



2021 Water and Wastewater Rate Study and O. Reg 453/07 Financial Plan No. 103-301A



DFA Infrastructure International Inc.

February 6, 2021



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Shawn Moyer
Director of Public Utilities
Municipality of Grey Highlands
50 Lorne St.
Markdale, Ontario
NOC 1H0

Re: 2021 Water and Wastewater Rate Study and O. Reg 453/07 Financial Plan No. 103-301A

Dear Shawn:

We are pleased to submit to you the above noted report entitled: "Water and Wastewater Rate Study and O. Reg 453/07 Financial Plan". Please note, this report takes into consideration the January 18th direction from Council to phase out, over the years 2022 – 2026, the Markdale Base Charge Multiplier used in calculating the AMIK and Flesherton wastewater charges.

Please do not hesitate to call if you have any questions. We appreciate the opportunity to be of assistance to the Municipality of Grey Highlands with this undertaking.

Yours truly,

DFA Infrastructure International Inc.

Derek Ali, MBA, P.Eng.

President

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Transmittal Letter

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1 Introduction

1.1 Background

The Municipality of Grey Highlands (Municipality) is situated in one of the most beautiful parts of Grey County and has a population of 9,500. The Municipality delivers water and wastewater services to its customers through two (2) independent water systems and three (3) independent wastewater systems that are owned and operated by the Municipality. These systems and the approximate number of customers serviced by each system are as follows:

- The Kimberly AMIK Talisman (KAT) Water System: 196 customer accounts;
- The Markdale Water System: 728 customer accounts;
- The Markdale Wastewater System: 708 customer accounts;
- The Flesherton Wastewater System: 290 customer accounts; and
- The AMIK Wastewater System: 153 customer accounts

The total cost of the Municipality's water and wastewater services are recovered from daily operating (non-rate) revenues (e.g. administrative fees, etc.) and through direct billing to customers (rate revenues). The Municipality's bill to customers is comprised of service charges based on metre size plus consumption charges based on the respective water and wastewater uniform rate per cubic metre for volume of water consumed. AMIK and Flesherton customers are billed a flat charge based on the number of billable units. These revenues are required to cover the full costs of managing the water and wastewater systems including annual operating and capital costs and long-term asset renewal costs, net of any non-rate revenues. It should be noted that since 2016 the Municipality's various systems' water and wastewater rates have migrated to harmonized water and wastewater rates commencing in 2021.

The Municipality is required to prepare and submit an updated Water System Financial Plan (No. 103-301A) to meet the requirements of the Drinking Water Quality Management System as defined under O.Reg. 453/07 for renewal of its water distribution system licence.

DFA Infrastructure International Inc. (DFA) was retained by the Municipality to undertake a Rate Study and prepare the O. Reg. 453/07 Water Financial Plan in accordance with the drinking water licensing requirements. The rate study includes an assessment of full costs to manage the water and wastewater systems over a 10-year period from 2021 to 2030 and the recovery of full costs through appropriate rates and charges.

1.2 Purpose

The primary purpose of this Water and Wastewater Rate Study is to:

- Identify the full costs of managing the Municipality's two (2) drinking water systems and three (3) wastewater systems over the study period based on the most recent available information;
- Update the Municipality's current rates and charges to its customers starting in 2022 that will recover the full costs of supplying and distributing drinking water, and collection and treatment of wastewater;

- Develop connection fees that give consideration of the cost of gaining access to existing systems' capacity; and
- Prepare an updated single Water System Financial Plan (No. 103-301A) to cover both water systems in accordance with the requirements of O.Reg. 453/07 for the renewal of the licence for the Municipality's water distribution systems. The licence numbers are as follows:
 - Kimberley AMIK Talisman (KAT) Drinking Water System: 103-101
 - Markdale Water System: 103-102.
- The Water System Financial Plan is due to be submitted to the Ministry of Municipal Affairs and Housing (MMAH) by May 15th 2021.

2 Regulatory Requirements

2.1 Provincial Regulations

Provincial requirements governing water and wastewater services primarily include the following:

- The Environmental Assessment Act (EAA);
- The Safe Drinking Water Act (SDWA);
- The Municipal Act (MA);
- The Development Charges Act (DCA); and
- The Water Opportunities and Conservation Act, 2010 (WOA).

The first two (2) set out the technical requirements related to service delivery. The EA Act applies to expansion of existing facilities and establishment of new capacity such as the installation of new pipes to service growth in customers.

The Safe Drinking Water Act, 2002 (SDWA) has significant implications to the daily operations as it sets out the water sampling and other operational requirements (in O. Reg. 170/03) for ensuring that the water delivered to consumers is of high quality and safe for consumption. The SDWA has been a major influence over the past decade in terms of adjustments to operational practices and water quality assurance. In addition, there is also a requirement under this Act (O.Reg. 188/07) for drinking water providers to establish a Drinking Water Quality Management System (DWQMS) and obtain licences for their respective water systems. As part of the DWQMS, and as required under O. Reg. 453/07 (Financial Plans Regulation), operating authorities must submit a financial plan for their respective water systems as a condition of licensing. There are also many regulations and guidelines that deal with design and operation standards that mandate certain activities be undertaken as part of service delivery.

The Municipal Act, Part VII, Section 293 requires municipalities to establish reserves for dealing with long-term liabilities. This applies directly to the water systems and the future liabilities associated with their age and condition. The Municipal Act also permits the municipalities to establish fees for cost recovery and requires public input prior to any fee adjustments. The Development Charges Act and regulations establishes the requirements for the recovery of portions of future growth-related capital expenditures to be incurred by

municipalities. The Sustainable Water and Sewage Systems Act, 2002 requires that water systems be financially sustainable. The Water Opportunities and Conservation Act, 2010 is the most recent legislation to be enacted influencing water system management. It requires sustainability plans to be prepared for water systems and overlaps somewhat with the SWSA.

The Water Opportunities and Conservation Act, 2010

The WOA was enacted in November 2010 and the regulations are pending. This legislation promotes water conservation and requires municipalities to develop:

- Water conservation plans;
- Sustainability plans for water, wastewater & stormwater management; and
- Asset management plans.

Financial plans are required as a component of the water sustainability and asset management plans.

The DWQMS Requirements

Regulation 188/07 under the Safe Drinking Water Act requires Ontario municipalities to apply for and obtain Drinking Water System Licences as part of their overall DWQMS. One of the requirements to obtain a drinking water licence is to prepare and submit a financial plan in accordance with O.Reg. 453/07.

2.2 Municipality of Grey Highland's Water and Wastewater Rate By-Law

The Municipality's By-law No. 2020-109 establishes the water and wastewater rates and charges that apply to the various customer classes for 2021. Schedule A of By-law 2020-109 is attached as Appendix A.

3 Methodology

The Rate Study gives consideration to the full costs (or the required investment) associated with managing the Municipality's water and wastewater systems over a ten (10) year period from 2021 to 2030 inclusive, and the recovery of those costs (or revenue plan) through proposed rates and charges to customers. Life cycle costs of assets from the Municipality's Capital Asset Inventory and 2016 Asset Management Plan were also considered to determine the full replacement and/or rehabilitation needs given that some water and wastewater system assets (e.g. water mains and sewer mains) can have life expectancies in the 50 to 100 year range. Rates are then developed that recover the full costs of water and wastewater services.

3.1 Full Cost Considerations

Calculation of the Municipality's full cost of managing the water and wastewater systems is based on the 2021 budgets related to the primary activities required to deliver water and wastewater services to Municipal customers. Higher costs are generally expected in the future as the water and wastewater business environment changes. The impact can be mitigated however by fully understanding, assessing and planning for future water and wastewater system costs.

Determination of the full cost of managing the Municipality's water and wastewater systems takes into account the factors that have a bearing on the cost of providing reliable water and wastewater services to the customers over the long-term. These included both current and future considerations that would influence the cost of managing the systems (and the revenues required to sustain them). Table 3-1 notes the main drivers of cost. The assumptions made are noted in the respective sections of this report.

Table 3-1: Cost Components and Drivers

Cost Component	Cost Drivers	Future Cost Implications
Water and Wastewater systems operations and maintenance (O&M)	<p>This is the annual cost of operating and maintaining the current system including direct (e.g. operations staff) and indirect costs (e.g overhead, charge backs etc).</p> <p>Changes in regulations can result in additional (O&M) activities and added costs. This was evident when the regulations under the Safe Drinking Water Act took effect. Municipalities were required to undertake specific activities in the interest of water quality management (e.g sampling, analysis and reporting of water quality). More recently, the DWQMS meant additional costs for water system operational plans and licensing albeit not annually. It is expected that pending regulations under the Water Opportunities Act and greater enforcement of compliance requirements by the Ministry of the Environment and Climate Change (MOECC) would require more actions to be undertaken (and increased costs) by municipalities.</p>	<p>This is a direct annual cost that is reasonably consistent (fixed) from year to year but requires adjustment to account for non-recurring items, operational changes, variable cost (e.g. chemical use) changes and inflation. Non-rate revenues from administrative fees and grants offset these costs.</p> <p>The long term impact of new regulations on costs are difficult to predict. However, the costs are expected to rise as more stringent requirements are established and compliance enforcement by the MOECC increases.</p> <p>Operating costs are assumed to increase by 2% annually.</p>
Customer Growth	<p>As the existing urban areas are developed, the addition of new customers would increase the total demand for water. A corresponding rise in wastewater volume requiring treatment would also be expected</p>	<p>The increase in demand, if significant, would increase volumes of water consumed and wastewater treated, and variable costs in the year the new customers are added.</p> <p>Customer Growth is based on projections contained on the Grey Highland's 2017 Development Charges Background Study</p>
Consumption Volume (m3)	<p>Consumption is a function of the number of customers (existing and new growth), weather conditions and the economic environment. The weather conditions have a significant influence on how much water is consumed in a given year. For example, lower temperatures and wet weather tend to result in less water consumption. Dry weather and higher temperatures increase water consumption. Wet weather would also mean more stormwater entering the wastewater system (known as inflow and infiltration) The loss of large (commercial or industrial) customers perhaps due to economic climate would reduce demand.</p>	<p>The annual consumption volume is unpredictable. Fluctuations can result in higher than anticipated costs or lower revenues and lead to budget deficits. An operating reserve would minimize the risk of deficits and stabilize rates (i.e. minimize rate spikes) It is assumed that consumption will continue to increase as a result of new customer growth.</p>

Cost Component	Cost Drivers	Future Cost Implications
New growth related services	This refers to installation of new assets to increase the system capacity to facilitate new development and build out of the approved service areas within the Municipality	<p>Would result in capital investments in the year the new infrastructure is needed. Note that financing of these costs can be through debt or cash from reserves after third party contributions are considered (e.g. grants, developer contributions etc.)</p> <p>Growth related capital investments are as provided from the Municipality's Capital Forecast and the 2017 Development Charges Background Study and 2012 Water and Wastewater Master Servicing Plans</p>
Asset preservation and renewal	This is mainly the replacement of aging Tangible Capital Assets (TCA) e.g. old water mains, plant components, well components etc. that have exceeded their service life.	<p>Would result in future capital expenditures in the year in which the assets require replacement or rehabilitation to extend their useful lives. Allowances must be made as part of the annual costs to account for the future replacement of these assets. Financing can be through a combination of debt and reserve funds.</p> <p>Asset renewal needs are as provided from the Municipality's Capital Forecast, and supplemented with additional lifecycle needs as determined by the Municipality's 2020 Tangible Capital Asset Inventory and 2016 Asset Management Plan (AMP)</p>
Other capital expenditures	These are capital expenditures other than those needed for growth and asset renewal. These would include cost of studies and implementation of operational improvements of the water and wastewater systems such as water loss reduction measures and wastewater I & I reduction programs.	<p>Would increase costs in the year the expenditure is required. Financing can be through a combination of debt and reserves.</p> <p>Other capital investments are as provided from the Municipality's Capital Forecast</p>
Capital Financing	Capital financing for projects can be from four (4) main sources: Debt financing, reserves, annual rates and third party contributions (grants etc.). Grant funding is available only when approved and is therefore not a predictable source of financing for financial planning purposes. The greater the debt financing, the higher the annual amount (costs) needed to repay the principal and interest on any current or future debt. Financing from reserves can only be used if sufficient funds are available. Therefore annual contributions to reserves are required to build balances for use in future years.	<p>Annual costs would increase to provide for reserve contributions and debt repayment. It should be noted that using debt financing would minimize spikes in funding required for capital projects and allocates cost to future users</p> <p>It is assumed that debt financing will be used when funds from other sources (reserves, grants, etc) are</p>

Cost Component	Cost Drivers	Future Cost Implications
	Financing from rates do not increase annual costs but tend to drive up rates in the year the capital expenditure is required.	<p>insufficient to finance the current year's capital program</p> <p>Net surpluses generated annually from user revenues are allocated to capital reserves to meet the recommended Asset Management Plan asset replacement funding targets</p> <p>Water and wastewater capital reserves will maintain a target balance of between 5% and 10% of current replacement value of the municipality's water and wastewater capital assets</p>
Inflation	This is the annual rate of inflation as reported by Statistics Canada for the provision for cost of living adjustments each year.	Annual inflation is assumed to be 2%
Market competition and pricing	The level of competition within the market place depends on the number of service providers available. Additionally, the capacity of industry service providers to meet the increasing demand for their services may tend to increase prices. Tender prices for future capital projects would be influenced by the market conditions at the time of tendering.	Potential higher prices depending on the future behaviour of the industry.

3.2 Full Cost Assessment

The full cost assessment identifies the current and future costs (i.e. the full costs) associated with the management of the water and wastewater systems over the next ten (10) years (2021 to 2030). The key cost areas include:

- Operations & Maintenance (O&M) cost projections;
- Capital Budget based on the capital forecast provided by the Municipality, 2017 Development Charges Study, 2012 Water and Wastewater Master Servicing Plans and 2016 AMP;
- Tangible Capital Asset (TCA) projections including asset replacement needs;
- Debt servicing requirements; and
- Reserve fund requirements.

The non-rate revenues associated with the systems are also identified. These are defined as revenues that are routinely generated each year by the daily operations and include administrative revenues such as service connection fees, penalties, operating grants and other direct user fees and service charges. It is important to note that the non-rate revenues do not include the revenues generated by the water and wastewater user rates. The full cost developed through the various analyses in this study identify the revenue requirements for the water and wastewater systems and form the basis for the future rates and charges.

3.3 Data Sources

The primary sources of data used in this review are listed in Table 3-2. In addition, information was also developed from discussions with input from Municipal staff, as required.

Table 3-2: Data Sources

Item	Data Source
Asset Life Expectancy	<ul style="list-style-type: none"> • Municipality's TCA Policy • Information Provided by the Municipality
Asset Replacement Costs	<ul style="list-style-type: none"> • Municipality's TCA Policy • Historical Costs Provided by the Municipality indexed to 2021 • 2016 Asset Management Plan
Asset Values	<ul style="list-style-type: none"> • Municipality's TCA Policy • Information Provided by the Municipality
O & M Costs and Revenue Projections	<ul style="list-style-type: none"> • Municipality's 2021 Water Operating Budget
Capital Cost Projections	<ul style="list-style-type: none"> • Municipality's 2020/21 Water Capital Budget Forecasts
Debt	<ul style="list-style-type: none"> • Municipality's 2021 Water and Wastewater Operating Budgets and 2021 Capital Budget Forecasts
Investments, Reserve balances etc.	<ul style="list-style-type: none"> • Information provided by the Municipality
Existing Customers	<ul style="list-style-type: none"> • Municipality's Customer count Provided by the Municipality
Growth	<ul style="list-style-type: none"> • Information as contained in the Municipality's 2017 Development Charges Background Study and 2012 Water and Wastewater Master Servicing Plans
Water and Wastewater Volumes	<ul style="list-style-type: none"> • Municipality's actual historical Consumption Volumes provided by the Municipality

4 Customer and Consumption Growth

The cost of service depends on the number and type of customers and corresponding demand. Although most costs are fixed, variable costs such as annual chemical use and hydro costs can increase depending on the level of customer growth and water consumption and wastewater treated. Capital costs related to increasing system capacity to accommodate customer growth can also be influenced by growth and demand. In addition, the rate structure for Markdale and KAT is customers is comprised of a fixed charge (base charge) plus a consumption charge based on the metered volume of water consumed (and billed wastewater flows for Markdale Customers). Therefore forecasting customer growth and annual water consumption volumes is essential to projecting future costs, revenue requirements and rates.

4.1 Current Customers and Water Consumption/Billed Wastewater Volumes

In 2020 there were approximately 867 water customers and 1,106 wastewater customers based on information provided by the Municipality. The corresponding water consumption was 346,347 with billed wastewater flows of 329,496. These numbers are expected to increase over the 2021 – 2030 forecast period. Table 4-1 shows the current total number of customers and their corresponding consumption.

Table 4-1: 2020 Customer Count

System	Number of Customers	Water Volume (m ³)	Wastewater Volume (m ³)
Kat Water System	184	13,674	N/A
Markdale Water System	683	332,673	N/A
Markdale Wastewater System	663	N/A	329,496
AMIK Wastewater System	153	N/A	N/A
Flesherton Wastewater System	290	N/A	N/A

4.2 Projected Customer Growth

Table 4-2 shows the increase in total customers over the 2021-2030 forecast period. Customer growth projections reflect the customer growth as provided by the Municipality's 2017 Development Charges Background Study and the Municipality's 2012 Master Servicing Plans. Water customer growth over the forecast period is projected to be 984 new water customers, whereas Wastewater customer growth is projected to be 486 new wastewater customers.

Table 4-2: 2021 – 2030 Customer Growth Projection

Water System	Water Customer Projection									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
KAT Water System	196	208	220	232	244	256	268	280	292	304
Markdale Water System	728	773	818	863	908	953	998	1514	1559	1604
Total Water Customers	924	981	1038	1095	1152	1209	1266	1794	1851	1908

Wastewater Systems	Wastewater Customer Projection									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Markdale Wastewater System	708	753	798	843	888	933	978	1104	1149	1194
AMIK Wastewater System	153	153	153	153	153	153	153	153	153	153
Flesherton Wastewater System	290	290	290	290	290	290	290	290	290	290
Total Wastewater Customers	1151	1196	1241	1286	1331	1376	1421	1547	1592	1637

4.3 Projected Water Consumption and Billed Wastewater Volumes

Projected water consumption and billed wastewater flow increases are based on projected customer growth by customer type/system multiplied by the estimated average customer consumption in that customer type/system. The 2021-2030 volume projections are shown below in Table 4-3.

