxford South	1,859
	Plattsville	553
	Tavistock	1,143
	Thamesford	928
TOTAL		33,579

Sustainable Financial Planning

Introduction

The "Towards Financial Sustainable Drinking - Water and Wastewater Systems" guide provides some guiding principles to develop Financial Plans.

Achieving financial sustainability in Ontario's municipal water and wastewater sector is a long-term goal. Systems are aging, there is a growing amount of deferred maintenance, and many assets are nearing, or even beyond, the end of their useful lives and in need of replacement.

Financial sustainability is needed to ensure that Ontarians continue to enjoy clean and safe drinking water, that water and wastewater services are reliable in the long term, and that environmental protection is maintained.

The following principles have been considered in the context of the County of Oxford Water System Financial Plan.

<u>Principle #1</u> On-going public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

The County undertook an extensive public process to pass the current water and wastewater rates. These efforts included market data research, on-line survey; several industry and business community dialogue sessions, advertising in local newspapers and on local radio stations, and a public meeting which was held November 30, 2016.

As part of the annual budget process the County provides the public with the opportunity to participate, through an online budget survey and public council meetings. Information is posted for the public on the County's website, and feedback is encouraged.

<u>Principle #2</u> An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.

The exercise to compile historical information on linear water, wastewater, road and other assets has provided invaluable information that supports an integrated approach to renewal of these assets.

On February 8, 2017, Oxford County Council passed By-law No. 5903-2017 to set water and wastewater rates for 2017-2020 inclusive. The rates set out in the By-law were used in the final projections set out in this Financial Plan.

<u>Principle #3</u> Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.

Oxford County water systems are self-sustaining with all revenues directed to the system operations and capital requirements.

As part of the procedure to set water and wastewater rates in 2016, the County undertook a detailed financial planning process which including the consideration of operating costs, system growth requirements, requirements of existing assets and debenture obligations.

As part of the process the proposed rates resulting from the study underwent a consultation process with the local municipal leaders, businesses and residents of the County.

<u>Principle #4</u> Lifecycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.

The asset inventory that has been compiled includes documented evidence of each assets date of origin and condition. This information will be amended or updated continuously as conditions change.

Over the next few years, the County is reviewing its water and wastewater inventory and facilities assessments. The aim of the project is to determine the appropriate level of detail for the facility assets, as well as compile the level of detail for the assets including asset conditions, life expectancies and valuations.

The County is currently undertaking an asset systems review which includes a reviewing current asset tracking/management systems to ensure convenient access to relevant, reliable, comprehensive and timely information. This review is to support informed and efficient asset management decision making.

The County recently undertook a detailed identification and valuation project for all vertical water and wastewater assets. The project included development of a consistent asset hierarchy structure, development of the detailed asset inventory complete with condition assessment and valuation for inclusion in the County's overall Asset Management Plan.

<u>Principle #5</u> An asset management plan is a key input to the development of a financial plan.

The County's Asset Management Plan (AMP) is a strategic framework that guides future capital asset investments in ways that support economic growth and are fiscally responsible to respond to changing needs. The County adopted the 2017 Asset Management Plan on October 11, 2017 which continues to enhance the annual review of the 10 year capital financial plan. The 2017 plan update focused on increasing data integrity and laying the foundation for lifecycle analysis. As the County continues to implement its asset management program, the level of sophistication and detail in both the funding allocation and project optimization is expected to increase. In addition, the integration between asset management planning and capital budgeting will only get stronger. Overall this will help ensure the best possible decisions are being made regarding assets, using evidence based decisions and long term financial forecasts that support sustainability. Capital planning is identified as a key element of the County's Long Term Financial Sustainability Plan.

