

Water and Wastewater Long Range Financial Plan

In Accordance with O. Reg. 453/07

February 2019



As per the Accessibility for Ontarians with Disabilities Act (AODA), this document is available in an alternate format by contacting Water Services at waterservices@guelph.ca or 519-837-5627; TTY 519-826-9771.

Contents

Introduction	1
Water/Wastewater Long Range Financial Planning	1
Principles of Financial Sustainability	3
Importance of a Long Range Financial Plan	4
General Approach to Preparing the City’s LRFP	4
The LRFP is Dynamic—Regular Updates Will Be Undertaken	5
Water and Wastewater Model and Situational Analysis	6
Model Development	6
Studies to Optimize Water and Wastewater Systems	7
Financial and Legislative Environment	9
Water and Wastewater Forecast.....	11
Key Assumptions.....	11
Reserve Strategies	12
Stabilization Reserves	12
Capital Reserves	13
Capital Targets.....	13
Debt Strategies	16
Summary of Rate Revenue Requirements.....	17
Rate Revenue Requirements (000's)	17
Summary of Water Capital Budget - \$ (000’s).....	18

Summary of Wastewater Capital Budget - \$ (000's).....	19
Reporting Requirements – O. Reg. 453/07	20
Water and Wastewater Financial Plan—O. Reg. 453/07—Introduction	20
Financial Position — Highlights	21
Statement of Financial Operations —Water	23
Statement of Cash Flow/Cash Receipts - Water	24
Statement of Financial Position - Water.....	25
Statement of Financial Operations – Wastewater.....	26
Statement of Cash Flow/Cash Receipts—Wastewater	27
Statement of Financial Position—Wastewater	28

Introduction

Water/Wastewater Long Range Financial Planning

The Ministry of Environment (MOE) passed the Safe Drinking Act, 2002 (SDWA). It requires owners of municipal drinking water systems to apply for and obtain a Municipal Drinking Water Licence. There are five elements that must be in place in order for the owner of a drinking water system to obtain a licence:

1. A Drinking Water Works Permit to establish or alter drinking water system.
2. An accepted operational plan. The Drinking Water Quality Management Standard (DWQMS) is the standard upon which operational plans are based. The plan documents an operating authority's quality management system (QMS).
3. An Accredited Operating Authority. A third party audit of an operating's QMS will be the basis for accreditation.
4. A Permit to Take Water.
5. A Financial Plan that must be prepared, based on up-to-date rates, and approved in accordance with the prescribed requirements in the Financial Plans Regulation. This is one of the main purposes of this project.

While the regulations are directed at water systems, the approach undertaken by the City was to undertake a similar process for the City's wastewater system.

This Proposed Financial Plan reflects Guelph's legislative requirements, direction from Guelph City Council, continued input from community members, and the strategic focus areas of the City's Corporate Strategic Plan.

This Financial Plan has been prepared in accordance with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act, as well as the provisions of the financial planning guidelines published by the MOE in August 2007, entitled "Toward Financially Sustainable Drinking Water and Wastewater Systems." Several other provisions are also set out in the regulation that must be met by a municipality:

- Financial plan must be approved by Council resolution (or governing body) indicating that the drinking water system is financially viable;
- Financial plan must include a statement that the financial impacts have been considered and apply for a minimum six year period (commencing when the system first serves the public or the year when the existing Municipal Drinking Water Licence would otherwise expire);
- Financial plan must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit and accumulated surplus/deficit (i.e.

the components of a “Statement of Operations” as per the Public Sector Accounting Board) for each year in which the financial plans apply;

- Financial plans are to be made available to the public upon request and at no charge;
- If a website is maintained, financial plans are to be made available to the public through publication on the Internet at no charge; and
- Notice of the availability of the financial plans is to be given to the public.

Once a system is licensed, the municipality’s Financial Plan is required to be updated every 5 years, in conjunction with every application for licence renewal.

The components of the financial plans indicated by the regulation are consistent with the requirements for financial statement presentation as set out in section PS1200 of the Canadian Institute of Chartered Accountants (CICA) Public Sector Accounting Handbook.

The categories can be found in three statements; Statement of Operations, Statement of Cash Flows and Statement of Financial Position. These will be discussed later in the report. The categories of financial information have been developed:

- to ensure that they provide a sound picture of the financial position of a drinking water system;

- to ensure that they are aligned with municipal financial statements prepared on a full accrual accounting basis, beginning on January 1, 2009; and
- to be a balance between encouraging more comprehensive and consistent financial planning for municipal water services, and accommodating existing municipal practices.

The goal is to provide the City with a realistic and informed view of operating and capital expenditures needed over time to maintain the integrity and health of its physical infrastructure and to accommodate growth and new environmental standards. As such, a Long Range Financial Plan (LRFP) creates a more purposeful approach to long-term financial management and helps align short-term actions with long term financial strategies.

This document puts the City’s water and wastewater financial condition in perspective, discusses the current challenges and risks and provides a financial forecast, consistent with the strategic direction of the City. The plan also provides a framework for guiding the annual budget and the financial planning over a longer horizon. The LRFP helps to understand the implications that today’s decisions have on future budgets.

Principles of Financial Sustainability

The Ministry of the Environment released a guideline (“Towards Financially Sustainable Drinking-Water and Wastewater Systems”) that provides possible approaches to achieving sustainability. The Province’s Principles of Financially Sustainable Water and Wastewater Services are provided below:

- **Principle #1:** Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.
- **Principle #2:** An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.
- **Principle #3:** Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.
- **Principle #4:** Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.
- **Principle #5:** An asset management plan is a key input to the development of a financial plan.
- **Principle #6:** A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing

sufficient resources for future rehabilitation and replacement needs.

- **Principle #7:** Ensuring users pay for the services they are provided results in equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.
- **Principle #8:** Financial Plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.
- **Principle #9:** Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

The LRFP will be instrumental in the City’s ability to meet the Provincial reporting requirements included in O. Reg. 453/07 for water operations and has been developed in recognition of the above noted principles.

Importance of a Long Range Financial Plan

A LRFP is a framework to guide the City in planning and decision-making to help ensure that the City:

- Has a plan to protect and maintain its assets;
- Has a reasonable degree of stability and predictability in the rate burden;
- Has a fair sharing in the distribution of resources between current and future ratepayers;
- Has sustainable cash flows in the long term;
- Maximizes its financial flexibility;
- Minimizes financial vulnerability during economic downturns; and
- Maintains programs and services at their desired levels.

General Approach to Preparing the City's LRFP

The LRFP identifies the key financial strategies that will influence the building of a sustainable long-term financial future and takes into account:

- Expected expenses and capital outlays for each year of the plan;
- Expected revenues for each year and their source;
- Performance measures to enable assessment of the Council's strategic priorities;
- Assumptions that have been used in the development of the LRFP; and
- Sensitivity analysis on key assumptions most likely to affect long-range financial planning and sustainability.

The LRFP is Dynamic—Regular Updates Will Be Undertaken

Although great effort has been made to present accurate financial projections, based upon the data available at this time, a LRFP is a dynamic document and should be updated and re-evaluated, on an ongoing basis. As such, the Water and Wastewater LRFP should be considered a work-in-progress and used to guide the annual development of the Council approved operating and capital budgets.