Table 4-3: 2021-2030 Water and Wastewater Projected Volumes (m³)

	Water Consumption Projection										
Water System	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
KAT Water System	13,674	14,563	15,452	16,340	17,229	18,117	19,006	19,895	20,783	21,672	22,560
Markdale Water System	332,673	338,541	344,408	350,276	356,143	362,010	367,878	373,745	441,024	446,892	452,759
Total Water Consumption	346,348	353,104	359,860	366,616	373,372	380,128	386,884	393,640	461,808	468,564	475,320

Wastewater System	Wastewater Volume Projection										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Markdale Wastewater System	329,496	335,323	341,150	346,976	352,803	358,630	364,457	370,284	386,599	392,426	398,253
Total Wastewater Billed Volumes	329,496	335,323	341,150	346,976	352,803	358,630	364,457	370,284	386,599	392,426	398,253

5 Capital Budget Requirements

The detailed water and wastewater 2021 – 2030 capital budget requirements are presented in Appendices B and C respectively. These appendices reflect the projects identified by the Municipality's in its 2021 Capital Budget and Forecast, the 2017 Development Charges Background Study and the 2012 Water and Wastewater Master Servicing Study. Additional asset management lifecycle needs provisions were also included to ensure that sufficient annual capital funding is being provided from rates to address the average annual capital lifecycle needs as noted in the 2016 Asset Management Plan. It should be noted that the additional asset management lifecycle provisions were adjusted to reflect asset management related projects already contained in the Municipality's capital forecast. There is approximately \$58.8 million in projected water related capital expenditures and approximately \$33.3 million in projected wastewater related capital related expenditures required between 2021 and 2030.

Appendices C and D also show the projected sources of financing for the annual water and wastewater capital requirements. The level of water and wastewater rates have a direct impact on the mix of capital financing. The Municipality will continue to finance its' nongrowth capital requirements through cash from capital reserves and long-term debt. The Municipality will be required to incur debt for financing growth-related capital when development charge reserve balances are insufficient to fund growth capital in a given year. Debt servicing for the growth-related water debt will be funded from development charges revenues generated from the new growth anticipated in the Municipality and therefore will not impact on the user rates. Connection Fees will also be required for financing a portion of the water and wastewater growth capital as existing development that will be required to tie into the new services will be responsible for funding their share of the project. Connection fees are discussed further in Sub-Section 5.3.

5.1 Debt Financing

Issuance of debt allows for funds to be available in the year the project is required to proceed, with repayment of the debt occurring in future years. This approach supports the principle of user pay such that the beneficiaries of the new assets pay for their use through the debt repayment. Financing from capital reserve requires that sufficient funds be available in the reserve in the year the project is undertaken, through annual contributions from the operating budget to the reserve in prior years. Therefore, without debt or reserve financing, major rate increases, or “spikes” would be required in the project year to raise sufficient funds to cover the project expenditures.

The Municipality will be required to borrowing \$31.8 million over the 2021-2030 forecast period to finance the water non-growth capital program, and \$18.0 million to fund the wastewater nongrowth capital program. Growth-related debt will also be required over the forecast period in the amount of \$14.9 million in new water growth-related debt and \$9.6 million in new wastewater growth-related debt. As noted earlier, growth related debt will be serviced from future development charge revenues and will not impact on future water and wastewater rates. Appendix D shows the debt continuity for both water and wastewater debt from 2021 - 2030.

5.2 Reserve Requirements

There are two (2) separate reserve/reserve funds identified in this study for both water and wastewater for which projections are made:

- The Water and Wastewater Reserve Funds; and
- Water and Wastewater Development Charges Reserve Funds.

Appendix E shows the continuity schedule for each reserve fund projection. These schedules show the transfers to and from the respective reserves and the opening and closing balances. Reserve funds are assumed to earn 1.25 % annual interest on balances. Reserve balances do not earn interest.

5.2.1 Water and Wastewater Reserve Funds

The water and wastewater reserve funds are funded annually by operating budget transfers. Funds contained in these reserve funds are used in funding the annual nongrowth capital needs reflected in the capital budget projections, and to provide an account to transfer any projected revenue surpluses, as well as to offset any projected operating deficits in the operating budget. It is best practice among municipalities to have target balances to ensure that funds are available to meet unforeseen capital needs and stabilize rate when necessary. Target balances have been set based on the Municipality’s capital replacement values, with a minimum target balance of 5% and maximum target balance of 10% of the respective water and wastewater capital asset replacement values. Approximately \$4.0 million in water and \$4.9 million in wastewater reserves were used in funding the Municipality’s nongrowth capital needs over the 2021-2030 forecast period.

5.2.2 Water and Wastewater Development Charges Reserve Funds

The water and wastewater development charges reserve funds are required to be established under the *Development Charges Act 1997*. Development charges revenues generated from future anticipated growth are credited to each respective development charge reserves. The development charges reserve fund balances are used in financing the growth-related component of future capital expenditures or used in the servicing of debt that was required to finance past growth-related capital. Approximately \$1.9 million in water and \$0.1 in wastewater development charges reserves were used in funding the Municipality's growth capital needs over the 2021-2030 forecast period.

5.3 Connection Fee Revenues

New developments are required to pay development charges related to water and wastewater services. However, for existing properties that wish to be connected to expanded water and wastewater systems, connection fees apply instead of development charges. Table 5-1 shows the current connection fees charged by the Municipality for each system. These are either \$3,000 or \$5,000 depending on the system and unchanged for many years. Updated connection fees were required to be calculated as part of this study and are based on:

- The cost of establishing the current capacity of the water and wastewater systems adjusted to 2021 dollars using the replacement value noted in the 2016 Asset Management Plan;
- The cost of capacity per equivalent residential customer (ERC); and
- The current usage of capacity by an ERC based on the annual system reports.

The updated fees were calculated to be a blended fee of \$5,968 for connections water systems and \$10,181 for wastewater systems. Because of the significant increase over the current fees, phasing in of the new connection fees is recommended over a 5-year period starting in 2022 as noted in Table 5-1.

Significant expansion projects from the 2012 Water and Wastewater Master Servicing Study and the 2017 Development Charges Study were included in the 2021-2030 water and wastewater capital programs that require in 2027 approximately \$6.3 million in water connection fees and \$0.8 million in wastewater connection fees funding.

Table 5-1: Proposed Connection Fees (5-Year Phase-in)

Water & Wastewater System	Current Connection Fees	Phased-In Connection Fees				
	2022	2023	2024	2025	2026	
Markdale Water	\$3,000	\$3,742	\$4,484	\$5,226	\$5,968	
KAT	\$5,000	\$5,242	\$5,484	\$5,726	\$5,968	
Markdale Wastewater	\$3,000	\$4,795	\$6,591	\$8,386	\$10,181	
AMIK Wastewater	\$5,000	\$6,295	\$7,591	\$8,886	\$10,181	
Flesherton Wastewater	\$3,000	\$4,795	\$6,591	\$8,386	\$10,181	
Blended Water Systems						\$5,968
Blended Wastewater Systems						\$10,181

6 Operations & Maintenance (O&M) Cost Projections

The annual operating budgets are based on the operations and maintenance needs of the Municipality's various water and wastewater systems. These include operations and maintenance costs related to the water system (i.e. water treatment and water distribution), and the wastewater system (i.e. wastewater treatment and wastewater collection). These costs generally include the staffing, materials, utilities and other costs related to the following:

- Administration;
- Contracted Services;
- Minor Capital; and
- Maintenance.

Transfers to reserves and debt servicing are typically included in the annual O&M budgets. These costs have however been addressed separately for the purposes of this report and are noted in Section 5.

A portion of the O&M costs is offset by non-rate revenues. These include:

- Penalties and late payment charges;
- Administrative service fees and charges;
- Shared System Transfers.

The projection of the gross costs and non-rate revenues over the study period is based on the Municipality's 2021 Operating Budget. It has been assumed that for 2022 and beyond, O&M costs (not including non-recurring costs, reserve transfers and debt servicing) will increase annually by 2%.

Table 6.1 and Table 6.2 summarizes the Municipality's 2021 operating budgets for water and wastewater services including the net amount to be recovered from customers. The net amount to be recovered from customer will be based on the rates and charges as detailed in Section 7.

Table 6-1:Water Operating Budget

2021 Water Operating Budget	
<u>Operating Expenditures</u>	
Water - Markdale	374,364
Water Hydrants - Markdale	6,187
Water Distribution - Markdale	45,574
Water Meters - Markdale	16,969
Water - KAT	201,735
Water Distribution - KAT	25,716
Water Meters - KAT	3,496
Shared - Water & Sewer	196,294
2012 Ford Pick-Up	2,862
2014 F250 Pick-up	2,352
2016 F150 Ext. Cab Pick-up	3,117
2018 F150 Pick-up	3,882
Sub Total Operating Expenditures	882,548
<u>Capital-Related</u>	
Existing Debt (Principal) - Non-Growth Related	127,971
Existing Debt (Interest) - Non-Growth Related	16,265
Transfer to Reserve Fund	232,866
Outstanding Industrial Contribution to Reserve Fund	450,000
Sub Total Capital Related Expenditures	827,103
Total Expenditures	1,709,650
<u>Non-Rate Revenues</u>	
Shared System Transfer	208,505
Outstanding Industrial Contribution	450,000
Total-Non Rate Revenues	658,505
Net Water Costs To Be Recovered From Users	1,051,145

Table 6-2: Wastewater Operating Budget

2021 Wastewater Operating Budget	
Operating Expenditures	
Sewage Collection - Flesherton	27,808
Flesherton - Sewage Treatment	205,554
AMIK Sewage Treatment	107,214
Sewage Collection - AMIK	9,765
Markdale - Sewage Treatment	297,756
Markdale - Sewage Collection	37,625
Shared - Water & Sewer	196,294
2012 Ford Pick-Up	2,862
2014 F250 Pick-up	2,352
2016 F150 Ext. Cab Pick-up	3,117
2018 F150 Pick-up	3,882
Sub Total Operating Expenditures	894,231
Capital-Related	
Existing Debt (Principal) - Non-Growth Related	105,149
Existing Debt (Interest) - Non-Growth Related	8,678
Transfer to Reserve Fund	206,664
Outstanding Industrial Contribution to Reserve	250,000
Sub Total Capital Related Expenditures	570,491
Total Expenditures	1,464,722
Non-Rate Revenues	
Private Sewage Disposal Revenue - AMIK	2,013
Recovery - Revenue	504
Private Sewage Disposal Revenue - Markdale	1,379
Shared System Transfer	208,508
Outstanding Industrial Contribution	250,000
Total-Non Rate Revenues	462,405
Net Wastewater Costs To Be Recovered From Users	1,002,318

Appendix F details the projected 2021 – 2030 water systems gross operating & maintenance costs, non-rate revenues and net costs to be recovered from customers through the Municipality's water rates and charges. The net annual costs of the water system are expected to increase from \$1.1 million in 2021 to approximately \$3.5 million by 2030.

Appendix G details the projected 2021 – 2030 wastewater systems gross operating & maintenance costs, non-rate revenues and net costs to be recovered from customers through the Municipality's wastewater rates and charges. The net annual costs of the wastewater system are expected to increase from approximately \$1.0 million in 2021 to \$2.8 million by 2030.

7 Sustainable User Rates and Charges and Customer Revenues

The sustainable water and wastewater rates and charges and corresponding customer revenues are detailed in this section. The rates and charges are based on the Municipality's current water and wastewater rate structure, and includes the January 18th Council direction that there be 10% increases in water and wastewater rates commencing in 2022, and further that the wastewater charges for AMIK and Flesherton customers be adjusted

over the 2022- 2026 period so that by 2026 an AMIK and Flesherton wastewater customer will pay the same as a Markdale wastewater customer who produces 180 cubic meters of wastewater per year.

The capital costs and sources of capital financing contained in Section 5 (Capital Budget Requirements) and costs and revenues contained in Section 6 (Operating & Maintenance Cost Projections), and the projected growth contained in Section 4 (Customer Growth and Volume Projections) were considered in calculating the sustainable water and wastewater rates and charges and customer revenues as presented in this section.

7.1 Current Rates and Charges

The last Water and Wastewater Rate Review was undertaken in 2016. In that study it was recommended that over the 2016-2021 period the current water and wastewater rates for the various water and wastewater systems be harmonized.

The Municipality's 2021 rate structure and rates are shown in Table 7-1. The rate structure includes:

- A Flat Charge per billable unit for AMIK and Flesherton wastewater customers
- A Base Charge and Uniform Volumetric Rate for KAT water customers and Markdale water and wastewater customers

It should be noted that the base charges for metered customers in the Markdale and KAT systems are based on a ¾" meter. For customers with larger meters the ¾" inch meter base charge is multiplied by the meter ratio based on the meter size as listed in Table 7-2. The flat charge for AMIK and Flerherton wastewater customers is based on each property's assigned number of billable units multiplied by the posted flat charge.

Table 7-1: Current 2021 Water and Wastewater Rates and Charges

Year	Charge Type	Water System		Wastewater System		
		KAT	Markdale	AMIK	Flesherton	Markdale
2021	Annualized Charge *	\$ 659.99	\$ 659.99	\$ 949.89	\$ 949.89	\$ 475.24
	Volumetric Rate/m ³	\$ 0.82	\$ 0.82	\$ -	\$ -	\$ 0.47

* Annual charge are for ¾' meters. Annual charge for larger meters are multiplied by a meter ratio

Table 7-2: Meter Ratios

Meter Equivalent Ratio	
Meter Size	Ratio
¾'	1
1'	2.5
1 1/2'	5
2'	8
4'	25
6'	50

7.2 Water Rates and Charges Projection

Table 7-3 presents the projected sustainable water rates and charges for the six (6) year period 2021 – 2026. The ten (10) year detailed projection of water rates and charges and customer revenues is presented in Appendix H. The water rates and charges as projected are required to ensure a sustainable level of water funding over the forecast period. As noted above, the projected water rates and charges are based on the Municipality's current rate structure, and includes the January 18th Council direction that there be 10% increases in water rates commencing in 2022.

Table 7-3: Projected Water Rates and Charges

Year	Charge Type	Water System	
		KAT	Markdale
2021 (Approved Rates)	Annualized Charge *	\$ 659.99	\$ 659.99
	Volumetric Rate/m³	\$ 0.82	\$ 0.82
2022 (10% Increase)	Annualized Charge *	\$ 725.99	\$ 725.99
	Volumetric Rate/m³	\$ 0.90	\$ 0.90
2023 (10% Increase)	Annualized Charge *	\$ 798.59	\$ 798.59
	Volumetric Rate/m³	\$ 0.99	\$ 1.23
2024 (10% Increase)	Annualized Charge *	\$ 878.45	\$ 878.45
	Volumetric Rate/m³	\$ 1.09	\$ 1.09
2025 (10% Increase)	Annualized Charge *	\$ 966.29	\$ 966.29
	Volumetric Rate/m³	\$ 1.20	\$ 1.20
2026 (10% Increase)	Annualized Charge *	\$1,062.92	\$1,062.92
	Volumetric Rate/m³	\$ 1.32	\$ 1.32

* Annualized charge is for 3/4" meters. Annualized charge for larger meters is multiplied by the meter ratio as noted in Table 7-2

7.3 Wastewater Rates and Charges Projection

Table 7.4 presents the current and projected sustainable wastewater rates and charges for the six (6) year period 2021 – 2026. The ten (10) year projection of wastewater rates and charges is detailed in Appendix I. The wastewater rates and charges as projected are required to ensure a sustainable level of wastewater funding over the forecast period.

Similar to the water rates, the projected wastewater rates and charges are based on the Municipality's current rate structure, and includes the January 18th Council direction that there be 10% increases in wastewater rates commencing in 2022. In addition, Council also directed that the wastewater charges for AMIK and Flesherton customer be adjusted over the 2022- 2026 period so that AMIK and Flesherton wastewater customers pay the same as a Markdale wastewater customer who produced 180 cubic meters of wastewater per year.

In the 2016 Water and Wastewater Rate Study, AMIK and Flesherton wastewater charges were gradually harmonized over the 2016-2021 period so that by 2021 both sets of AMIK and Flesherton customers pay the same in wastewater charges. The AMIK and Flersherton wastewater charges were tied to the Markdale's rate structure where the AMIK and Flesherton customers would pay a multiplier of 1.8 times the Markdale base

charge, plus an amount tied to an assumed level wastewater produced multiplied by the Markdale volumetric wastewater rate. Analysis has shown the assumed level wastewater produced in this calculation was 200 cubic meters.

In keeping with the January Council 18th direction, the wastewater charge for AMIK and Flesherton customers are to be adjusted over the 2022- 2026 period so that by 2026 AMIK and Flesherton wastewater customers will pay the same as a Markdale wastewater customer who is assumed to produce 180 cubic meters of wastewater per year. As noted in Table 7.4 the multiplier that is applied to calculating the AMIK and Flersheron wastewater charge is being reduced each year where by 2026 the multiplier is reduced from the current 1.8 to a factor of 1.0.

Table 7-4: Projected Wastewater Rates and Charges

Year	Charge Type	Wastewater System		
		AMIK **	Flesherton **	Markdale*
2021 (Approved Rates)	Annualized Charge	\$ 949.89	\$ 949.89	\$ 475.24
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.47
2022 - 180% mutiplier	Annualized Charge	\$ 1,034.04	\$ 1,034.04	\$ 522.76
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.52
2023 - 160% mulitprier	Annualized Charge	\$ 1,075.64	\$ 1,075.64	\$ 608.30
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.57
2024 - 140% mulitprier	Annualized Charge	\$ 1,098.37	\$ 1,098.37	\$ 704.12
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.63
2025 - 120% mulitprier	Annualized Charge	\$ 1,102.00	\$ 1,102.00	\$ 815.12
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.69
2026 - 100% mulitprier	Annualized Charge	\$ 1,080.01	\$ 1,080.01	\$ 943.77
	Volumetric Rate/m ³	\$ -	\$ -	\$ 0.76

* For Markdale Customers, Annualized Charge is based on 3/4" meter. Annual charge for larger meters are multiplied by the meter ratio noted in Table 7-2

** AMIK and Flesherton Customers, Annualized Charge is based on a mulitplier of the Markdale Annualized Charge plus an assumed 180 cubic metres of wastewater produced

While the total revenues to be generated from all wastewater customers is based on the original 10% increase in wastewater rates and charges, the direction by Council to adjust the AMIK and Flersheron wastewater rates by reducing the base charge multiplier has meant that actual annual rate increases for AMIK and Flersheton customers will be different than the annual rate increases for Markdale customers. Due to the downward adjustment of the multiplier used in calculating the AMIK and Flersheron wastewater charge, there will be a shift in the required revenue to be generated to the Markdale customer.