On June 4, 2015, the province passed the Infrastructure for Jobs and Prosperity Act, which overtime will require municipalities to undertake and implement asset management plans for all the infrastructure they own. Subsequently, Ontario Regulation 588/17 was released, which has three phases that municipalities have to meet. Requirements contained in the regulation include measuring current level of service, and estimating the cost to maintain the current level. Service costs for growth must also be included in the AMP. As well as the importance of a financial strategy, incorporating the lifecycle activities and management strategy are also key considerations in developing a reliable AMP. The County approved its Strategic Asset Management Policy in June 2019 which outlines the integrated and collaborative approach to asset management.

<u>Principle #6</u> 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.

The rate structures proposed are a result of the Sustainable Financial Plan to provide reliable services that meet or exceed environmental protection standards while providing a reasonable amount of capital for future rehabilitation and replacement needs.

As part of the 2016 Water Rates setting process, a Source Water Protection Program was designed to address legislated requirements. Four Source Protection Plans are applicable to Oxford County. To fund the program the County introduced a Source Water Protection (SWP) fee for water users. The County of Oxford will continue to monitor the Source Water Protection funding requirements as the SWP is implemented.

<u>Principle #7</u> 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.

Council acknowledges the benefits of user pay and improved conservation. All water systems servicing the County have been metered; less than 0.03% of the County remains unmetered.

The County of Oxford has a Water Efficiency Plan. The initial approval was November 14, 2012 (Report PW 2012-71) and it was amended on June 12, 2013 (Report PW 2013-34). The Oxford County Efficiency Plan won the 2014 Ontario Water Works Association (OWWA) Award for Water Efficiency awarded by the OWWA/OMWA Council. On December 9, 2015 (Report PW2015-66) the Water Efficiency Plan was amended to include a low flow fixture rebate program and revisions to the water capacity buy-back program.

<u>Principle #8</u> 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.

Oxford County staff monitors actual results on a quarterly basis as part of the integrated business planning and budget process, and provide updates to Council which will continually improve future projections.

The County annually completes a detailed financial planning process though the Budget and Business Plan. The budget process addresses the full cost principals towards sustainable financial planning.

Additionally, Oxford County's Long Term Financial Sustainability Plan Policy ensures that sufficient funding and resources are provided over the long term. Enabling the County to ensure that services and infrastructure will be sustained at the required level to maximize value to citizens.

<u>Principal #9</u> Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

This Financial Plan has been developed and prepared internally as a joint effort by various departmental staff utilizing information provided from the following internal and external reports:

- 2019 County of Oxford Operating Budget
- 2019 County of Oxford 10 Year Capital Plan
- 2014 Development Charges Background Study¹
- 2017 Asset Management Plan

¹ The 2019 Development Charge Background Study was passed June 26, 2019; this financial plan uses the 2019 Budget which is based on the 2014 Development Charge Background Study.

Approach

Overview

The 2019 Council approved detailed budget has been used at a starting point to prepare the Water Financial Plan. The budget was prepared on a modified cash basis, and therefore conversion to a full accrual financial plan was required for the purposes of this report. The following sections outlines the conversion process.

Tangible Capital Asset Balances

As part of the PSAB 3150 process, municipalities are required to calculate their tangible capital assets (TCA) balances; this process incorporates the existing assets only. For the Water Financial Plan, the calculation of the TCA balances new and replacement assets need to be included, along with the disposal of replaced assets.

Future asset needs were assessed and estimated within the 2019 Budget and Business Plan. Additionally, assets that are contributed to the County by developers as part of development agreements, will form part of the County's infrastructure moving forward. At this time, the date and value of these assets remain unknown, and thus these potential assets have not been included within this financial plan. As information becomes available future water financial plans, will be adjusted as required.

For all assets, existing and planned the following formula has been used to calculate the tangible capital asset balances for each year of the forecast period for this water financial plan.

- Historical Cost (to end of prior year)
- Plus Acquisition Cost of New Assets
- Plus Gain on Disposal(s)
- Less Accumulated Amortization to end of prior year
- Less Current Year Amortization
- Less Loss on Disposal(s)
- Net Book Value

The TCA balances are reported on the Statement of Financial Position and Schedule of Tangible Capital Assets.

