



CLEARVIEW

The Township of Clearview
Drinking Water and Wastewater System

Rate Report

October 24, 2019



Sharratt Water Management Ltd.
Sustainable Water Management Specialists



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1.0 EXECUTIVE SUMMARY

The Township of Clearview is a municipality with a population of approximately 14,151, according to the 2016 Statistics Canada census, and is situated in Simcoe County. The Township's water system is comprised of six separate communities: Stayner, Creemore, New Lowell, Buckingham Woods, McKean and Colling Woodlands. The system has 2,898 water connections as of December 31, 2018. Approximately 80% of the water connections are in Stayner and Creemore. All water users in Clearview are metered. The wastewater system is comprised of separate systems in Creemore and Stayner with approximated 2,116 connections. About 182 water users are not connected to the wastewater systems in Creemore and Stayner. Users in all water and wastewater systems pay the same water and wastewater rates.

The Township has undertaken this project to prepare water rates, which will ensure that sufficient funds will be in place to cover the future water system operating costs, water and wastewater system life-cycle asset renewal and replacement costs, as well as meeting growth needs. It will also provide the basis for the preparation and submission of a water system financial plan. The preparation of a water system financial plan is one of the statutory requirements for obtaining a renewal of the water system operating license.

This rate project carried out the following tasks:

- 1) Compiled the current and projected operating costs for 2017-2029, and beyond
- 2) Utilized the capital renewal and replacement costs to 2118
- 3) Determined the most likely quantities of water sold, and number of connections
- 4) Developed water and wastewater rates for 2020 to 2029
- 5) Estimated the projected bills of various customers using different quantities of water
- 6) Compared the rates in Clearview with those in other communities

The intent of the project is to develop a sustainable financing plan that will fully meet the current financial needs, as well as making full provision for renewing all water system financial assets. The Township has identified the cost of renewing financial assets for the 2019 to 2118 period, which is about the life of the assets with the longest lifetimes. This means that each year, from 2020-2029, user fees have been set at such a level, that when needed, funds will be available to meet future projected operating, capital renewal and replacement requirements, and growth needs.

The costs of the identified current and long-range capital renewal needs have been combined with the projection of the operating costs needed to produce an overall projection of system cost. Various methods have been utilized to supply the necessary financial resources to pay for this overall cost. These include loans, user fees, and development charges, along with grants, subsidies and connection fees, as well as reserves. User fees are the key component of the financing plan, as they pay down debt and build up reserves, as well as meeting day-to-day operating and smaller capital costs. Rates are projected in this report for 2020-2029. In view of the difficulty of predicting the rate of new development, and in consideration of the substantial impact the anticipated growth could have on future water revenues, it is recommended that rates be monitored annually to determine if projected revenues and expenditures are in line with expectations. If necessary, they should be adjusted, and they should be recalculated at least every five years.

1.1 WATER RATE

Rates are calculated by considering the user fee requirements, and by taking into account future water use and the number of connections. User fees are projected to increase. In Clearview, the projected number of new users will offset some or all of the projected increase in user fees, depending on the amount of new growth. In 2019, the cost of water sold, including operating costs, reserve transfers and capital investment was \$2.23 per cubic metre, with a fixed annual fee of \$168.

The Development Charge Background (DC) Study carried out for the Township in 2019 projects a substantial increase in population. The number of users that this represents is set out in table 5.5. The rates for 2020 to 2029 were developed by assuming that all of the development projected in the DC study will be realized on the schedule set out in the DC study. The proposed 2020-2029 rates are set out in table 1.1.

Table 1.1 Proposed Two Part Clearview Water Rate 2020-29 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fixed Portion per Year	168	178	178	178	177	177	177	177	177	177	177
Variable Portion per M3	2.23	2.40	2.64	2.70	2.77	2.81	2.86	2.89	2.92	2.93	2.96

The proposed rates in table 1.1 represent an increase in 2020 and 2021 over 2019 due to large capital investments. The fixed portion of the rate from 2020 to 2029 essentially stays at \$178 and the variable rate increases from \$2.23 in 2019 to \$2.86 in 2025, and \$2.96 in 2029 for an increase of just over 7 cents per year to 2029 or an average of just under 3% per year. Hypothetical water bills associated with these rates are set out in table 1.2.

Table 1.2 Projected Yearly Water Bills with the proposed Rates 2019-25 Inflated \$

Hypothetical User	2019	2020	2021	2022	2023	2024	2025
Single Person with 70 M3/Year	324	346	362	367	371	373	377
Couple with 125 M3 per Year	447	478	508	515	523	528	534
Family 300 M3 per Year	837	898	969	987	1,008	1,020	1,034
Average User (use declines over time)	822	870	922	963	929	921	923
User with 195,870 M3/Year	436,959	470,283	516,918	528,639	542,551	550,707	559,489

1.2 WASTEWATER RATE

Wastewater rates are calculated by considering the user fee requirements, and by taking into account future water use and the number of connections. User fees are projected to increase. In Clearview, the anticipated growth in the projected number of new users will offset some of the projected increase in user fees. Wastewater rates are proposed to be surcharged to the water rates. The proposed surcharges for 2020 to 2029 are shown in table 1.3.



Table 1.3 Proposed Clearview Wastewater Surcharge 2019-29 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Wastewater Surcharge	79.0%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%

The proposed wastewater surcharges depend very much on the level of future growth. The DC Study projections were used in this study. If growth is less than projected in the DC study, then the surcharge will need to be increased over the longer term. The projected wastewater bills are shown in table 1.4.

Table 1.4 Projected Clearview Yearly Wastewater Bills 2019-29 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Single Person with 70 M3/Year	256	269	276	290	304	322	342	364	367	371	376
Couple with 125 M3 per Year	353	372	386	407	429	455	484	516	521	528	535
Family 300 M3 per Year	661	698	737	780	827	880	937	1,001	1,013	1,026	1,042
Average User (decreases over time)	649	675	702	760	763	794	837	879	876	875	874
User with 36,500 M3/Year	56,103	70,285	75,184	76,046	85,472	92,891	99,865	108,415	111,488	114,766	117,013

The wastewater bills increase over time due the need for capital renewal, upgrading and new development proposed for the next few years.



2.0 THE TOWNSHIP OF CLEARVIEW RATE DEVELOPMENT PROJECT

2.1 PROJECT PURPOSE

The Township intends to develop full cost life-cycle water rates for the water system in Clearview. This report projects life cycle water system capital replacement costs to 2118, and develops a financing plan for the water system to provide funding for renewal and replacement needs to 2119, as well as financing for the day-to-day operation of the system. The plan was created by setting out a projection of all revenues, relevant operating costs, needed reserve set-asides and debt to fund operating and capital replacement to 2118. Projections of water sold, and the number of connections are a key part of the analysis. This information serves as the basis for setting simple, smooth and fair water rates, based on current practice across Ontario, as well as conforming to MOE financial planning guidelines. This report projects the water bills of typical customers associated with the proposed future water rates. All water users pay the same rates. Finally, the report compares the water bills of a number of communities with those for Clearview.

2.2 LEGISLATIVE CONTEXT FOR THE PREPARATION OF THIS RATE REPORT

There have been a number of legislative initiatives affecting water system management and operations over the past decade. These commenced with the water borne illness tragedy in Walkerton in 2000. Following this event, the government established a public inquiry to look into the tragedy, chaired by the Honourable Dennis O'Connor. The Connor Inquiry report recommended a comprehensive approach to the delivery of safe drinking water in Ontario.

The Ministry of Environment (MOE) has responded to the Inquiry recommendations by making legislative changes. One having relevance to the development of rates and financial plans was the passage of the Safe Drinking Water Act, 2002 (SDWA). It requires owners of municipal drinking water systems to apply for and obtain a Municipal Drinking Water Licence. Five elements must be in place in order for the owner of a drinking water system to obtain a licence:

- A Drinking Water Works Permit to establish or alter a drinking-water system;
- 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).
- An Accredited Operating Authority. A third party audit of an operating authority's QMS will be the basis for accreditation.
- A Permit to Take Water.
- 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. Up to date rates are a key part Financial Plan foundation. The preparation of rates is the main purpose of this project. The Financial Plan will be presented in a separate document.

Under section 30 of the SDWA, the Financial Plans element of the licence program must either be prepared in accordance with the Sustainable Water and Sewage System Act, 2002 (SWSSA) or in accordance with the requirements set by the Minister of the Environment. SWSSA regulations were not published for ten years and accordingly SWSSA act is no longer in force and has lapsed. Accordingly, the requirements set by the Minister of Environment apply and these are the 2007 MOE Regulation 453/07 and MOE guidelines.

Regulation 453/07 of the Safe Drinking Water Act 2002 was passed in 2007, and contains two key provisions that apply to existing water systems:

- *“A person who makes an application under the Act for a municipal drinking water licence shall, before making the application, prepare and approve Financial Plans for the system that satisfy the requirements of Reg. 453/07.”*
- *“As a condition in a municipal drinking water licence that is issued in response to an application made under section 33 of the Act for a municipal drinking water licence, the Director shall include a requirement that the owner of the drinking water system, by the later of July 1, 2010 and the date that is six months after the date the first licence for the system is issued, prepare and approve Financial Plans for the system that satisfy the requirements prescribed Reg. 453/07.”*

The review of capital and replacement needs and the preparation of fully sustainable rates is the foundation for the financial plans. In August 2007, the MOE published “Toward Financially Sustainable Drinking-Water and Wastewater Systems”. This document provides an outline of the Province’s approach and principles for developing the above-mentioned Financial Plans, including the rates. Achieving financial sustainability in the province’s municipal and water and wastewater sector is the long-term goal.

The above MOE publication set out nine principles to guide the preparation of Financial Plans and by implication, water rates:

1. Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate. The owner of the drinking water system must make the Financial Plan available, on request, to members of the public who are served by the drinking water system without charge, publish them on the internet, if one is available, and provide notice to the public of the availability of the document.
2. An integrated approach to planning among water, wastewater and storm water systems is desirable given the inherent relationship among these services. If one entity plans for both water and wastewater, then this arrangement allows owners and operators to make more rational decisions about operations, capital investment and environmental protection – choices that recognize the inter-relationship between water and wastewater services. Many municipalities, where water users are metered, pay for the costs of wastewater services by levying a surcharge on water rates. This is a valuable linkage, as those who use water will generate equivalent amounts of water. However, the guideline encourages municipalities to structure their accounts to reflect the three separate activity areas: water, wastewater and storm water. Costs are to be computed on a service basis for water, and separately for wastewater. Separating fire protection costs from other system costs is desirable. Recovering costs for storm water through a surcharge on water bills does not satisfy the user pay principle.
3. Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services. This can be done by establishing dedicated reserves, in which excess utility revenues above current cash costs and capital expenditures are saved for future utility needs.
4. Financial planning with midcourse corrections is preferable to planning over the short term, or not planning at all. It is recommended that utilities, when they undertake capital



investment planning, adopt a planning horizon that encompasses the entire life cycle of the asset base. This may not be immediately possible, but in the interim, a planning horizon of at minimum 35 years is desirable.

5. An asset management planning approach is a key input to the development of a financial plan. A very useful starting assumption, in preparing capital investment plans is that each asset will need to be replaced at the end of the estimated life that is assigned to it for accounting purposes. The intent of an asset management plan, the rates and accompanying financial plan is to ensure that when assets need to be maintained, rehabilitated or replaced; municipalities are in a financial position to do so.
6. A sustainable level of revenue allows for reliable service that meets or exceeds environmental standards, while providing sufficient resources for future rehabilitation and replacement needs. A sustainable utility is one that can adequately cover current operating costs, maintain and repair its existing asset base, replace assets when appropriate, fund future growth and service enhancements, and account for inflation and changes in technology. Capital expenditures can be funded through user fees, new debt issuance and cash reserves. The use of debt is limited by the municipality's debt ceiling. Many municipalities wish to avoid the use of debt and, accordingly, need to raise additional revenues from ratepayers today to pay for future investment needs. According to the guidelines, it is a good practice for the funding plan to identify the contribution of various funding sources towards satisfying capital investment plan requirements over the projection periods. A related best practice is for the funding plan to include projected balances for debt and cash reserves in each period of the projection horizon. Additional best practices include:
 - Avoiding large fluctuations in rates from year to year
 - Keeping debt within a sustainable level
 - Avoiding depleting cash reserves or, conversely, building up large cash balances that do not reflect future cash needs
7. Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services rendered. Rate structures should promote financial sustainability and water conservation. Metering and the use of rates are preferable to cross subsidization using property taxes.
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. From time to time, it is good practice to review the accuracy of projections in both capital investment and funding plans. The appropriate frequency is likely to be once in 3 to 5 years.
9. Financial Plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

In summary, this rate report has been prepared in line with the various pieces of MOE legislation and regulations and in particular, with the above mentioned MOE guideline document.



3.0 WATER SERVICE FINANCING OPTIONS

Municipalities have a number of alternatives available to fund water and wastewater services:

Development Charges - Such charges are applied to developers and others connecting new non-serviced areas or lots to the existing water systems. Most of the growth related costs of building additions to the system are generally passed on to these developers or new customers. Existing users may have to pay some costs of accommodating new growth, as part of these new developments have features that benefit existing users, but are spared the bulk of the capital cost of expanding infrastructure to accommodate new users to the system. The Township, in 2019, commissioned a development charge study in accordance with the development charges act (DC). This report will use the growth numbers and the funding allocations between existing and new users set out in the 2019 report. Development charge funds are placed in a dedicated reserve fund and used to fund growth-related projects, including new wells, reservoir expansions, new plant components and pipe oversizing.

Connection Charges - Fees are charged to landowners who wish to connect to the system. The fee covers the cost to the water utility associated with installing a service line from the existing water main or large sewer to the edge of the property line. Connection fees are assessed.

Government Grants - The Ontario and Federal governments provide funding on a shared basis with municipalities. The formula is one-third Federal government, one third Provincial government and one third municipal funding. Capital grants have been received to financially assist in projects to accommodate growth. No additional grants are assumed for the water projects set out in this study. Should grants be received in future, they will be applied to the approved projects.

Reserves - Reserves are quantities of funds, drawn from user fees, and set aside to deal with unexpected equipment repairs, and to renew ageing water systems. Increasingly, municipalities are carrying out studies to look out 30 to 100 years to identify capital renewal or replacement projects that need to be sustainably funded, in large part, by reserves. The Township, as of December 31, 2018, has a combined water system reserve surplus of \$1,322,588 and the wastewater system has a deficit of \$382,223. Reserves will need to be replenished in the future and be used to fund future water capital renewal projects. Funds are set aside from the water and wastewater operating plans to sustain these funding needs.

Debentures/Loans – In many Ontario water systems, money has traditionally been borrowed in the form of debentures to provide upgrades to service existing users. Utilizing debentures and loans allows principal and interest to be recovered over a long time, spread over a large number of future water users, rather than having the full cost burden fall on one group of water users at one time. The water and wastewater systems each have outstanding loans at this time and more debt is projected in the near future.

User Fees – Smaller, recurring capital maintenance and renewal projects are often financed out of the annual operating funds of the water system. User fees also contribute to the reserves and cover all the costs not covered by other financing approaches.

Most water systems use some or all of the above means. In this project, revenue generation will rely upon user fees, development charges, connection fees, loans and reserves derived from user fees.

4.0 WATER RATE TYPES

There are a number of rate types that are in use in Ontario. These are as follows:

Flat Rate - All users are assessed an annual fee that does not depend on the amount of water used. This approach, by necessity, is utilized when users are not metered. All Clearview users are metered and no flat rates are assessed.

Decreasing Block - Users pay less per cubic metre as water use exceeds a certain pre-set amount. This rate provides an economic advantage to large industrial or institutional water users. The Township, does not utilize a decreasing block. All Township water system users pay the same volumetric charge.