Table 7-5 shows the percent increase in the AMIK, Flesherton and Markdale wastewater rates and charges over the 2021 -2026 period. As shown, due to the annual reduction over the 2022-2026 period in the base charge multiplier used in setting the AMIK and Flersheron charges, the actual increase in the AMIK and Flersheron charge is less that 10%, whereas the increase in the base charge for the Markdale customer is greater than 10%. The volumetric rate increase was not be affected in this analysis and remains at 10% per year.

Table 7-5: Percent Increases in Projected Wastewater Fees and Charges

Projected Annual Base Charge Increases - Markdale						
	2021	2022	2023	2024	2025	2026
Annual %Increases		10.00%	16.36%	15.75%	15.76%	15.78%
3/4" Meter	\$ 475.24	\$ 522.76	\$ 608.30	\$ 704.12	\$ 815.12	\$ 943.77
Projected Annual Flat Charge Increases - AMIK						
	2021	2022	2023	2024	2025	2026
Annual %Increases		8.86%	4.02%	2.11%	0.33%	-2.00%
Rate/ Billable Unit	\$ 949.89	\$ 1,034.04	\$ 1,075.64	\$ 1,098.37	\$ 1,102.00	\$ 1,080.01
Projected Annual Flat Charge Increases - Flesherton						
	2021	2022	2023	2024	2025	2026
Annual %Increases		8.86%	4.02%	2.11%	0.33%	-2.00%
Rate / Billable Unit	\$ 949.89	\$ 1,034.04	\$ 1,075.64	\$ 1,098.37	\$ 1,102.00	\$ 1,080.01
Projected Volumetric Charge Increases - Markdale						
	2021	2022	2023	2024	2025	2026
Annual %Increases		10.00%	10.00%	10.00%	10.00%	10.00%
Per Cubic Metre	\$ 0.47	\$ 0.52	\$ 0.57	\$ 0.63	\$ 0.69	\$ 0.76

7.4 Water and Wastewater Customer Revenues

The water and wastewater rates and charges discussed in Sub-Sections 7.3 and 7.4 generate the required revenues to recover the net costs of water and wastewater services as detailed in Section 6. Table 7-6 presents the annual water revenues generated by system for the years 2021-2026 and net water costs to be recovered from users. Table 7-7 presents the annual wastewater revenues generated by system for the years 2021-2026 and net wastewater costs to be recovered from users. Appendices H and I present the detailed water and wastewater customer revenue calculations.

Table 7-6: Projected Water Customer Revenue

Projected Customer Revenue by Water System						
Meter Size	2021	2022	2023	2024	2025	2026
Water Revenue from KAT Base Charges	\$ 165,657	\$ 190,935	\$ 219,612	\$ 252,114	\$ 288,921	\$ 330,568
Water Revenue from Markdale Base Charges	\$ 595,942	\$ 688,206	\$ 792,963	\$ 911,790	\$ 1,046,452	\$ 1,198,928
Water Revenue from KAT Consumption Charges	\$ 11,942	\$ 13,937	\$ 16,213	\$ 18,804	\$ 21,751	\$ 25,100
Water Revenue from Markdale Consumption Charges	\$ 277,603	\$ 310,656	\$ 347,543	\$ 388,701	\$ 434,616	\$ 485,826
Total Water Revenues	\$ 1,051,145	\$ 1,203,735	\$ 1,376,331	\$ 1,571,409	\$ 1,791,740	\$ 2,040,422
Total Net Water Costs	\$ 1,051,145	\$ 1,203,735	\$ 1,376,331	\$ 1,571,409	\$ 1,791,740	\$ 2,040,422

Table 7-7: Projected Wastewater Customer Revenue

Projected Customer Revenue by Wastewater System						
System	2021	2022	2023	2024	2025	2026
Wastewater Revenue from Markdale Base Charges	\$ 423,915	\$ 489,830	\$ 597,349	\$ 723,131	\$ 873,805	\$ 1,054,186
Wastewater Revenue from AMIK Base Charges	\$ 145,333	\$ 158,207	\$ 164,573	\$ 168,051	\$ 168,606	\$ 165,242
Projected Annual Revenue from Flesherton Base Charges	\$ 275,468	\$ 299,870	\$ 311,937	\$ 318,528	\$ 319,581	\$ 313,204
Wastewater Revenue from Markdale Consumption Charges	\$ 157,602	\$ 176,374	\$ 197,326	\$ 220,703	\$ 246,783	\$ 275,872
Total Wastewater Revenues	\$ 1,002,318	\$ 1,124,282	\$ 1,271,185	\$ 1,430,413	\$ 1,608,775	\$ 1,808,505
Total Net Wastewater Costs	\$ 1,002,318	\$ 1,124,282	\$ 1,271,185	\$ 1,430,413	\$ 1,608,775	\$ 1,808,505

8 O.Reg 453/07 Water System Financial Plan No. 103-301A

Regulation 188/07 under the Safe Drinking Water Act requires Ontario municipalities to apply for and obtain Drinking Water System Licences as part of their overall DWQMS. One of the requirements of holding a valid drinking water licence is preparing and submitting to the Province an updated financial plan in accordance with O.Reg. 453/07. The financial plan must include financial statements on the following:

- The proposed or projected financial position of the drinking water systems;
- The proposed or projected gross cash receipts and gross cash payments;
- The proposed or projected financial operations of the drinking water system; and
- Details on the extent to which the above information applies to the replacement of lead service pipes, if applicable.

The financial plan must apply to a period of at least six (6) years with the first year being the year the existing license expires. In the Municipality's case an updated Water System Financial Plan is required for the period 2021 to 2026.. It should be noted that the financial plan is based on the results of the rate analysis and rate recommendations contained in this report.

Upon Council's approval the financial plans would be made available to the public at no charge and posted on the Municipality's website. The financial plan will also be submitted to the Province as part of the Municipality's drinking water license renewal application.

Appendix J presents the updated water system and wastewater system financial plans as defined in O.Reg. 453/07, thereby allowing the Municipality to fulfil its obligations under the drinking water licensing regulations for the renewal of its drinking water systems license. The financial outlook for the water wastewaters over the 6-year period from 2021-2026 are good.

9 Conclusions & Recommendations

The following are the main conclusions regarding the water system:

1. Approximately \$58.8 million in water capital expenditures is identified between 2021 and 2030, with \$4.0 million in capital financing coming from the capital reserves, \$1.9 million from development charges, \$6.2 million from Connection Fees, and \$31.8 million in capital financing coming from nongrowth-related debt and \$14.9 million in growth-related debt.
2. The net annual water expenditures are expected to increase approximately \$2.4 million, from \$1.1 million in 2021 to \$3.5 million by 2031.
3. The financial statements for the water system are prepared based on the results of the rate study analyses and projections, indicate the following:
 - The accumulated surplus is projected to increase from approximately \$5.0 million in 2021 to approximately \$7.8 million by 2026.
 - The operating surplus ratio is projected to increase from approximately 35% in 2021 to 37% in 2026.
 - The cash position is projected to increase from \$1.8 million in 2021 to a \$3.0 million in 2026.

These indicate that the financial outlook for the water system over the 6-year period 2021 to 2026 is good.

The following are the main conclusions regarding the wastewater system:

4. Approximately \$33.3 million in wastewater capital expenditures is identified between 2021 and 2030. Approximately \$4.9 million in capital financing will be required from the wastewater capital reserve, \$0.1 million from Development Charges, \$0.8 million from Connection Fees, and \$18.0 million in capital financing from nongrowth-related debt and \$9.6 million from growth-related debt.
5. The net annual wastewater expenditures are expected to increase approximately \$1.7 million, from \$1.0 million in 2021 to \$2.8 million by 2031.
6. The financial statements for the wastewater system are prepared based on the results of the rate study analyses and projections, indicate the following:
 - The accumulated surplus is projected to increase from approximately \$5.6 million in 2021 to approximately \$7.7 million by 2026.
 - The operating surplus ratio is projected to decrease from approximately 28% in 2021 to 36% in 2026.
 - The cash position is projected to increase from \$1.9 million in 2022 to \$3.6 million in 2026.

These indicate that the financial outlook for the wastewater system over the 6-year period 2021 to 2026 is good.

The following are the main recommendations resulting from the water and wastewater rate study:

7. That implementation of Water Rates and Charges as contained in Appendix H be approved to achieve full cost recovery and long-term sustainable financing of the Municipality's water system.
8. That implementation of Wastewater Rates and Charges as contained in Appendix I be approved to achieve full cost recovery and long-term sustainable financing of the Municipality's wastewater system.
9. That the Blended Connection Fees as detailed in Table 5-1 be approved and phased-in over the 2022 – 2026 period.
10. That the O.Reg. 453/07 Water System Financial Plan No. 103-301A including the Financial Statements contained in Appendix J be approved by Council and submitted to the Province of Ontario in accordance with the Drinking Water System License renewal requirements and O. Reg. 453/07.
11. That the Wastewater System Financial Plan including the Financial Statements contained in Appendix J be received by Council.
12. That a copy of the Water Financial Plan No. 103-301A and the Wastewater Financial Plan as contained in Appendix J be posted on the Municipality's website and made available to the public at no charge.

APPENDICIES

Appendix A

Schedule A of By-law No. 2020-109

SCHEDULE "A"

2021 Water and Wastewater Service and Consumption Charges

Annual charges for 2021 will reflect these new rates. All invoice frequencies issued after January 1st 2021 will reflect these new rates. Note that the rates published are annualized rates. Billing frequencies vary within the Municipality.



2021 Water and Wastewater Rates

System	Annualized Charge*	Metered Usage Rate (\$/m ³)	Billing Frequency
Water - KAT	659.99	0.82	Quarterly
Water - Markdale	659.99	0.82	Monthly or Bi-monthly
Wastewater - Markdale	475.24	0.47	Monthly or Bi-monthly
Wastewater - AMIK	949.89	-	4 Times per year on tax bill
Wastewater - Flesherton	949.89	-	4 Times per year on tax bill

*Annual charge amounts shown above are for ¾" meters, which is the meter size for most residential homes. The annual charge for larger meter sizes are multiplied by the ratio as shown in the 'meter equivalent ratio' table. Annual charges are calculated using the Meter Equivalent Ratio, per American Water Works Association Guidelines. This method uses the size of the water meter to determine the fixed charge. The rate structure has been converted starting in 2017 to meter size, from the previously used "unit allocation".

*The annual charge amount shown above is the total fixed charge for the year and does not include any charges for metered use. The annual charge and metered usage will be invoiced according to the billing frequency.

Meter Equivalent Ratio	
Meter Size	Ratio
¾"	1
1"	2.5
1 ½"	5
2"	8
4"	25
6"	50

Appendix B

2021-2030 Capital Forecast - Water

APPENDIX B: 2021 – 2030 Capital Forecast - Water

Water Service										
2021 Capital Budget and 2022 - 2030 Forecast										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Markdale Water	-	-	-	-	-	-	-	-	-	-
Grey Gables Loop	150,000	-	-	-	-	-	-	-	-	-
Upgrade Water Main HWY 10 North	150,000	-	-	-	-	-	-	-	-	-
Markdale Complex Water Main Extension	-	77,250	-	-	-	-	-	-	-	-
Bulk Water Filling Station	-	226,600	-	-	-	-	-	-	-	-
Brackenbury Lawler Project	-	-	795,675	819,545	-	-	-	-	-	-
Argyle St from 12 to Lorne	-	-	-	-	900,407	-	-	-	-	-
County Rd. 12 Wellington to Scotland	-	-	-	-	-	231,855	-	-	-	-
Argyle from Lorne to Chapman's	-	-	-	-	-	-	983,899	-	-	-
Water Main Cambria from 12 to Brady	-	-	-	-	-	-	-	633,385	-	-
KAT Water	-	-	-	-	-	-	-	-	-	-
PRV Replacement	20,000	-	-	-	-	-	-	-	-	-
Lowering Water Main 7a TES	-	154,500	-	-	-	-	-	-	-	-
Polymer Machine Replacement	-	-	53,045	-	-	-	-	-	-	-
PRV Replacement	-	-	-	21,855	-	-	-	-	-	-
PRV Replacement	-	-	-	-	22,510	-	-	-	-	-
Filter Study/Replacement	-	-	-	-	-	173,891	-	-	-	-
Filter Study/Replacement	-	-	-	-	-	-	184,481	-	-	-
Water Growth Capital	-	-	-	-	-	-	-	-	-	-
Markdale Water Tower	5,100,000	-	-	-	-	-	-	-	-	-
Water Meter Software Upgrade	17,025	-	-	-	-	-	-	-	-	-
Water Master Plan	-	46,865	-	-	-	-	-	-	-	-
New Truck	-	-	-	-	51,098	-	-	-	-	-
Water Master Plan	-	-	-	-	-	-	55,836	-	-	-
KAT Kimberley Amik Talisman	-	-	-	-	-	-	-	-	-	-
Beaver Valley Ski Club to County Road 32	-	-	-	-	-	-	-	-	-	-
Grey Road 12 and 30 from Markdale to County Road 32	-	-	-	-	-	-	-	-	-	-
Grey Road 30 from Beaver Valley Ski Club-Grey Road 13	-	-	-	-	-	-	-	-	-	-
Highway 10 from Markdale to road 120	-	-	-	-	-	-	-	-	-	-
KAT Total	-	-	-	-	-	-	41,857,329	-	-	-
Extension to West Grey	-	-	-	-	-	-	1,134,760	-	-	-
Shared System Capital	-	-	-	-	-	-	-	-	-	-
truck	20,000	-	-	-	-	-	-	-	-	-
diesel compactor	7,500	-	-	-	-	-	-	-	-	-
Meter Replacement Program 2	60,000	-	-	-	-	-	-	-	-	-
Meter Replacement Program 3	60,000	-	-	-	-	-	-	-	-	-
New 3/4 Pick Up Truck	-	28,325	-	-	-	-	-	-	-	-
Meter Replacement Program 4	-	61,800	-	-	-	-	-	-	-	-
Meter Replacement Program 5	-	-	63,654	-	-	-	-	-	-	-
Hydrant Testing and Flow Modeling	-	-	53,045	-	-	-	-	-	-	-
Pick Up Replacement	-	-	-	24,586	-	-	-	-	-	-
meter Replacement 6	-	-	-	65,564	-	-	-	-	-	-
Valve Turning Machine	-	-	-	-	56,275	-	-	-	-	-
Vac. Trailer	-	-	-	-	-	86,946	-	-	-	-
Pick Up Replacement	-	-	-	-	-	28,982	-	-	-	-
Replace Locator and Camera	-	-	-	-	-	-	15,373	-	-	-
Total Capital Expenditures - Capital Program	5,584,525	595,340	965,419	931,550	1,030,291	521,673	44,231,679	633,385	-	-
Additional Lifecycle Needs	376,014	387,295	398,913	410,881	423,207	435,904	448,981	462,450	476,324	490,613
Total Capital Expenditures	5,960,539	982,635	1,364,332	1,342,431	1,453,498	957,577	44,680,660	1,095,835	476,324	490,613
Capital Financing										
Connection Fees							6,232,944			
Development Charges	12,769	35,149	-	-	51,098	-	1,768,892	-	-	-
Non-Growth Related Debenture Requirements	3,137,417	838,702	1,161,916	1,029,306	906,137	297,740	22,945,240	911,953	295,500	265,203
Growth Related Debenture Requirements	2,142,000	-	-	-	0	-	12,802,091	-	-	-
Water Reserve Fund	668,353	108,784	202,417	313,125	496,263	659,837	931,493	183,882	180,824	225,410
Total Capital Financing	5,960,539	982,635	1,364,332	1,342,431	1,453,498	957,577	44,680,660	1,095,835	476,324	490,613