Statement of Operations and Accumulated Surplus

To convert the Statement of Operations from a modified cash to full accrual basis, a number of adjustments are required.

- Debt Repayment
 - The principal portion of the payment needs to be removed under the accrual basis
 - The principal payments are reported on the Statement of Financial Position
- Transfers to and from Reserves
 - These transfers are represented by changes in cash and cash equivalents and accumulated surplus
- Tangible Capital Asset related Transactions
 - Amortization and gains/losses on disposals are reported on the Statement of Operations in order to include the costs related to their operating activities over their useful lives

Statement of Financial Position

As outlined in PS1200, the opening balances for the remaining accounts: accounts receivable, accounts payable, outstanding debt (principal only) and deferred revenue; have been recorded and classified.

It is noted that for accounts payable, it is difficult to isolate the water only portion. Refer to Projected Statement of Financial Position under the Financial Plan section of this report for more information.

Statement of Cash Flow

The Statement of Cash Flow, summarizes how the County financed its activities. The statement relies on the Statement of Financial Position, the Statement of Operations and other available data.

Verification

The Financial Plan is a summary of the water operations programs approved by Council for the current budget year (2019) with projected expenditures to 2025.

The Projected Statement of Operations and Accumulated Surplus included in the Water System Financial Plan, includes the day to day operations of maintaining and administering the drinking water systems.

The revenue assumptions include projected growth in customer base across the systems, and rate increases on standardized rate structures. Where consumption data was not available, projections were based on a typical customer profile.

The expenditure projections include overhead and operating costs with an inflation adjustment of 2%. A provision for unanticipated repairs and maintenance and an estimate for additional costs due to system expansion were included.

Capital Plan

The County's long term capital plan has been reflected in the Projected Statement of Cash Flows. This plan incorporates the addition of new water supply and distribution assets to allow for future growth of the systems and provides for the replacement of the deteriorating infrastructure for both treatment and linear assets.

Beginning in 2008, the Province required municipalities to record and report their tangible capital assets on their balance sheets and amortize their historical values in accordance with the Public Sector Accounting Standard – PSAB 3150. Additionally, the Province encouraged municipalities to use their asset inventories to strategically plan future replacements and improvements using an AMP framework.

Financial Plan

Introduction

This Financial Plan includes Projected Financial Statements for the Water System, for the periods ending from December 31, 2018 projected to December 31, 2025.

As required, these statements are prepared in accordance with the Public Sector Accounting Standards. It is important to note that the financial statements included are projected based on assumptions determined by financial and operational managers of the water system. These statements are not audited and contain various estimates as described in the Summary of Significant Accounting Policies. Actual financial results will vary from the projections herein and the differences may be material.

Projected Statement of Financial Position

The Statement of Financial Position includes multiple financial indicators for financial sustainability. The first indicator provides an indication of the system's revenue requirements. A system with net financial assets greater than its liabilities, implies that the system is able to fund its future needs. Conversely, a system with higher liabilities than financial assets over multiple years, would indicate that the system will need to increase revenues to remain viable over the long-term.

Table 1, indicates that in 2019 the system has more liabilities than revenue, however, over the entire financial plan period of 2019-2025 the systems will increase its net financial assets overall by over \$28.5 million dollars.

The second indicator provides the change in Tangible Capital Assets. An increase in TCAs indicates the County plans to invest in tangible capital assets greater than the anticipated use of existing assets over the forecast period. A decrease in TCAs could occur due to asset disposal, use of assets or write-downs. In turn a decrease would indicate limited investment by the County in its water assets. Table 1 indicates that in each year of forecast from 2019 to 2025, the County plans to invest in excess of use. The anticipated increase in TCAs is approximately \$25.2 million.