Increasing Block - Users pay more per cubic metre as water use increases beyond a pre-set amount. This is sometimes called the conservation rate, as it was designed to encourage large users to be more careful with their water use. The Township charges all users the same amount per cubic metre and does not use the increasing block method.

Two-part Constant Unit - The user pays a fixed fee that covers a small amount of the total water costs, usually metering and billing costs, plus the same charge for all users for each and every cubic metre of water used. The Township currently utilizes this rate type and it is recommended that this be continued in the future.

Seasonal Rate – Higher rates in the summer are applied to those who take more water in summer than in winter. This is often used when the system is closest to capacity. This is not utilized by the Township, and is not proposed at this time.

Flat rates are commonly utilized in about a tenth of Ontario municipalities that are not metered, and in communities that are only partially metered. Decreasing block rates were formerly very popular, as they provided some relief for large users. However, the popularity of this rate type is declining. The management of a system that is reaching capacity, and will face expensive expansion, often employs increasing block rates. The two-part constant unit rate is now the most commonly used rate type. It is recommended that the Township continue with the two-part constant unit rate for setting 2020 and future rates. The current rate is set out in table 4.1.

4.1 CLEARVIEW 2019 WATER RATE

Table 4.1 Clearview 2019 Water and Wastewater Rates \$

Fixed Meter Charge per Year	\$168.00
Volumetric Rate per Cubic Metre (220 gallons)	\$2.23
Stayner Sewer Surcharge on the Total Water Bill	79.50%

The water bill for someone using 200 cubic metres of water per year would be \$168 plus 200 multiplied by \$2.23 (\$446) for a total water bill of \$614. The wastewater bill would be the total water bill of \$614 multiplied by 79.5% or \$488.13.

5.0 PROPOSED WATER SYSTEM RATES FOR 2020-2029

5.1 WATER SYSTEM RATE SETTING ASSUMPTIONS

The water rate setting process in this report begins by establishing a financing plan for 2017-2118, that also will provide full funding for all renewal and replacement to 2118. This plan contains information about various system attributes, such as future revenue sources, the projected day-to-day expenditures needed to operate the system, estimated future capital projects to provide for system asset renewal and replacement, growth needs, reserves and debt. Water sold and the number of connections are projected. Several assumptions have been made:

- | | |
|--------------------------------------|---|
| • Inflation (operating) | Most at 2-3.0% per annum 2019-2118 |
| • Inflation (capital) | 3.0% per annum 2020-2118 |
| • Interest on investments | 1.5% |
| • New Loan-Debt interest/Loan period | 3.0% for a 20 year term |
| • New connections | Based on the 2019 DC Study |
| • Water main life expectancy | 105 years for most and longer for cast iron |

5.2 CAPITAL RENEWAL EXPENDITURES NEEDED

Projecting future capital renewal and replacement expenditures is a very important step in developing sustainable rates. In this project, the Township's asset database prepared by R.J. Burnside and Associates in 2005, and updated by Township staff since then, was a starting point. This database sets out the initial costs of an asset, when the asset was installed, and set the cost of each asset to 2005 costs. Based on the life expectancies of each asset, a future renewal and replacement schedule was developed for 2019-2118. For example, an asset installed in 1994, with a 30-year life, is scheduled for replacement in 2024. The 2005 values were inflated to 2024 replacement costs, the year when the asset is scheduled for replacement. Water mains, with a 105-year life, installed in 1994 will be replaced in 2099, with 2005 values inflated to 2099 costs. This approach was used for all assets out to 2118. The detailed capital costs for 2019-29 are set out in appendix G. The projected asset replacement schedule, and their future costs for 2019 to 2118, as well as growth projected investment, are summarized in figure 5.1.

The Township is also anticipated to experience very substantial growth over the next twenty years. This anticipated growth is documented in the DC study carried out for the Township in 2019. This is set out in table 5.1. The user fee supported growth costs are set out in figure 2:

Figure 1 Future Costs of Water Asset Renewal and Replacement 2019-2118 Inflated \$

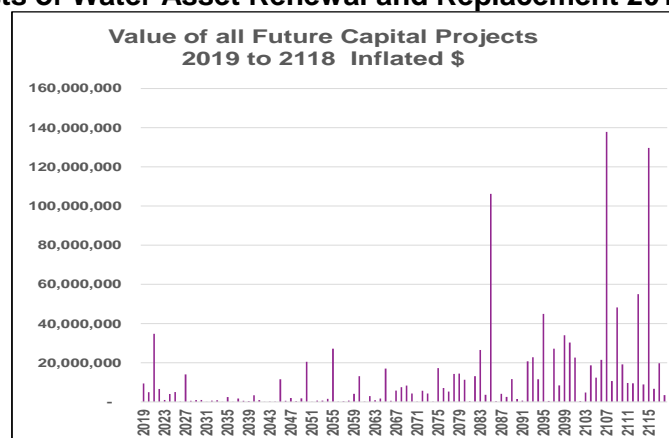


Table 5.1 Clearview Water System Capital Expenditures and Sources of Financing 2019-2029 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Capital Renewal and Replacement for Assets reaching the end of their useful lives											
Water Plant Capital Future \$	-	-	-	-	-	-	-	-	-	-	-
Water Line Capital Future \$	-	-	-	-	-	-	-	-	-	-	-
Projected Capital Renewal	111,252	454,746	116,092	125,417	222,931	1,199,999	5,053,946	175,257	683,042	566,869	923,807
Financing											
Grants	-	49,635	-	-	-	-	-	-	-	-	-
Loan	-	-	-	-	-	-	2,500,000	-	-	-	-
User Fees	111,252	405,112	116,092	125,417	222,931	1,199,999	2,553,946	175,257	683,042	566,869	923,807
Sub-Total Renewal Financing	111,252	454,746	116,092	125,417	222,931	1,199,999	5,053,946	175,257	683,042	566,869	923,807
Capital Investments for Growth Supported Largely by Non-User Fee Revenue Sources to 2029 as per the 2019 DC Study											
Projected Growth Expenditures	9,289,485	4,511,194	34,655,147	6,449,493	757,467	2,841,381	-	-	13,350,110	-	-
Financing (As per the 2014 and 2019 DC Studies)											
Grants, Subsidies etc	-	-	-	-	-	-	-	-	-	-	-
Development Charges	6,422,937	2,057,039	34,438,724	4,346,595	757,467	645,484	-	-	13,350,110	0	0
Grants, Subsidies local Impr	1,902,000	1,945,001	-	1,737,108	-	1,896,804	-	-	-	-	-
User Fees	964,549	509,155	216,424	365,790	0	299,093	-	-	-	-	-
Sub Total Projected Financing	9,289,485	4,511,194	34,655,147	6,449,493	757,467	2,841,381	-	-	-	-	-
Capital Summary											
Total User Fee Funding	1,075,801	914,266	332,516	491,207	222,931	1,499,092	2,553,946	175,257	683,042	566,869	923,807
Total Development Charges	6,422,937	2,057,039	34,438,724	4,346,595	757,467	645,484	-	-	13,350,110	-	-
Other Revenues	1,902,000	1,994,635	-	1,737,108	-	1,896,804	-	-	-	-	-
Loan	-	-	-	-	-	-	2,500,000	-	-	-	-
Total Revenues	9,400,737	4,965,940	34,771,239	6,574,910	980,398	4,041,380	5,053,946	175,257	14,033,152	566,869	923,807
Total Capital Cost Inflated \$	9,400,737	4,965,940	34,771,239	6,574,910	980,398	4,041,380	5,053,946	175,257	14,033,152	566,869	923,807
Net	-	-	-	-	-	-	-	-	-	-	-

Figure 2 Projection of Capital and User Fee Financed Capital Projects 2019-2050 Inflated \$

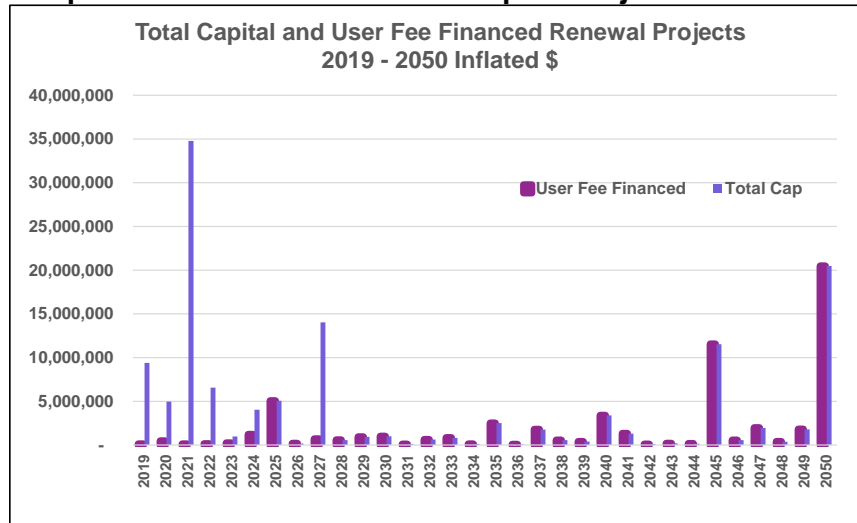


Figure 2 provides a medium-term perspective on capital needs. It is clear that there is substantial capital spending projected for 2019 to 2027, largely due to new development, with a major water main replacement scheduled for 2025. The exact timing of this replacement will depend upon an engineering assessment of their condition. The increases in the 2040s and 2050s are due to water main replacement in Creemore, and major main replacement in Stayner, as well as replacement of a well and pumping station. There are very substantial capital needs in the latter part of the century, as buildings and underground assets are projected to have reached the end of their life, and need replacing.

The capital investment needed for ongoing capital replacement and renewal needs represents a substantial cost pressure on rates over many years, however, the increase in projected numbers of new users will help offset some of these cost pressures. The financing plan is designed to finance all of these and other projected renewals to 2118. Not included are capital expenditures needed to comply with new regulations that may be implemented in the future.

5.3 SUMMARY OPERATING PLAN

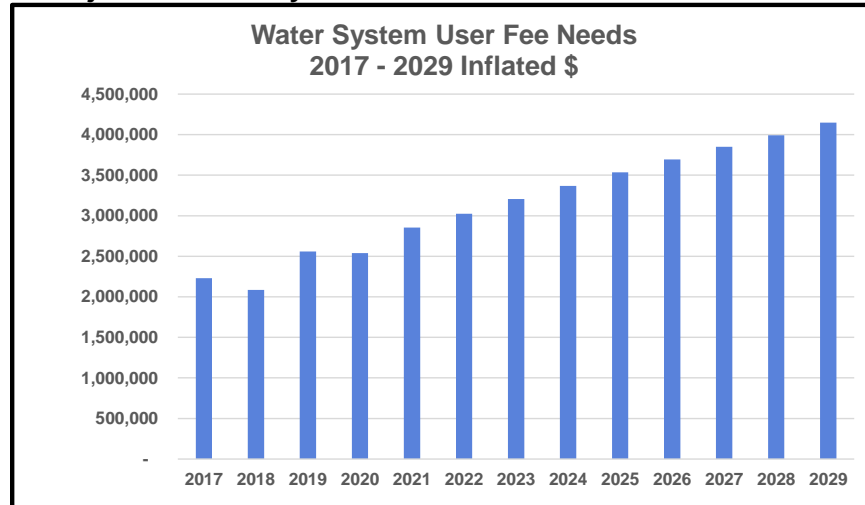
The summary operating financial plan for the water system sets out the revenues and expenditures, and summarizes the financing strategy for the water system. The objective, adopted in this study, is to use user fees as much as possible to finance projected asset renewal expenditures, with loans used to finance major projects in the near term. The summarized operating financial transactions for 2017 to 2029 are shown in table 5.2. Detailed transactions setting out various revenue sources, routine day-to-day expenses, transfers and debt repayment are shown in appendix A.

5.3.1 User Fee Requirements

Revenues are comprised primarily of revenues from user fees, development charges, and to a lesser degree, from hook-up fees and late payment charges on overdue accounts. Contributions from the capital reserve augment revenues in particular years, when large capital expenditures occur. The projected user fee revenue needs are set out in line 1 of table 5.2, and are illustrated graphically in Figure 3 below:



Figure 3 Projected Water System User Fee Needs 2017-29 Inflated \$

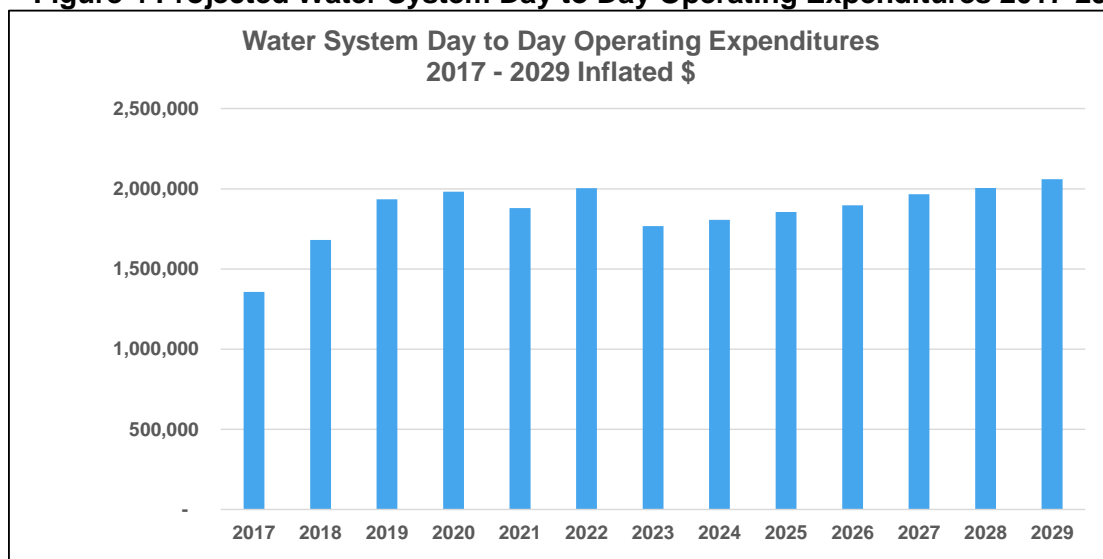


User fees are projected to increase on a yearly average of 5-6% per year from 2019 to 2029, and about 3.2% per year beyond to 2118. Included in the user fee increase is provision for the inflation of operating costs of 2 to 3% per year, and inflation of currently projected capital costs of 3% per year. The proposed schedule of user fee increases funds all routine projected operating costs, and provides sufficient revenue, coupled with timely borrowings, to cover the currently projected capital asset renewal and replacement needs, as well as the user fee portion of growth expenditures to 2027.

5.3.2 Operating Expenses

Operating expenditures represent the routine day-to-day costs of operating the system, and include electrical, chemical, testing and a variety of other costs, including the cost of purchased water. Excluded, for purposes of this analysis, are debt payments, consulting costs, and transfers to capital or reserves. Projected day-to-day operating expenditures are summarized in line 3 in table 5.2, and are illustrated in figure 4.

Figure 4 Projected Water System Day to Day Operating Expenditures 2017-29 Inflated \$



Fluctuations in expenditures are normal. Day-to-day operating costs are projected to increase overall at the rate of inflation to 2029. Year to year fluctuations in 2018-22 are due to one time consultant studies that are partially or fully offset with development charges.

5.3.3 Debt

The water system has three outstanding loans at this time. One is a \$3 million 20-year loan taken out for Stayner water in 2006, with an outstanding principal of \$1.46 million as of December 31, 2018. This loan is 55% recovered through development charges. The second is a Creemore water loan for \$800,000 taken out in 2009 for 20 years, with a balance outstanding of \$520,094 as of December 31, 2018. This loan is 80% recoverable through development charges. A third Stayner loan for \$1.15 million was taken out in 2017 and it had a balance outstanding of \$1.1 million as of December 31, 2018.