Appendix C

2021-2030 Capital Forecast - Wastewater

APPENDIX C: 2021 – 2030 Capital Forecast - Wastewater

Wastewater Service										
2021 Capital Budget and 2022 - 2030 Forecast										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Markdale Capital	-	-	-	-	-	-	-	-	-	-
Markdale Head Works	500,000	-	-	-	-	-	-	-	-	-
Lift Station pump - Stonebrook	20,000	-	-	-	-	-	-	-	-	-
Sewage Recievieng at Complex	-	113,300	-	-	-	-	-	-	-	-
Brackenbury Lawler Project	-	-	265,225	273,182	-	-	-	-	-	-
Argyle St from 12 to Lorne	-	-	-	-	225,102	-	-	-	-	-
county Rd. 12 Wellington to Scotland	-	-	-	-	-	231,855	-	-	-	-
Argyle from Lorne to Chapman's	-	-	-	-	-	-	245,975	-	-	-
Flesherton Capital	-	-	-	-	-	-	-	-	-	-
Automatic valve in UV building	6,000	-	-	-	-	-	-	-	-	-
Building over Package Plant	150,000	-	-	-	-	-	-	-	-	-
Lift Station Pump Replacement	20,000	-	-	-	-	-	-	-	-	-
Lift Station Repair's and pump	50,000	-	-	-	-	-	-	-	-	-
Infiltration Study + Repairs	40,000	41,200	-	-	-	-	-	-	-	-
UV Replacemmnt	-	-	106,090	-	-	-	-	-	-	-
Sludge Pump Replacement	-	-	-	32,782	-	-	-	-	-	-
Blower Replacement	-	-	-	-	33,765	-	-	-	-	-
Alum Pumping System Replacement	-	-	-	-	-	23,185	-	-	-	-
Blower Replacement	-	-	-	-	-	-	36,896	-	-	-
AT Wastewater	-	-	-	-	-	-	-	-	-	-
Raw Sewage Flow meter	20,000	-	-	-	-	-	-	-	-	-
Floating Aerator	15,000	-	-	-	-	-	-	-	-	-
Floating Aerator	15,000	-	-	-	-	-	-	-	-	-
Sewage Dumping Station Cell #1	-	11,330	-	-	-	-	-	-	-	-
Final Effluent Flow Meter	-	15,450	-	-	-	-	-	-	-	-
mower replacement	-	-	31,827	-	-	-	-	-	-	-
Tractor Replacement	-	-	-	81,955	-	-	-	-	-	-
Electric Motor on Aerator	-	-	-	-	5,628	-	-	-	-	-
Electric Motor on Aerator	-	-	-	-	-	5,796	-	-	-	-
Wastewater Growth Capital	-	-	-	-	-	-	-	-	-	-
Grayview and Lawler Pumping Stations Upgrade	113,500	-	-	-	-	-	-	-	-	-
Wastewater Masterplan	-	46,762	-	-	-	-	-	-	-	-
AMIK Sewage Expansion and ECA	-	87,679	-	-	-	-	-	-	-	-
Wastewater Masterplan	-	-	-	-	-	-	55,836	-	-	-
Markdale Excluding Extension to West Grey	-	-	-	-	-	-	-	-	-	-
Highway 10 from Markdale to Road 120	-	-	-	-	-	-	-	-	-	-
Markdale Total	-	-	-	-	-	-	23,223,967	-	-	-
Markdale - Connectiona to West Grey Lots	-	-	-	-	-	-	1,436,246	-	-	-
Shared System Capital	-	-	-	-	-	-	-	-	-	-
Truck	20,000	-	-	-	-	-	-	-	-	-
diesel compactor	7,500	-	-	-	-	-	-	-	-	-
New 3/4 Pick Up Truck	-	28,325	-	-	-	-	-	-	-	-
Pick Up Replacement	-	-	-	24,586	-	-	-	-	-	-
Vac. Trailer	-	-	-	-	-	86,946	-	-	-	-
Pick Up Replacement	-	-	-	-	-	28,982	-	-	-	-
Replace Locator and Camera	-	-	-	-	-	-	15,373	-	-	-
Total Capital Expenditures - Capital Program	977,000	344,046	403,142	412,504	264,495	376,764	25,014,294	-	-	-
Additional Lifecycle Needs	478,691	493,052	507,843	523,079	538,771	554,934	571,582	588,730	606,392	624,583
Total Capital Expenditures	1,455,691	837,098	910,985	935,583	803,266	931,698	25,585,876	588,730	606,392	624,583
Capital Financing										
Connection Fees	-	-	-	-	-	-	755,782	-	-	-
Development Charges	85,125	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	1,066,087	624,208	593,267	446,203	185,197	143,576	14,267,335	382,327	157,868	153,505
Growth Related Debenture Requirements	-	-	-	-	-	-	9,564,634	-	-	-
Wastewater Reserve Fund	304,479	212,889	317,719	489,380	618,069	788,122	998,125	206,403	448,524	471,079
Total Capital Financing	1,455,691	837,098	910,985	935,583	803,266	931,698	25,585,876	588,730	606,392	624,583

Appendix D

2021-2030 Water and Wastewater Debt Continuity Schedules

APPENDIX D: 2021 – 2030 Water and Wastewater Debt Continuity Schedules

Water Non Growth-Related Debt										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$664,090	\$3,673,536	\$4,200,130	\$4,995,021	\$5,602,781	\$6,076,999	\$5,882,156	\$28,337,495	\$27,456,805	\$25,871,075
Principal Repayment	(\$127,971)	(\$312,108)	(\$367,025)	(\$421,546)	(\$431,919)	(\$492,584)	(\$489,901)	(\$1,792,643)	(\$1,881,230)	(\$1,935,942)
New Debt Issue	\$3,137,417	\$838,702	\$1,161,916	\$1,029,306	\$906,137	\$297,740	\$22,945,240	\$911,953	\$295,500	\$265,203
Closing Debt Balance	\$3,673,536	\$4,200,130	\$4,995,021	\$5,602,781	\$6,076,999	\$5,882,156	\$28,337,495	\$27,456,805	\$25,871,075	\$24,200,336

Water Growth-Related Debt										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$0	\$2,142,000	\$2,018,138	\$1,891,798	\$1,762,932	\$1,631,489	\$1,497,416	\$14,162,753	\$13,282,978	\$12,385,606
Principal Repayment	\$0	(\$123,862)	(\$126,339)	(\$128,866)	(\$131,444)	(\$134,072)	(\$136,754)	(\$879,776)	(\$897,371)	(\$915,319)
New Debt Issue	\$2,142,000	\$0	\$0	\$0	\$0	\$0	\$12,802,091	\$0	\$0	\$0
Closing Debt Balance	\$2,142,000	\$2,018,138	\$1,891,798	\$1,762,932	\$1,631,489	\$1,497,416	\$14,162,753	\$13,282,978	\$12,385,606	\$11,470,287

Total Water Debt										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$664,090	\$5,815,536	\$6,218,268	\$6,886,819	\$7,365,713	\$7,708,488	\$7,379,572	\$42,500,248	\$40,739,783	\$38,256,681
Principal Repayment	(\$127,971)	(\$435,970)	(\$493,364)	(\$550,413)	(\$563,362)	(\$626,656)	(\$626,654)	(\$2,672,419)	(\$2,778,601)	(\$2,851,261)
New Debt Issue	\$5,279,417	\$838,702	\$1,161,916	\$1,029,306	\$906,137	\$297,740	\$35,747,331	\$911,953	\$295,500	\$265,203
Closing Debt Balance	\$5,815,536	\$6,218,268	\$6,886,819	\$7,365,713	\$7,708,488	\$7,379,572	\$42,500,248	\$40,739,783	\$38,256,681	\$35,670,623

Wastewater Non Growth-Related Debt										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$337,795	\$1,298,733	\$1,753,412	\$2,162,660	\$2,460,362	\$2,468,552	\$2,421,136	\$16,498,862	\$15,862,771	\$14,959,746
Principal Repayment	(\$105,149)	(\$169,529)	(\$184,019)	(\$148,500)	(\$177,008)	(\$190,992)	(\$189,609)	(\$1,018,417)	(\$1,060,894)	(\$1,091,240)
New Debt Issue	\$1,066,087	\$624,208	\$593,267	\$446,203	\$185,197	\$143,576	\$14,267,335	\$382,327	\$157,868	\$153,505
Closing Debt Balance	\$1,298,733	\$1,753,412	\$2,162,660	\$2,460,362	\$2,468,552	\$2,421,136	\$16,498,862	\$15,862,771	\$14,959,746	\$14,022,010

Wastewater Growth-Related										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,564,634	\$9,011,555	\$8,447,414
Principal Repayment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$553,079)	(\$564,141)	(\$575,424)
New Debt Issue	\$0	\$0	\$0	\$0	\$0	\$0	\$9,564,634	\$0	\$0	\$0
Closing Debt Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$9,564,634	\$9,011,555	\$8,447,414	\$7,871,990

Total Wastewater Debt										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Debt Balance	\$337,795	\$1,298,733	\$1,753,412	\$2,162,660	\$2,460,362	\$2,468,552	\$2,421,136	\$26,063,496	\$24,874,326	\$23,407,159
Principal Repayment	(\$105,149)	(\$169,529)	(\$184,019)	(\$148,500)	(\$177,008)	(\$190,992)	(\$189,609)	(\$1,571,497)	(\$1,625,035)	(\$1,666,664)
New Debt Issue	\$1,066,087	\$624,208	\$593,267	\$446,203	\$185,197	\$143,576	\$23,831,969	\$382,327	\$157,868	\$153,505
Closing Debt Balance	\$1,298,733	\$1,753,412	\$2,162,660	\$2,460,362	\$2,468,552	\$2,421,136	\$26,063,496	\$24,874,326	\$23,407,159	\$21,894,000

Appendix E

2021-2030 Reserve Funds Projections

APPENDIX E: 2021 – 2030 Water and Wastewater Reserve Funds Projections

Municipality of Grey Highlands Water Reserve Fund										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	1,109,457	1,138,020	1,172,160	1,207,324	1,243,544	1,280,851	1,319,276	1,358,855	1,399,620	1,441,609
Transfer from Operating	232,866	128,454	222,676	333,992	517,757	681,975	954,296	207,368	205,015	250,328
Outstanding Industrial Contribution from Operating	450,000	-	-	-	-	-	-	-	-	-
Transfer to Capital	668,353	108,784	202,417	313,125	496,263	659,837	931,493	183,882	180,824	225,410
Transfer to Operating										
Closing Balance	1,123,970	1,157,689	1,192,419	1,228,192	1,265,038	1,302,989	1,342,079	1,382,341	1,423,811	1,466,526
Interest	14,050	14,471	14,905	15,352	15,813	16,287	16,776	17,279	17,798	18,332
Target Minimum Balance (5% of Capital Asset Value)	1,123,970	1,157,689	1,192,419	1,228,192	1,265,038	1,302,989	1,342,079	1,382,341	1,423,811	1,466,526
Target Maximum Balance (10% of Capital Asset Value)	2,247,939	2,315,378	2,384,839	2,456,384	2,530,076	2,605,978	2,684,157	2,764,682	2,847,622	2,933,051

Municipality of Grey Highlands Water Development Charges Reserve Fund										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	299,594	629,679	826,682	1,073,542	1,335,646	1,561,815	1,855,447	375,033	(327,981)	(1,025,686)
Development Charge Proceeds	335,080	388,649	400,308	412,317	424,687	437,427	450,550	464,067	477,989	492,328
Transfer to Capital	12,769	35,149			51,098		1,768,892			
Transfer to Operating	-	166,702	166,702	166,702	166,702	166,702	166,702	1,163,031	1,163,031	1,163,031
Closing Balance	621,905	816,476	1,060,288	1,319,157	1,542,533	1,832,540	370,403	(323,932)	(1,013,023)	(1,696,389)
Interest	7,774	10,206	13,254	16,489	19,282	22,907	4,630	(4,049)	(12,663)	(21,205)

Municipality of Grey Highlands Wastewater Reserve Fund										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	1,232,439	1,401,933	1,439,127	1,482,385	1,526,943	1,572,839	1,620,113	1,677,746	1,765,385	1,869,552
Transfer from Operating	206,664	237,120	342,676	515,087	644,546	815,395	1,035,044	272,247	529,610	563,744
Outstanding Industrial Contribution from Operating	250,000	-	-	-	-	-	-	-	-	-
Transfer to Capital	304,479	212,889	317,719	489,380	618,069	788,122	998,125	206,403	448,524	471,079
Transfer to Operating		4,804				-	-	-	-	-
Closing Balance	1,384,625	1,421,360	1,464,084	1,508,092	1,553,421	1,600,112	1,657,033	1,743,590	1,846,471	1,962,217
Interest	17,308	17,767	18,301	18,851	19,418	20,001	20,713	21,795	23,081	24,528
Target Minimum Balance (5% of Capital Asset Value)	1,384,625	1,426,164	1,468,948	1,513,017	1,558,407	1,605,160	1,653,314	1,702,914	1,754,001	1,806,621
Target Maximum Balance (10% of Capital Asset Value)	2,769,250	2,852,327	2,937,897	3,026,034	3,116,815	3,210,319	3,306,629	3,405,828	3,508,003	3,613,243

Municipality of Grey Highlands Wastewater Development Charges Reserve Fund										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Opening Balance	237,074	418,144	729,325	1,053,574	1,391,330	1,743,046	2,109,188	2,490,237	2,133,013	1,782,284
Development Charge Proceeds	261,033	302,177	311,242	320,579	330,197	340,103	350,306	360,815	371,639	382,788
Transfer to Capital	85,125									
Transfer to Operating	-	-	-	-	-	-	-	744,372	744,372	744,372
Closing Balance	412,982	720,321	1,040,567	1,374,153	1,721,527	2,083,149	2,459,494	2,106,680	1,760,280	1,420,700
Interest	5,162	9,004	13,007	17,177	21,519	26,039	30,744	26,333	22,004	17,759

Appendix F

Operating Budget Forecast - Water

APPENDIX F: Operating Budget Forecast - Water

Water Service										
Operating Budget Forecast										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Expenditures										
	-	-	-	-	-	-	-	-	-	-
Water - Markdale	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	43,793	44,669	45,562	46,473	47,403	48,351	49,318	50,304	51,310	52,336
Employer Benefit Cost	7,882	8,039	8,200	8,364	8,531	8,702	8,876	9,053	9,234	9,419
Legislated Payroll Cost	4,537	4,628	4,720	4,815	4,911	5,009	5,109	5,212	5,316	5,422
Contracted Services	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190
Telephone & Wireless	1,122	1,144	1,167	1,191	1,214	1,239	1,264	1,289	1,315	1,341
Hydro	76,127	77,649	79,202	80,786	82,402	84,050	85,731	87,446	89,195	90,978
System Repairs & Maintenance	8,160	8,323	8,490	8,659	8,833	9,009	9,189	9,373	9,561	9,752
Cleaning, Lab & Maintenance Supplies	204	208	212	216	221	225	230	234	239	244
Insurance Premiums	4,793	4,889	4,987	5,086	5,188	5,292	5,398	5,506	5,616	5,728
Building Repairs & Maintenance	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Materials/Parts Purchased	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291	29,877	30,475
Internet Charges & IT Licensing	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
Equipment Repairs & Maintenance	6,630	6,763	6,898	7,036	7,177	7,320	7,466	7,616	7,768	7,923
Chemicals	9,180	9,364	9,551	9,742	9,937	10,135	10,338	10,545	10,756	10,971
Professional Services - Engineering	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
Taxes/Payment in Lieu of Taxes	4,490	4,580	4,671	4,765	4,860	4,957	5,057	5,158	5,261	5,366
Stream Flow Monitors & Milltronics	1,734	1,769	1,804	1,840	1,877	1,914	1,953	1,992	2,032	2,072
External Lab Services	8,670	8,843	9,020	9,201	9,385	9,572	9,764	9,959	10,158	10,361
Shared System Costs	150,124	153,126	156,189	159,312	162,499	165,749	169,064	172,445	175,894	179,412
Water Hydrants - Markdale	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	3,312	3,378	3,446	3,515	3,585	3,657	3,730	3,804	3,880	3,958
Employer Benefit Cost	595	607	619	631	644	657	670	683	697	711
Legislated Payroll Cost	343	350	357	364	371	378	386	394	402	410
Materials/Parts Purchased	1,938	1,977	2,016	2,057	2,098	2,140	2,183	2,226	2,271	2,316
Water Distribution - Markdale	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	21,995	22,435	22,884	23,342	23,808	24,285	24,770	25,266	25,771	26,286
Employer Benefit Cost	3,960	4,039	4,120	4,202	4,286	4,372	4,459	4,548	4,639	4,732
Legislated Payroll Cost	2,279	2,324	2,371	2,418	2,467	2,516	2,566	2,617	2,670	2,723
Materials/Parts Purchased	17,340	17,687	18,041	18,401	18,769	19,145	19,528	19,918	20,317	20,723
Water Meters - Markdale	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	8,453	8,622	8,794	8,970	9,150	9,333	9,519	9,710	9,904	10,102
Employer Benefit Cost	1,521	1,551	1,582	1,614	1,646	1,679	1,713	1,747	1,782	1,818
Legislated Payroll Cost	875	893	911	929	947	966	986	1,005	1,025	1,046
Materials/Parts Purchased	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314
Water - KAT	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	35,374	36,081	36,803	37,539	38,290	39,055	39,836	40,633	41,446	42,275
Employer Benefit Cost	6,366	6,493	6,623	6,755	6,891	7,028	7,169	7,312	7,459	7,608
Legislated Payroll Cost	3,663	3,736	3,811	3,887	3,965	4,044	4,125	4,207	4,292	4,377
Telephone & Wireless	1,224	1,248	1,273	1,299	1,325	1,351	1,378	1,406	1,434	1,463
Hydro	22,732	23,186	23,650	24,123	24,606	25,098	25,600	26,112	26,634	27,167
Cleaning, Lab & Maintenance Supplies	408	416	424	433	442	450	459	469	478	488
Insurance Premiums	4,471	4,560	4,651	4,744	4,839	4,936	5,035	5,135	5,238	5,343
Building Repairs & Maintenance	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
Materials/Parts Purchased	7,140	7,283	7,428	7,577	7,729	7,883	8,041	8,202	8,366	8,533
Internet Charges & IT Licensing	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
Equipment Repairs & Maintenance	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285
Chemicals	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687	4,780	4,876
Professional Services - Engineering	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
Taxes/Payment in Lieu of Taxes	18,991	19,371	19,759	20,154	20,557	20,968	21,387	21,815	22,251	22,696
Stream Flow Monitors & Milltronics	1,734	1,769	1,804	1,840	1,877	1,914	1,953	1,992	2,032	2,072
External Lab Services	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142
Shared System Costs	58,382	59,549	60,740	61,955	63,194	64,458	65,747	67,062	68,404	69,772
Water - KAT Hydrants	2,578	2,629	2,682	2,735	2,790	2,846	2,903	2,961	3,020	3,080
Wages & Remuneration	463	472	482	491	501	511	522	532	543	553
Employer Benefit Cost	266	272	277	283	288	294	300	306	312	318
Legislated Payroll Cost	1,224	1,248	1,273	1,299	1,325	1,351	1,378	1,406	1,434	1,463
Water Distribution - KAT	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	13,280	13,546	13,817	14,093	14,375	14,663	14,956	15,255	15,560	15,871
Employer Benefit Cost	2,391	2,439	2,487	2,537	2,588	2,640	2,693	2,746	2,801	2,857
Legislated Payroll Cost	1,375	1,402	1,431	1,459	1,488	1,518	1,548	1,579	1,611	1,643
Contracted Services	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
Materials/Parts Purchased	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
Equipment Repairs & Maintenance	510	520	531	541	552	563	574	586	598	609