It is not an exercise in precision, rather it is intended for use as a forecasting tool to ensure that the City is on the right course to meet its financial obligations and future challenges. The intent is to provide Council with regular updates to this document, so it will be useful in the ongoing cycle of business planning and budgeting.

Financial plans are only required to be updated in conjunction with every application for licence renewal (i.e. every 5 years), however, there are many potential circumstances that could occur within the short to medium term that would affect the assumptions in the projections for operating and capital. Council priorities, planning policies, changes to service levels, consumption projections and infrastructure requirements, will certainly lead to changes and the LRFP should be adjusted to reflect these changes as they occur.

It is anticipated that updates to the LRFP will:

- Amend the assumptions, projections and strategies, as required, based on changes in the municipal environment;
- Continue building awareness of future changes in current operating and capital spending and funding levels;
- Assist the City in determining the extent of its financial challenges;
- Reconfirm the key financial goals and strategies that should guide future planning; and
- Spur the development of actions in future business plans that would respond to the long-term strategies.

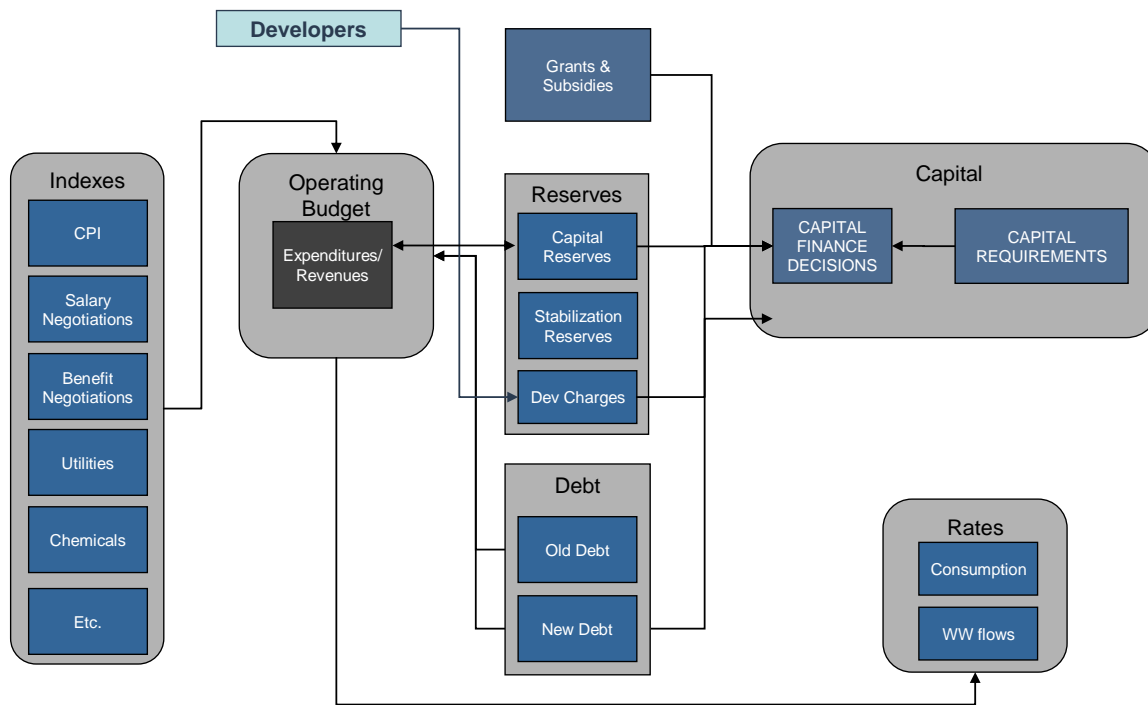


Water and Wastewater Model and Situational Analysis

Model Development

The LRFP is developed based on an analysis of all factors impacting the capital and operating budget, including financing plans, consumption and wastewater flow forecasts. This forecast also includes assumptions with respect to growth and development charge revenues, interest rates impacting reserves and debt issuance. As shown below, due to the inter-relationship between all components of the plan, changes in any of the assumptions will potentially have an impact throughout the LRFP. At the time of preparing this report, the City is also in the process of updating the Development Charges Background Study which may impact future forecasts.

Figure 1: Relationship between components of the Long Range Financial Plan



Studies to Optimize Water and Wastewater Systems

The City is very prudent in undertaking studies on an ongoing basis to support financial sustainability, water conservation, program efficiency, customer affordability and fairness and equity which have been incorporated into the Water/Wastewater Financial Plan. These included:

- **Development Priorities Plan**

The City undertakes a Development Priorities Plan to manage the rate and timing of growth and development in the City. This provides a multi-year forecast of development activity. The goal is to manage growth in a balanced and sustainable manner.

- **Master Servicing and System Optimization Studies**

Earth Tech Canada Inc. prepared a Master Servicing and System Optimization Study (2008) for its water and wastewater linear infrastructure. The intent was to determine how best to provide water distribution/storage and wastewater conveyance servicing for the City well into the future. The focus was on optimizing each system to best service existing customers, and expand the system for future growth.

- **Infrastructure Sustainability Report**

The Infrastructure Sustainability Report included a review of water, wastewater storm and transportation which was completed in Oct 15, 2012. AECOM prepared a report which undertook an evaluation of the City's assets. This study reflected significant improvements in the City's water and wastewater assets grading from 2006-2012 and the financial plans and contributions to capital reserves continue to close funding gaps and support financial sustainability.

- **Water Supply Master Plan**

The City completed a Water Supply Master Plan in 2014 with a focus on ensuring access to a sustainable supply of water for residential and industrial.

- **Water Conservation and Efficiency Strategy**

Guelph is one of Canada's largest communities to rely on a limited groundwater supply to meet the community's water needs. In 2008 the Guelph Environmental Services Department initiated an update to the City's Guelph Water Conservation and Efficiency Study (1999). This study identified the preferred program, policy and resource requirements to achieve and sustain the water use reduction targets of the City's Water Supply Master Plan, Community Energy Plan and the City's Strategic Plan. In 2016, the Water Efficiency Strategy update identified improvements to current programs and

suggests new ones that will help Guelph achieve greater water supply savings.

- **Wastewater Master Plan**

The City prepared a 50 year Wastewater Treatment Master Plan which provides direction for wastewater treatment infrastructure planning, investment and implementation to the year 2054. The study includes a review of the City's current wastewater treatment infrastructure and an analysis of alternative solutions to accommodate future wastewater treatment needs.

- **Biosolids Management Master Plan (BMMP)**

This plan provided direction for biosolids management activities to the year 2025.

- **Asset Management Plan**

The City of Guelph's 2017 Corporate Asset Management Plan is the first asset management plan developed and published by the City. The purpose of the asset management plan is to outline the processes and practices in place to ensure the delivery of the City's services over the next 10 years. Water and wastewater assets have approximately \$271 million in deferred capital. Although various service areas have developed mature processes with respect to asset management, the City's overarching corporate asset management practices are relatively early in development, with a number of targeted strategies to advance the overall level of practice over the next

few years. The aim of the Corporate Asset Management Program is to develop a holistic and coordinated approach to asset management that ensures levels of service are met and risks are managed in the most cost effective manner.