Table 1: Projected Statement of Financial Position

	C	OUNTY OF C	XFORD WA	TER SYSTEM	MS				
PROJECTED STATMENT OF FINANCIAL POSITION									
AS AT DECEMBER 31, 2018, PROJECTED 2019 TO 2025									
	2018	2019	2020	2021	2022	2023	2024	2025	
	ACTUALS	APPROVED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	
		BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	
FINANCIAL ASSETS									
Cash and Cash Equivalents	39,579,551	36,289,240	37,708,531	40,351,841	45,312,221	51,331,386	59,295,274	65,531,543	
Accounts Receivable	2,461,814	2,530,034	2,576,626	2,625,096	2,675,518	2,727,969	2,782,528	2,838,179	
	42,041,366	38,819,274	40,285,157	42,976,937	47,987,739	54,059,355	62,077,802	68,369,722	
LIABILITIES									
Accounts Payable	1,612,975	1,711,252	1,731,255	1,769,684	1,798,089	1,826,425	1,862,954	1,900,213	
Debentures (Principal)	3,877,732	3,484,410	3,101,833	2,713,117	2,324,376	2,076,347	1,858,966	1,640,181	
Deferred Revenue	1,179,465	1,372,365	925,665	617,465	634,565	651,092	714,434	993,034	
	6,670,172	6,568,027	5,758,752	5,100,266	4,757,030	4,553,863	4,436,354	4,533,427	
NET FINANCIAL ASSETS / (DEBT)	35,371,194	32,251,248	34,526,405	37,876,672	43,230,710	49,505,492	57,641,449	63,836,294	
NON-FINANCIAL ASSETS									
Tangible Capital Assets	150,760,564	161,088,013	166,725,612	171,180,641	173,430,179	174,803,085	174,427,622	175,963,629	
TOTAL NON-FINANCIAL ASSETS	150,760,564	161,088,013	166,725,612	171,180,641	173,430,179	174,803,085	174,427,622	175,963,629	
ACCUMULATED SURPLUS	186,131,758	193,339,262	201,252,018	209,057,315	216,660,891	224,308,578	232,069,072	239,799,926	
Financial Indicators	Total Change	2019	2020	2021	2022	2023	2024	2025	
Increase/(Decrease) in Net Financial Assets	28,465,101	(3,119,946)	2,275,158	3,350,267	5,354,038	6,274,782	8,135,957	6,194,846	
Increase/(Decrease) in Tangible Capital Assets	25,203,065	10,327,450	5,637,598	4,455,029	2,249,538	1,372,906	(375,463)	1.536.008	
Increase/(Decrease) in Accumulated Surplus	53,668,167	7.207.504	7,912,756	7,805,297	7,603,576	7,647,687	7.760.494	7.730.853	
		. ,22. ,30 .	.,,,,,,,	.,,	.,,	1,511,501	1,100,101	.,,	

Projected Statement of Operations and Accumulated Surplus

This statement summarizes the revenues and expenditures created by the water system. Where revenues exceed expenses, this indicates that the system is generating sufficient revenue to cover the costs of operating and maintain the water system. Conversely, where expenses exceed revenues, the system is not generating enough revenue to operate and maintain the system.

Table 2 illustrates the County's ratio, fluctuates between 62.4% and 65.0%, with the annual surplus varying between \$7.2 million and \$7.9 million over the forecast period. It is imperative that a system generates an annual surplus to ensure that funding is available for non-expense costs included tangible capital asset acquisitions, reserve transfers and debenture principal payments.

Accumulated surplus deficit, is also an indicator of a system's available resources. An accumulated deficit indicates that resources are insufficient to support the needs of the system moving forward. Table 2 and Table 3, indicates that the County anticipates adding approximately \$53.7 million to its accumulated surplus over the financial plan period.