APPENDIX F: Operating Budget Forecast - Water

Description	Water Service Operating Budget Forecast									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Meters - KAT	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	1,532	1,563	1,594	1,626	1,658	1,691	1,725	1,760	1,795	1,831
Employer Benefit Cost	275	281	287	292	298	304	310	316	323	329
Legislated Payroll Cost	158	161	164	168	171	175	178	182	185	189
Materials/Parts Purchased	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
Shared - Water & Sewer	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	85,106	86,808	88,545	90,315	92,122	93,964	95,843	97,760	99,716	101,710
Employer Benefit Cost	15,317	15,623	15,936	16,254	16,579	16,911	17,249	17,594	17,946	18,305
Legislated Payroll Cost	8,814	8,990	9,170	9,353	9,540	9,731	9,926	10,124	10,327	10,533
Building Cleaning Services	510	520	531	541	552	563	574	586	598	609
Telephone & Wireless	2,295	2,341	2,388	2,435	2,484	2,534	2,585	2,636	2,689	2,743
Office Supplies & Equipment	867	884	902	920	938	957	976	996	1,016	1,036
Education & Training	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142
Cleaning, Lab & Maintenance Supplies	765	780	796	812	828	845	862	879	896	914
Postage & Courier	255	260	265	271	276	282	287	293	299	305
Memberships/Professional Licenses/Dues	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Building Repairs & Maintenance	1,275	1,301	1,327	1,353	1,380	1,408	1,436	1,465	1,494	1,524
Materials/Parts Purchased	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Licensing Fees	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Internet Charges & IT Licensing	765	780	796	812	828	845	862	879	896	914
Professional Services - Engineering	14,280	14,566	14,857	15,154	15,457	15,766	16,082	16,403	16,731	17,066
Professional - Consulting	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142
Shared - Water & Sewer	43,350	44,217	45,101	46,003	46,923	47,862	48,819	49,796	50,791	51,807
Fuel	255	260	265	271	276	282	287	293	299	305
Safetywear / Clothing Expense	2,805	2,861	2,918	2,977	3,036	3,097	3,159	3,222	3,287	3,352
Small Capital	255	260	265	271	276	282	287	293	299	305
2012 Ford Pick-Up	-	-	-	-	-	-	-	-	-	-
2012 Ford Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2012 Ford Licensing Fees	61	62	64	65	66	68	69	70	72	73
2012 Ford Parts & Repairs	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
2012 Ford Fuel	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
2014 F250 Pick-up	-	-	-	-	-	-	-	-	-	-
2014 F250 Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2014 F250 Licensing Fees	61	62	64	65	66	68	69	70	72	73
2014 F250 Parts & Repairs	765	780	796	812	828	845	862	879	896	914
2014 F250 Fuel	1,275	1,301	1,327	1,353	1,380	1,408	1,436	1,465	1,494	1,524
2016 F150 Ext. Cab Pick-up	-	-	-	-	-	-	-	-	-	-
2016 F150 Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2016 F150 Licensing Fees	61	62	64	65	66	68	69	70	72	73
2016 F150 Vehicle Parts & Repair	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
2016 F150 Fuel	1,785	1,821	1,857	1,894	1,932	1,971	2,010	2,050	2,091	2,133
2018 F150 Pick-up	-	-	-	-	-	-	-	-	-	-
2018 Pickup Insurance	251	256	261	266	272	277	283	288	294	300
2018 Pickup Licensing Fees	61	62	64	65	66	68	69	70	72	73
2018 Pickup Parts & Repairs	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
2018 Pickup Fuel	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Sub Total Operating Expenditures	882,548	900,199	918,203	936,567	955,298	974,404	993,892	1,013,770	1,034,045	1,054,726
Capital-Related										
Existing Debt (Principal) - Non-Growth Related	127,971	130,686	133,476	116,138	60,882	61,728	33,211	-	-	-
Existing Debt (Interest) - Non-Growth Related	16,265	12,901	9,462	6,110	3,520	2,024	667	-	-	-
New Non-Growth Related Debt (Principal)	-	181,423	233,549	305,409	371,037	430,856	456,690	1,792,643	1,881,230	1,935,942
New Non-Growth Related Debt (Interest)	-	62,748	75,894	94,461	108,939	119,641	116,979	566,750	549,136	517,422
New Growth Related Debt (Principal)	-	123,862	126,339	128,866	131,444	134,072	136,754	879,776	897,371	915,319
New Growth Related Debt (Interest)	-	42,840	40,363	37,836	35,259	32,630	29,948	283,255	265,660	247,712
Transfer to Reserve Fund	232,866	128,454	222,676	333,992	517,757	681,975	954,296	207,368	205,015	250,328
Outstanding Industrial Contribution to Reserve Fund	450,000									
Sub Total Capital Related Expenditures	827,103	682,914	841,759	1,022,812	1,228,837	1,462,927	1,728,544	3,729,792	3,798,412	3,866,722
Total Expenditures	1,709,650	1,583,113	1,759,962	1,959,379	2,184,135	2,437,331	2,722,437	4,743,562	4,832,457	4,921,448
Non-Rate Revenues										
Shared System Transfer	208,505	212,675	216,929	221,268	225,693	230,207	234,811	239,507	244,297	249,183
Outstanding Industrial Contribution	450,000									
Total-Non Rate Revenues	658,505	212,675	216,929	221,268	225,693	230,207	234,811	239,507	244,297	249,183
Operating Subsidies										
Contributions from Development Charges Reserve Fund	-	166,702	166,702	166,702	166,702	166,702	166,702	1,163,031	1,163,031	1,163,031
Total Operating Revenue	658,505	379,378	383,631	387,970	392,395	396,909	401,513	1,402,538	1,407,328	1,412,214
Net Water Costs To Be Recovered From Users	1,051,145	1,203,735	1,376,331	1,571,409	1,791,740	2,040,422	2,320,924	3,341,024	3,425,129	3,509,234

Appendix G

Operating Budget Forecast-Wastewater

APPENDIX G: Operating Budget Forecast - Wastewater

Wastewater Service Operating Budget Forecast										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Expenditures										
Sewage Collection - Fresherton	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	11,517	11,747	11,982	12,222	12,466	12,715	12,970	13,229	13,494	13,764
Employer Benefit Cost	2,073	2,114	2,156	2,200	2,243	2,288	2,334	2,381	2,428	2,477
Legislated Payroll Cost	1,192	1,216	1,241	1,265	1,291	1,316	1,343	1,370	1,397	1,425
Contracted Services	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
Hydro	6,396	6,524	6,655	6,788	6,924	7,062	7,203	7,347	7,494	7,644
Materials/Parts Purchased	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Professional Services - Engineering	510	520	531	541	552	563	574	586	598	609
Fresherton - Sewage Treatment	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	48,298	49,264	50,249	51,254	52,279	53,325	54,391	55,479	56,589	57,721
Employer Benefit Cost	8,693	8,867	9,045	9,226	9,410	9,598	9,790	9,986	10,186	10,389
Legislated Payroll Cost	5,003	5,103	5,205	5,309	5,416	5,524	5,634	5,747	5,862	5,979
Contracted Services	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Telephone & Wireless	1,224	1,248	1,273	1,299	1,325	1,351	1,378	1,406	1,434	1,463
Hydro	24,725	25,219	25,724	26,238	26,763	27,298	27,844	28,401	28,969	29,548
System Repairs & Maintenance	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190
Cleaning, Lab & Maintenance Supplies	510	520	531	541	552	563	574	586	598	609
Insurance Premiums	10,066	10,268	10,473	10,683	10,896	11,114	11,336	11,563	11,794	12,030
Building Repairs & Maintenance	510	520	531	541	552	563	574	586	598	609
Materials/Parts Purchased	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190
Internet Charges & IT Licensing	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Equipment Repairs & Maintenance	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314
Chemicals	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314
Professional Services - Engineering	4,590	4,682	4,775	4,871	4,968	5,068	5,169	5,272	5,378	5,485
Stream Flow Monitors & Milltronics	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
External Lab Services	6,324	6,450	6,579	6,711	6,845	6,982	7,122	7,264	7,410	7,558
Shared System Costs	58,381	59,548	60,739	61,954	63,193	64,457	65,746	67,061	68,402	69,770
AMIK Sewage Treatment	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	13,857	14,134	14,417	14,705	14,999	15,299	15,605	15,917	16,235	16,560
Employer Benefit Cost	2,494	2,544	2,595	2,647	2,699	2,753	2,809	2,865	2,922	2,980
Legislated Payroll Cost	1,434	1,463	1,492	1,522	1,552	1,583	1,615	1,647	1,680	1,714
Hydro	21,249	21,674	22,107	22,549	23,000	23,460	23,929	24,408	24,896	25,394
System Repairs & Maintenance	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190
Insurance Premiums	1,782	1,818	1,854	1,891	1,929	1,967	2,007	2,047	2,088	2,130
Building Repairs & Maintenance	510	520	531	541	552	563	574	586	598	609
Materials/Parts Purchased	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Equipment Repairs & Maintenance	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
Professional Services - Engineering	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183	4,266
Taxes/Payment in Lieu of Taxes	8,558	8,729	8,904	9,082	9,263	9,449	9,637	9,830	10,027	10,227
Stream Flow Monitors & Milltronics	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
External Lab Services	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687	4,780	4,876
Shared System Costs	33,361	34,028	34,709	35,403	36,111	36,833	37,570	38,321	39,088	39,870
Sewage Collection - AMIK	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	4,829	4,925	5,024	5,124	5,227	5,331	5,438	5,547	5,658	5,771
Employer Benefit Cost	867	884	902	920	938	957	976	996	1,016	1,036
Legislated Payroll Cost	500	510	520	530	541	552	563	574	586	597
Contracted Services	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047
Materials/Parts Purchased	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Markdale - Sewage Treatment	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	37,333	38,080	38,841	39,618	40,410	41,219	42,043	42,884	43,742	44,616
Employer Benefit Cost	6,720	6,854	6,991	7,131	7,274	7,419	7,568	7,719	7,873	8,031
Legislated Payroll Cost	3,866	3,943	4,022	4,102	4,184	4,268	4,354	4,441	4,529	4,620
Contracted Services	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
Telephone & Wireless	510	520	531	541	552	563	574	586	598	609
Hydro	45,574	46,485	47,415	48,363	49,330	50,317	51,323	52,350	53,397	54,465
System Repairs & Maintenance	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314
Cleaning, Lab & Maintenance Supplies	510	520	531	541	552	563	574	586	598	609
Insurance Premiums	3,123	3,186	3,249	3,314	3,381	3,448	3,517	3,588	3,659	3,733
Building Repairs & Maintenance	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Materials/Parts Purchased	510	520	531	541	552	563	574	586	598	609
Equipment Repairs & Maintenance	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
Chemicals	23,460	23,929	24,408	24,896	25,394	25,902	26,420	26,948	27,487	28,037
Professional Services - Engineering	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190
Taxes/Payment in Lieu of Taxes	18,587	18,959	19,338	19,725	20,120	20,522	20,932	21,351	21,778	22,214
Stream Flow Monitors & Milltronics	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
External Lab Services	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285
Shared System Costs	116,763	119,099	121,481	123,910	126,389	128,916	131,495	134,125	136,807	139,543
Small Capital	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047

APPENDIX G: Operating Budget Forecast - Wastewater

Wastewater Service Operating Budget Forecast										
Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Markdale - Sewage Collection	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	17,092	17,434	17,783	18,138	18,501	18,871	19,249	19,633	20,026	20,427
Employer Benefit Cost	3,076	3,138	3,201	3,265	3,330	3,397	3,464	3,534	3,604	3,676
Legislated Payroll Cost	1,770	1,805	1,841	1,878	1,916	1,954	1,993	2,033	2,073	2,115
Contracted Services	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
Telephone & Wireless	510	520	531	541	552	563	574	586	598	609
Hydro	3,447	3,516	3,586	3,658	3,731	3,805	3,881	3,959	4,038	4,119
System Repairs & Maintenance	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047
Insurance Premiums	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Building Repairs & Maintenance	510	520	531	541	552	563	574	586	598	609
Materials/Parts Purchased	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Equipment Repairs & Maintenance	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
Shared - Water & Sewer	-	-	-	-	-	-	-	-	-	-
Wages & Remuneration	85,106	86,808	88,545	90,315	92,122	93,964	95,843	97,760	99,716	101,710
Employer Benefit Cost	15,317	15,623	15,936	16,254	16,579	16,911	17,249	17,594	17,946	18,305
Legislated Payroll Cost	8,814	8,990	9,170	9,353	9,540	9,731	9,926	10,124	10,327	10,533
Building Cleaning Services	510	520	531	541	552	563	574	586	598	609
Telephone & Wireless	2,295	2,341	2,388	2,435	2,484	2,534	2,585	2,636	2,689	2,743
Office Supplies & Equipment	867	884	902	920	938	957	976	996	1,016	1,036
Education & Training	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142
Cleaning, Lab & Maintenance Supplies	765	780	796	812	828	845	862	879	896	914
Postage & Courier	255	260	265	271	276	282	287	293	299	305
Memberships/Professional Licenses/Dues	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Building Repairs & Maintenance	1,275	1,301	1,327	1,353	1,380	1,408	1,436	1,465	1,494	1,524
Materials/Parts Purchased	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Licensing Fees	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
Internet Charges & IT Licensing	765	780	796	812	828	845	862	879	896	914
Professional Services - Engineering	14,280	14,566	14,857	15,154	15,457	15,766	16,082	16,403	16,731	17,066
Professional - Consulting	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142
Shared - Water & Sewer	43,350	44,217	45,101	46,003	46,923	47,862	48,819	49,796	50,791	51,807
Fuel	255	260	265	271	276	282	287	293	299	305
Safetywear / Clothing Expense	2,805	2,861	2,918	2,977	3,036	3,097	3,159	3,222	3,287	3,352
Small Capital	255	260	265	271	276	282	287	293	299	305
2012 Ford Pick-Up	-	-	-	-	-	-	-	-	-	-
2012 Ford Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2012 Ford Licensing Fees	61	62	64	65	66	68	69	70	72	73
2012 Ford Parts & Repairs	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
2012 Ford Fuel	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
2014 F250 Pick-up	-	-	-	-	-	-	-	-	-	-
2014 F250 Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2014 F250 Licensing Fees	61	62	64	65	66	68	69	70	72	73
2014 F250 Parts & Repairs	765	780	796	812	828	845	862	879	896	914
2014 F250 Fuel	1,275	1,301	1,327	1,353	1,380	1,408	1,436	1,465	1,494	1,524
2016 F150 Ext. Cab Pick-up	-	-	-	-	-	-	-	-	-	-
2016 F150 Insurance Premiums	251	256	261	266	272	277	283	288	294	300
2016 F150 Licensing Fees	61	62	64	65	66	68	69	70	72	73
2016 F150 Vehicle Parts & Repair	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
2016 F150 Fuel	1,785	1,821	1,857	1,894	1,932	1,971	2,010	2,050	2,091	2,133
2018 F150 Pick-up	-	-	-	-	-	-	-	-	-	-
2018 Pickup Insurance	251	256	261	266	272	277	283	288	294	300
2018 Pickup Licensing Fees	61	62	64	65	66	68	69	70	72	73
2018 Pickup Parts & Repairs	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
2018 Pickup Fuel	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
Sub Total Operating Expenditures	894,231	912,116	930,358	948,965	967,944	987,303	1,007,049	1,027,190	1,047,734	1,068,689
Capital-Related										
Existing Debt (Principal) - Non-Growth Related	105,149	107,882	85,044	13,240	13,240	13,240	-	-	-	-
Existing Debt (Interest) - Non-Growth Related	8,678	5,652	2,545	807	513	220	-	-	-	-
New Non-Growth Related Debt (Principal)	-	61,647	98,975	135,260	163,768	177,752	189,609	1,018,417	1,060,894	1,091,240
New Non-Growth Related Debt (Interest)	-	21,322	32,573	42,459	48,678	49,106	48,423	329,977	317,255	299,195
New Growth Related Debt (Principal)	-	-	-	-	-	-	-	553,079	564,141	575,424
New Growth Related Debt (Interest)	-	-	-	-	-	-	-	191,293	180,231	168,948
Transfer to Reserve Fund	206,664	237,120	342,676	515,087	644,546	815,395	1,035,044	272,247	529,610	563,744
Outstanding Industrial Contribution to Reserve	250,000	-	-	-	-	-	-	-	-	-
Sub Total Capital Related Expenditures	570,491	433,623	561,813	706,853	870,744	1,055,714	1,273,076	2,365,014	2,652,131	2,698,551
Total Expenditures	1,464,722	1,345,739	1,492,171	1,655,819	1,838,688	2,043,017	2,280,126	3,392,204	3,699,865	3,767,240
Non-Rate Revenues										
Private Sewage Disposal Revenue - AMIK	2,013	2,054	2,095	2,137	2,179	2,223	2,268	2,313	2,359	2,406
Recovery - Revenue	504	514	524	535	545	556	567	579	590	602
Private Sewage Disposal Revenue - Markdale	1,379	1,407	1,435	1,463	1,493	1,523	1,553	1,584	1,616	1,648
Shared System Transfer	208,508	212,679	216,932	221,271	225,696	230,210	234,814	239,511	244,301	249,187
Outstanding Industrial Contribution	250,000	-	-	-	-	-	-	-	-	-
Total-Non Rate Revenues	462,405	216,653	220,986	225,406	229,914	234,512	239,202	243,986	248,866	253,843
Operating Subsidies										
Contributions from Development Charges Reserve Fund	-	-	-	-	-	-	-	744,372	744,372	744,372
Contributions from Capital Reserve/ Reserve Fund	-	4,804	-	-	-	-	-	-	-	-
Total Operating Revenue	462,405	221,457	220,986	225,406	229,914	234,512	239,202	988,359	993,238	998,216
Net Wastewater Costs To Be Recovered From Users	1,002,318	1,124,282	1,271,185	1,430,413	1,608,775	1,808,505	2,040,923	2,403,845	2,706,627	2,769,024

Appendix H

Projected 2021-2030 Sustainable Water Rates, Charges and Customer Revenues

APPENDIX H: 2021 – 2030 Sustainable Water Rates, Charges and Customer Revenues

BASE RATE CALCULATION - KAT Water

Projected Number of Accounts by Meter Size

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	193	205	217	229	241	253	265	277	289	301
1	-	-	-	-	-	-	-	-	-	-
1 1/2	-	-	-	-	-	-	-	-	-	-
2	1	1	1	1	1	1	1	1	1	1
4	2	2	2	2	2	2	2	2	2	2
6	-	-	-	-	-	-	-	-	-	-
Total	196	208	220	232	244	256	268	280	292	304