New debt is projected for 2025 in order to supply funds to renew assets. It is projected that a \$2.5 million loan will be needed at that time. This will pay for part of the cost of capital upgrades to key water mains needed to accommodate growth and renew infrastructure. No further long-term debt is projected. All debt will be paid off in 2044. Utilizing long-term loans is a sound strategy, as the benefits of the capital renewal will last many years, and it is appropriate that the cost be spread over both current and future users.

5.3.4 Reserves

The operating reserve as of December 31, 2018 had a surplus of \$2,892,942. The capital reserve, as of mid-December 2018, was in a deficit of \$1,570,354. Both reserves are combined for purposes of this study, resulting in a surplus of \$1,322,587. This reserve, as shown in table 5.3, coupled with a loan in 2025, if the water mains need replacing, will meet foreseeable capital needs. The full reserve statement to 2118 is shown in appendix E.

Table 5.2 Clearview Summary Water System Financial Plan 2017-2029 Actual \$ 2017-18 and Inflated \$ 2020-29

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operational														
1	User Fees	- 2,229,590	- 2,083,870	- 2,558,000	- 2,540,444	- 2,853,600	- 3,024,816	- 3,206,305	- 3,366,620	- 3,534,951	- 3,694,024	- 3,849,173	- 3,991,592	- 4,147,265
2	Total Revenues	- 2,410,154	- 2,583,157	- 2,913,826	- 2,981,504	- 3,177,773	- 3,458,095	- 3,549,227	- 3,728,373	- 3,898,504	- 3,977,829	- 4,091,224	- 4,250,999	- 4,401,577
3	Day to Day Expenses	1,357,150	1,680,998	1,934,380	1,982,362	1,880,571	2,003,422	1,768,255	1,806,771	1,855,168	1,897,787	1,966,809	2,005,777	2,059,231
4	Debt Charges	298,140	377,329	377,328	377,328	377,328	377,328	377,328	377,328	545,368	428,461	311,553	311,553	279,037
5	Transfer to Capital Reserves	754,015	366,968	602,118	621,814	919,874	1,077,345	1,403,644	1,544,274	1,497,969	1,651,581	1,812,862	1,933,669	2,063,309
6	Total Expenses	2,409,305	2,425,295	2,913,826	2,981,504	3,177,773	3,458,095	3,549,227	3,728,373	3,898,504	3,977,829	4,091,224	4,250,999	4,401,577
7	Net	- 849	- 157,863	-	-	-	-	-	-	-	-	-	-	-

Table 5.3 Clearview Water System Combined Reserve 2019-2029 in Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Value	1,322,588	848,905	556,453	1,143,811	1,729,949	2,910,662	2,955,844	1,899,867	3,376,192	4,506,011	5,872,811
Addition (Withdrawal) from (to) Ops	602,118	621,814	919,874	1,077,345	1,403,644	1,544,274	1,497,969	1,651,581	1,812,862	1,933,669	2,063,309
Transfer (to) from Capital	(1,075,801)	(914,266)	(332,516)	(491,207)	(222,931)	(1,499,092)	(2,553,946)	(175,257)	(683,042)	(566,869)	(923,807)
Close	848,905	556,453	1,143,811	1,729,949	2,910,662	2,955,844	1,899,867	3,376,192	4,506,011	5,872,811	7,012,313
Close in 2019\$	848,905	540,245	1,078,152	1,583,148	2,586,086	2,549,737	1,591,109	2,745,153	\$ 3,557,087	\$ 4,501,021	\$ 5,217,820

Table 5.4 Past and Projected Water Sales in the Clearview Water System 2016-29

User Class	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Existing Users on System Pre-2019														
Total Sold to Users (cubic metres) M3	801,614	795,652	793,053	792,023	787,320	782,664	778,055	773,492	768,975	764,503	760,075	755,692	751,352	747,056
Large Industrial Usage (M3)	211,140	262,722	224,920	232,927	232,927	232,927	232,927	232,927	232,927	232,927	232,927	232,927	232,927	232,927
Institutional/Commercial/Industrial (ICI) Use	89,753	88,819	87,895	88,822	88,822	88,822	88,822	88,822	88,822	88,822	88,822	88,822	88,822	88,822
Use by Pre-2019 Residential Users	500,721	444,111	480,238	470,273	465,571	460,915	456,306	451,743	447,225	442,753	438,325	433,942	429,603	425,307
New Users Added Post 2018														
Number of New Residential Customers	NA	NA	NA	236	236	236	236	236	236	236	236	236	236	236
Annual Increase in Usage	NA	NA	NA	33,595	33,595	33,595	33,595	33,595	33,595	33,595	33,595	33,595	33,595	33,595
Cumulative Post 2018 Usage by New Reside	NA	NA	NA	33,595	67,189	100,784	134,378	167,973	201,568	235,162	268,757	302,351	335,946	369,541
Grand Total System Usage in M3	801,614	795,652	793,053	825,617	854,509	883,448	912,434	941,465	970,542	999,665	1,028,832	1,058,043	1,087,298	1,116,597

5.4 TOWNSHIP WATER SALES/CONNECTIONS

5.4.1 Water Sales 2016-2029

Water sold is water that a user had paid for. The actual sales from 2016-2018, and projected sales from 2019 to 2029 are set out in table 5.4 (above):

The water sold data are based on Clearview billing summaries for 2016 - 2018. The use by large industrial users has remained relatively constant, with some year-to-year fluctuations. The usage for the past three years has been averaged to yield a projection of future water use. Large industrial use accounts for about 30%, and smaller industrial, commercial and institutional use account for about 10% of the amount of water sold. The balance is residential usage. The very large users have no doubt adopted some water conservation measures already, based on previous years water use trends. There is a low probability that these users may take additional steps to further improve their water efficiency over the next decade.

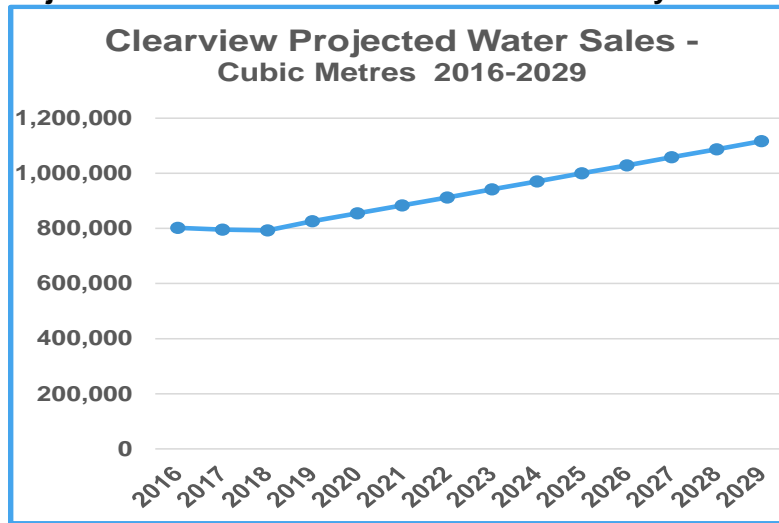
From 2019 to 2029, the rate setting time period, total water sold to existing residential and smaller industrial commercial and institutional (ICI) users is projected to decline modestly due to conservation. This is a result of provincial plumbing regulations, enacted in 1991, requiring installation of water efficient fixtures (toilets, showers and faucets) in all new connections, and the restrictions on the sale of toilets that use more than 6 litres per flush. In addition, people carrying out renovations will replace currently inefficient fixtures with more water efficient ones. Highly efficient front-load washing machines are now very popular with homeowners. An annual improvement in water use efficiency of 1% per annum is assumed in all connections, meaning a decline in water sold of about 1%. According to the 2019 DCA study, there will be some growth in ICI users over the next ten years. In the water use projection above, the ICI is shown as constant, based on an assumption that the water use of post 2018 growth will offset the decline in the numbers of ICI users normally expected, as well as the reduced water use of pre-2019 ICI due to efficiency improvements.

The big change in the next ten years is the major projected large increase in the number of new residential units. The increase shown in table 5.4 is based on the average for the next ten years of the number of new units projected in the 2019 DC study. New residential users added to the system post 2018 will be using water efficient fixtures required by the changes to the plumbing code. They will use significantly less per person per day than those using older model fixtures and fittings. The water use per person of the new users is estimated at 150 litres per person per day. This assumption is included in the estimates above. New users, as a group, even though they have more efficient fixtures than existing users, will add significantly to overall water sales by the Township.

This growth in projected water use helps reduce the growth in water rates. The actual water use for 2016-18, and the projected water sales to all water users from 2019 to 2029 are set out in figure 5.



Figure 5 Projected Water Sales in the Clearview Water System 2016-29 in M3



5.4.2 Projected Number of Customers

The current number of customers, and the projected customers, are set out in table 5.5. The increase is made up of residential as well as industrial, commercial and institutional (ICI) connections.

Table 5.5 Total Number of Clearview Water System Customers 2016-2029

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Year End	2,841	2,899	2,905	2,934	2,898	3,134	3,370	3,606	3,842	4,078	4,314	4,550	4,786	5,022	5,258	5,494
Annual Addition	NA	58	6	29	-36	236	236	236	236	236	236	236	236	236	236	236
Source; Actual 2014-18 based on Clearview billing records																
Projection 2019-2029 is the average annual number of new units projected for the 2019-29 in the 2019 DCA Study																

The number of connections by 2029, in the 2019 DCA projection, is 85% higher than the number in 2018. This is based on a projected large increase in the number of new residential customers. There will also be a small increase in the number of ICI customers, as well as the loss of some of the pre-2019 customers. This will likely result in a relatively small increase in ICI customers, however no estimate is provided due to the small numbers and generally small levels of water use. The increase in the number of residential customers will help keep rates lower than would be the case otherwise.

5.5 WATER RATE CALCULATIONS

Rates are calculated by considering the user fee revenue requirements, and by taking into account future projected water use and the number of connections. As illustrated in figure 3, user fees are projected to increase. This would normally cause rates to rise substantially. However, the number of new users will help offset some of the projected increase in user fees. For purposes of computing rates for the next ten years, this report will assume that all of the residential units are added to the system according to the schedule set out in the 2019 DC study, and the resulting water usage and numbers of users set out in tables 5.4 and 5.5.

The rates recommended in this study will utilize the two-part rate structure currently in use. One part of this rate is a fixed cost applied to all users regardless of water use. Included in this are the billing costs, including salaries and postage, as well as the cost of renewing meters every 20-30 years or so. The second part is the cost per cubic metre that depends on the amount of water used. The more that is used, the higher the water bill. All costs that are not included in the fixed portion of the rate are included in this rate component. The fixed costs usually generate about 20% of revenues, while the variable charge generates the balance of the revenue.

The proposed rates are set out in table 5.6.

Table 5.6 Clearview Proposed Two-Part Water Rate 2019-2029 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fixed Portion per Year	168	178	178	178	177	177	177	177	177	177	177
Variable Portion per M3	2.23	2.40	2.64	2.70	2.77	2.81	2.86	2.89	2.92	2.93	2.96

The proposed rates in table 5.6 represent an increase in 2020 and 2021 over 2019 due to large capital investments. The fixed portion of the rate from 2020 to 2029 essentially stays at \$178 and the variable rate increases from \$2.23 in 2019 to \$2.86 in 2025, and \$2.96 in 2029 for an increase of just over 7 cents per year to 2029 or an average of just under 3% per year for 2019-29.

If the development proposed does not generate the numbers set out in the DCA study, then the rates will have to increase to maintain the needed revenue flow to renew infrastructure.

Clearly, rates and the annual increase in rates is very much related to the number of new users in the future. The revenues generated by the new rates are set out in appendix B.

5.6 SAMPLE MONTHLY WATER BILLS FOR VARIOUS USER GROUPS

A number of hypothetical user groups were selected to determine the impacts of the two proposed rate options. Both options produce the required operating and future capital needs of the system. The water bills with the high and half projection options are set out in table 5.7.

Table 5.7 Annual Projected Water Bills of Various Hypothetical Users 2019-25 Inflated \$

Hypothetical User	2019	2020	2021	2022	2023	2024	2025
Single Person with 70 M3/Year	324	346	362	367	371	373	377
Couple with 125 M3 per Year	447	478	508	515	523	528	534
Family 300 M3 per Year	837	898	969	987	1,008	1,020	1,034
Average User (use declines over	822	870	922	963	929	921	923
User with 195,870 M3/Year	436,959	470,283	516,918	528,639	542,551	550,707	559,489

A user taking 70 cubic metres per year is projected to pay \$346 in 2020, and \$377 by 2025. Someone using 125 cubic metres per year will pay \$478 in 2020, and \$534 in 2025. A user of 300 cubic metres per year will pay a water bill of \$898 in 2020, and \$1,034 in 2025. A very large user will pay about \$470,283 per year in 2020, increasing to \$559,489 in 2025. All figures are in inflated dollars.



5.7 WATER BILL COMPARISONS WITH OTHER COMMUNITIES

The projected water bill for Clearview user is compared with water bills for a number of communities in Ontario. The usage for all communities is 293 cubic metres per year, which is the estimated average water usage per connection in Clearview. All users are assumed to have a standard 15mm (5/8 by 3/4") meter. The bill comparisons are set out in table 5.8.

Table 5.8 Water Bills of Communities in Simcoe County or have Small Systems 2019

<u>Utility</u>	<u>Water Bill</u>
Collingwood	\$466
Barrie	\$468
Penetanguishene	\$549
Springwater Residential	\$730
Clearview	\$824
Springwater Commercial	\$869
Kawartha Lakes	\$1,166
Adjala-Tosorontio	\$1,415
Based on Average Usage of 294 M3 per Year	

Clearview's rates are for 2019, and are based on full life-cycle capital renewal of all assets to 2118.

6.0 PROPOSED WASTEWATER SYSTEM RATES FOR 2020-2029

6.1 WASTEWATER RATE SETTING ASSUMPTIONS

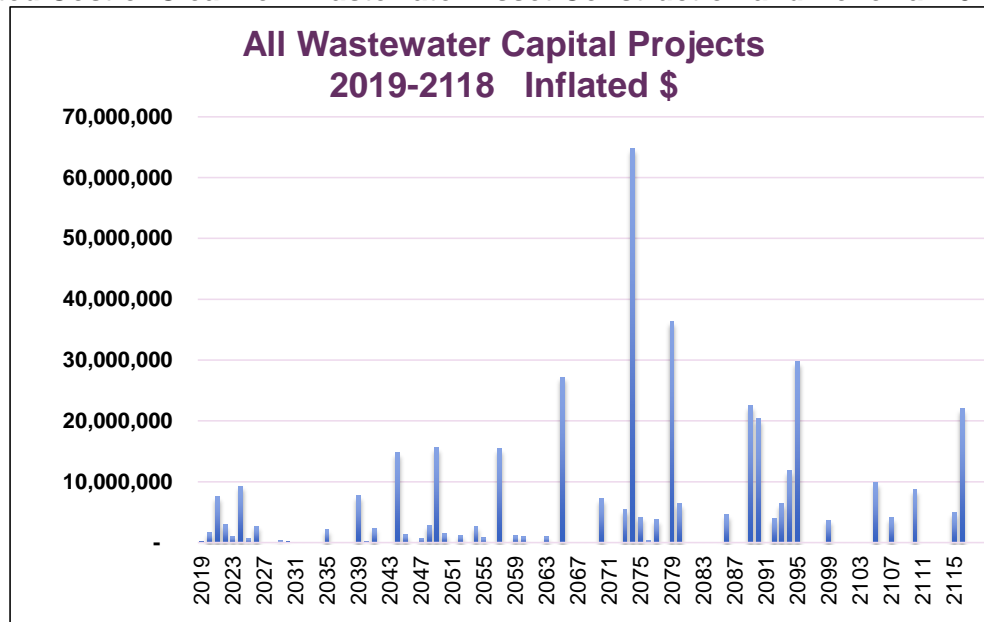
The wastewater rate setting approach begins by establishing a capital and major maintenance-financing plan, as well as an operating plan for 2017-2029. The capital plan is based on the capital needs estimates prepared by Burnside in 2005, and updated by Township staff. They cover the period from 2019 to 2118. The operating plan contains information about various system attributes, such as currently available information concerning various revenue sources, the day-to-day expenditures needed to operate the system, debt-servicing requirements, and existing reserve levels. The capital needs projections include funding for capital investments to renew assets as well as supporting growth. This is combined with the operating plan to produce an overall wastewater capital and operating financing plan, with user-fee revenues and loans adjusted to ensure sustainability. Users in both Creemore and Stayner pay the same wastewater rates. Several assumptions were made in preparing the capital and major maintenance programs as well as the operating plan:

Inflation	capital and major maintenance 3% per Year
operating	1-3%
Interest on reserve balances	1.5%
Interest on post 2018 loans	3.0%
Population growth/new connections	as projected in the DC Background Study 2019

6.2 CAPITAL AND MAJOR MAINTENANCE EXPENDITURES

Projected capital and major maintenance renewals cost estimates were prepared by R.J. Burnside and Associates in 2005, and updated by Township staff since then. Also included are the projects anticipated in the 2019 DC study covering the next five years. The detailed capital costs for 2019-29 are set out in appendix H. The cost of all capital costs for the 2019 to 2118, in inflated dollars, are shown graphically in Figure 6.