- **Water and Wastewater Cost of Service Study**

The overall scope of work was to identify the full cost of service for water and wastewater operations and functionalize the costs to each customer class, based on the cost causation principle. Further, the study identifies opportunities for rate structure reform to ensure equity and fairness amongst customer classes while meeting the needs of the City and applicable laws. This was completed in March 2017 and will set the stage for future rate studies.

- **Water Billing Exemption Study**

To address common areas of billing policy exemptions requested from customers on an ongoing basis, a Water and Wastewater Billing Exemptions Study, was completed in 2017. This project included extensive peer research and a public engagement strategy for residential and non-residential customers. Recommendations were made for a sewer abatement program and a water leak forgiveness program.

- **Stormwater Management Master Plan (SWM)**

The Master Plan is a long-term plan for the safe and effective management of stormwater runoff from existing urban areas, while improving the ecosystem

health and ecological sustainability of the Eramosa and Speed Rivers and their tributaries. The SWM Master Plan approach is to integrate flood control and stormwater drainage with opportunities to improve and protect groundwater and surface water quality and the natural environment.

Financial and Legislative Environment

The City of Guelph Water and Wastewater operations have a long standing dedication to sound financial management through the incorporation of leading practices and prudent financial policies to ensure the City's long term service and infrastructure levels and standards can be met without unplanned increases in rates or disruption of service. The following summarizes the key elements included in the long range financial plan:

- **Asset Renewal/Replacement**

Like most municipalities in Canada, Guelph faces a continued struggle to renew and replace aging water and wastewater capital assets. The City has incorporated into the 10-year capital budget \$201.5 million and \$130.7 million related to the replacement of existing water and wastewater assets.

- **Growth Related Capital Requirements**

Over the next 10 years, there is an expected capital requirement of \$92.8 million for water and \$108.2

million for wastewater which will be funded from future development charge revenues.

- **Revenue Stability**

The City established stabilization reserves to meet emergency and unplanned funding needs for Water and Wastewater Operations in order to avoid operating deficits or fluctuations in the rate. The target balance for these reserves is 8-10% of the operating expenditures. The current balance in the Water and Wastewater Stabilization Reserve is 12% and 14.4% respectively of operating expenditures, above the target balance, reflecting a strong position for the City. As a result, the City has incorporated into its 2019 Operating Budget a one-time transfer from the Water/WW Stabilization Reserves to maintain rates at the 2018 levels.

- **Capital Reserves**

The City makes annual contributions to the Water and Wastewater Capital Reserves. Funds are transferred in as contributions from the operating budget or any remaining surplus not committed to another reserve upon closing individual capital projects. These reserves are then used to fund the City's share of capital works. The City's policy is to make annual contributions to these reserves, at a minimum, equal to the annual depreciation expense. Throughout the forecast period, annual contributions exceed the depreciation expense, meeting the City's policy.

- **Regulatory and Legislative Environment**

Municipalities across Ontario have consistently identified legislative and regulatory changes and requirements as a major factor driving the cost of service over the past 10 years and will continue to be a factor well into the future. Statutes and associated regulations that dictate service and service levels include:

- Municipal Act
- Clean Water Act
- Water Opportunities Act
- Ontario Water Resources Act
- Safe Drinking Water Act (SDWA)
- Sustainable Water and Sewage Systems Act
- Environmental Protection Act
- Environmental Assessment Act
- PSAB 3150, Tangible Capital Assets Reporting

Water and Wastewater Forecast

Key Assumptions

The following provides the key assumptions in the Forecast:

- **Capital Projects**

The 10 year Water and Wastewater Capital Forecast is based on the 2019 Capital Budget.

- **Water & Wastewater Capital Reserves**

The opening balance for 2019 Water and Wastewater Capital Reserves and Reserve Funds are based on the year-end estimated balance for 2018 and excludes all financial commitments.

- **Sources of Financing**

Capital Reserves were used as the primary source of financing as defined in the City's Capital Budget document.

- **Debt Issuance Interest Rates**

\$34 million in water rate supported debt has been forecast. The debt is amortized over 20 years at an interest rate of 5%.

- **Service Standards**

Water and wastewater programs are maintained at their current service levels.

- **Development Charge Revenues**

The 10 year forecast includes assumptions with respect to Development Charge Revenues to support growth related projects. These reflect the projections in the Development Charge Background Study.

- **Operating Budget**

The City prepares a multi-year Operating Budget whereby the 2019 budget is approved and an additional three years have been forecast. The financial plan utilizes the City's 2019-2022 Operating Budget and forecasts the remaining years.

Expenditure increases for many municipal services to maintain existing level of services is based on :

- Salary, wages and benefits increases based on future projected increases (3.0% annually, including merit increases);
- Utilities projected increase (3% annually);
- Maintenance and repair projected increases (2% annually);
- Increase of one position in water and one in wastewater every two years to service new growth;
- Grand River Conservation Authority (2% annually);
- Other Operating Expenditures (2% annually); and

- Reserve contributions are gradually increasing and have been used to ensure full funding of the capital plan, in accordance with the City's capital reserve policies.
- **Forecasting Consumption**
 - The City actively monitors and evaluates consumption trends to support revenue stability. This includes a review of average residential customer consumption, a monitoring of large commercial and industrial consumption and growth. Over the past 15+ years, water production has been declining despite growth in the municipality. This is a result of the success of the water conservation program, climate change, and customer driven efficiencies encouraged by increasing rates. Fluctuations in weather patterns and conservation by customers impact consumption and the volumetric revenues.

Reserve Strategies

Adequate reserves are important to mitigate the City's financial risk and to strengthen the City's ability to withstand negative impacts on revenues from economic fluctuations and unforeseen expenditure requirements. Reserves and reserve funds are accumulated net revenues which are set aside for future expenditures. Reserves and reserve funds are a critical component of a municipality's

long-term financing plan. The importance of maintaining reserves is to:

- Provide stability of tax rates and user fees in the face of variable and uncontrollable factors (e.g. interest rates, changes in subsidies, increase in fuel prices);
- Provide financing for one-time or short-term requirements without permanently impacting the utility rates;
- Make provisions for acquisition and replacement of assets and infrastructure that are currently being consumed and depreciated;
- Avoid spikes in funding requirements of the capital budget by reducing reliance on long-term debt borrowing;
- Provide a source of internal financing;
- Ensure adequate cash flows;
- Provide flexibility to manage debt levels and protect the municipality's financial position; and
- Provide for liabilities that have been incurred in the current year but will not be paid for until future years.