Projected Annual Base Charges

Customer Type	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Meter Size		10%	10%	10%	10%	10%	10%	10%	0%	0%
3/4	\$ 659.99	\$ 725.99	\$ 798.59	\$ 878.45	\$ 966.29	\$ 1,062.92	\$ 1,169.21	\$ 1,286.13	\$ 1,286.13	\$ 1,286.13
1	\$ 1,649.98	\$ 1,814.97	\$ 1,996.47	\$ 2,196.12	\$ 2,415.73	\$ 2,657.30	\$ 2,923.03	\$ 3,215.33	\$ 3,215.33	\$ 3,215.33
1 1/2	\$ 3,299.95	\$ 3,629.95	\$ 3,992.94	\$ 4,392.23	\$ 4,831.46	\$ 5,314.60	\$ 5,846.06	\$ 6,430.67	\$ 6,430.67	\$ 6,430.67
2	\$ 5,279.92	\$ 5,807.91	\$ 6,388.70	\$ 7,027.57	\$ 7,730.33	\$ 8,503.36	\$ 9,353.70	\$ 10,289.07	\$ 10,289.07	\$ 10,289.07
4	\$ 16,499.75	\$ 18,149.73	\$ 19,964.70	\$ 21,961.17	\$ 24,157.28	\$ 26,573.01	\$ 29,230.31	\$ 32,153.34	\$ 32,153.34	\$ 32,153.34
6	\$ 32,999.50	\$ 36,299.45	\$ 39,929.40	\$ 43,922.33	\$ 48,314.57	\$ 53,146.02	\$ 58,460.63	\$ 64,306.69	\$ 64,306.69	\$ 64,306.69
Water Revenue from KAT Base Charges	\$ 165,657	\$ 190,935	\$ 219,612	\$ 252,114	\$ 288,921	\$ 330,568	\$ 377,656	\$ 430,855	\$ 446,288	\$ 461,722

BASE RATE CALCULATION - Markdale Water

Projected Number of Accounts by Meter Size

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	698	743	788	833	878	923	968	1,484	1,529	1,574
1	18	18	18	18	18	18	18	18	18	18
1 1/2	1	1	1	1	1	1	1	1	1	1
2	8	8	8	8	8	8	8	8	8	8
4	2	2	2	2	2	2	2	2	2	2
6	1	1	1	1	1	1	1	1	1	1
Total Markdale Water Customers	728	773	818	863	908	953	998	1,514	1,559	1,604

Projected Annual Base Charges

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Increase %Increases		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%	0.00%
3/4	\$ 659.99	\$ 725.99	\$ 798.59	\$ 878.45	\$ 966.29	\$ 1,062.92	\$ 1,169.21	\$ 1,286.13	\$ 1,286.13	\$ 1,286.13
1	\$ 1,580.25	\$ 1,738.28	\$ 1,912.10	\$ 2,103.31	\$ 2,313.64	\$ 2,545.01	\$ 2,799.51	\$ 3,079.46	\$ 3,079.46	\$ 3,079.46
1 1/2	\$ 3,160.50	\$ 3,476.55	\$ 3,824.21	\$ 4,206.63	\$ 4,627.29	\$ 5,090.02	\$ 5,599.02	\$ 6,158.92	\$ 6,158.92	\$ 6,158.92
2	\$ 5,056.80	\$ 5,562.48	\$ 6,118.73	\$ 6,730.60	\$ 7,403.66	\$ 8,144.03	\$ 8,958.43	\$ 9,854.27	\$ 9,854.27	\$ 9,854.27
4	\$ 15,802.50	\$ 17,382.75	\$ 19,121.03	\$ 21,033.13	\$ 23,136.44	\$ 25,450.08	\$ 27,995.09	\$ 30,794.60	\$ 30,794.60	\$ 30,794.60
6	\$ 31,605.00	\$ 34,765.50	\$ 38,242.05	\$ 42,066.26	\$ 46,272.88	\$ 50,900.17	\$ 55,990.19	\$ 61,589.20	\$ 61,589.20	\$ 61,589.20
Water Revenue from Markdale Base Charges	\$ 595,942	\$ 688,206	\$ 792,963	\$ 911,790	\$ 1,046,452	\$ 1,198,928	\$ 1,371,436	\$ 2,172,224	\$ 2,230,100	\$ 2,287,976

UNIFORM RATE CALCULATION - KAT Water

Projected KAT Consumption by Meter Size

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	14,292	15,180	16,069	16,958	17,846	18,735	19,623	20,512	21,401	22,289
1	-	-	-	-	-	-	-	-	-	-
1 1/2	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-
4	271	271	271	271	271	271	271	271	271	271
6	-	-	-	-	-	-	-	-	-	-
Total KAT Water Customers	14,563	15,452	16,340	17,229	18,117	19,006	19,895	20,783	21,672	22,560

Projected KAT Consumption Charge

	2021	2022	2023	2,024	2,025	2,026	2027	2028	2029	2030
Annual Increase %Increases		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%	0.00%
	\$ 0.82	\$ 0.90	\$ 0.99	\$ 1.09	\$ 1.20	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.60	\$ 1.60
Water Revenue from KAT Consumption Charges	\$ 11,942	\$ 13,937	\$ 16,213	\$ 18,804	\$ 21,751	\$ 25,100	\$ 28,901	\$ 33,211	\$ 34,630	\$ 36,050

UNIFORM RATE CALCULATION - Markdale Water

Projected Markdale Consumption by Meter Size

Customer Type	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	91,010	96,877	102,744	108,612	114,479	120,346	126,214	193,493	199,360	205,228
1	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415
1 1/2	465	465	465	465	465	465	465	465	465	465
2	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821
4	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363
6	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468
Total	338,541	344,408	350,276	356,143	362,010	367,878	373,745	441,024	446,892	452,759

Projected Markdale Consumption Charge

Customer Type	2021	2022	2023	2,024	2,025	2,026	2027	2028	2029	2030
Annual Increase %Increases		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%	0.00%
	\$ 0.82	\$ 0.90	\$ 0.99	\$ 1.09	\$ 1.20	\$ 1.32	\$ 1.45	\$ 1.60	\$ 1.60	\$ 1.60
Water Revenue from Markdale Consumption Charges	\$ 277,603	\$ 310,656	\$ 347,543	\$ 388,701	\$ 434,616	\$ 485,826	\$ 542,932	\$ 704,734	\$ 714,110	\$ 723,485

Total Water Consumption Charge Revenues	\$ 289,545	\$ 324,593	\$ 363,756	\$ 407,505	\$ 456,367	\$ 510,926	\$ 571,832	\$ 737,944	\$ 748,740	\$ 759,536
Total Water Base Charge Revenues	\$ 761,600	\$ 879,141	\$ 1,012,575	\$ 1,163,904	\$ 1,335,373	\$ 1,529,497	\$ 1,749,091	\$ 2,603,079	\$ 2,676,389	\$ 2,749,698
Total Water Revenues	\$ 1,051,145	\$ 1,203,735	\$ 1,376,331	\$ 1,571,409	\$ 1,791,740	\$ 2,040,422	\$ 2,320,924	\$ 3,341,024	\$ 3,425,129	\$ 3,509,234
Total Water Expenditures	\$ 1,051,145	\$ 1,203,735	\$ 1,376,331	\$ 1,571,409	\$ 1,791,740	\$ 2,040,422	\$ 2,320,924	\$ 3,341,024	\$ 3,425,129	\$ 3,509,234

Appendix I

Projected 2021-2030 Sustainable Wastewater Rates, Charges and Customer Revenues

APPENDIX I: 2021 – 2030 Sustainable Wastewater Rates, Charges and Customer Revenues

BASE RATE CALCULATION - Markdale Wastewater

Projected Number of Accounts by Meter Size

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	678	723	768	813	858	903	948	1,074	1,119	1,164
1	18	18	18	18	18	18	18	18	18	18
1 1/2	1	1	1	1	1	1	1	1	1	1
2	8	8	8	8	8	8	8	8	8	8
4	2	2	2	2	2	2	2	2	2	2
6	1	1	1	1	1	1	1	1	1	1
Total	708	753	798	843	888	933	978	1,104	1,149	1,194

Projected Annual Base Charges

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Increase %Increases		10.00%	16.36%	15.75%	15.76%	15.78%	10.00%	10.00%	10.00%	0.00%
3/4	\$ 475.24	\$ 522.76	\$ 608.30	\$ 704.12	\$ 815.12	\$ 943.77	\$ 1,038.14	\$ 1,141.96	\$ 1,256.15	\$ 1,256.15
1	\$ 1,188.10	\$ 1,306.91	\$ 1,520.75	\$ 1,760.30	\$ 2,037.79	\$ 2,359.41	\$ 2,595.36	\$ 2,854.89	\$ 3,140.38	\$ 3,140.38
1 1/2	\$ 2,376.20	\$ 2,613.82	\$ 3,041.49	\$ 3,520.60	\$ 4,075.58	\$ 4,718.83	\$ 5,190.71	\$ 5,709.78	\$ 6,280.76	\$ 6,280.76
2	\$ 3,801.92	\$ 4,182.11	\$ 4,866.39	\$ 5,632.96	\$ 6,520.93	\$ 7,550.12	\$ 8,305.14	\$ 9,135.65	\$ 10,049.22	\$ 10,049.22
4	\$ 11,881.00	\$ 13,069.10	\$ 15,207.46	\$ 17,603.00	\$ 20,377.90	\$ 23,594.14	\$ 25,953.55	\$ 28,548.91	\$ 31,403.80	\$ 31,403.80
6	\$ 23,762.00	\$ 26,138.20	\$ 30,414.92	\$ 35,206.01	\$ 40,755.81	\$ 47,188.28	\$ 51,907.11	\$ 57,097.82	\$ 62,807.60	\$ 62,807.60

Projected Annual Revenue Generated from Base Charges

Meter Size	2021	2022	2023	2,024	2,025	2,026	2027	2028	2029	2030
3/4	\$ 322,213	\$ 377,958	\$ 467,173	\$ 572,450	\$ 699,370	\$ 852,220	\$ 984,159	\$ 1,226,461	\$ 1,405,634	\$ 1,462,161
1	\$ 21,386	\$ 23,524	\$ 27,373	\$ 31,685	\$ 36,680	\$ 42,469	\$ 46,716	\$ 51,388	\$ 56,527	\$ 56,527
1 1/2	\$ 2,376	\$ 2,614	\$ 3,041	\$ 3,521	\$ 4,076	\$ 4,719	\$ 5,191	\$ 5,710	\$ 6,281	\$ 6,281
2	\$ 30,415	\$ 33,457	\$ 38,931	\$ 45,064	\$ 52,167	\$ 60,401	\$ 66,441	\$ 73,085	\$ 80,394	\$ 80,394
4	\$ 23,762	\$ 26,138	\$ 30,415	\$ 35,206	\$ 40,756	\$ 47,188	\$ 51,907	\$ 57,098	\$ 62,808	\$ 62,808
6	\$ 23,762	\$ 26,138	\$ 30,415	\$ 35,206	\$ 40,756	\$ 47,188	\$ 51,907	\$ 57,098	\$ 62,808	\$ 62,808
Wastewater Revenue from Markdale Base Charges	\$ 423,914	\$ 489,830	\$ 597,349	\$ 723,131	\$ 873,805	\$ 1,054,186	\$ 1,206,321	\$ 1,470,840	\$ 1,674,451	\$ 1,730,978

FLAT RATE CALCULATION - AMIK Wastewater

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Projected Number of Accounts	153	153	153	153	153	153	153	153	153	153

Projected Annual Base Charges

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Increase %Increases		8.86%	4.02%	2.11%	0.33%	-2.00%	10.00%	10.00%	10.00%	0.00%
Rate	\$ 949.89	\$ 1,034.04	\$ 1,075.64	\$ 1,098.37	\$ 1,102.00	\$ 1,080.01	\$ 1,188.02	\$ 1,306.82	\$ 1,437.50	\$ 1,437.50

Wastewater Revenue Generated from AMIK Base Charges	\$ 145,333	\$ 158,207	\$ 164,573	\$ 168,051	\$ 168,606	\$ 165,242	\$ 181,766	\$ 199,943	\$ 219,937	\$ 219,937
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FLAT RATE CALCULATION - Flesherton Wastewater

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Projected Number of Accounts	290	290	290	290	290	290	290	290	290	290

Projected Annual Base Charges

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Increase %Increases		8.86%	4.02%	2.11%	0.33%	-2.00%	10.00%	10.00%	10.00%	0.00%
Rate	\$ 949.89	\$ 1,034.04	\$ 1,075.64	\$ 1,098.37	\$ 1,102.00	\$ 1,080.01	\$ 1,188.02	\$ 1,306.82	\$ 1,437.50	\$ 1,437.50

Projected Annual Revenue Generated from Flesherton Base Charge	\$ 275,468	\$ 299,870	\$ 311,937	\$ 318,528	\$ 319,581	\$ 313,204	\$ 344,525	\$ 378,977	\$ 416,875	\$ 416,875
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UNIFORM RATE CALCULATION - Markdale Wastewater

Projected Consumption by Meter Size

Meter Size	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
3/4	87,792	93,618	99,445	105,272	111,099	116,926	122,753	139,068	144,895	150,722
1	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415	9,415
1 1/2	465	465	465	465	465	465	465	465	465	465
2	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821	42,821
4	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363	171,363
6	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468	23,468
Total	335,323	341,150	346,976	352,803	358,630	364,457	370,284	386,599	392,426	398,253

Projected Consumption Charge

	2021	2022	2023	2,024	2,025	2,026	2027	2028	2029	2030
Annual Increase %Increases		10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%
	\$ 0.47	\$ 0.52	\$ 0.57	\$ 0.63	\$ 0.69	\$ 0.76	\$ 0.83	\$ 0.92	\$ 1.01	\$ 1.01

Projected Annual Revenue Generated from Consumption Charge

Meter Size	2021	2022	2023	2,024	2,025	2,026	2027	2028	2029	2030
3/4	41,262	48,401	56,555	65,855	76,450	88,506	102,208	127,372	145,980	151,850
1	4,425	4,868	5,354	5,890	6,479	7,127	7,839	8,623	9,485	9,485
1 1/2	218	240	264	291	320	352	387	426	468	468
2	20,126	22,138	24,352	26,787	29,466	32,413	35,654	39,219	43,141	43,141
4	80,541	88,595	97,454	107,199	117,919	129,711	142,682	156,951	172,646	172,646
6	11,030	12,133	13,346	14,681	16,149	17,764	19,540	21,494	23,644	23,644
Wastewater Revenue from Markdale Consumption Charges	\$ 157,602	\$ 176,374	\$ 197,326	\$ 220,703	\$ 246,783	\$ 275,872	\$ 308,311	\$ 354,085	\$ 395,364	\$ 401,235

Total Wastewater Consumption Charge Revenues	\$ 157,602	\$ 176,374	\$ 197,326	\$ 220,703	\$ 246,783	\$ 275,872	\$ 308,311	\$ 354,085	\$ 395,364	\$ 401,235
Total Wastewater Base Charge Revenues	\$ 844,715	\$ 947,907	\$ 1,073,859	\$ 1,209,710	\$ 1,361,992	\$ 1,532,633	\$ 1,732,612	\$ 2,049,760	\$ 2,311,263	\$ 2,367,790
Total Wastewater Revenues	\$ 1,002,317	\$ 1,124,282	\$ 1,271,185	\$ 1,430,413	\$ 1,608,775	\$ 1,808,505	\$ 2,040,923	\$ 2,403,845	\$ 2,706,627	\$ 2,769,024
Total Wastewater Expenditures	\$ 1,002,318	\$ 1,124,282	\$ 1,271,185	\$ 1,430,413	\$ 1,608,775	\$ 1,808,505	\$ 2,040,923	\$ 2,403,845	\$ 2,706,627	\$ 2,769,024

Appendix J

**2021 O.Reg 453/07 Water System
Financial Plan No. 103-301A and
Wastewater System Financial Plan**

Municipality of Grey Highlands

**2021 O.Reg 453/07 Water System Financial Plan No. 103-301A
and Wastewater System Financial Plan**



DFA Infrastructure International Inc.

February 3, 2021



DFA Infrastructure International Inc.

33 Raymond Street St. Catharines Ontario Canada L2R 2T3

Telephone: (905) 938 -0965 Fax: (905) 937-6568

February 3, 2021

Shawn Moyer
Director of Public Works
Municipality of Grey Highlands
50 Lorne Street
Markdale, Ontario
N0C 1H0

Re: 2021 O.Reg 453/07 Water System Financial Plan No. 103-301A and Wastewater System Financial Plan

Dear Shawn:

We are pleased to submit to you the above noted report entitled: "2021 O. Reg 453/07 Water System Financial Plan and Wastewater System Financial Plan". The water and wastewater financial plans are based on the results of the Municipality's water and wastewater rate study that will be presented to your Council at the February 17th Council meeting.

Yours truly,

DFA Infrastructure International Inc.

Derek Ali, MBA, P.Eng.

President

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Transmittal Letter

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1 Introduction

1.1 Background

Regulation 188/07 under the Safe Drinking Water Act requires Ontario municipalities to apply for and obtain Drinking Water System Licences as part of their overall DWQMS. One of the requirements of holding a valid drinking water licence is preparing and submitting to the Province an updated financial plan in accordance with O.Reg. 453/07. The financial plan must include financial statements on the following:

- The proposed or projected financial position of the drinking water systems;
- The proposed or projected gross cash receipts and gross cash payments;
- The proposed or projected financial operations of the drinking water system; and
- Details on the extent to which the above information applies to the replacement of lead service pipes, if applicable.

Appendix A lists each requirement of the regulation and references the respective financial statements and other relevant information required under each regulatory requirement. The financial plan must apply to a period of at least six (6) years with the first year being the year the existing license expires. In the Municipality's case an updated Water System Financial Plan is required for the period 2021 to 2026.