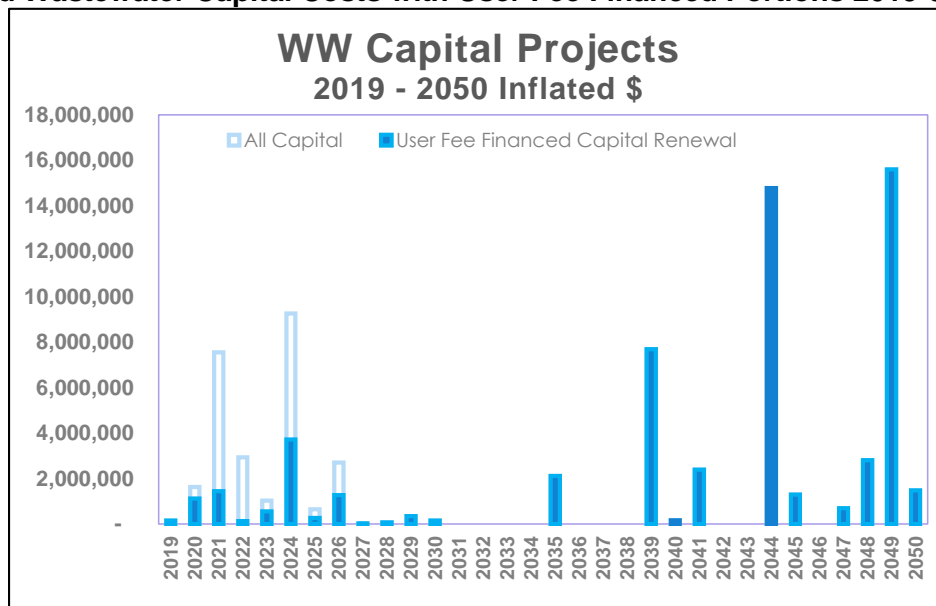
Figure 6 Projected Cost of Clearview Wastewater Asset Construction and Renewal 2019-2118 Inflated \$



The long-term outlook presented in Figure 6 shows some near-term growth investments, and then large expenditures in the 2040s, and then again in the 2064-2079 period, as major existing system components need

to be replaced. The short-term capital needs are set out in Figure 7. This shows the total cost of all projects, including those anticipated from 2019 to 2050 in the DC study in the light shade, and the user fee paid portion in the darker color.

Figure 7 Projected Wastewater Capital Costs with User Fee Financed Portions 2019-50 Inflated \$



The projected major projects in this period include the following:

- 2020 – New sewer main in Stayner, Creemore wastewater treatment upgrade to accommodate growth, and in sewer pipe oversizing in Stayner to accommodate growth
- 2021 - Sludge tank construction in Creemore to accommodate growth, and a force main and pumping station construction in Stayner to accommodate growth
- 2022 - Force main and pumping station construction in Creemore to accommodate growth.
- 2024 - Plant refurbishment in Creemore
- 2039-41 Renew/replace the Zenon treatment package, process control equipment, and replacement of the generator in Creemore
- 2044-49 Stayner sewer replacement

Much of the cost of the above, from 2019-2026, is projected to come from development charges and other fees. User fees are responsible for a relatively small portion of the project costs. This is shown in table 6.1 and figure 7. Table 6.2 shows the revenue and expense flows for capital investments from 2019 to 2029. Growth and development beyond 2027 will be covered in a future DC and rate study scheduled for 2024.

Table 6.1 Clearview Wastewater System Capital Renewal and Construction of New Infrastructure 2019-2029 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Capital Renewal and Replacement Needs											
Total Renewal Investment	145,475	948,671	254,616	127,849	241,984	31,300	265,080	562,052	20,268	70,458	346,730
Financing											
Grants	-	-	-	-	-	-	-	-	-	-	-
User Fees (Reserve)	145,475	232,049	254,616	120,746	241,984	31,300	265,080	562,052	20,268	70,458	346,730
Grants, Subsidies, Dev Fee		716,623		7,103							
Loan		-	-	-	-	-	-	-	-	-	-
Total Financing	145,475	948,671	254,616	127,849	241,984	31,300	265,080	562,052	20,268	70,458	346,730
Capital Growth New Infrastructure Supported Largely by Non-User Fee Revenue Sources to 2029 as per the 2019 DC Study											
Total New Infrastructure Invest.	-	682,581	7,292,733	2,809,838	787,856	9,227,822	377,559	2,140,472	-	-	-
Financing											
Grants, Subsidies etc.	-	-	566,521	2,809,838	-	-	-	-	-	-	-
Development Charges		507,893	5,534,715	-	472,714	5,536,693	377,559	1,427,023	-	-	-
Post Benefit	-	-	-	-	-	-	-	-	-	-	-
Local Improvement Charges	-	-	-	-	-	-	-	-	-	-	-
User Fees (reserve)	-	174,688	1,191,497	-	315,142	3,691,129	-	713,450	-	-	-
Loan	2,700,000					3,900,000					
Total Revenues	2,700,000	682,581	7,292,733	2,809,838	787,856	13,127,822	377,559	2,140,472	-	-	-
Total User Fees Needed from Reserve	145,475	406,737	1,446,113	120,746	557,127	3,722,429	265,080	1,275,502	20,268	70,458	346,730
Total Grants, Subsidies etc.	-	716,623	566,521	2,816,941	-	-	-	-	-	-	-
Total Development Charges	-	507,893	5,534,715	-	472,714	5,536,693	377,559	1,427,023	-	-	-
Total Loans	2,700,000					3,900,000					
Total Revenues	2,845,475	1,631,252	7,547,349	2,937,687	1,029,841	13,159,122	642,639	2,702,525	20,268	70,458	346,730
Total Capital Expenditures	145,475	1,631,252	7,547,349	2,937,687	1,029,841	9,259,122	642,639	2,702,525	20,268	70,458	346,730
Total Revenues Less Expenditures	2,700,000	-	-	-	-	3,900,000	-	-	-	-	-
Less User Fees Needed	145,475	-	-	-	-	3,722,429	-	-	-	-	-
Transfer to Capital Reserve	2,554,525	-	-	-	-	177,571	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-	-	-

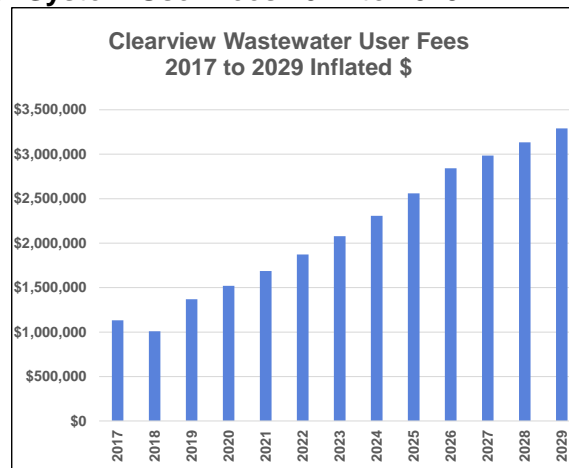
6.3 WASTEWATER OPERATING PLAN

The summary operating financial statement for the wastewater system is set out in table 6.3. The operating fund numbers for 2017-2018 are based on actual year-end values, the figures for 2019 are budgeted, and those for 2020 to 2029 and beyond are based on the trends established in 2017-18, with adjustments for changes in operation, as new system components come on line. All figures for 2020 to 2029 are inflated.

6.3.1 User Fee Requirements

User fee needs projections are set out in line 4 of table 6.2 and are shown in figure 8 below:

Figure 8 Projected Water System User Fees 2017 to 2029

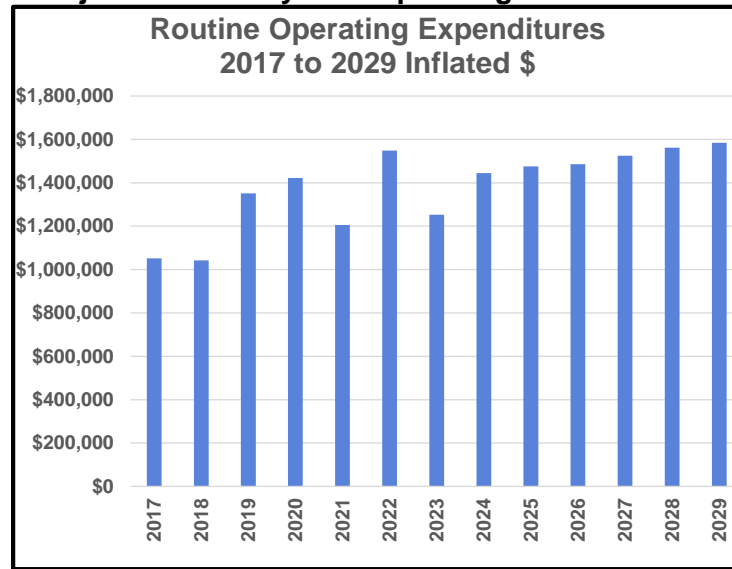


User fee revenues have increased over the past few years and are proposed to increase at 11% until 2026, and then level off at about a 5% increase to 2059. It then increases at 2% per annum until 2118. Short-term increases are needed to offset the projected inflation of 3% per annum, to fund the renewal and replacement of infrastructure that has come to the end of its working life, to cover the user fee financed portion of new growth projects, and to operate the system.

6.3.2 Routine Operating Expenses

Future routine operating expenditures are summarized in table 6.2, and are illustrated in figure 9:

Figure 9 Projected Water System Operating Costs to 2029 Inflated \$



Operating costs are projected to increase with inflation, with additional costs needed to operate the expanded system, from 2020 to 2029. The increases in 2019, 2020 and 2022 are due to development charge funded consulting studies needed to plan the infrastructure required to accommodate growth. Otherwise the increase is uniform and is due to inflation.

6.3.3 Debt

As of December 31, 2018, there are seven loans outstanding:

2001 Creemore sewage system loan with a principal of \$533,700. This will be paid off in 2021.

2011 Creemore aeration loan with a principal of \$267,287. This will be paid off in 2020

2015 Echo Park sewer loan with a principal of \$2,316. This will be paid off in 2019

2016 Mowat servicing loan with a principal of \$48,592. This will be paid off in 2035

2017 Stayner servicing loan with a principal of \$1,379,401. This will be paid off in 2036.

Two energy efficiency loans with a combined principal of \$561,000. These will be paid off in 2036.

One new loan is projected for late 2019. A \$2.7 million loan is projected that will clear the current capital deficit and finance impending capital renewal and the benefit to existing user portion of new developments to the end of 2023. It is proposed to have an interest rate of 3.0%, and all have 15-year term. The long-term loan has been chosen to assist in spreading these one-time costs over a large group of future users. A second loan of \$3.9 million at 3% over 15 years is proposed for late 2024 to cover the estimated benefit to existing users of a wastewater plant upgrade. No additional loans are foreseen.

Table 6.2 Water System Operating Financial Statement 2017-29 Inflated \$

[illegible]

6.3.4 Reserves

The combined operating and capital reserve has a deficit of \$382,223 at December 31, 2018. It is proposed that this deficit be covered in the \$2.7 million loan proposed for late 2019, or early 2020. A second loan for \$3.7 million is proposed for 2024. The projected wastewater reserve fund, after provision of the two loans, for the 2019 – 2029 period is shown in table 6.3. The loans mentioned above, plus substantial contributions from user fees, keep the reserve in balance for the next ten years. The reserves are utilized to carry out the renewal and replacement of infrastructure that has reached the end of its life. The reserve is viable beyond 2029 to 2118, provided the rates are increased as proposed herein. This is shown in appendix F. Projecting the longer term with any reliability is challenging due to the very large amount of renewal, upgrading and new development that is currently projected for the next few years in the Township.

Table 6.3 Clearview Wastewater System Capital Reserve 2019-2029 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Value	\$ (382,223)	\$ 2,256,905	\$ 1,979,032	\$ 757,495	\$ 918,685	\$ 972,095	\$ 1,799,045	\$ 2,145,875	\$ 1,759,425	\$ 2,730,204	\$ 3,779,163
Addition (Withdrawal) from (to) Ops	84,603	128,864	224,576	281,936	610,537	649,379	611,910	889,051	991,048	1,119,417	1,273,724
Transfer from (to) Capital	2,554,525	(406,737)	(1,446,113)	(120,746)	(557,127)	177,571	(265,080)	(1,275,502)	(20,268)	(70,458)	(346,730)
Close	2,256,905	1,979,032	757,495	918,685	972,095	1,799,045	2,145,875	1,759,425	2,730,204	3,779,163	4,706,157
Close in 2019\$	2,256,905	1,921,390	714,012	840,727	863,694	1,551,872	1,797,137	1,430,573	2,155,248	2,896,414	3,501,823

6.4 WASTEWATER RATE CALCULATIONS

The Township recovers its wastewater costs through a surcharge on water bills. Computing this surcharge requires that a calculation be made of the water used only by those connected to the wastewater system. This excludes the water taken by users living outside Stayner and Creemore, the water used by 182 water users not connected to the wastewater system, and a large industrial user that pays wastewater charges on about 20% of the water used. The methodology for the calculation of the rates is shown in appendix C. The summary results of this calculation is shown in table 6.4. The 2020 surcharge on the water bill is proposed to be 78%. The other years are shown in table 6.4:

Table 6.4 Clearview Proposed Wastewater Surcharge on Water Bills 2019-29 in %

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Wastewater Surcharge	79.0%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%

The revenues generated by the above surcharge are shown in appendix D.