Table 2: Projected Statement of Operations and Accumulated Surplus

REVENUES Rate Revenue

EXPENSES Operations

Interest

Amortization

Capital Billing Revenue

Loss on Disposal of TCA

Other Revenue

COUNTY OF OXFORD WATER SYSTEMS PROJECTED STATMENT OF OPERATIONS AND ACCUMULATED SURPLUS AS AT DECEMBER 31, 2018, PROJECTED 2019 TO 2025 2018 2019 2020 2021 2022 2023 2024 2025 ACTUALS APPROVED PROJECTED **PROJECTED PROJECTED** PROJECTED PROJECTED PROJECTED BUDGET BUDGET BUDGET BUDGET BUDGET BUDGET BUDGET 18,731,182 18,968,464 19,320,972 19,687,695 20,069,189 20,466,039 20,875,360 21,292,867 175,592 174,589 157,164 156,892 150,272 2,928 2,928 2,928 Earned Development Charge Revenue 2,020,041 725,000 1,367,500 1,222,000 892,000 892,973 846,258 632,000 368,328 177,589 177,667 177,742 177,816 177,891 181,449 185,078 21,295,143 20,045,642 21,023,303 21,244,329 21,289,277 21,539,831 21,905,995 22,112,873 9.053,114 9,604,710 9,716,981 9,932,673 10,092,097 10,251,141 10,456,164 10,665,287 186,895 170,682 154,764 138,389 122,142 105,908 95,474 85,240 2,962,087 3,062,746 3,238,802 3,367,971 3,471,462 3,535,094 3,593,863 3,631,492

12,417,952 12,838,138 13,110,547 13,439,033 13,685,701 13,892,143 14,145,501 14,382,020 7,805,296 EXCESS REVENUES OVER EXPENSES 8,877,191 7,207,504 7,912,756 7,603,576 7,647,688 7,760,493 7,730,853 ACCUMULATED SURPLUS, BEGINNING OF YEAR 177,254,567 186,131,758 193,339,262 201,252,018 209,057,315 216,660,891 224,308,579 232,069,072 ACCUMULATED SURPLUS, END OF YEAR 186,131,758 193,339,262 201,252,018 209,057,315 216,660,891 224,308,579 232,069,072 239,799,925 Financial Indicators Total Change 2019 2020 2021 2022 2023 2024 2025 Expense to Revenue Ratio 64.0% 62.4% 63.3% 64.3% 64.5% 64.6% 65.0% Increase/(Decrease) in Accumulated Surplus 53,668,167 7,207,504 7,912,756 7,805,296 7,603,576 7,647,688 7,760,493 7,730,853

(215,856)

Table 3: Projected Liabilities and Accumulated Surplus

COUNTY OF OXFORD WATER SYSTEMS LIABILITIES AND ACCUMULATED SURPLUS											
	AS AT	DECEMBER 3	1, 2018, PROJE	CTED 2019 TO	2025						
2018 2019 2020 2021 2022 2023 2024 2025											
	ACTUALS	APPROVED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED			
		BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET			
LIABILITIES											
Total Debentures											
Opening Balance	3,877,732	3,484,410	3,101,833	2,713,117	2,324,376	2,076,347	1,858,966	1,640,181			
New Debentures	-	-	-	-	-	-	-	-			
Debt Repayment	(386,710)	(393,322)	(382,578)	(388,716)	(388,741)	(248,029)	(217,381)	(218,785)			
Total Change in Debt Position	3,491,022	3,091,088	2,719,255	2,324,401	1,935,635	1,828,318	1,641,585	1,421,396			
ACCUMULATED SURPLUS											
Net Investment in Tangible Capital Assets	147,731,671	158,422,385	164,469,150	169,322,936	171,983,232	173,628,282	173,488,230	175,261,414			
Reserves/Reserve Funds	38,400,087	34,916,876	36,782,867	39,734,377	44,677,657	50,680,295	58,580,841	64,538,509			
	186,131,758	193,339,262	201,252,018	209,057,315	216,660,891	224,308,578	232,069,072	239,799,926			
Financial Indicators	Total Change	2019	2020	2021	2022	2023	2024	2025			
Annual Surplus/(Deficit)	53,668,167	7,207,504	7,912,756	7,805,297	7,603,576	7,647,687	7,760,494	7,730,853			

Projected Statement of Cash Flows

This statement summarizes how the water systems are expected to generate and use cash resources during the financial plan period. The statement of cash flows focuses on the cash aspects of the activities of a water system; it is the link between the cash based and accrual based accounting.