It is important to note that the water system financial plan, along with the accompanying wastewater system financial plan are based on the results of the Municipality's 2021 Water of Wastewater Rate Study and O. Reg 453/07 Financial Plan. To be presented to Council February 17th, 2021.

Upon Council's approval, the financial plans will be made available to the public at no charge and posted on the Municipality's website. The plans will also be submitted to the Province as part of the Municipality's drinking water license renewal application. The license renewal application deadline is May 15, 2021.

This section presents an updated single waters system financial plan as defined in O.Reg. 453/07, thereby allowing the Municipality to fulfill its obligations under the drinking water licensing regulations for the renewal of its drinking water systems license. The number for the updated financial plan is 103-301A and covers the following water systems:

Water System	Licence No.
Kimberley AMIK Talisman Drinking Water System	103-101
Markdale Talisman Drinking Water System	103-102

2 O.Reg 453/07 Water System Financial Plan No. 103-301A

This section presents an updated water system financial plan as defined in O.Reg. 453/07, thereby allowing the Municipality to fulfil its obligations under the drinking water licensing regulations for the renewal of its drinking water systems license. The number for the updated financial plan is 103-301A.

2.1 Water Tangible Capital Assets (TCA) Analysis

As noted in the introduction the results of the 2021 Water and Wastewater Rate Study are used as the basis for preparing the water system financial plan. The Municipality's Tangible Capital Asset inventories were also used in the preparation of the water system financial plan. The amortization of the tangible capital assets is shown as a "non-cash" annual cost that reflects the annual "use" of assets until the end of their respective useful lives. Allowances are made to finance the replacement and/ or rehabilitation of the existing assets once they "expire" and can no longer play a role in providing the required drinking water service to customers. It should be noted however that since amortization is based on the original (historical) cost at the time the asset was placed in service it does not account for inflation since the year of installation. Therefore, basing asset replacement costs on amortization alone is not sufficient to cover the future replacement needs.

The TCA projections contained in the Municipality's water system financial plan are based on the following assumptions:

- Amortization of existing assets is based on the Municipality's Tangible Capital Assets Policies and Procedures. Amortization of new infrastructure investments is based on straight line depreciation with half year depreciation charged in the year of acquisition;
- Historical costs, life expectancy and remaining useful life are as identified in the TCA data provided by the Municipality;
- Fully depreciated assets continue to be used in service i.e. no asset removals; and
- New assets to be acquired are based on the capital forecast presented. The forecast includes projects in the Municipality's Capital Budget Forecast, 2017 Development Charges Study and additional provisions from the 2016 Asset Management Plan.

Water Asset Value

The water system is comprised of the following asset classes:

- Land;
- Land Improvements;
- Buildings;
- Water Systems; and
- Vehicles and Equipment.

Table 2-1 shows the current capital asset value based on historical cost and accumulated amortization to 2021. This is reflected as the net book value (NBV) i.e. the “accounting” value, and indicates that the water system as a whole is approximately 20% depreciated or has approximately 80% remaining life based on the TCA data. This suggests that the water system assets are relatively new as these values reflect the planned 2021 investment in the Markdale Water Tower.

Table 2-1: Water – Asset Amortization and 2021 Net Book Value (NBV)

2021 Water Asset Details		
Historical Cost	\$ 12,123,056	100%
Accumulated Amortization	\$ 2,429,969	20%
Net Book Value	\$ 9,693,086	80%

2.2 Water Financial Statements

This financial plan involves the review, analysis and assessment of financial information contained in the rate study including costs, revenues, debt, cash transactions and Tangible Capital Assets (TCA) to prepare the following three (3) financial statements covering the period 2021 – 2026 as required under O.Reg 453/07:

- Statement of Financial Position;
- Statement of Operations; and
- Statement of Cash Flow

2.2.1 Water - Statement of Financial Position

The Statement of Financial Position is presented in Table 2-2. This statement summarizes the Municipality’s water-related financial and non-financial assets i.e. Tangible Capital Assets (TCA) and liabilities, and provides the net financial asset (or net debt) position and accumulated surplus related to managing the water system. The financial assets are primarily cash balances in the water reserves and reserve funds. Liabilities consist of the water deferred revenues and long-term debt. The non-financial assets (TCA) include the Municipality’s water infrastructure. The historical costs are amortized over the asset life to arrive at the net book value each year from 2021 to 2026. New assets are added in the years acquired, developed or built. Contributed assets are primarily new infrastructure and facilities that would be transferred to the Municipality’s ownership and control by developers as they are completed. However this is assumed to be zero. It is also assumed that other non-financial assets such as inventory and prepaid expenses are zero.

Contained within the Statement of Financial Position are important indicators, the first being net financial assets (or net debt) which is defined as the difference between financial assets and liabilities. This indicator provides a measure of the water system's "future revenue requirement". Table 2-2 indicates that in 2021, the Municipality's water system will be in a net debt position of \$4.7 million. This will increase to a net debt position of \$6.2 million by 2026. The net debt position indicates that additional financial resources will be required to fund future operations. The trend in the increasing net debt position is due to a increase of long-term debt and deferred revenues, offset by an increase of cash balances.

The next important indicator contained in the Statement of Financial Position is the net book value of TCA. Table 2-2 shows that net TCA are expected to increase over the forecast period by about \$4.3 million. This indicates that the Municipality has plans to invest in tangible capital assets greater than the consumption of existing assets. Further, a consumption ratio consisting of the accumulated amortization of the Municipality's TCA as a percent of historical cost ratio highlights the aged condition of the assets and their potential replacement needs. The Municipality's Water Asset Consumption Ratio decreases over the forecast period from 20% to 12%, suggesting that the water system overall would be 12% through its life expectancy by 2026. As this percentage is decreasing over time, it indicates the Municipality is allocating adequate funds to finance the replacement or rehabilitation of aging assets as they expire.

Another important indicator in the Statement of Financial Position is the accumulated surplus. This indicator provides a measure of the resources available to the Municipality for managing its water system. The accumulated surplus is projected to increase from approximately \$5.0 million in 2021 to approximately \$7.8 million by 2026. The accumulated surplus consists of non-financial assets that are made up of the net TCA balance representing past investments in water infrastructure, offset by the net debt balances.

Table 2-2: Water – Statement of Financial Position

	2021	2022	2023	2024	2025	2026
Financial Assets						
Cash, Receivables and Investment	\$1,753,649	\$2,017,187	\$2,284,307	\$2,567,278	\$2,721,212	\$3,036,981
Total Financial Assets	\$1,753,649	\$2,017,187	\$2,284,307	\$2,567,278	\$2,721,212	\$3,036,981
Financial Liabilities						
Accounts Payable & Deferred Revenue	\$629,679	\$826,682	\$1,073,542	\$1,335,646	\$1,561,815	\$1,855,447
Long-term Liabilities	\$5,815,536	\$6,218,268	\$6,886,819	\$7,365,713	\$7,708,488	\$7,379,572
Total Financial Liabilities	\$6,445,215	\$7,044,950	\$7,960,361	\$8,701,359	\$9,270,302	\$9,235,018
Net Financial Assets (Net Debt)	(\$4,691,566)	(\$5,027,763)	(\$5,676,055)	(\$6,134,081)	(\$6,549,091)	(\$6,198,037)
Non-Financial Assets						
Tangible Capital Assets	\$12,123,056	\$12,698,874	\$13,568,379	\$14,407,267	\$15,342,726	\$15,906,339
Accumulated Amortization	(\$2,429,969)	(\$2,366,375)	(\$2,193,160)	(\$2,042,845)	(\$1,898,805)	(\$1,909,167)
Total Non-Financial Assets	\$9,693,086	\$10,332,499	\$11,375,219	\$12,364,422	\$13,443,921	\$13,997,172
Accumulated Surplus	\$5,001,520	\$5,304,736	\$5,699,164	\$6,230,341	\$6,894,830	\$7,799,135
Financial Indicators						
Increase (Decrease) in Net Financial Assets	(\$5,136,933)	(\$336,197)	(\$648,292)	(\$458,026)	(\$415,010)	\$351,054
Increase (Decrease) in Tangible Capital Assets	\$5,735,323	\$639,412	\$1,042,720	\$989,203	\$1,079,498	\$553,251
Increase (Decrease) in Accumulated Surplus	\$598,391	\$303,216	\$394,429	\$531,177	\$664,489	\$904,305
Water Asset Consumption Ratio	20%	19%	16%	14%	12%	12%

2.2.2 Water - Statement of Operations

The Statement of Operations is presented in Table 2-3. It summarizes the annual revenues and expenses associated with managing the Municipality's water system. It provides a report on the transactions and events that have an influence on the accumulated surplus. The main revenue items included are:

- Revenues from water rates and charges;
- Earned revenues, and
- Other Revenues (Shared Systems Transfers and Outstanding Industrial Contributions).

The main expense items are:

- The annual cost of operating and maintaining the water systems;
- Interest on long-term debt;
- Amortization expenses on existing and added TCA: and
- Non-TCA Capital.

The operating surplus (or deficit) is an important indicator contained in the Statement of Operations. An operating surplus (deficit) measures whether operating revenues generated in a year were sufficient to cover operating expenses incurred in that year. It is important to note that an annual surplus is necessary to ensure funds will be available to address non-expense items such as TCA acquisitions over and above amortization expenses, reserve/reserve fund contributions for asset replacement and rate stabilization, and repayment of outstanding debt principal. A ratio of operating surplus to total revenue is shown in Table 2-3 and reflects the percent of total revenue that can be allocated to funding the non-expense items noted above.

Table 2-3: Water – Statement of Operation

	2021	2022	2023	2024	2025	2026
Water Revenue						
Rate Revenue	\$1,051,145	\$1,203,735	\$1,376,331	\$1,571,409	\$1,791,740	\$2,040,422
Earned Revenue	\$12,769	\$201,851	\$166,702	\$166,702	\$217,800	\$166,702
Other Revenue	\$658,505	\$212,675	\$216,929	\$221,268	\$225,693	\$230,207
Total Revenues	\$1,722,419	\$1,618,262	\$1,759,962	\$1,959,379	\$2,235,233	\$2,437,331
Water Expenses						
Operating Expenses	\$882,548	\$900,199	\$918,203	\$936,567	\$1,002,163	\$974,404
Interest on Debt	\$16,265	\$118,490	\$125,719	\$138,407	\$147,718	\$154,295
Amortization	\$225,216	\$296,358	\$321,612	\$353,228	\$373,999	\$404,327
Non-TCA Capital	\$0	\$0	\$0	\$0	\$46,865	\$0
Total Expenses	\$1,124,029	\$1,315,046	\$1,365,533	\$1,428,202	\$1,570,745	\$1,533,026
Annual Surplus/(Deficit)	\$598,391	\$303,216	\$394,429	\$531,177	\$664,488	\$904,305
Accumulated Surplus/(Deficit), Beginning of Year	\$4,403,129	\$5,001,520	\$5,304,736	\$5,699,164	\$6,230,341	\$6,894,830
Accumulated Surplus/ (Deficit), End of Year	\$5,001,520	\$5,304,736	\$5,699,164	\$6,230,341	\$6,894,830	\$7,799,134
Financial Indicators						
Increase (Decrease) in Total Revenues	N/A	(\$104,157)	\$141,700	\$199,417	\$275,854	\$202,098
Increase (Decrease) in Total Expenses	N/A	\$191,018	\$50,487	\$62,669	\$142,543	(\$37,719)
Increase (Decrease) in Annual Surplus	N/A	(\$295,175)	\$91,213	\$136,748	\$133,311	\$239,816
Operating Surplus Ratio	34.7%	18.7%	22.4%	27.1%	29.7%	37.1%

2.2.3 Water - Statement of Cash Flows

The Statement of Cash Flow is presented in Table 2-4. This statement summarizes the main cash inflows and outflows related to the water system in four (4) main areas - operating, capital, investing and financing, and shows the annual changes in cash.

The operating cash transactions begin with the surplus or deficit identified in the Statement of Operations. This figure is adjusted to add or subtract non-cash items that were included as revenues or expenses (e.g. amortization expenses and earned revenues). It is assumed that there are no “investing activities” over the period. The capital section indicates the amounts to be spent to acquire capital assets (TCA) or to be received from the sale of assets. In the Municipality’s case, it is assumed that there are no assets to be sold to generate cash. The financing section identifies funds external sources, proceeds from the issuance of debenture as cash inflows, and the portion of debt repaid as cash outflows.

Table 2-4 indicates that cash is being generated from operations, which is used in funding the acquisition of TCA and towards building internal reserves. The Town's cash position is projected to increase over the forecast period from \$1.7 million in 2021 to a \$3.0 million in 2026.

Table 2-4: Water – Statement of Cash Flow

	2021	2022	2023	2024	2025	2026
Cash Provided by:						
Operating Activities						
Annual Surplus/(Deficit)	\$598,391	\$303,216	\$394,429	\$531,177	\$664,488	\$904,305
Non-Cash Items						
Amortization	\$225,216	\$296,358	\$321,612	\$353,228	\$373,999	\$404,327
Earned Revenue	(\$12,769)	(\$201,851)	(\$166,702)	(\$166,702)	(\$217,800)	(\$166,702)
Net Change in Cash Provided by Operating Activities	\$810,837	\$397,722	\$549,338	\$717,703	\$820,687	\$1,141,929
Capital Activities						
Purchase of TCA	(\$5,960,539)	(\$935,770)	(\$1,364,332)	(\$1,342,431)	(\$1,453,497)	(\$957,578)
Net Change in Cash Used in Capital Activities	(\$5,960,539)	(\$935,770)	(\$1,364,332)	(\$1,342,431)	(\$1,453,497)	(\$957,578)
Financing Activities						
DC Collections	\$342,854	\$398,854	\$413,562	\$428,807	\$443,968	\$460,334
External Financing	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds From Long-Term Debt	\$5,279,417	\$838,702	\$1,161,916	\$1,029,306	\$906,137	\$297,740
Repayment of Long-Term Debt	(\$127,971)	(\$435,970)	(\$493,364)	(\$550,413)	(\$563,362)	(\$626,656)
Net Change in Cash Used in Financing Activities	\$5,494,300	\$801,586	\$1,082,113	\$907,700	\$786,744	\$131,418
Net Change in Cash and Cash Equivalents	\$344,598	\$263,538	\$267,119	\$282,972	\$153,933	\$315,770
Cash and Cash Equivalents, Beginning of the Year	\$1,409,051	\$1,753,649	\$2,017,187	\$2,284,307	\$2,567,278	\$2,721,212
Cash and Cash Equivalents, End of the Year	\$1,753,649	\$2,017,187	\$2,284,307	\$2,567,278	\$2,721,212	\$3,036,981

2.3 Lead Service Pipe Removal

The financial plan is also required to detail the extent to which the information described above relates directly to the replacement of lead service pipes. There are no known lead service pipes in the Municipality. The Municipality's current approach for lead service pipe removal involves replacement upon discovery of service material. The financial statements do not include removal costs.

3 Wastewater System Financial Plan

Preparing a wastewater system financial plan is not mandatory but has become a municipal best practice over the past few years. It is typically prepared in accordance with the requirements of O.Reg 453/07 which applies to water systems.

This financial plan involves the review, analysis and assessment of financial information contained in the 2021 Water and Wastewater Rate Study including costs, revenues, debt, cash transactions and Tangible Capital Assets (TCA) to prepare the following three (3) financial statements covering the period 2021 to 2026 as required under O.Reg. 453/07:

- Statement of Financial Position;
- Statement of Operations; and
- Statement of Cash Flow.

The wastewater system financial plan applies to a period of (6) six years from 2021 to 2026 to be consistent with the period covered by the water system financial plan. It is anticipated that the financial plan would be made available to the public at no charge on the Town's website following final approval of the rate study and financial plan by Council.

3.1 Wastewater Tangible Capital Assets (TCA) Analysis

As in the preparation of the water system financial plan, the results of the 2021 Water and Wastewater Rate Study are used as the basis for preparing the wastewater system financial plan. The Municipality's Asset Inventories were also used in the preparation of the wastewater system financial plan. The amortization of the tangible capital assets is shown as a "non-cash" annual cost that reflects the annual "use" of assets until the end of their respective useful lives. Allowances are made to finance the replacement and/ or rehabilitation of the existing assets once they "expire" and can no longer play a role in providing the required wastewater service to customers. However, it should be noted that since amortization is based on the original (historical) cost at the time the asset was placed in service it does not account for inflation since the year of installation. Therefore, basing asset replacement costs on amortization alone is not sufficient to cover the future replacement needs.

The TCA projections contained in the Municipality's wastewater financial plan are based on the following assumptions:

- Amortization of existing assets is based on the Municipality's Tangible Capital Assets policies and procedures. Amortization of new infrastructure investments is based on straight line depreciation with half year depreciation charged in the year of acquisition.
- Historical costs, life expectancy and remaining useful life as per the TCA data provided by the Municipality;
- Fully depreciated assets continue to be used in service i.e. no asset removals; and
- New assets to be acquired are based on the capital forecast. The forecast includes projects in the Municipality's Capital Budget Forecast, 2017 Development Charges Study and asset replacement projections based on an analysis of the Municipality's tangible capital asset inventories.

Wastewater Asset Value

The wastewater system is comprised of the following asset classes:

- Land;
- Land Improvements;
- Buildings;
- Water Systems; and
- Vehicles and Equipment.

Table 3-1 shows the current capital asset value based on historical cost and accumulated amortization to 2021. This is reflected as the net book value (NBV) i.e. the "accounting" value, and indicates that the wastewater system as a whole is approximately 46% depreciated or has approximately 54% remaining life based on the TCA data. This suggests that the wastewater system assets are about half through their useful life.

Table 3-1: Wastewater – Asset Amortization and 2021 Net Book Value (NBV)

2021 Wastewater Asset Details		
Historical Cost	\$ 10,034,709	100%
Accumulated Amortization	\$ 4,621,469	46%
Net Book Value	\$ 5,413,240	54%

3.2 Wastewater Financial Statements

This financial plan involves the review, analysis and assessment of financial information contained in the rate study including costs, revenues, debt, cash transactions and Tangible Capital Assets (TCA) to prepare the following three (3) financial statements covering the period 2021 – 2026 as required under O.Reg 453/07:

- Statement of Financial Position;
- Statement of Operations; and
- Statement of Cash Flow.