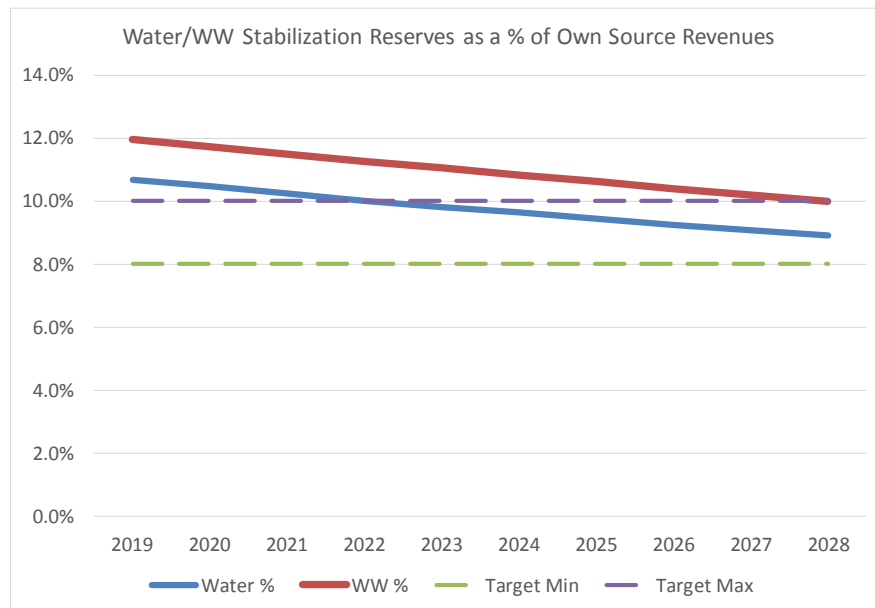
Stabilization Reserves

The water and wastewater stabilization reserves are funded from operating budget surpluses, and are used to prevent sudden rate increases or cover revenue shortfalls. These

reserves are important tools for providing affordability for ratepayers, and financial stability and sustainability for the organization. The reserves are reviewed each year to ensure compliance with Council policies.

The City has established a target of Stabilization Reserve balances at 8%-10% of Operating Revenue which is met throughout the forecast period.

Figure 2: Water and Wastewater Stabilization Reserves



Capital Reserves

The purpose of the Capital Reserve Funds (Water and Wastewater) is to provide funding for the capital needs of the program and the replacement of capital assets as they come due for replacement. The Water and Wastewater

Capital Reserves are an important component of financial sustainability.

These reserves are funded from annual contributions from the Operating Budget and any remaining surplus not committed upon closing of individual capital projects.

The City has established a minimum target to ensure that contributions are made in accordance with the assets being supported by capital reserves. The City has established a minimum annual transfer to the Capital Reserves greater than or equal to annual amortization. This target is consistently met throughout the forecast period for both water and wastewater.

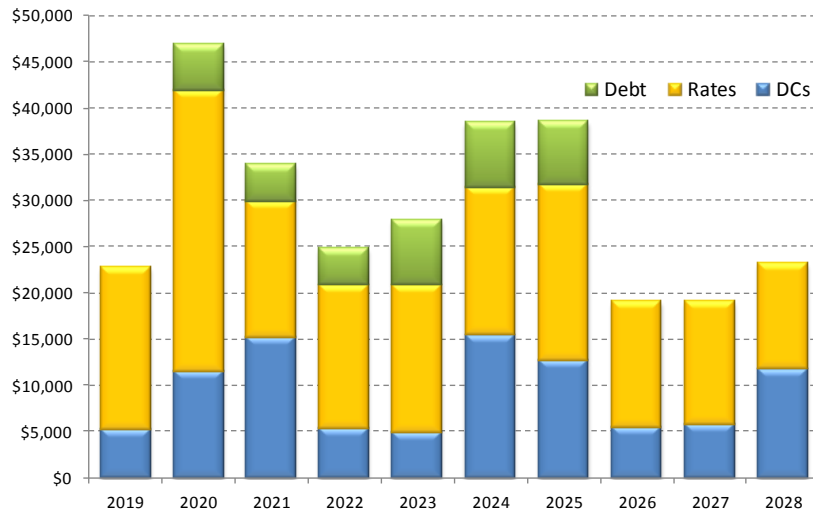
The City has established another target such that the Capital Reserve balance will be maintained at a minimum of 2-3% of asset value. This target is met throughout the forecast period in Wastewater, but in Water the Capital Reserve will reduce below the target from 2020 to 2025 years as a result of large capital replacement costs early in the forecast. The Water Capital Reserve position gradually increases toward the end of the forecast to 6.9%.

Capital Targets

Strategy 1: Annual contributions to capital reserves should be at minimum, equal to the annual amortization expense.

Strategy 2: Capital reserves as a percentage of asset value: Capital Reserve contributions should be approximately 2-3% of the total asset value.

Figure 3: Water Capital Budget (000's)



It is essential for Water Services to balance their capital needs in terms of existing infrastructure renewal and replacement with growth related infrastructure requirements. Capital projects in this forecast are scheduled and funded according to Council-approved plans including the Water Supply Master Plan, the Water Conservation and Efficiency Strategy and the Master Servicing and Optimization Study.

The 10-year water capital forecast is \$294.3 million, of which 32% is related to development charges, 12% to debt, and the remaining 57% is for the replacement of existing assets from reserves. While the Capital Budget annual requirements varies from year to year, the strategy is to smooth the contributions to reserves to avoid volatility in rates and gradually move the City toward full cost recovery. The contributions to capital will gradually

increase over the forecast period and will exceed the minimum target contribution of the historical amortization expense but is below the target year end balance of 2-3% of total asset value.

Figure 4: Water Capital Reserve Contributions

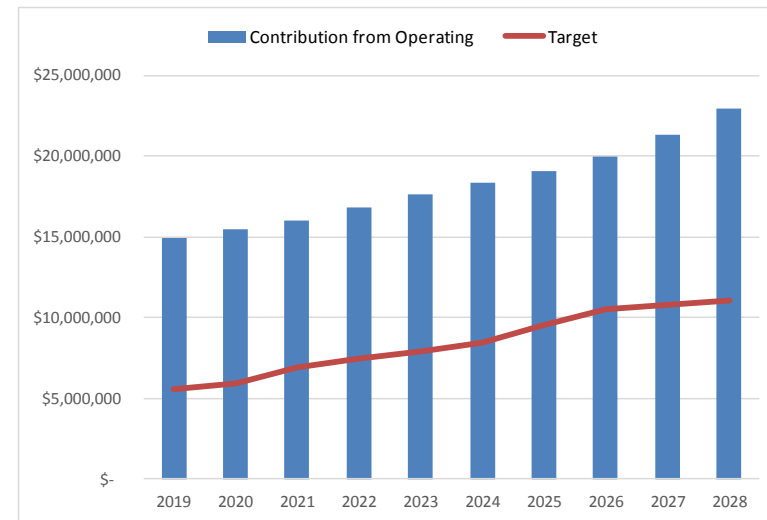
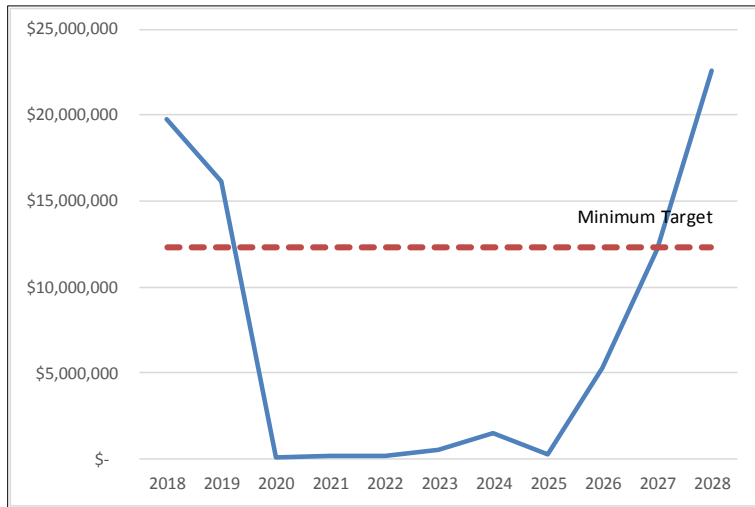
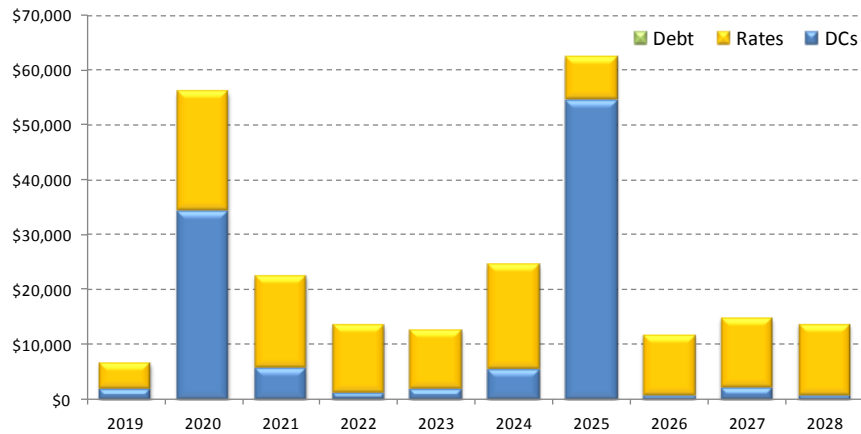