6.5 WASTEWATER BILLS FOR SELECTED CUSTOMERS

Sample wastewater bills have been prepared for various hypothetical user groups. This shows the impact on wastewater bills. The bills are set out in table 6.5:

Table 6.5 Wastewater System Hypothetical Annual Wastewater Bills 2019-29 Inflated \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Single Person with 70 M3/Year	256	269	276	290	304	322	342	364	367	371	376
Couple with 125 M3 per Year	353	372	386	407	429	455	484	516	521	528	535
Family 300 M3 per Year	661	698	737	780	827	880	937	1,001	1,013	1,026	1,042
Average User (decreases over time)	649	675	702	760	763	794	837	879	876	875	874
User with 36,500 M3/Year	56,103	70,285	75,184	76,046	85,472	92,891	99,865	108,415	111,488	114,766	117,013

A user taking 70 cubic metres per year is projected to pay \$269 in 2020, and \$342 in 2025. Someone using 125 cubic metres per year will pay \$372 in 2020, and \$484 in 2025. A user of 300 cubic metres per year will pay a wastewater bill of \$698 in 2020, and \$937 in 2025. An average user has been included in the table as average use is declining over time. The average user of 293 cubic metres per year in 2020 will pay \$675 in 2020, and \$837 in 2025. The wastewater bills increase due to the renewal and upgrading of wastewater treatment facilities projected in the next few years.

6.6 WASTEWATER BILL COMPARISONS WITH OTHER COMMUNITIES

The projected wastewater water bills for Clearview are compared with bills for a number of communities. The water usage, the basis for a wastewater surcharge, for all communities is 294 cubic metres per year, which is the estimated Clearview average water usage per connection. All users are assumed to have a standard 15mm (5/8 by 3/4") meter. The bill comparisons are set out in table 6.6.

Table 6.6 Comparison of Wastewater Rates with Other Communities 2019

<u>Utility</u>	<u>Wastewater Bill</u>
Wasaga Beach	\$377
Barrie	\$662
Kawartha Lakes	\$784
Clearview	\$651
Penetanguishene	\$688
Collingwood	\$846
Springwater Residential	\$1,036
Springwater Commercial	\$1,133
Adjala-Tosorontio	\$1,330
Based on average use of 294 M3 per Year	

Clearview's rates are based on full life-cycle capital renewal of all assets to 2118.



APPENDICES

APPENDIX A - CLEARVIEW WATER SYSTEM OPERATING PLAN 2017-29 PAGE 1 OF 2 INFLATED \$

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues													
1 Grants Canada	- 1,471												
2 Grants Ontario				12,500									
3 Water Meter Fees - Admin	- 10,050	- 66,629	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000	- 118,000
4 Penalties and Interest	- 28,339	- 24,898	- 14,500	- 14,500	- 14,500	- 14,500	- 15,309	- 16,389	- 17,468	- \$17,817	- \$18,174	- \$18,537	- \$18,908
5 Cost Recovery													
6 Stayner Water Hookup Fees	- 6,304	- 5,000	- 2,000	- 2,000	- 2,000	- \$2,040	- \$2,081	- \$2,122	- \$2,165	- \$2,208	- \$2,252	- \$2,297	- \$2,343
7 Stayner Billing Revenue	- 1,543,569	- 1,411,593	- 1,823,200	- 1,819,464	- 2,053,100								
8 Discounts	813	759											
9 Creemore Water Hookup Fees	-	2,650											
10 Water Meter Fees - Creemore													
11 Creemore Billing Revenue	- 346,588	- 362,205	- 402,100	- 400,252	- 450,500								
12 New Lowell Billing Revenue	- 188,650	- 144,967	- 176,100	- 169,764	- 185,200	-	0.007						
13 New Lowell Hookup Fees	- 4,891	- 2,500											
14 Buckingham Billing Revenue	- 14,677	- 20,018	- 11,900	- 11,468	- 12,600								
15 McKean Billing Revenue	- 86,313	- 98,316	- 102,000	- 98,324	- 107,300								
16 Woodlands Billing Revenue	- 49,795	- 46,771	- 42,700	- 41,172	- 44,900								
17 Total Water Billing Revenue	- 2,229,590	- 2,083,870	- 2,558,000	- 2,540,444	- 2,853,600	- 3,024,816	- 3,206,305	- 3,366,620	- 3,534,951	- 3,694,024	- 3,849,173	- 3,991,592	- 4,147,265
18 Misc Revenue	- 1,724	- 4,268	- 700	- 700	- 700	- 956	- 956	- 956	- 956	- \$956	- \$956	- \$956	- \$956
19 Reserve interest				- 12,734	- 8,347	- 17,157	- 25,949	- 43,660	- 44,338	- 28,498	- 50,643	- 67,590	- 88,092
20 Reserves		213,475											
21 DCA Reserves	- 128,598	- 128,600	- 128,600	- 128,600	- 128,600	- 128,600	- 128,600	- 128,600	- 128,600	- 64,299			
22 CR DCA Reserve EA Assess and Source				- 100,000									
23 DC Water Serv Master Plan Update			- 40,000										
24 DC Env Assess Update						- 100,000							
25 DCA Reserves OILC ST 20yr	-	52,027	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 52,026	- 26,013
26 Total Revenues	- 2,410,154	- 2,583,157	- 2,913,826	- 2,981,504	- 3,177,773	- 3,458,095	- 3,549,227	- 3,728,373	- 3,898,504	- 3,977,829	- 4,091,224	- 4,250,999	- 4,401,577
27													
30 Expenditures WaterWorks Admin						2022	2023	2024	2025	2026	2027	2028	2029
31 Salaries	281,394	278,498.63	296,000	301,900	307,900	317,137	326,651	336,451	346,544	356,940	367,649	378,678	390,039
32 Benefits	83,537	83,063.12	89,000	90,800	92,600	95,378	98,239	101,187	104,222	107,349	110,569	113,886	117,303
33 Accrual Vacation Pay	1,611	4,434											
34 Standby Pay	44		1,000	1,000	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267
35													
36 Equip Maintenance	1,681	153	900	1,000	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172
37 Veh Maintenance	2,734	5,612	10,700	10,900	11,100	11,433	11,776	12,129	12,493	12,868	13,254	13,652	14,061
38 Facility Maintenance 420	3,803	887	5,600	5,700	5,900	6,018	6,138	6,261	6,386	6,514	6,644	6,777	6,913
39 Water Meters	30,660	54,479	103,400	103,400	106,100	98,282	100,248	102,253	104,298	106,384	108,511	110,682	112,895
40 Clothing	744	417	600	600	600	618	637	656	675	696	716	738	760
41 Small Misc Tools	4,395	4,300	4,700	4,800	4,900	4,619	4,711	4,806	4,902	5,000	5,100	5,202	5,306
42 Legal Fees		894	3,600	3,700	3,700	3,811	3,925	4,043	4,164	4,289	4,418	4,551	4,687
43 Audit	2,033	2,951	4,400	4,500	4,600	4,738	4,880	5,027	5,177	5,333	5,493	5,657	5,827
44 Consulting Services 420	28,624	222,589	211,000	171,700	175,100	180,000							
45 ST Env Assess Update						100,000							
46 CR Env Protection Source Prot			-	100,000									
47 Water Serv Master Plan Update			40,000										



Water System Operating Plan page 2

48 Contract - Software Support	7,997	7,286	14,600	14,900	15,200	15,504	15,814	16,130	16,453	16,782	17,118	17,460	17,809
49 Postage	5,522	8,365	13,300	13,600	13,900	14,178	14,462	14,751	15,046	15,347	15,654	15,967	16,286
50 Telephone 420	406	596	500	500	600	618	637	656	675	696	716	738	760
51 Answering Service	3,570	3,553	3,400	3,500	3,600	3,708	3,819	3,934	4,052	4,173	4,299	4,428	4,560
52 Printing	-	383	2,700	2,800	2,800	2,856	2,913	2,971	3,031	3,091	3,153	3,216	3,281
53 Photocopy	168	723	400	400	400	400	400	400	400	400	400	400	400
54 Adv and Publicity	4,160	1,760	3,800	3,900	4,000	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687
55 Office Supplies	886	1,162	1,600	1,600	1,700	1,734	1,769	1,804	1,840	1,877	1,914	1,953	1,992
56 Book, Publications	-	314	700	700	700	721	743	765	788	811	836	861	887
57 Memberships	1,332	1,487	2,200	2,300	2,300	2,346	2,393	2,441	2,490	2,539	2,590	2,642	2,695
58 Conferences and Seminars	2,375	3,889	5,400	5,500	5,600	5,768	5,941	6,119	6,303	6,492	6,687	6,887	7,094
59 Courses and Training	8,776	7,099	10,000	37,989	10,600	10,706	10,813	10,921	11,030	11,141	11,252	11,365	11,478
60 Transfer to Reserves	754,015	366,968											
61													
62 Transfer - Admin Fee	93,943	79,473	79,200	79,200	79,200	79,200	81,576	84,023	86,544	89,140	91,815	94,569	97,406
63 Allowance for Doubtful Accounts													
64 Telephone 421													
65													
66 Debt Principal 2006 + 2017	152,073	200,578	209,569	218,971	228,802	239,083	249,835	261,078	272,836	168,226	55,802	57,637	59,533
67 Debt Interest 2006 + 2017	81,774	111,718	102,726	93,325	83,493	73,212	62,461	51,218	39,459	27,162	22,679	20,844	18,949
68 Debt Principal 2009 Loan	34,513	36,345	38,275	40,307	42,446	44,700	47,073	49,572	52,203	54,974	57,893	60,966	31,686
69 Debt Interest 2009 Loan	29,779	28,688	26,758	24,726	22,586	20,333	17,960	15,461	12,830	10,058	7,140	4,067	830
70 Debt Principle 2025									93,039.27	95,830.45	98,705.36	101,666.52	104,716.52
71 Debt Interest 2025									75,000.00	72,209	69,334	66,373	63,323
72 Waterworks Operations													
73 Salaries Regular	230,047	266,983	308,600	314,800	321,100	330,733	340,655	350,875	361,401	372,243	383,410	394,912	406,760
74 Benefits	57,929	67,123	92,580	94,400	96,300	99,189	102,165	105,230	108,386	111,638	114,987	118,437	121,990
75 Accrual Vacation Pay													
76 Equipment Maintenance	33,199	96,525	72,600	57,300	19,800	20,196	20,600	21,012	21,432	21,861	22,298	22,744	23,199
77 Major Maintenance- from Capital			9,900	14,173	22,971	10,187	10,702	3,710	5,373	-	19,736	8,090	9,562
78 Vehicle Expense	90,101	74,551	84,000	85,600	87,400	89,148	90,931	92,750	94,605	96,497	98,427	100,395	102,403
79 Facility Maintenance 421	30,903	29,905	17,500	-	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974	23,433
80 Water Line Maintenance 421	52,686	81,921	66,300	67,600	69,000	71,070	73,202	75,398	77,660	79,990	82,390	84,861	87,407
81 Utilities	94,591	85,320	138,400	141,200	144,000	146,880	149,818	152,814	155,870	158,988	162,167	165,411	168,719
82 Chemicals	28,439	25,338	26,500	27,100	27,600	28,152	28,715	29,289	29,875	30,473	31,082	31,704	32,338
83 Small tools and Equipment	575	750											
84 Consulting Services	3,857	5,310	27,200	27,700	28,300	28,866	29,443	30,032	30,633	31,245	31,870	32,508	33,158
85 TWT Agreement	69,923	64,478	82,100	83,800	85,400	87,108	88,850	90,627	92,440	94,289	96,174	98,098	100,060
86 Contract Lab Testing	23,490	35,770	31,500	32,200	32,800	33,456	34,125	34,808	35,504	36,214	36,938	37,677	38,430
87 Telephone	15,372	15,980	16,000	16,400	16,700	17,034	17,375	17,722	18,077	18,438	18,807	19,183	19,567
88 Insurance	35,793	36,382	36,700	37,100	37,600	38,352	39,119	39,901	40,699	41,513	42,344	43,191	44,054
89 PIL of Property Taxes	19,849	20,297	15,800	16,100	16,500	16,748	16,999	17,254	17,512	17,775	18,042	18,312	18,587
90 Software Fees													
91 Amortization of Water Works	444,900	451,538											
92													
93 Grand Total Including Amort.	2,854,205	2,876,833	2,311,708	2,359,690	2,257,899	2,380,750	2,145,583	2,184,099	2,400,535	2,326,247	2,278,362	2,317,330	2,338,268
94 Grand Total Excl Amort.	2,409,305	2,425,295	2,311,708	2,359,690	2,257,899	2,380,750	2,145,583	2,184,099	2,400,535	2,326,247	2,278,362	2,317,330	2,338,268
95													
96 Revenue Less Expenditures			- 602,118	- 621,814	- 919,874	- 1,077,345	- 1,403,644	- 1,544,274	- 1,497,969	- 1,651,581	- 1,812,862	- 1,933,669	- 2,063,309
97													
98 Transfer to Capital Reserves			- 602,118	- 621,814	- 919,874	- 1,077,345	- 1,403,644	- 1,544,274	- 1,497,969	- 1,651,581	- 1,812,862	- 1,933,669	- 2,063,309
99													
100- Net	- 849	- 157,863	-	-	-	-	-	-	-	-	-	-	-

APPENDIX B – WATER REVENUE CALCULATION 2019-29 INFLATED \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fixed Charge Revenues											
Number of Connections	2,898	3,134	3,370	3,606	3,842	4,078	4,314	4,550	4,786	5,022	5,258
Annual fixed Rate	\$168	\$178	\$178	\$178	\$177	\$177	\$177	\$177	\$177	\$177	\$177
Total Fixed Revenue	\$486,864	\$558,898	\$599,256	\$641,261	\$679,737	\$720,457	\$763,549	\$805,297	\$846,818	\$890,125	\$933,135
Variable Rate Revenues											
Amount of Water Sold (M3)	793,053	825,617	854,509	883,448	912,434	941,465	970,542	999,665	1,028,832	1,058,043	1,087,298
Cost/Cubic Metre	\$2.23	\$2.40	\$2.64	\$2.70	\$2.77	\$2.81	\$2.86	\$2.89	\$2.92	\$2.93	\$2.96
Total Variable Revenue	\$ 1,768,509	\$ 1,981,546	\$ 2,254,344	\$ 2,383,555	\$ 2,526,568	\$ 2,646,163	\$ 2,771,402	\$ 2,888,727	\$ 3,002,355	\$ 3,101,467	\$ 3,214,130
Total All User Fee Revenues	\$2,255,373	\$2,540,444	\$2,853,600	\$3,024,816	\$3,206,305	\$3,366,620	\$3,534,951	\$3,694,024	\$3,849,173	\$3,991,592	\$4,147,265
Projected Needed Revenues	2,558,000	2,540,444	2,853,600	3,024,816	3,206,305	3,366,620	3,534,951	3,694,024	3,849,173	3,991,592	4,147,265