3.2.1 Wastewater - Statement of Financial Position

The Statement of Financial Position is presented in Table 3-2. This statement summarizes the Municipality's wastewater related financial and non-financial assets (Tangible Capital Assets – TCA) and liabilities and provides the net financial asset/ (net debt) position and accumulated surplus related to managing the wastewater system. The financial assets are primarily cash balances in the wastewater reserves and reserve funds. Liabilities consist of wastewater deferred revenues and long-term debt. The non-financial assets (TCA) include the Municipality's wastewater infrastructure. The historical costs are amortized over the asset life to arrive at the net book value each year from 2021 to 2026. New assets are added in the years acquired, developed or built. Contributed assets are primarily new infrastructure that would be transferred to the Municipality's ownership and control by developers as they are completed. However, this is assumed to be zero. It is also assumed that other non-financial assets such as inventory and prepaid expenses are zero.

Contained within the Statement of Financial Position are important indicators, the first being net financial assets (or net debt) which is defined as the difference between financial assets and liabilities. This indicator provides a measure of the wastewater system's "future revenue requirement". Table 3.2 indicates that in 2021, the Municipality's wastewater system will be in a net financial asset position in the amount of \$0.1 million. There will be change to a net debt position of \$0.9 million by 2026. The net debt position indicates that additional financial resources will be required to fund future operations. The change to a net debt asset position is due to a combination of an increase liabilities through increases in long-term debt and deferred revenues, offset with an increase in the cash position.

The next important indicator contained in the Statement of Financial Position is the net book value of TCA. Table 3-2 shows that net TCA are expected to grow by \$3.2 million over the forecast period, or from \$5.4 million in 2021 to \$8.6 million in 2026. This indicates that the Municipality has plans to invest in tangible capital assets in excess of the consumption of existing assets. Further, a consumption ratio consisting of the accumulated amortization of the Municipality's TCA as a percent of historical cost ratio highlights the aged condition of the assets and their potential replacement needs. The Municipality's Wastewater Asset Consumption Ratio will decrease from 46% in 2021 to 33% in 2026. As this percentage is decreasing over time, it indicates the Municipality is allocating adequate funds to finance the replacement or rehabilitation of aging assets as they expire.

Another important indicator in the Statement of Financial Position is the accumulated surplus. This indicator provides a measure of the resources available to the Municipality for managing its water system. The accumulated surplus is projected to increase from approximately \$5.6 million in 2021 to approximately \$7.7 million by 2026. The accumulated surplus consists of non-financial assets that are made up of the net TCA balance representing past investments in wastewater infrastructure, and net financial assets that consist of cash balances, offset by deferred revenues and long-term debt.

Table 3-2: Wastewater - Statement of Financial Position

	2021	2022	2023	2024	2025	2026
Financial Assets						
Cash, Receivables and Investment	\$1,853,687	\$2,137,532	\$2,486,739	\$2,850,203	\$3,228,395	\$3,621,810
Total Financial Assets	\$1,853,687	\$2,137,532	\$2,486,739	\$2,850,203	\$3,228,395	\$3,621,810
Financial Liabilities						
Accounts Payable & Deferred Revenue	\$418,144	\$729,325	\$1,053,574	\$1,391,330	\$1,743,046	\$2,109,188
Long-term Liabilities	\$1,298,733	\$1,753,412	\$2,162,660	\$2,460,362	\$2,468,552	\$2,421,136
Total Financial Liabilities	\$1,716,877	\$2,482,737	\$3,216,234	\$3,851,693	\$4,211,598	\$4,530,324
Net Financial Assets (Net Debt)	\$136,810	(\$345,204)	(\$729,495)	(\$1,001,490)	(\$983,203)	(\$908,514)
Non-Financial Assets						
Tangible Capital Assets	\$10,034,709	\$10,565,770	\$11,169,728	\$11,732,242	\$12,252,649	\$12,796,140
Accumulated Amortization	(\$4,621,469)	(\$4,566,352)	(\$4,470,837)	(\$4,329,377)	(\$4,294,422)	(\$4,174,109)
Total Non-Financial Assets	\$5,413,240	\$5,999,418	\$6,698,891	\$7,402,865	\$7,958,228	\$8,622,031
Accumulated Surplus	\$5,550,050	\$5,654,214	\$5,969,396	\$6,401,375	\$6,975,025	\$7,713,517
Financial Indicators						
Increase (Decrease) in Net Financial Assets	(\$808,753)	(\$482,014)	(\$384,291)	(\$271,995)	\$18,288	\$74,689
Increase (Decrease) in Tangible Capital Assets	\$1,237,667	\$586,178	\$699,473	\$703,974	\$555,362	\$663,803
Increase (Decrease) in Accumulated Surplus	\$428,915	\$104,164	\$315,182	\$431,979	\$573,650	\$738,492
Water Asset Consumption Ratio	46%	43%	40%	37%	35%	33%

3.2.2 Wastewater - Statement of Operations

The Statement of Operations is presented in Table 3-3. It summarizes the annual revenues and expenses associated with managing the Municipality's wastewater system. It provides a report on the transactions and events that have an influence on the accumulated surplus. The main revenue items included are:

- Revenues from wastewater rates and charges;
- Earned Revenues; and
- Other Revenues (Shared System Transfers, Outstanding Industrial Contributions, and miscellaneous fees and charges).

The main expense items are:

- The annual cost of operating and maintaining the wastewater system;
- Interest on long-term debt;
- Amortization expenses on existing and new TCA;
- Non-TCA Capital.

The operating surplus/ (deficit) is an important indicator contained in the Statement of Operations. An operating surplus/ (deficit) measures whether operating revenues generated in a year were sufficient to cover operating expenses incurred in that year. It is important to note that an annual surplus is necessary to ensure funds will be available to address non-expense items such as TCA acquisitions over and above amortization expenses,

reserve/reserve fund contributions for asset replacement and rate stabilization, and repayment of outstanding debt principal. A ratio of operating surplus to total revenue is shown in Table 3-3 and reflects the percent of total revenue that can be allocated to funding the non-expense items noted above.

Table 3-3: Wastewater - Statement of Operations

	2021	2022	2023	2024	2025	2026
Water Revenue						
Rate Revenue	\$1,002,318	\$1,124,282	\$1,271,185	\$1,430,413	\$1,608,775	\$1,808,505
Earned Revenue	\$85,125	\$0	\$0	\$0	\$0	\$0
Other Revenue	\$462,405	\$216,653	\$220,986	\$225,406	\$229,914	\$234,512
Total Revenues	\$1,549,847	\$1,340,935	\$1,492,171	\$1,655,819	\$1,838,688	\$2,043,017
Water Expenses						
Operating Expenses	\$894,231	\$958,878	\$930,358	\$948,965	\$967,944	\$987,303
Interest on Debt	\$8,678	\$26,974	\$35,118	\$43,266	\$49,191	\$49,326
Amortization	\$218,024	\$204,158	\$211,512	\$231,609	\$247,904	\$267,896
Non-TCA Capital	\$0	\$46,762	\$0	\$0	\$0	\$0
Total Expenses	\$1,120,933	\$1,236,771	\$1,176,989	\$1,223,840	\$1,265,039	\$1,304,525
Annual Surplus/(Deficit)	\$428,915	\$104,163	\$315,182	\$431,979	\$573,650	\$738,492
Accumulated Surplus/(Deficit), Beginning of Year	\$5,121,136	\$5,550,050	\$5,654,214	\$5,969,396	\$6,401,375	\$6,975,025
Accumulated Surplus/ (Deficit), End of Year	\$5,550,050	\$5,654,214	\$5,969,396	\$6,401,375	\$6,975,025	\$7,713,516
Financial Indicators						
Increase (Decrease) in Total Revenues	N/A	(\$208,913)	\$151,236	\$163,648	\$182,870	\$204,328
Increase (Decrease) in Total Expenses	N/A	\$115,839	(\$59,783)	\$46,851	\$41,199	\$39,487
Increase (Decrease) in Annual Surplus	N/A	(\$324,751)	\$211,019	\$116,797	\$141,671	\$164,842
Operating Surplus Ratio	27.7%	7.8%	21.1%	26.1%	31.2%	36.1%

3.2.3 Wastewater - Statement of Cash Flows

The Statement of Cash Flow is presented in Table 3-4. This statement summarizes the main cash inflows and outflows related to the wastewater system in four (4) main areas - operating, capital, investing and financing, and shows the annual changes in cash.

The operating cash transactions begin with the surplus or deficit identified in the Statement of Operations. This figure is adjusted to add or subtract non-cash items that were included as revenues or expenses (e.g. amortization expenses and earned revenues). It is assumed that there are no “investing activities” over the period. The capital section indicates the amounts to be spent to acquire capital assets (TCA) or to be received from the sale of assets. In the Municipality’s case, it is assumed that there are no assets to be sold to generate cash. The financing section identifies funds external sources, proceeds from the issuance of debenture as cash inflows, and the portion of debt repaid as cash outflows.

Table 3-4 indicates that cash is being generated from operations, which is used in funding the acquisition of TCA and towards building internal reserves. The Municipality's cash position is projected to increase over the forecast period from \$1.8 million in 2021 to a \$3.6 million in 2026.

Table 3-4: Wastewater - Statement of Cash Flows

	2021	2022	2023	2024	2025	2026
Cash Provided by:						
Operating Activities						
Annual Surplus/(Deficit)	\$428,915	\$104,163	\$315,182	\$431,979	\$573,650	\$738,492
Non-Cash Items						
Amortization	\$218,024	\$204,158	\$211,512	\$231,609	\$247,904	\$267,896
Earned Revenue	(\$85,125)	\$0	\$0	\$0	\$0	\$0
Net Change in Cash Provided by Operating Activities	\$561,813	\$308,321	\$526,694	\$663,588	\$821,554	\$1,006,387
Capital Activities						
Purchase of TCA	(\$1,455,691)	(\$790,336)	(\$910,985)	(\$935,583)	(\$803,266)	(\$931,699)
Net Change in Cash Used in Capital Activities	(\$1,455,691)	(\$790,336)	(\$910,985)	(\$935,583)	(\$803,266)	(\$931,699)
Financing Activities						
DC Collections	\$266,195	\$311,181	\$324,249	\$337,756	\$351,716	\$366,142
External Financing	\$0	\$0	\$0	\$0	\$0	\$0
Proceeds From Long-Term Debt	\$1,066,087	\$624,208	\$593,267	\$446,203	\$185,197	\$143,576
Repayment of Long-Term Debt	(\$105,149)	(\$169,529)	(\$184,019)	(\$148,500)	(\$177,007)	(\$190,992)
Net Change in Cash Used in Financing Activities	\$1,227,133	\$765,860	\$733,497	\$635,459	\$359,905	\$318,726
Net Change in Cash and Cash Equivalents	\$333,256	\$283,845	\$349,207	\$363,463	\$378,193	\$393,414
Cash and Cash Equivalents, Beginning of the Year	\$1,520,432	\$1,853,687	\$2,137,532	\$2,486,739	\$2,850,203	\$3,228,395
Cash and Cash Equivalents, End of the Year	\$1,853,687	\$2,137,532	\$2,486,739	\$2,850,203	\$3,228,395	\$3,621,810

4 Conclusions & Recommendations

The following are the main conclusions regarding the water system:

1. The financial statements for the water system are prepared based on the results of the rate study analyses and projections, indicate the following:
 - The accumulated surplus is projected to increase from approximately \$5.0 million in 2021 to approximately \$8.8 million by 2026.
 - The operating surplus ratio is projected to increase from approximately 35% in 2021 to 38% in 2026.
 - The cash position is projected to increase from \$1.8 million in 2021 to a \$3.0 million in 2026.

These indicate that the financial outlook for the water system over the 6-year period 2021 to 2026 is good.

The following are the main conclusions regarding the wastewater system:

2. The financial statements for the wastewater system are prepared based on the results of the rate study analyses and projections, indicate the following:
 - The accumulated surplus is projected to increase from approximately \$5.6 million in 2021 to approximately \$7.7 million by 2026.
 - The operating surplus ratio is projected to decrease from approximately 27% in 2021 to 36% in 2026
 - The cash position is projected to increase from \$1.9million in 2021 to \$3.6 million in 2026.

These indicate that the financial outlook for the wastewater system over the 6-year period 2021 to 2026 is good.

The following are the main recommendations resulting from the O. Reg 453.07 water system and wastewater financial plans:

3. That the O.Reg. 453/07 Water System Financial Plan No. 103-301A including the Financial Statements contained herein be approved by Council and submitted to the Province of Ontario in accordance with the Drinking Water System License renewal requirements and O. Reg. 453/07.
4. That the Wastewater System Financial Plan including the Financial Statements contained herein be received by Council.
5. That a copy of the Water Financial Plan No. 103-301A and the Wastewater Financial Plan be posted on the Municipality's website and made available to the public at no charge.

Appendix A

Requirements of O. Reg. 453/07

Appendix A: Requirements of O.Reg. 453/07

Requirements		How Requirements are Met
1.	The financial plans must be approved by a resolution that is passed by,	
	i. The council of the municipality, if the owner of the drinking water system is a municipality.	<ul style="list-style-type: none"> It is expected the Council will approve the Updated Financial Plan 6 months prior to the expiry of the drinking water licence.
	ii. The governing body of the owner, if the owner of the drinking water system has a governing body and is not a municipality.	<ul style="list-style-type: none"> N/A
2.	The financial plans must apply to a period of at least six years.	<ul style="list-style-type: none"> Applies for 6 years from 2021 to 2026 inclusive.
3.	The first year to which the financial plans must apply must be the year determined in accordance with the following rules:	
	i. If the financial plans are required by subsection 2, the first year to which the financial plans must apply must be the year in which the drinking water system's existing municipal drinking water licence would otherwise expire.	<ul style="list-style-type: none"> The licence expires in 2021 for the water systems (No. 103-301A). Therefore, the first year of the Updated Financial Plan is 2021
	ii. If the financial plans are required by a condition that was included in a municipal drinking water licence under subsection 1 (3), the first year to which the financial plans must apply must be the later of 2010 and the year in which the first licence for the system was issued.	<ul style="list-style-type: none"> N/A
4.	Subject to subsection (2), for each year to which the financial plans apply, the financial plans must include the following:	
	i. Details of the proposed or projected financial position of the drinking water system itemized by:	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan.
	a. Total financial assets	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan.
	b. Total liabilities	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan.
	c. Net financial assets (debt)	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan.
	d. Non-financial assets that are tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses.	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan. TCA Projections in Financial Plan.
	e. Changes in tangible capital assets that are additions, donations, write downs and disposals.	<ul style="list-style-type: none"> See Statement of Financial Position for all water systems combined in Financial Plan. TCA Projections in Financial Plan.

Appendix A: Requirements of O.Reg. 453/07

	ii.	Details of the proposed or projected financial operations of the drinking water system itemized by,	<ul style="list-style-type: none"> See Statement of Operations for all water systems combined in Financial Plan.
		a. Total revenues, further itemized by water rates, user charges and other revenues.	<ul style="list-style-type: none"> See Statement of Operations for all water systems combined in Financial Plan.
		b. Total expenses, further itemized by amortization expenses, interest expenses and other expenses	<ul style="list-style-type: none"> See Statement of Operations for all water systems combined in Financial Plan.
		c. Annual surplus or deficit, and	<ul style="list-style-type: none"> See Statement of Operations for all water systems combined in Financial Plan.
		d. Accumulated surplus or deficit	<ul style="list-style-type: none"> See Statement of Operations for all water systems combined in Financial Plan.
	iii.	Details of the drinking water system's proposed or projected gross cash receipts and gross cash payments itemized by,	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		a. Operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges, - done in full cost report	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		b. Capital transactions that are proceeds on the sale of tangible capital assets and cash used to acquire capital assets,	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		c. Investing transactions that are acquisitions and disposal of investments,	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		d. Financing transactions that are proceeds from the issuance of debt and debt repayment.	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		e. Changes in cash and cash equivalents during the year,	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
		f. Cash and cash equivalents at the beginning and end of the year.	<ul style="list-style-type: none"> See Statement of Cash Flow for all water systems combined in Financial Plan.
	iv.	Details of the extent to which the information described in subparagraphs i, ii and iii relates directly to the replacement of lead service pipes as defined in section 15.1- 3 of Schedule 15.1 to Ontario Regulation 170/03 (Drinking Water Systems), made under the Act.	<ul style="list-style-type: none"> There is no dedicated lead service pipe removal program in place. If lead pipe is discovered during normal operations, it is replaced accordingly. Therefore, there are no significant material financial costs associated with lead pipe removal.
5.	The owner of the drinking water system must.		
	i.	Make the financial plans available, on request, to members of the public who are served by the drinking water system without charge,	<ul style="list-style-type: none"> This will be done by the municipality following Council approval.
	ii.	Make the financial plans available to members of the public without charge through publication on the Internet, if the owner maintains a website on the Internet,	<ul style="list-style-type: none"> The Financial Plan will be posted on the municipality's website and made available for public review at no charge.

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	iii.	Provide notice advising the public of the availability of the financial plans under subparagraphs i and ii, if applicable, in a manner that, in the opinion of the owner, will bring the notice to the attention of members of the public who are served by the drinking water system.	<ul style="list-style-type: none"> A notice will be issued following Council approval.
6.		The owner of the drinking water system must give a copy of the financial plans to the Ministry of Municipal Affairs and Housing. O. Reg. 453/07, s. 3 (1).	<ul style="list-style-type: none"> Will be submitted following Council approval.
		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.	<ul style="list-style-type: none"> The Financial Plan was prepared using available information at the time of preparation and may not contain all desired items. Reasonable assumptions were made and these are noted in the Financial Plan.
	1.	Sub-subparagraphs 4 i A, B and C of subsection (1).	<ul style="list-style-type: none"> The Financial Plan was prepared using available information at the time of preparation and may not contain all desired items. Reasonable assumptions were made and these are noted in the Financial Plan.
	2.	Sub-subparagraphs 4 iii A, C, E and F of subsection (1). O. Reg. 453/07, s. 3 (2).	<ul style="list-style-type: none"> The Financial Plan was prepared using available information at the time of preparation and may not contain all desired items. Reasonable assumptions were made and these are noted in the Financial Plan.