Figure 5: Water Capital Reserve Year End Position



The 10-year capital forecast is \$238.9 million, of which 45% is related to growth and the remaining 55% is for the replacement of existing assets. Financing over the next 10 years is from Capital Reserves and Development Charge Reserves, with no debt financing required and is in accordance to Council approved plans. While the Capital Budget annual requirements varies from year to year, the strategy is to smooth the contributions to reserves to avoid volatility in rates and gradually move the City toward full cost recovery. The contributions to capital will gradually increase over the forecast period and will exceed the minimum target contribution of the historical amortization expense. In addition, the WW Capital year end balance exceeds the target minimum balance of 2-3% of the asset value.

Figure 6: Wastewater Capital Budget (000's)



The proposed financing strategy, in the long-range financial plan, gradually moves the City toward full cost recovery and builds reserves based on the replacement costs of the underlying assets.

Figure 7: Wastewater Capital Reserve Contributions

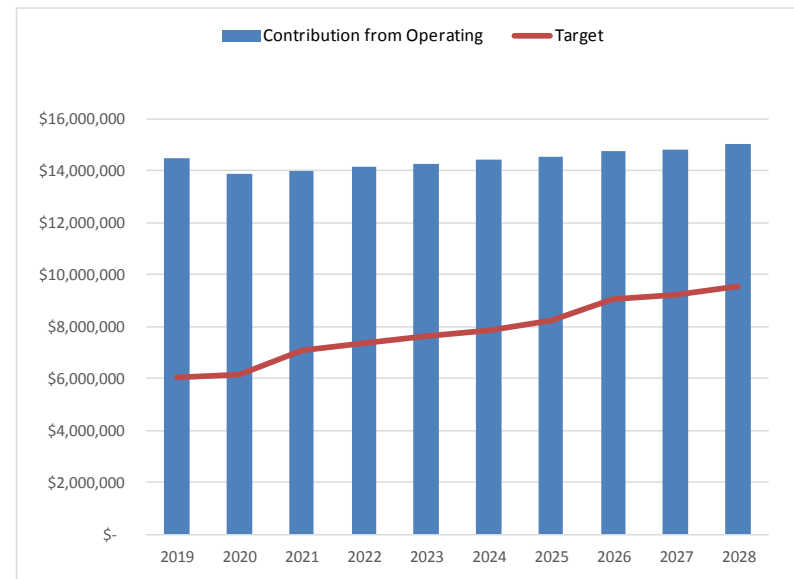
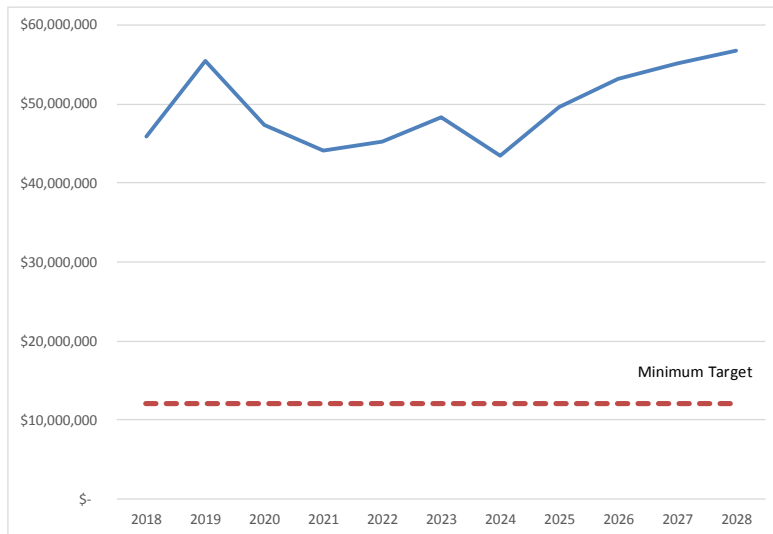


Figure 8: Wastewater Capital Reserve Year End Position



Debt Strategies

Municipalities have limited options with respect to raising funds to support municipal programs and services. The City of Guelph is not unique, as virtually all municipalities across Ontario are facing increasing infrastructure backlogs, funding gaps, and increasing financial pressures in infrastructure management.

Prudent issuance of debt is an efficient use of available financial resources, however, when municipalities issue debentures, they enter into a long-term commitment that requires them to make principal and interest payments over the life of the debentures.

Debt management may be defined as the process of providing for the payment of interest and principal

payments on existing debt and the planning for new debt issuance at a level which will optimize borrowing cost and not impair the financial position of the municipality. Targets for achieving a favourable financial position have been established for debt and reserves and include:

- **Debt to Reserve Ratio** – compares the direct debt of the operation to the total of all rate-supported reserves and reserve funds. The generally accepted target is 1:1. Over the forecast period, the City’s combined water/ww debt to reserve ratio remains well within this limit.
- The use of debt allows for the accommodation of large scale projects without causing fluctuation in rates
- Two significant projects are within the 10 year planning horizon;
 - FM Woods station upgrades and renewal – project to commence in 2019
 - Aqueduct renewal and expansion – investigation work to continue in 2019
- Due to the large cost of these projects and the long term benefits of both, the current capital forecast is based on issuing \$34 million of debt for the water program.
- This level of debt financing is within the City’s overall Council approved guidelines for both servicing and outstanding debt balance.

Summary of Rate Revenue Requirements

The City's objective in establishing the Water and Wastewater rates is to avoid large fluctuations from year to year and are set at a level to adequately cover current operating costs, maintain and repair the City's existing asset base and replace assets where appropriate.

Efforts are being made in this plan to gradually grow the reserves to provide a source of funding for the ongoing replacement/refurbishment of capital assets and provide a reasonable level of stabilization funds to deal with future operating fund deficits and emergency situations. The following table reflects the forecast revenue requirements.