APPENDIX C – WASTEWATER SURCHARGE CALCULATION 2019-29 - INFLATED \$

	Stayner and Creemore Users Only	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Sold to Pre 2019 Users												
1 Total Water Sold in Creemore and Stayner		792,023	787,320	782,664	778,055	773,492	768,975	764,503	760,075	755,692	751,352	747,056
2 Reinhart Usage		212,704	220,070	220,070	220,070	220,070	220,070	220,070	220,070	220,070	220,070	220,070
3 Water Sold to Pre 2019 Users (Excluding all Reinhart Sales)		579,319	567,250	562,595	557,986	553,423	548,905	544,433	540,005	535,622	531,283	526,987
4 Number of Pre 2019 Water Users (Assume 2 disconnections/yr)		2,296	2,294	2,292	2,290	2,288	2,286	2,284	2,282	2,280	2,278	2,276
5 Annual Use per Connection Pre 2019 Users		252	247	245	244	242	240	238	237	235	233	232
6 Number of Water Users Not Connected to Sewer		182	182	182	182	182	182	182	182	182	182	182
7 Number of Water Users who Pay Wastewater Bills		2,114	2,112	2,110	2,108	2,106	2,104	2,102	2,100	2,098	2,096	2,094
8 Annual Water User Per Water User not Connected to Sewer		252	247	245	244	242	240	238	237	235	233	232
9 Total Water Sales to those not Connected to Sewer		45,922	45,004	44,674	44,346	44,022	43,701	43,383	43,068	42,756	42,447	42,140
10 Total Water Sales to those Connected to Sewer (Excl Reinhart)		533,397	522,246	517,921	513,639	509,400	505,204	501,050	496,937	492,866	488,836	484,846
Water Sales to Post 2018 Users In Stayner and Creemore												
13 Use per Capita (litres per capita/day) Estimate		150	149	148	147	146	145	144	143	142	141	140
14 Number of Persons/Household added Post 2018 (DC Study)		2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
15 Use per Household/Yr (M3)		142	141	140	140	139	138	137	136	135	134	133
16 Total Number of Post 2018 Users in Stayner/Creemore (DC Stuc		231	462	693	924	1,155	1,386	1,617	1,848	2,079	2,310	2,541
17 Water Sales to Post 2018 Connections		32,883	65,327	97,333	128,901	160,030	190,721	220,973	250,787	280,162	309,099	337,597
18 Water Sold to Reinhart Subject to Sewer Surcharge		36,467	36,467	36,467	36,467	36,467	36,467	36,467	36,467	36,467	36,467	36,467
19 Total Water Sales Subject to WW Surcharge (M3)		602,747	624,041	651,721	679,007	705,897	732,392	758,490	784,191	809,495	834,402	858,910
20 Water Revenue from Fixed Water Charge (those paying WW bills)		393,960	459,031	498,432	539,186	576,945	616,575	658,238	698,750	739,064	780,942	822,571
21 Water Revenue from Vol Sales (those paying WW bills)		1,344,126	1,497,746	1,719,354	1,831,970	1,954,660	2,058,523	2,165,881	2,266,073	2,362,283	2,445,902	2,539,000
22 Total Water Revenue Subject to Sewer Surcharge		1,738,086	1,956,777	2,217,785	2,371,155	2,531,604	2,675,098	2,824,120	2,964,823	3,101,347	3,226,844	3,361,571
23 Wastewater Revenue Needs		1,369,200	1,519,812	1,686,991	1,872,560	2,078,542	2,307,182	2,560,972	2,842,678	2,984,812	3,134,053	3,290,756
24 Wastewater Revenue as % of Water Revenue		78.8%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%
25 Final Wastewater Surcharge		78.8%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%

APPENDIX D – WASTEWATER REVENUE CALCULATION

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1 Number of Connections	2,345	2,574	2,803	3,032	3,261	3,490	3,719	3,948	4,177	4,406	4,635
2 Annual Water fixed Rate Charge	168	178	178	178	177	177	177	177	177	177	177
3 Wastewater Surcharge	79.0%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%
4 Total Fixed Revenue	311,228	356,525	379,139	425,808	473,693	531,775	596,905	669,963	711,293	758,485	805,243
Variable Rate Revenues											
5 Water Sold to WW Connected Users (M3)	602,747	624,041	651,721	679,007	705,897	732,392	758,490	784,191	809,495	834,402	858,910
6 Cost/Cubic Metre	2.23	2.40	2.64	2.70	2.77	2.81	2.86	2.89	2.92	2.93	2.96
7 Wastewater Surcharge	79.0%	77.7%	76.1%	79.0%	82.1%	86.2%	90.7%	95.9%	96.2%	97.1%	97.9%
8 Total Variable Revenue	1,061,860	1,163,287	1,307,852	1,446,752	1,604,849	1,775,406	1,964,067	2,172,715	2,273,519	2,375,568	2,485,513
9											
10 Total All User Fee Revenues	1,373,088	1,519,812	1,686,991	1,872,560	2,078,542	2,307,182	2,560,972	2,842,678	2,984,812	3,134,053	3,290,756
11											
12 Projected Needed Revenues	1,369,200	1,519,812	1,686,991	1,872,560	2,078,542	2,307,182	2,560,972	2,842,678	2,984,812	3,134,053	3,290,756



APPENDIX- E- CLEARVIEW WATER SYSTEM CAPITAL RESERVE 2019-2118 INFLATED \$

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Opening Value	1,322,588	848,905	556,453	1,143,811	1,729,949	2,910,662	2,955,844	1,899,867	3,376,192	4,506,011
Addition (Withdrawal) from Ops	602,118	621,814	919,874	1,077,345	1,403,644	1,544,274	1,497,969	1,651,581	1,812,862	1,933,669
Transfer (to) from Capital	(1,075,801)	(914,266)	(332,516)	(491,207)	(222,931)	(1,499,092)	(2,553,946)	(175,257)	(683,042)	(566,869)
Close	848,905	556,453	1,143,811	1,729,949	2,910,662	2,955,844	1,899,867	3,376,192	4,506,011	5,872,811
Close in 2019\$	848,905	540,245	1,078,152	1,583,148	2,586,086	2,549,737	1,591,109	2,745,153	3,557,087	4,501,021
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Opening Value	5,872,811	7,012,313	7,469,211	9,609,371	11,340,727	12,992,680	15,470,520	15,696,186	18,454,589	19,662,486
Addition (Withdrawal) from Ops	2,063,309	1,459,540	2,240,399	2,360,069	2,476,654	2,595,197	2,729,385	2,833,155	2,980,688	3,182,627
Transfer (to) from Capital	(923,807)	(1,002,643)	(100,238)	(628,714)	(824,701)	(117,357)	(2,503,719)	(74,752)	(1,772,790)	(562,030)
Close	7,012,313	7,469,211	9,609,371	11,340,727	12,992,680	15,470,520	15,696,186	18,454,589	19,662,486	22,283,083
Close in 2019\$	5,217,820	5,395,917	6,739,819	7,722,483	8,589,692	9,929,938	9,781,344	11,165,330	11,549,639	12,707,731
	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Opening Value	22,283,083	25,219,528	25,324,543	27,621,374	31,296,950	35,068,046	39,067,117	32,032,015	36,018,645	38,806,304
Addition (Withdrawal) from Ops	3,333,118	3,492,191	3,612,766	3,770,327	3,952,816	4,148,872	4,505,434	4,540,879	4,746,499	4,939,144
Transfer (to) from Capital	(396,673)	(3,387,176)	(1,315,935)	(94,751)	(181,720)	(149,800)	(11,540,537)	(554,249)	(1,958,840)	(378,684)
Close	25,219,528	25,324,543	27,621,374	31,296,950	35,068,046	39,067,117	32,032,015	36,018,645	38,806,304	43,366,764
Close in 2019\$	13,963,441	13,613,190	14,415,388	15,857,906	17,251,155	18,658,673	14,853,076	16,215,200	16,961,333	18,402,529
	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Opening Value	43,366,764	46,728,962	31,627,800	36,819,675	41,740,634	46,935,830	51,419,607	19,381,408	25,243,942	31,252,646
Addition (Withdrawal) from Ops	5,163,561	5,375,358	5,315,738	5,566,232	5,818,573	6,081,137	6,339,343	6,056,246	6,348,404	6,649,725
Transfer (to) from Capital	(1,801,364)	(20,476,519)	(123,862)	(645,273)	(623,377)	(1,597,359)	(38,377,543)	(193,712)	(339,701)	(665,388)
Close	46,728,962	31,627,800	36,819,675	41,740,634	46,935,830	51,419,607	19,381,408	25,243,942	31,252,646	37,236,982
Close in 2019\$	19,251,713	12,650,714	14,298,444	15,737,314	17,180,621	18,273,675	6,687,214	8,456,290	10,164,178	11,757,709
	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068
Opening Value	37,236,982	40,063,819	34,145,813	41,322,078	45,305,246	52,495,495	59,153,690	50,902,787	59,271,864	62,801,806
Addition (Withdrawal) from Ops	6,957,884	7,226,125	7,370,888	7,720,015	8,029,463	8,395,509	8,762,349	8,914,621	9,325,564	9,673,604
Transfer (to) from Capital	(4,131,047)	(13,144,131)	(194,623)	(3,736,847)	(839,213)	(1,737,315)	(17,013,252)	(545,545)	(5,795,623)	(7,522,058)
Close	40,063,819	34,145,813	41,322,078	45,305,246	52,495,495	59,153,690	50,902,787	59,271,864	62,801,806	64,953,351
Close in 2019\$	12,281,838	10,162,750	11,940,395	12,710,067	14,298,292	15,642,520	13,068,605	14,774,032	15,197,962	15,260,809
	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078
Opening Value	64,953,351	66,596,676	72,653,423	83,218,856	88,798,896	96,172,253	108,186,973	103,629,403	114,297,064	122,647,051
Addition (Withdrawal) from Ops	10,019,975	10,351,063	10,768,038	11,263,685	11,695,961	12,166,926	12,719,694	13,036,466	13,594,622	14,131,453
Transfer (to) from Capital	(8,367,650)	(4,294,317)	(202,605)	(5,683,646)	(4,322,603)	(152,207)	(17,277,264)	(2,368,805)	(5,244,635)	(14,265,906)
Close	66,596,676	72,653,423	83,218,856	88,798,896	96,172,253	108,186,973	103,629,403	114,297,064	122,647,051	122,512,598
Close in 2019\$	15,191,173	16,090,058	17,893,119	18,536,795	19,491,248	21,287,645	19,796,956	21,198,897	22,085,034	21,418,275
	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088
Opening Value	122,512,598	122,607,016	123,573,353	138,688,817	141,692,935	130,395,702	143,751,914	28,078,147	44,307,651	57,532,366
Addition (Withdrawal) from Ops	14,554,904	14,996,136	15,465,273	16,161,964	16,692,811	17,025,491	17,744,868	16,546,252	17,344,220	18,115,750
Transfer (to) from Capital	(14,460,487)	(14,029,799)	(349,809)	(13,157,845)	(27,990,045)	(3,669,279)	(133,418,635)	(316,747)	(4,119,505)	(2,568,534)
Close	122,607,016	123,573,353	138,688,817	141,692,935	130,395,702	143,751,914	28,078,147	44,307,651	57,532,366	73,079,582
Close in 2019\$	20,810,468	20,363,580	22,188,784	22,009,138	19,664,409	21,047,186	3,991,275	6,114,834	7,708,697	9,506,651
	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098
Opening Value	73,079,582	80,308,018	98,480,703	118,419,563	119,179,523	118,604,751	129,908,558	108,737,712	132,471,656	130,614,895
Addition (Withdrawal) from Ops	18,941,370	19,662,099	20,567,542	21,520,708	22,208,125	22,898,182	23,789,829	24,218,544	25,345,818	26,115,046
Transfer (to) from Capital	(11,712,935)	(1,489,413)	(628,682)	(20,760,748)	(22,782,897)	(11,594,375)	(44,960,675)	(484,600)	(27,202,579)	(8,444,376)
Close	80,308,018	98,480,703	118,419,563	119,179,523	118,604,751	129,908,558	108,737,712	132,471,656	130,614,895	148,285,565
Close in 2019\$	10,142,691	12,075,585	14,097,538	13,774,766	13,309,062	14,152,915	11,501,411	13,603,688	13,022,344	14,353,510
	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108
Opening Value	148,285,565	141,404,122	139,050,132	145,231,564	174,551,356	200,964,967	212,089,551	233,318,749	246,934,278	94,314,183
Addition (Withdrawal) from Ops	27,203,854	27,951,931	28,796,382	29,798,267	31,177,603	32,544,725	33,714,928	35,070,187	36,345,833	35,163,680
Transfer (to) from Capital	(34,085,296)	(30,305,920)	(22,614,950)	(478,475)	(4,763,992)	(21,420,141)	(12,485,730)	(21,454,657)	(188,965,929)	(10,682,355)
Close	141,404,122	139,050,132	145,231,564	174,551,356	200,964,967	212,089,551	233,318,749	246,934,278	94,314,183	118,795,509
Close in 2019\$	13,288,749	12,686,920	12,864,964	15,011,828	16,780,059	17,193,139	18,363,198	18,868,737	6,996,829	8,556,320
	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118
Opening Value	118,795,509	107,114,458	125,592,633	155,139,830	186,538,332	174,115,031	209,052,103	59,207,318	97,474,539	124,741,610
Addition (Withdrawal) from Ops	36,674,964	37,681,946	39,180,707	40,886,196	42,661,489	43,822,875	45,739,519	44,930,766	46,991,551	48,936,770
Transfer (to) from Capital	(48,356,015)	(19,203,771)	(9,633,510)	(9,487,694)	(55,084,790)	(8,885,802)	(195,584,304)	(6,663,545)	(19,724,480)	(3,496,856)
Close	107,114,458	125,592,633	155,139,830	186,538,332	174,115,031	209,052,103	59,207,318	97,474,539	124,741,610	170,181,524
Close in 2019\$	7,490,277	8,526,616	10,225,832	11,937,302	10,817,755	12,610,090	3,467,383	5,542,177	6,885,941	9,120,679