Table 4 illustrates that financial plan anticipates the cash position of the water system increase by approximately \$26 million over the period. It is noted that in 2019, the financial plan indicates a reduction of cash and cash equivalents, however, an increase occurs in all other years of the financial plan. The increase indicates that the cash generated will be used to fund tangible capital asset purchases and building reserves over the period.

Table 4: Projected Statement of Cash Flows

COUNTY OF OXFORD WATER SYSTEMS PROJECTED CASH FLOW STATEMENT AS AT DECEMBER 31, 2018, PROJECTED 2019 TO 2025 2018 2019 2020 2021 2022 2023 2024 2025 ACTUALS APPROVED PROJECTED PROJECTED PROJECTED PROJECTED PROJECTED PROJECTED BUDGET BUDGET BUDGET BUDGET BUDGET BUDGET BUDGET OPERATING Excess Revenues Over Expenses 8,877,191 7,207,504 7,912,756 7,805,296 7,603,576 7,647,688 7,760,493 7,730,853 Amortization 2,962,087 3,062,746 3,238,802 3,367,971 3,471,462 3,535,094 3,593,863 3,631,492 (Gain)/Loss on Diposal of Tangible Capital Assets 215,856 Net Change in Deferred Revenue (303,431)192,900 (446,700)(308, 200)17,100 16,527 63,342 278,600 Change in Accounts Receivable (Increase)/Decrease 141.647 (68, 220)(48,470)(46,592)(50,422)(52,451)(54,559)(55,651)Change in Accounts Payable Increase/(Decrease) 98,277 36,529 (74.991)20,003 38,429 28,405 28,336 37,259 Net Change from Operations 11,818,359 10,493,207 10.678,269 10,855,026 11,070,121 11,175,194 11,622,554 11,399,669 CAPITAL Tangible Capital Assets Purchases 8,410,452 13,390,196 3,218,400 8,876,400 7,823,000 5,721,000 4,908,000 5,167,500 FINANCING Long Term Debt Issued Long Term Debt Principal Payments (386.710)(393, 322)(382.578)(388,716)(388,741)(248.029)(217,381)(218, 785)Net Change from Financing Acitivities (386,710)(393, 322)(382,578)(388,716)(388,741)(248,029)(217,381)(218,785)Net Increase / (Decrease) in Cash 3,021,196 (3,290,311)1,419,291 2,643,310 4,960,380 6,019,165 7,963,888 6,236,269 Cash and Cash Equivalents, Beginning of Year 36,558,355 39.579.551 36,289,240 37,708,531 40.351.841 45,312,221 51,331,386 59,295,274 Cash and Cash Equivalents, End of Year 39,579,551 36,289,240 37,708,531 40,351,841 45,312,221 51,331,386 59,295,274 65,531,543

Projected Schedule of Tangible Capital Assets

The opening tangible capital asset balances are presented in the County's audited 2018 Consolidated Financial Statements. The planned future TCA additions have been added based on 2019 capital plan and forecasts, it was assumed that assets would be acquired/constructed within the year of planned expenditure. Projects listed as work-in-process at the end of 2018, were assumed to be completed in 2019.

TCA additions, are amortized using the straight-line method over 50 years for water treatment assets and over 80 years for water distribution assets, in accordance with our Tangible Capital Asset Policy.

Disposal costs were estimated for all additions identified as replacement assets in the forecast period, by deflating the replacement costs, using historical indices, to an estimated historical cost, based on the estimated useful life of the asset. All assets were assumed to be fully amortized at the time of disposal, no gain or loss was assumed on disposal.