Rate Revenue Requirements (000's)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water	\$28,066	\$29,469	\$30,942	\$32,490	\$34,114	\$35,820	\$37,611	\$39,491	\$41,466	\$43,539
% Change		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
WW	\$30,598	\$31,210	\$31,834	\$32,471	\$33,120	\$33,783	\$34,458	\$35,147	\$35,850	\$36,567
% Change		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Combined	\$58,664	\$60,679	\$62,776	\$64,690	\$67,234	\$69,602	\$72,069	\$74,639	\$77,316	\$80,106
% Change		3.4%	3.5%	3.5%	3.5%	3.5%	3.5%	3.6%	3.6%	3.6%

Note that the table above reflects the rate revenue requirements over the forecast period and do not equate to the rate increases on the residential and commercial bill. Bill impacts have both a basic service charge fixed and volumetric rate variable component. Rate setting takes into consideration assumptions with respect to consumption trends and growth in the number of accounts, which is not reflected in this report.

Summary of Water Capital Budget - \$ (000's)

Infrastructure, Development & Enterprise, Environmental Services, Water Services

Project Number & Name	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
PN0830 Aqueduct Upgrades	180	60	240	2,400	12,000	12,000	12,000	600	--	--	\$39,480
WW0106 Conservation and Efficiency	437	432	1,080	658	432	405	392	1,095	559	559	\$6,049
WT0025 East Side Booster Pumping Station (BPS) and Reservoir	--	--	--	500	500	7,000	6,025	--	--	--	\$14,025
PN0693 FM Woods Station Upgrade	5,366	23,501	796	161	193	--	--	--	--	--	\$30,017
WT0007 Facility Upgrades and Studies	6,600	3,416	3,869	7,919	3,304	2,235	3,042	4,657	2,112	1,679	\$38,833
WT0009 Groundwater Protection	--	1,040	900	760	680	670	770	860	660	540	\$6,880
PN0695 Meter Maintenance	1,606	1,535	1,462	1,613	375	375	375	375	375	--	\$8,091
WT0008 Non Revenue Supply	341	347	352	358	358	363	369	369	369	369	\$3,595
PN0829 Plant Security and Automation	524	714	684	718	743	726	638	550	220	600	\$6,117
WT0032 Quality Upgrades	200	200	200	200	200	200	200	200	200	200	\$2,000
PN0696 Valve Maintenance	200	200	200	200	130	130	130	130	130	130	\$1,580
PN0698 Verney Tower Feedermain and Valve Chamber Replacements	300	300	--	--	--	--	--	--	--	--	\$600
WT0002 Water New Supply	3,837	6,610	2,041	2,523	2,523	4,647	1,760	1,760	1,760	1,760	\$29,221
PN0697 Watermain Maintenance	485	485	485	485	495	505	515	525	536	353	4,869
WT0026 Zone 2E Elevated Tank	250	3,105	10,000	--	--	--	--	--	--	--	\$13,355
9900-8152 Capital - Waterworks	1,927	3,678	9,613	4,819	4,592	5,233	7,450	5,438	8,822	7,734	\$59,305
9900-8311 Dev. Charges - Waterworks	466	1,224	1,918	1,489	1,287	3,892	4,944	2,480	3,330	9,260	\$30,289
Total Water Services	\$22,719	\$46,847	\$33,840	\$24,803	\$27,812	\$38,380	\$38,611	\$19,038	\$19,073	\$23,184	\$294,306

Summary of Wastewater Capital Budget - \$ (000's)

Infrastructure, Development & Enterprise, Environmental Services, Water Services

Project Number & Name	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
ST0021 2024 Biosolids Facility Upgrade	--	--	--	--	--	--	13,229	--	--	--	\$13,229
ST0003 Biosolids Facility Upgrade	200	13,500	--	358	--	12,000	--	--	--	--	\$26,058
ST0015 Building Repairs and Upgrades	--	1,000	500	500	--	500	--	500	--	500	\$3,500
SC0023 Decommission Gordon Sewage Pumping Station (WWF1)	500	--	--	--	--	--	--	--	--	--	\$500
ST0013 Digester Cleaning Program	500	--	500	--	500	--	500	--	500	--	\$2,500
ST0014 Digester Structural Repair and Gas Proofing	--	4,000	--	500	--	500	--	500	--	500	\$6,000
ST0018 Equipment Replacement and Upgrades	--	750	--	750	--	750	--	750	--	--	\$3,000
ST0009 Plant Energy Efficiency Management	1,250	1,250	2,000	--	250	--	250	--	250	--	\$5,250
ST0001 Plant Generators	100	--	100	--	100	--	100	--	100	--	\$500
ST0006 Plant Supervisory Control and Data Acquisition (SCADA) System Upgrades	750	750	500	500	--	--	102	--	--	--	\$2,602
ST0008 Treatment Master Plan Update	325	--	--	--	500	--	--	--	500	--	\$1,325
ST0019 Treatment Plant Expansion to 85 mega litres per day (mld)	--	--	--	--	--	--	\$38,000	--	--	--	\$38,000
ST0004 Treatment Plant Phase 2 Growth	300	29,000	--	--	--	--	--	--	--	--	\$29,300
ST0005 Treatment Plant Process Upgrades	--	--	3,000	2,000	4,000	500	100	100	100	--	\$9,800
ST0002 Treatment Plant Upgrades and Studies	--	--	200	200	200	200	200	200	200	200	\$1,600
9900-8153 Capital – Wastewater	2,134	5,598	11,147	8,433	6,593	8,418	7,027	9,151	11,726	12,145	\$82,371
9900-8312 Dev. Charges - Wastewater	550	229	4,597	404	570	1,680	2,895	513	1,497	389	13,323
Total Wastewater	\$6,608	\$56,077	\$22,544	\$13,644	\$12,712	\$24,548	\$62,403	\$11,715	\$14,873	\$13,734	\$238,857

Reporting Requirements – O. Reg. 453/07

Water and Wastewater Financial Plan—O. Reg. 453/07—Introduction

The Financial Plan has been prepared in accordance with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act. While the O. Reg. 453/07 only applies to Water, the City has prepared statements for both water and wastewater operations. Paragraph 4 of subsection 3(1) of the regulation requires that financial plans include three statements including the Statement of Operations, the Gross Cash Receipts and the Financial Position. The financial statements have been included at the end of the report for water and wastewater. The Financial Plan regulation requires that the plans be updated every five years along with the request for the renewal of the drinking water licence. This ongoing update will assist in revisiting the assumptions made to develop the operating and funding plans as well as reassessing the needs for capital renewal and major maintenance expenses. The following provides a summary of the principle features concerning the current and future state of the water and wastewater systems contained in the projected financial statements (2014-2019):

- **Statement of Financial Operations**

This statement summarizes the revenues and expenditures. The expenditures include ongoing operating costs plus asset amortization. This statement indicates that the system and its asset base are projected to be maintained with funds being available each year for future capital renewal or major maintenance. As shown in the statements of financial operations, the City of Guelph is generating excess revenues over expenses including amortization for water and wastewater throughout the forecast period.