APPENDIX-F- WASTEWATER CAPITAL RESERVE 2019-2118 INFLATED \$

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
(382,223)	2,256,905	1,979,032	757,495	918,685	972,095	1,799,045	2,145,875	1,759,425	2,730,204
84,603	128,864	224,576	281,936	610,537	649,379	611,910	889,051	991,048	1,119,417
2,554,525	(406,737)	(1,446,113)	(120,746)	(557,127)	177,571	(265,080)	(1,275,502)	(20,268)	(70,458)
2,256,905	1,979,032	757,495	918,685	972,095	1,799,045	2,145,875	1,759,425	2,730,204	3,779,163
2,256,905	1,921,390	714,012	840,727	863,694	1,551,872	1,797,137	1,430,573	2,155,248	2,896,414
2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
3,779,163	4,706,157	5,969,812	7,344,070	8,887,140	10,614,017	12,538,628	12,778,251	15,317,751	18,432,023
1,273,724	1,414,854	1,374,259	1,543,070	1,726,877	1,924,611	2,351,786	2,539,500	3,114,272	3,369,328
(346,730)	(151,199)	-	-	-	-	(2,112,163)	-	-	-
4,706,157	5,969,812	7,344,070	8,887,140	10,614,017	12,538,628	12,778,251	15,317,751	18,432,023	21,801,351
3,501,823	4,312,719	5,150,983	6,051,710	7,017,116	8,048,068	7,962,984	9,267,491	10,826,871	12,433,006
2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
21,801,351	17,766,222	21,739,879	23,579,753	27,871,601	32,265,062	21,985,528	25,063,235	29,516,610	33,382,018
3,650,267	4,135,114	4,231,823	4,291,847	4,393,461	4,491,759	4,374,892	4,453,375	4,557,548	4,647,716
(7,685,396)	(161,456)	(2,391,949)	-	-	(14,771,293)	(1,297,185)	-	(692,139)	(2,803,522)
17,766,222	21,739,879	23,579,753	27,871,601	32,265,062	21,985,528	25,063,235	29,516,610	33,382,018	35,226,212
9,836,726	11,686,256	12,306,096	14,122,310	15,872,273	10,500,411	11,621,690	13,288,055	14,590,504	14,948,115
2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
35,226,212	24,339,442	27,446,069	32,111,432	35,674,965	40,532,719	42,837,132	47,107,643	52,236,437	42,047,584
4,712,748	4,581,450	4,665,362	4,767,101	4,857,755	4,962,072	5,033,663	5,128,794	5,242,511	5,120,300
(15,599,518)	(1,474,822)	-	(1,203,569)	-	(2,657,659)	(763,152)	-	(15,431,364)	-
24,339,442	27,446,069	32,111,432	35,674,965	40,532,719	42,837,132	47,107,643	52,236,437	42,047,584	47,167,885
10,027,528	10,978,075	12,470,058	13,450,398	14,836,795	15,223,605	16,253,664	17,498,315	13,674,974	14,893,427
2059	2060	2061	2062	2063	2064	2065	2066	2067	2068
47,167,885	51,270,067	55,655,053	61,082,111	66,620,051	71,306,047	77,061,723	55,763,952	61,349,506	67,053,233
5,233,577	5,325,201	5,427,058	5,537,939	5,656,618	5,755,676	5,877,059	5,585,553	5,703,727	5,816,333
(1,131,395)	(940,215)	-	-	(970,621)	-	(27,174,830)	-	-	-
51,270,067	55,655,053	61,082,111	66,620,051	71,306,047	77,061,723	55,763,952	61,349,506	67,053,233	72,869,566
15,717,190	16,564,502	17,650,239	18,689,785	19,421,755	20,378,096	14,316,643	15,291,902	16,226,802	17,120,726
2069	2070	2071	2072	2073	2074	2075	2076	2077	2078
72,869,566	78,806,775	77,599,223	83,666,162	89,848,987	90,753,955	32,369,532	33,695,319	38,828,063	40,717,867
5,937,209	6,052,293	6,066,939	6,182,825	6,307,338	6,344,522	5,499,411	5,541,496	5,647,891	5,696,878
-	(7,259,845)	-	-	(5,402,371)	(64,728,944)	(4,173,624)	(408,752)	(3,758,086)	-
78,806,775	77,599,223	83,666,162	89,848,987	90,753,955	32,369,532	33,695,319	38,828,063	40,717,867	46,414,744
17,976,383	17,185,371	17,989,296	18,756,002	18,393,121	6,369,261	6,437,022	7,201,516	7,332,060	8,114,462
2079	2080	2081	2082	2083	2084	2085	2086	2087	2088
46,414,744	15,854,686	14,769,749	20,150,793	25,629,594	31,215,316	36,899,803	42,657,001	44,020,248	49,953,136
5,810,338	5,370,862	5,381,044	5,478,801	5,585,722	5,684,487	5,792,597	5,891,681	5,932,888	6,032,150
(36,370,397)	(6,455,799)	-	-	-	-	(35,398)	(4,528,435)	-	-
15,854,686	14,769,749	20,150,793	25,629,594	31,215,316	36,899,803	42,657,001	44,020,248	49,953,136	55,985,286
2,691,065	2,433,898	3,223,920	3,981,040	4,707,446	5,402,620	6,063,641	6,075,170	6,693,164	7,282,918
2089	2090	2091	2092	2093	2094	2095	2096	2097	2098
55,985,286	39,629,456	25,233,960	30,937,356	32,731,783	32,181,975	26,190,397	2,259,981	7,646,598	13,121,027
6,141,104	5,903,361	5,703,396	5,793,635	5,833,786	5,827,074	5,747,455	5,386,617	5,474,429	5,550,968
(22,496,934)	(20,298,857)	-	(3,999,208)	(6,383,593)	(11,818,652)	(29,677,871)	-	-	-
39,629,456	25,233,960	30,937,356	32,731,783	32,181,975	26,190,397	2,259,981	7,646,598	13,121,027	18,671,995
5,005,096	3,094,158	3,683,011	3,783,139	3,611,254	2,853,318	239,043	785,239	1,308,170	1,807,382
2099	2100	2101	2102	2103	2104	2105	2106	2107	2108
18,671,995	20,619,066	26,276,425	32,018,315	37,832,451	43,729,332	49,696,135	45,933,329	51,900,709	53,866,013
5,637,724	5,657,359	5,741,890	5,814,136	5,896,882	5,966,802	6,047,363	5,967,380	6,043,114	6,043,661
(3,690,653)	-	-	-	-	-	(9,810,169)	-	(4,077,809)	-
20,619,066	26,276,425	32,018,315	37,832,451	43,729,332	49,696,135	45,933,329	51,900,709	53,866,013	59,909,674
1,937,720	2,397,458	2,836,260	3,253,680	3,651,287	4,028,640	3,615,152	3,965,836	3,996,125	4,315,031
2109	2110	2111	2112	2113	2114	2115	2116	2117	2118
59,909,674	66,024,993	63,508,244	69,618,188	75,778,821	82,001,179	88,269,220	89,682,519	74,018,219	80,030,253
6,115,320	6,172,319	6,109,944	6,160,633	6,222,357	6,268,042	6,324,853	6,291,223	6,012,034	6,039,686
-	(8,689,068)	-	-	-	-	(4,911,554)	(21,955,523)	-	-
66,024,993	63,508,244	69,618,188	75,778,821	82,001,179	88,269,220	89,682,519	74,018,219	80,030,253	86,069,939
4,616,982	4,311,642	4,588,789	4,849,377	5,094,728	5,324,428	5,252,115	4,208,505	4,417,801	4,612,817

APPENDIX- G- WATER CAPITAL PROJECTS 2019-2029

CLEARVIEW		Clearview Township							
2019		Capital Project Expenditures							
	Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total	Funding Source	
1	Municipal Waterworks Services								
2	Admin, Bldg, and Equip								
3	2-4-420-840 Citywide GIS module		7,000	7,000	-		7,000		
4	2-4-420-840 Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User	
5	2-4-420-840 GIS PC at works		3,000	3,000	-		3,000		
6	2-4-420-840 Water Patrol lap-top.		3,000	3,000	-		3,000	Taxation/User	
7	2-4-420-840								
8	Stayner Waterworks								
9	2-4-421-845 300mm Margaret St - CR42 to Lawrence (870m)	Y	870,000	87,000	261,000	522,000	870,000		
10	2-4-421-845 300 mm Margaret to 26 via Superior and Clarence	Y	1,240,000	310,000	186,000	744,000	1,240,000		
11	2-4-421-845 Centre line water service		12,000	12,000	-		12,000	Taxation/User	
12	2-4-421-840 broadband radio replacement 4 locations		30,246	30,246	-		30,246	Taxation/User	
13	2-4-421-840 ST well 1 chlorine analyzer		5,300	5,300	-		5,300	Taxation/User	
14	2-4-421-845 600mm Transmission main Reservoir to Margaret	Y	5,675,485	567,549	5,107,937		5,675,485		
15	Land Acquisition Well #5	Y	722,000		722,000		722,000		
16									
17	Creemore Waterworks								
18	2-4-422-845 Mary St. Pumphouse to WWTP Watermain (build)	Y	782,000		146,000	636,000	782,000		
19	New Lowell Waterworks								
20	Nottawa Waterworks								
21	2-4-425-840 Reservoir level sensor		5,450	5,450	-		5,450		
22	HMI SCADA screen		3,900	3,900	-		3,900		
23	Colling-Woodlands Waterworks								
24	Buckingham Woods								
25	2-4-424-840 replace Well #1 (pending test)		30,252	30,252	-		30,252	Taxation/User	
26	2-4-424-840 well pump #1		6,504	6,504	-		6,504	Taxation/User	
27									
28	Total All Expenditures (2019\$)		9,410,637	1,085,701	6,422,937	1,902,000	9,410,637		
29	Major Maintenance (Items under \$5,000)		9,900	9,900					
30	Total Capital Projects		9,400,737	1,075,801	6,422,937	1,902,000	9,400,737		
31	Growth Capital as per 2014 and 2019 DC Studies		9,289,485	964,549	6,422,937	1,902,000	9,289,485		
32	Capital Renewal		111,252	111,252			111,252		
33	Total All Expenditures (2019\$)		9,400,737	1,075,801	6,422,937	1,902,000	9,400,737		
34									
35	Inflated \$	0.00%							
36	Major Maintenance (Items under \$5,000)		9,900	9,900					
37	Total Capital Projects		9,400,737	1,075,801	6,422,937	1,902,000	9,400,737		
38	Growth Capital as per 2014 and 2019 DC Studies		9,289,485	964,549	6,422,937	1,902,000	9,289,485		
39	Capital Renewal		111,252	111,252	-	-	111,252		
40	Total Capital		9,400,737	1,075,801	6,422,937	1,902,000	9,400,737		



CLEARVIEW 2020 Clearview Township Capital Project Expenditures									
	Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants subsidies	Total	Funding Source	
	2-4-661-840 Books Collection Materials		87,195						
	Municipal Waterworks Services								
	Admin, Bldg, and Equip								
1	2-4-420-840 Lap Top Replacement (Stephanie/Todd)		7,000	7,000	-	-	7,000		
2	2-4-420-840 Hydrants Valves CR & ST combined		14,500	14,500	-	-	14,500	Taxation/User	
3	2-4-420-840 ArcGIS Utility Network Management		16,000		-	16,000	16,000	Grants	
4	2-4-420-840 ArcGIS Utility Network Management Annual Fee		4,280		-	4,280	4,280	Grants	
5	2-4-420-840 Drone + Training + Mapper		12,189		-	12,189	12,189	Grants	
6	2-4-420-840 City Wide Works		19,351	19,351	-	-	19,351		
7	2-4-420-840 City Wide Works Annual Fee		7,500		-	7,500	7,500	Grants	
8	2-4-420-840 City Wide GIS Module		12,500		-	12,500	12,500	Grants	
9	2-4-420-840 City Wide GIS Module Annual Fee		1,500		-	1,500	1,500	Grants	
10	2-4-420-840 Neptune Meter Reading Belt Clip		5,500	5,500	-	-	5,500	Taxation/User	
11	2-4-420-840 Neptune Meter Reading MRX 20 Unit		14,000	14,000	-	-	14,000	Taxation/User	
12	2-4-420-840 Neptune Meter Reading Training		3,500	3,500	-	-	3,500	Taxation/User	
13	2-4-420-840 Neptune Meter Reading License Fee		4,480	4,480	-	-	4,480	Taxation/User	
14	2-4-420-840								
15	2-4-420-840								
16	Stayner Waterworks								
17	2-4-421-845 broadband radio replacement ST 1&3		7,790	7,790	-	-	7,790		
18	2-4-421-845 Centre line water service		12,000	12,000	-	-	12,000	Taxation/User	
19	2-4-421-845 300mm Margaret St - CR42 to Hwy 26E 2200m	Y	2,805,000	280,500	1,683,000	841,500	2,805,000		
20	300mm dia Dancor from Hwy26E to N limit 620m	Y	664,000	-	265,600	398,400	664,000		
21	200mm dia Mowat Hwy 26 to N limit Dancor	Y	522,000	-	-	522,000	522,000		
22	2-4-421-845 Main Street water service replament		60,000	60,000			60,000		
23	Creemore Waterworks								
24	2-4-422-8 broadband radio replacement 2 locations		15,580	15,580	-	-	15,580	Taxation/User	
25	2-4-422-845 George to WWTP Watermain (build)		100,000	100,000	-	-	100,000		
26	Back-up Gen-set	Y	192,000	143,475	48,525	-	192,000		
27	pumphouse electrical upgrade		93,478	93,478	-	-	93,478	Taxation/User	
28	150mm dia Mary, from Caroline to Elizabeth	Y	73,400	36,700	-	36,700	73,400		
29	150mm dia Mary, from Elizabeth to Edward	Y	56,100	-	-	56,100	56,100		
30	150mm dia Mary, from Edward to George (repl)	Y	67,300	33,650	-	33,650	67,300		
31	New Lowell Waterworks								
32	chlorine analyzer		5,453	5,453	-	-	5,453	Taxation/User	
33	broadband radio replacement		7,790	7,790	-	-	7,790	Taxation/User	
34	VFD jockey pump		7,500	7,500	-	-	7,500	Taxation/User	
35	Nottawa Waterworks								
36									
37	broadband radio replacement		7,790	7,790	-	-	7,790	Taxation/User	
38	Colling-Woodlands Waterworks								
39	broadband radio replacement		7,790	7,790	-	-	7,790	Taxation/User	
40									
41									
42	Buckingham Woods								
43	2-4-424-840 broadband radio replacement		7,790	7,790			7,790	Taxation/User	
52	Total All Expenditures (2019\$)		4,835,061	895,617	1,997,125	1,942,319	4,835,061		
53	Major Maintenance (Items under \$5,000)		13,760	13,760		5,780			
54	Total Capital Projects		4,821,301	881,857	1,997,125	1,936,539	4,815,521		
55	Growth Capital as per 2014 and 2019 DC Studies		4,379,800	494,325	1,997,125	1,888,350	4,379,800		
56	Capital Renewal		441,501	393,312		48,189	441,501		
57	Total All Expenditures (2019\$)		4,821,301	887,637	1,997,125	1,936,539	4,821,301		
58									
59	Inflated \$	3.00%							
60	Major Maintenance (Items under \$5,000)		14,173	14,173	-	5,953			
61	Total Capital Projects		4,965,940	908,313	2,057,039	1,994,635	4,959,987		
62	Growth Capital as per 2014 and 2019 DC Studies		4,511,194	509,155	2,057,039	1,945,001	4,511,194		
63	Capital Renewal		454,746	405,112	-	49,635	454,746		
64	Total Capital		4,965,940	914,266	2,057,039	1,994,635	4,965,940		



CLEARVIEW		Clearview Township							
2021		Capital Project Expenditures							
		Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
1	Municipal Waterworks Services								
2	Admin, Bldg, and Equip								
3	2-4-420-840	Laptop replacement (Todd P)		4,000	4,000			4,000	
4	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500			14,500	Taxation/User
5	2-4-420-840								
6	2-4-420-840								
7	2-4-420-840								
8	Stayner Waterworks								
9		300 mm dia William/Oak CR42 to Hwy26E	Y	816,000	204,000	612,000		816,000	
10	2-4-421-845	observation well level loggers (x2)		3,210	3,210			3,210	Taxation/User
11		Transmission Main Well#5(KPR) to Hwy26/RR (600mm)	Y	10,098,000		10,098,000		10,098,000	
12	2-4-421-845	4500 m3 reservoir	Y	8,033,000		8,033,000		8,033,000	
13	2-4-421-845	Raw Watermain (450mm)	Y	526,000		526,000		526,000	
14	2-4-421-845	Well Pumps and Booster Pumping Station	Y	7,524,000		7,524,000		7,524,000	
15	2-4-421-845	Well Supply	Y	875,000		875,000		875,000	
16	Creemore Waterworks								
17	2-4-422-8	pressure flow control valve		4,814	4,814			4,814	Taxation/User
18		1,500 m³/d Well Water Supply	Y	1,338,800		1,338,800		1,338,800	
19		1,500 m³/d Well Pumphouse(s)	Y	3,315,000		3,315,000		3,315,000	
20		Well Supply Investigation	Y	140,000		140,000		140,000	
21	New Lowell Waterworks								
22		Reservoir & Well 1/2 PLC Upgrade		26,000	26,000			26,000	
23		pressure tanks 7,8,9,10		6,420	6,420			6,420	Taxation/User
24		Cell 1 Level Transducer		3,209	3,209			3,209	Taxation/User
25	Nottawa Waterworks								
26									
27		Chlorine pumps x 2		9,628	9,628			9,628	Taxation/User
28		Pressure tanks 1,2		3,210	3,210			3,210	Taxation/User
29	Colling-Woodlands Waterworks								
30		Reservoir PLC Upgrade		13,000	13,000			13,000	Taxation/User
31	Buckingham Woods							-	
32	2-4-424-840	Chlorine pumps x 2		9,628	9,628			9,628	Taxation/User
33		Pressure tanks 1,2		3,209	3,209			3,209	Taxation/User
34	2-4-424-840	replace Well #1 (pending test)		30,252	30,252			30,252	Taxation/User
35									
36	Total All Expenditures (2019\$)			32,796,880	335,080	32,461,800		32,796,880	
37	Major Maintenance (Items under \$5,000)			21,652	21,652				
38	Total Capital Projects			32,775,228	313,428	32,461,800		32,775,228	
39	Growth Capital as per 2014 and 2019 DC Studies			32,665,800	204,000	32,461,800		32,665,800	
40	Capital Renewal			109,428	109,428			109,428	
41	Total All Expenditures (2019\$)			32,775,228	313,428	32,461,800		32,775,228	
42									
43	Inflated \$		6.09%						
44	Major Maintenance (Items under \$5,000)			22,971	22,971	-		-	
45	Total Capital Projects			34,771,239	332,516	34,438,724		34,771,239	
46	Growth Capital as per 2014 and 2019 DC Studies			34,655,147	216,424	34,438,724		34,655,147	
47	Capital Renewal			116,092	116,092	-		116,092	
48	Total Capital			34,771,239	332,516	34,438,724		34,771,239	