Table 5: Projected Schedule of Tangible Capital Assets

	cc	UNTY OF C	XFORD W	ATER SYST	EMS						
			ULE OF TANG								
	AS AT DECEMBER 31, 2018, PROJECTED 2019 TO 2025										
	2018	2019	2020	2021	2022	2023	2024	2025			
	ACTUALS	APPROVED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED			
		BUDGET									
WATER TREATMENT - TANGIBLE CAPITAL ASSET	s										
Historical Cost											
Opening Balance	60,245,242	60,459,069	62,276,212	64,447,852	65,206,907	65,227,361	65,259,257	65,259,257			
Additions	217,254	2,024,102	2,451,500	760,500	24,000	38,000	-	80,000			
Disposals	(3,427)	(206,960)	(279,860)	(1,446)	(3,546)	(6,104)	-	(16,259			
Closing Balance	60,459,069	62,276,212	64,447,852	65,206,907	65,227,361	65,259,257	65,259,257	65,322,998			
Accumulated Amortization											
Opening Balance	13,561,375	14,354,135	14,955,294	15,524,000	16,419,977	17,329,064	18,236,034	19,149,669			
Amortization Expense	795,691	808,118	848,566	897,423	912,633	913,073	913,635	913,377			
Amortization on Disposals	(2,931)	(206,960)	(279,860)	(1,446)	(3,546)	(6,104)	-	(16,259			
Closing Balance	14,354,135	14,955,294	15,524,000	16,419,977	17,329,064	18,236,034	19,149,669	20,046,787			
Net Book Value	46,104,934	47,320,918	48,923,853	48,786,930	47,898,297	47,023,223	46,109,588	45,276,211			
WATER DISTRIBUTION - TANGIBLE CAPITAL ASSI	ETS										
Historical Cost											
Opening Balance	150.096.571	157,688,539	168.825.996	175,128,861	181,975,078	187,471,258	192,164,234	195,264,762			
Additions	8,193,198	11,366,093	6,424,900	7,062,500	5,697,000	4,870,000	3.218.400	5,087,500			
Disposals	(601,230)	(228,637)	(122,034)	(216,284)	(200,819)	(177,024)	(117,872)	(187,710			
Closing Balance	157,688,539	168,825,996	175,128,861	181,975,078	187,471,258	192,164,234	195,264,762	200,164,552			
Accumulated Amortization											
Opening Balance	51,252,384	53.032.909	55.058.901	57.327.103	59.581,366	61,939,376	64.384.372	66,946,728			
Amortization Expense	2,166,395	2.254.628	2,390,236	2.470.547	2,558,829	2.622.021	2.680.228	2,718,116			
Amortization on Disposals	(385,870)	(228,637)	(122,034)	(216,284)	(200,819)	(177,024)	(117,872)	(187,710			
Closing Balance	53,032,909	55,058,901	57,327,103	59,581,366	61,939,376	64,384,372	66,946,728	69,477,134			
Net Book Value	104,655,630	113,767,095	117,801,759	122,393,711	125,531,883	127,779,862	128,318,034	130,687,418			
TOTAL NET BOOK VALUE	150,760,564	161,088,013	166,725,612	171,180,641	173,430,179	174,803,085	174,427,622	175,963,629			
Financial Indicators		2019	2020	2021	2022	2023	2024	2025			
Acquisition of Tangible Capital Assets (Cumulative)		12.954.600	21,429,105	29.034.376	34.551.011	39.275.883	42.376.411	47.339.942			

Summary

Through the process of developing this Financial Plan, County financial and operational managers set out to achieve the following:

- Continue to provide safe drinking;
- Financial viability;
- Provide economical and affordable water services;
- Enable the long term plan for capital asset renewal to be realized;
- Achieve full cost recovery based on lifecycle analysis; and
- Meet the requirements of Ontario Regulation 170/03.