- **Cash Receipts or Gross Cash Payments (Cash Flows)**

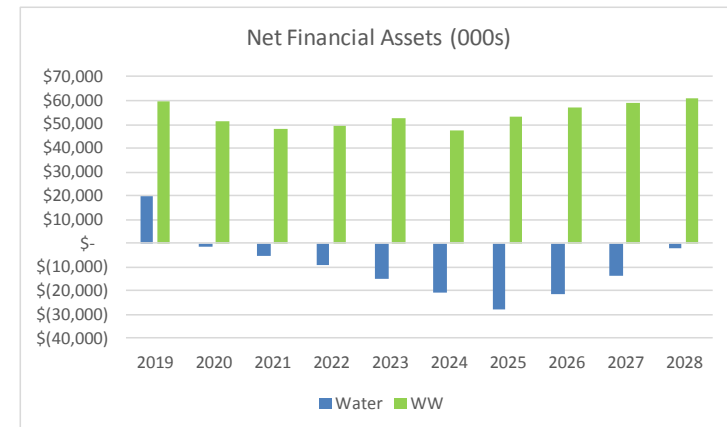
The cash flow statement summarizes how the water and wastewater system is expected to generate and utilize cash resources. The transactions that generate and use cash include the projection of cash to be received from revenues, cash to be used for operating expenditures and financing charges, cash projected to be used to acquire capital assets and projected financial transactions that are the proceeds from debt or debt principal repayment. The City's water cash flows go into a negative position for a period of time but this can be offset through internally borrowing on a temporary basis. The wastewater cash flows are positive throughout the forecast period.

Financial Position – Highlights

There are three important indicators to review in the Statement of Financial Position described as follows:

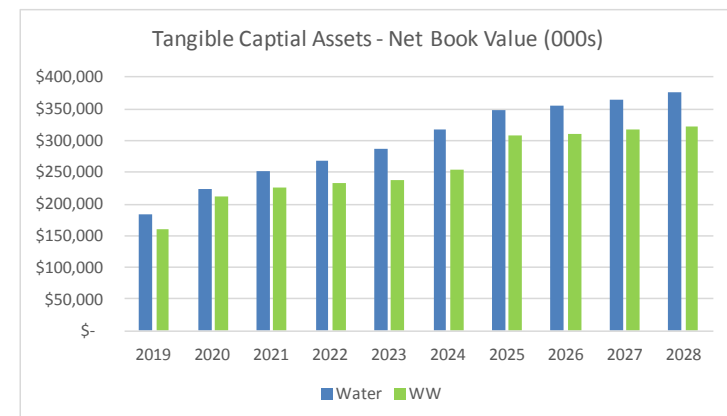
- **Net Financial Assets**

An important feature of a water and wastewater system is its net financial assets. A positive number indicates that the system has the resources to deal with future capital and other needs. A negative number indicates that past capital and other investments must be financed from future revenues. Wastewater net financial assets are in a positive position throughout the forecast. Water net position is in a negative position from 2020 to 2028.



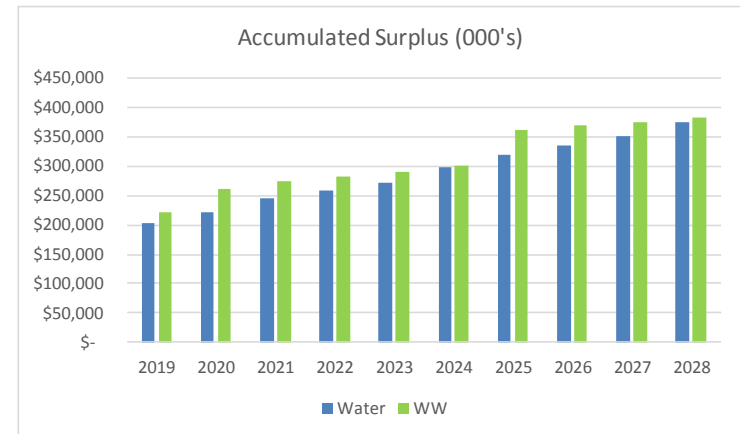
- **Tangible Capital Assets (Net Book Value)**

Water and wastewater systems have a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining current and future levels of service. An increase in net book value of tangible capital assets is an indication that assets have been renewed faster than they were used. A decrease in net book value indicates that assets are being used, or amortized, faster than they are renewed. The net book value is projected to increase for water and wastewater indicating that assets are being renewed faster than they are being used, as substantiated in the water and wastewater capital renewal plan.



- **Accumulated Surplus**

A third financial indicator that is reflected in the financial position statement is the accumulated surplus. This indicator represents cash on hand plus the net book value of tangible capital assets less debt. The accumulated surplus is forecast to increase from 2019 to 2028 for both water and wastewater. The increasing projected surpluses in water and wastewater operations indicate that if the City adheres to the Financial Plan, it will strengthen its combined cash and asset position.



Statement of Financial Operations – Water

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water Total Revenues										
Rate Revenues	28,066	29,469	30,942	32,490	34,114	35,820	37,611	39,491	41,466	43,539
Miscellaneous Revenues	1,013	1,033	1,054	1,075	1,097	1,119	1,141	1,164	1,187	1,211
Total Operating Revenues	29,079	30,502	31,996	33,565	35,211	36,938	38,752	40,655	42,653	44,750
Interest Earned – Reserves	338	153	2	3	6	19	17	53	165	327
Total Revenues	29,417	30,655	31,999	33,568	35,217	36,957	38,769	40,708	42,818	45,077
Water Total Expenses										
Operating Expenses										
Salaries & Benefits	7,620	7,849	8,184	8,430	8,783	9,046	9,417	9,700	10,091	10,394
Operating Expenses	537	548	559	570	581	593	605	617	629	642
Utilities	2,239	2,306	2,376	2,447	2,520	2,596	2,674	2,754	2,837	2,922
R&M	443	451	460	470	479	489	498	508	519	529
GRCA	844	861	878	896	914	932	950	969	989	1,009
Program Support Costs	2,996	3,056	3,117	3,179	3,243	3,308	3,374	3,441	3,510	3,580
Contaminated Sites	500	500	500	500	500	500	500	500	500	500
Dc Exempt Transfer	763	778	793	809	826	842	859	876	894	894
Total Operating Expenses	15,941	16,349	16,867	17,300	17,845	18,305	18,878	19,366	19,968	20,469
Debt Charges										
Debt Charges – Interest Payments	--	--	250	442	628	958	1,275	1,581	1,523	1,463
Amortization Expense										
Water Assets	5,539	5,949	6,904	7,424	7,864	8,438	9,497	10,506	10,809	11,093
Total Expenses	21,481	22,298	24,022	25,167	26,338	27,701	29,650	31,453	32,300	33,024
Annual Surplus/(Deficit)	7,936	8,357	7,977	8,400	8,879	9,256	9,119	9,255	10,517	12,052

Statement of Cash Flow/Cash Receipts - Water

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Revenues	29,417	30,655	31,999	33,568	35,217	36,957	38,769	40,708	42,818	45,077
Cash Paid For										
Operating Costs	15,941	16,349	16,867	17,300	17,845	18,305	18,878	19,366	19,968	20,469
Debt Repayment – Debt Interest	--	--	250	442	628	958	1,275	1,581	1,523	1,463
Cash Provided from Operating Transactions	13,475	14,306	14,882	15,825	16,743	17,695	18,616	19,761	21,326	23,145
Capital Transactions										
Acquisition of TCA	22,719	46,847	33,840	24,803	27,812	38,380	38,611	19,038	19,073	23,184
Finance Transactions										
Proceeds from Debt Issues	--	5,000	4,000	4,000	7,000	7,000	7,000	--	--	--
Proceeds from DC	5,120	11,501	15,169	5,250	4,822	15,374	12,649	5,465	5,779	11,709
Proceeds from Grants & Subsidies										
Debt Repayment – Principal	--	--	151	280	415	647	891	1,147	1,205	1,265
Increase/(Decrease) in Cash Equivalents	(4,124)	(16,040)	59	(8)	339	1,041	(1,237)	5,040	6,828	10,405
Cash and Cash Equivalents at Beginning Balance	23,664	19,540	3,500	3,560	3,552	3,891	4,932	3,694	8,735	15,562
Cash and Cash Equivalents at Ending Balance	19,540	3,500	3,560	3,552	3,891	4,932	3,694	8,735	15,562	25,968

Statement of Financial Position - Water

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Financial Assets										
Cash	19,540	3,500	3,560	3,552	3,891	4,932	3,694	8,735	15,562	25,968
Liabilities										
Debt – Principal Outstanding	--	5,000	8,849	12,569	19,154	25,507	31,616	30,469	29,264	27,999
Net Financial Assets	19,540	(1,500)	(5,289)	(9,017)	(15,264)	(20,576)	(27,922)	(21,734)	(13,702)	(2,031)
Non-Financial Assets										
Tangible Capital Assets	280,207	302,926	349,773	383,612	408,415	436,227	474,607	513,218	532,256	551,329
Additions to Tangible Capital Assets	22,719	46,847	33,840	24,803	27,812	38,380	38,611	19,038	19,073	23,184
Accumulated Amortization	119,808	125,757	132,662	140,086	147,951	156,389	165,885	176,392	187,201	198,293
Total Non-Financial Assets	183,118	224,016	250,951	268,329	288,276	318,218	347,332	355,864	364,128	376,219
Accumulated Surplus	202,658	222,516	245,662	259,312	273,013	297,643	319,411	334,130	350,427	374,188
Cash as a % of Net Fixed Assets	10.7%	1.6%	1.4%	1.3%	1.3%	1.5%	1.1%	2.5%	4.3%	6.9%
Debt as a % of Net Fixed Assets	0.0%	2.2%	3.5%	4.7%	6.6%	8.0%	9.1%	8.6%	8.0%	7.4%

Statement of Financial Operations – Wastewater

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Wastewater Total Revenues										
Rate Revenues	30,598	31,210	31,834	32,471	33,120	33,783	34,458	35,147	35,850	36,567
Miscellaneous Revenues	1,400	1,428	1,457	1,486	1,515	1,546	1,577	1,608	1,640	1,673
Total Operating Revenues	31,998	32,638	33,291	33,956	34,636	35,328	36,035	36,755	37,491	38,240
Interest Earned – Reserves	961	975	867	848	889	871	883	974	1,025	1,060
Total Revenues	32,959	33,612	34,158	34,805	35,524	36,200	36,918	37,730	38,516	39,300
Wastewater Total Expenses										
Operating Expenses										
Salaries & Benefits	5,549	5,715	5,987	6,166	6,451	6,645	6,944	7,152	7,467	7,691
Operating Expenses	4,933	5,031	5,132	5,234	5,339	5,446	5,555	5,666	5,779	5,895
Utilities	2,574	2,651	2,730	2,812	2,897	2,984	3,073	3,165	3,260	3,358
R&M	640	653	666	679	693	707	721	735	750	765
GRCA	844	861	878	896	914	932	950	969	989	1,009
Program Support Costs	3,768	3,844	3,921	3,999	4,079	4,161	4,244	4,329	4,415	4,503
Contaminated Sites	500	500	500	500	500	500	500	500	500	500
Dc Exempt Transfer	721	721	721	721	721	721	721	721	721	721
Total Operating Expenses	19,528	19,976	20,534	21,008	21,593	22,094	22,708	23,238	23,881	24,442
Debt Charges										
Debt Charges – Interest Payments										
Amortization Expense										
Wastewater Assets	6,026	6,182	7,076	7,383	7,612	7,868	8,228	9,057	9,246	9,531
Total Expenses	25,554	26,157	27,610	28,391	29,205	29,962	30,936	32,294	33,128	33,973
Annual Surplus/(Deficit)	7,405	7,455	6,548	6,414	6,319	6,238	5,982	5,435	5,388	5,327

Statement of Cash Flow/Cash Receipts—Wastewater

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Revenues	32,959	33,612	34,158	34,805	35,524	36,200	36,918	37,730	38,516	39,300
Cash Paid For										
Operating Costs	19,528	19,976	20,534	21,008	21,593	22,094	22,708	23,238	23,881	24,442
Debt Repayment – Debt Interest	--	--	--	--	--	--	--	--	--	--
Cash Provided from Operating Transactions	13,431	13,637	13,624	13,797	13,931	14,105	14,210	14,492	14,635	14,858
Capital Transactions										
Acquisition of TCA	6,608	56,077	22,544	13,644	12,712	24,548	62,403	11,715	14,873	13,734
Finance Transactions										
Proceeds from Debt Issues										
Proceeds from DC	1,875	34,329	5,637	1,086	1,847	5,555	54,332	728	2,190	589
Proceeds from Grants & Subsidies										
Debt Repayment – Principal										
Increase/(Decrease) in Cash Equivalents	8,697	(8,111)	(3,284)	1,239	3,066	(4,887)	6,139	3,505	1,951	1,714
Cash and Cash Equivalents at Beginning Balance	50,704	59,401	51,290	48,007	49,245	52,311	47,424	53,562	57,068	59,019
Cash and Cash Equivalents at Ending Balance	59,401	51,290	48,007	49,245	52,311	47,424	53,562	57,068	59,019	60,733

Statement of Financial Position—Wastewater

\$ (000's)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Financial Assets										
Cash	59,401	51,290	48,007	49,245	52,311	47,424	53,562	57,068	59,019	60,733
Liabilities										
Debt – Principal Outstanding										
Net Financial Assets	59,401	51,290	48,007	49,245	52,311	47,424	53,562	57,068	59,019	60,733
Non-Financial Assets										
Tangible Capital Assets	318,336	324,944	381,021	403,565	417,209	429,921	454,469	516,872	528,586	543,459
Additions to Tangible Capital Assets	6,608	56,077	22,544	13,644	12,712	24,548	62,403	11,715	14,873	13,734
Accumulated Amortization	163,716	169,897	176,973	184,356	191,968	199,836	208,064	217,121	226,367	235,898
Total Non-Financial Assets	161,228	211,123	226,591	232,852	237,953	254,633	308,807	311,465	317,092	321,295
Accumulated Surplus	220,629	262,413	274,598	282,098	290,264	302,056	362,370	368,533	376,111	382,028
Cash as a % of Net Fixed Assets	36.8%	24.3%	21.2%	21.1%	22.0%	18.6%	17.3%	18.3%	18.6%	18.9%
Debt as a % of Net Fixed Assets	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%