2022	Capital Project Expenditures							
	Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
	Municipal Waterworks Services							
	Admin, Bldg, and Equip							
1	2-4-420-840 PW SCADA Server Upgrade		30,000	30,000			30,000	
2	2-4-420-840 Hydrants Valves CR & ST combined		14,500	14,500	-	-	14,500	Taxation/User
3	2-4-420-840						-	
4	2-4-420-840						-	
5	2-4-420-840						-	
6	Stayner Waterworks							
7	300mm Elm/Locke Hwy26E to Hwy26N 1050m	Y	1,339,000	334,750	1,004,250	-	1,339,000	
8	300mm dia Hwy26N Locke to Emerald 580m	Y	740,000	-	296,000	444,000	740,000	
9	2-4-421-845 chlorine pumps x4		19,836	19,836	-	-	19,836	Taxation/User
10	2-4-421-845						-	
11	200mm dia Emerald Ck - PW Yard to Hwy26N 690m	Y	459,000	-	-	459,000	459,000	
12	Creemore Waterworks							
13	2-4-422-8 chlorine pumps x2		9,917	9,917	-	-	9,917	Taxation/User
14	2-4-422-8 Well # 2 level sensor		1,653	1,653	-	-	1,653	Taxation/User
15	150mm dia Easement, from Wells to Storage Reservoir	Y	146,900	-	-	146,900	146,900	
16	Street A	Y	539,800	-	-	539,800	539,800	
17	1,500 m³ Reservoir	Y	2,677,500	-	2,677,500		2,677,500	
18	New Lowell Waterworks							
19	pressure tanks 11,12,13,14,15		8,265	8,265	-	-	8,265	Taxation/User
20	Well # 2 level sensor		1,653	1,653	-	-	1,653	Taxation/User
21	TNT chlorine pumps 1 and 2		9,628	9,628			9,628	
22	Nottawa Waterworks							
23							-	
24							-	
25	Colling-Woodlands Waterworks							
26	Chlorine pumps x 2		9,628	9,628			9,628	
27							-	
28							-	
29	Buckingham Woods							
30	2-4-424-840 pressure tanks 3,4,5		4,959	4,959	-	-	4,959	Taxation/User
31	water meter 1 & 2		1,058	1,058	-	-	1,058	Taxation/User
32	PLC SCADA		13,000	13,000	-	-	13,000	Taxation/User
33								
34	Total All Expenditures (2019\$)		6,026,297	458,847	3,977,750	1,589,700	6,026,297	
35	Major Maintenance (Items under \$5,000)		9,323	9,323				
36	Total Capital Projects		6,016,974	449,524	3,977,750	1,589,700	6,016,974	
37	Growth Capital as per 2014 and 2019 DC Studies		5,902,200	334,750	3,977,750	1,589,700	5,902,200	
38	Capital Renewal		114,774	114,774			114,774	
39	Total All Expenditures (2019\$)		6,016,974	449,524	3,977,750	1,589,700	6,016,974	
40								
41	Inflated \$	9.27%						
42	Major Maintenance (Items under \$5,000)		10,187	10,187	-	-		
43	Total Capital Projects		6,574,910	491,207	4,346,595	1,737,108	4,837,802	
44	Growth Capital as per 2014 and 2019 DC Studies		6,449,493	365,790	4,346,595	1,737,108	6,449,493	
45	Capital Renewal		125,417	125,417	-	-	125,417	
46	Total Capital		6,574,910	491,207	4,346,595	1,737,108	6,574,910	



CLEARVIEW		Clearview Township							
2023		Capital Project Expenditures							
		Project Description		Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
Municipal Waterworks Services									
Admin, Bldg, and Equip									
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fe
2	2-4-420-840								
3	2-4-420-840								
4	2-4-420-840								
5 Stayner Waterworks									
6	2-4-421-845	Sequestering Pumps (X4)		20,000	20,000	-		20,000	Taxation/User Fe
7	2-4-421-845								
8	2-4-421-845								
9	2-4-421-845								
10	2-4-421-840								
11		200mm dia Mowat N limit Dancor to STP 800m	Y	673,000	-	673,000		673,000	
12	2-4-421-845	SCADA PLC up-grade		99,000	99,000			99,000	
13 Creemore Waterworks									
14	2-4-422-8							-	
15								-	
16 New Lowell Waterworks									
17	2-4-424-840	Well pump replacement		37,000	37,000	-		37,000	Taxation/User Fe
18		pressure transducers (x2)		3,404	3,404	-		3,404	Taxation/User Fe
19		Cell # 4 Level transducer		3,405	3,405	-		3,405	Taxation/User Fe
20 Nottawa Waterworks									
21		Sequestering Pump		5,107	5,107	-		5,107	Taxation/User Fe
22								-	
23 Colling-Woodlands Waterworks									
24		Sequestering Pump		5,107	5,107	-		5,107	Taxation/User Fe
25		Well pumps 1-4		12,250	12,250	-		12,250	Taxation/User Fe
26		Water meters 1-5		2,700	2,700	-		2,700	Taxation/User Fe
27 Buckingham Woods									
28	2-4-424-840	Sequestering Pump		5,107	5,107	-		5,107	Taxation/User Fe
29									
30 Total All Expenditures (2019\$)				880,580	207,580	673,000	-	880,580	
31	Major Maintenance (Items under \$5,000)			9,509	9,509			-	
32	Total Capital Projects			871,071	198,071	673,000		871,071	
33	Growth Capital as per 2014 and 2019 DC Studies			673,000	-	673,000		673,000	
34	Capital Renewal			198,071	198,071			198,071	
35	Total All Expenditures (2019\$)			871,071	198,071	673,000		871,071	
36									
37	Inflated \$			12.55%					
38	Major Maintenance (Items under \$5,000)			10,702	10,702	-		-	
39	Total Capital Projects			980,398	222,931	757,467		980,398	
40	Growth Capital as per 2014 and 2019 DC Studies			757,467	-	757,467		757,467	
41	Capital Renewal			222,931	222,931	-		261,198	
42	Total Capital			980,398	222,931	757,467		1,018,665	



2024		Clearview Township Capital Project Expenditures						
	Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
	Municipal Waterworks Services							
	Admin, Bldg. and Equip							
1	2-4-420-840 Hydrants Valves CR & ST combined		14,500	14,500	-	-	14,500	Taxation/User Fees
	2-4-420-840 Laptop Replacement (Stephanie & Dale)		9,000	9,000			9,000	Taxation/User Fees
2	Stayner Waterworks							
3	2-4-421-845						-	
4	2-4-421-845						-	
5	2-4-421-845						-	
6	2-4-421-840 Stayner well 1 replacement		280,000	280,000	-	-	280,000	Taxation/User Fees
7	300mm dia Hwy26N Emerald to Cityscape 220m	Y	281,000	112,400	-	168,600	281,000	
8	300mm dia Cityscape Hwy26N to 27/28 Sdrd 340m	Y	364,000	145,600	-	218,400	364,000	
9	200mm dia Industrial Road CR91 to TSI Subdivision 650m	Y	414,000	-	-	414,000	414,000	
10	300mm dia TSI Subdivision Industrial Road to Hwy26N 1300m	Y	1,392,000	-	556,800	835,200	1,392,000	
11	Creemore Waterworks							
12	2-4-422-8 Well 1 Replacement		316,000	316,000	-	-	316,000	Taxation/User Fees
13	Well 2 submersible pump		17,500	17,500	-	-	17,500	Taxation/User Fees
14	New Lowell Waterworks							
15	update / replace electrical , piping , HVAC		377,000	377,000	-	-	377,000	Taxation/User Fees
16							-	
17	Nottawa Waterworks							
18	PLC SCADA		15,000	15,000	-	-	15,000	Taxation/User Fees
19							-	
20	Colling-Woodlands Waterworks							
21	well pump 5		3,200	3,200	-	-	3,200	Taxation/User Fees
22							-	
23							-	
24	Buckingham Woods							
25	2-4-424-840 Chlorine analyzer		6,130	6,130	-	-	6,130	Taxation/User Fees
26								
27	Total All Expenditures (2019\$)		3,489,330	1,296,330	556,800	1,636,200	3,489,330	
28	Major Maintenance (Items under \$5,000)		3,200	3,200		-		
29	Total Capital Projects		3,486,130	1,293,130	556,800	1,636,200	3,486,130	
30	Growth Capital as per 2014 and 2019 DC Studies		2,451,000	258,000	556,800	1,636,200	2,451,000	
31	Capital Renewal		1,035,130	1,035,130			1,035,130	
32	Total All Expenditures (2019\$)		3,486,130	1,293,130	556,800	1,636,200	3,486,130	
33								
34	Inflated \$	15.93%						
35	Major Maintenance (Items under \$5,000)		3,710	3,710	-	-	3,710	
36	Total Capital Projects		4,041,380	1,499,092	645,484	1,896,804	4,041,380	
37	Growth Capital as per 2014 and 2019 DC Studies		2,841,381	299,093	645,484	1,896,804	2,841,381	
38	Capital Renewal		1,199,999	1,199,999	-	-	1,199,999	
39	Total Capital		4,041,380	1,499,092	645,484	1,896,804	4,041,380	



CLEARVIEW		Clearview Township							
2025		Capital Project Expenditures							
		Project Description	DC Study Y Yes	Budget	User Fees	ev Charge	Grants, subsidies etc	Total	Funding Source
		Municipal Waterworks Services							
		Admin, Bldg, and Equip							
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fees
2	2-4-420-840	Laptop Replacement (Todd)		4,500	4,500			4,500	
3	2-4-420-840								
4	2-4-420-840								
5		Stayner Waterworks							
6	2-4-421-845	Well # 2 & 4 Flow Control Valves		7,200	7,200	-		7,200	Taxation/User Fees
7	2-4-421-845	Replace 1917 Water Mains		4,000,000	4,000,000	-		4,000,000	Moved from 2022 in Aug
8	2-4-421-845								
9	2-4-421-840	Reservoir water meter		18,300	18,300	-		18,300	Taxation/User Fees
10		Creemore Waterworks							
11	2-4-422-8								
12		New Lowell Waterworks							
13		Nottawa Waterworks							
14		chlorine analyzer		6,300	6,300	-		6,300	Taxation/User Fees
15		Colling-Woodlands Waterworks							
16		Replace Wells 1 through 5		180,000	180,000	-		180,000	Taxation/User Fees
17		chlorine analyzer		6,300	6,300	-		6,300	Taxation/User Fees
18									
19		Buckingham Woods							
20	2-4-424-840								
21									
22		Total All Expenditures (2019\$)		4,237,100	4,237,100	-	-	4,237,100	
23		Major Maintenance (Items under \$5,000)		4,500	4,500		-	4,500	
24		Total Capital Projects		4,232,600	4,232,600	-	-	4,232,600	
25		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
26		Capital Renewal		4,232,600	4,232,600			4,232,600	
27		Total All Expenditures (2019\$)		4,232,600	4,232,600	-	-	4,232,600	
28									
29		Inflated \$	19.41%						
30		Major Maintenance (Items under \$5,000)		5,373	5,373	-	-	5,373	
31		Total Capital Projects		5,053,946	5,053,946	-	-	5,053,946	
32		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
33		Capital Renewal		5,053,946	5,053,946	-	-	5,053,946	
34		Total Capital		5,053,946	5,053,946	-	-	5,053,946	



CLEARVIEW		Clearview Township							
	2026	Capital Project Expenditures							
		Project Description	DC Study Y	Budget	User Fees	Dev Charge	Grants, subsidies	Total	Funding Source
		Municipal Waterworks Services							
		Admin, Bldg, and Equip							
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fees
2	2-4-420-840								
3	2-4-420-840								
4	2-4-420-840								
5		Stayner Waterworks							
6	2-4-421-845	water meters Stayner well 1 and 3		25,000	25,000	-		25,000	Taxation/User Fees
7	2-4-421-845								
8	2-4-421-840								
9	2-4-421-840								
10	2-4-421-840								
11		Creemore Waterworks							
12	2-4-422-8	Chlorine Analyzer		6,500	6,500	-		6,500	Taxation/User Fees
13									
14	New Lowell	Chlorine Analyzer		6,500	6,500	-		6,500	Taxation/User Fees
15									
16									
17	Nottawa Wa	replace well 1 and 2		74,400	74,400	-		74,400	Taxation/User Fees
18		well pumps		15,600	15,600	-		15,600	Taxation/User Fees
19									
20		Colling-Woodlands Waterworks							
21									
22									
23									
24		Buckingham Woods							
25	2-4-424-840								
26									
27		Total All Expenditures (2019\$)		142,500	142,500	-	-	142,500	
28		Major Maintenance (Items under \$5,000)		-	-	-	-	-	
29		Total Capital Projects		142,500	142,500	-	-	142,500	
30		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
31		Capital Renewal		142,500	142,500			142,500	
32		Total All Expenditures (2019\$)		142,500	142,500	-	-	142,500	
33									
34		Inflated \$	22.99%						
35		Major Maintenance (Items under \$5,000)		-	-	-	-	-	
36		Total Capital Projects		175,257	175,257	-	-	175,257	
37		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
38		Capital Renewal		175,257	175,257			175,257	
39		Total Capital		175,257	175,257	-	-	175,257	



		Clearview Township							
	2027	Capital Project Expenditures							
		Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
		Municipal Waterworks Services							
		Admin, Bldg. and Equip							
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fees
2	2-4-420-840								
3	2-4-420-840								
4	2-4-420-840								
5		Stayner Waterworks							
6	2-4-421-845	Wells # 2 & 4 pumps		40,000	40,000	-		40,000	Taxation/User Fees
7	2-4-421-845	Wells # 2 & 4 Level Sensors		4,000	4,000	-		4,000	Taxation/User Fees
8	2-4-421-845	PH 2 Clearhib Transfer Pump		2,000	2,000	-		2,000	Taxation/User Fees
9	2-4-421-840	Chlorine analyzer ST3		6,700	6,700	-		6,700	Taxation/User Fees
10	2-4-421-840	Well 2 replacement		459,000	459,000	-		459,000	Taxation/User Fees
	2-4-421-845	Well Supply	Y	446,800		446,800		446,800	
11		Transmission Main PW(CR96) to Hwy26/RR (600mm)	Y	2,692,800	-	2,692,800		2,692,800	
12		4145 cu m Reservoir	Y	7,399,100	-	7,399,100		7,399,100	
13		Creemore Waterworks							
14	2-4-422-8								
15									
16		New Lowell Waterworks							
17									
18									
19		Nottawa Waterworks							
20		n/a							
21									
22		Colling-Woodlands Waterworks							
23		Pressure Tank 1		1,916	1,916	-		1,916	
24		Pressure Tank 2		1,916	1,916	-		1,916	
25		Pressure Tank 3		1,916	1,916	-		1,916	
26		Pressure Tank 4		1,916	1,916	-		1,916	
27		Pressure Tank 5		1,916	1,916	-		1,916	
28		Buckingham Woods							
29	2-4-424-840	Meters 1,2,3,Raw, treated (5)		19,000	19,000	-		19,000	Taxation/User Fees
30									
31		Total All Expenditures (2019\$)		11,093,480	554,780	10,538,700		11,093,480	
32		Major Maintenance (Items under \$5,000)		15,580	15,580			15,580	
33		Total Capital Projects		11,077,900	539,200	10,538,700	-	11,077,900	
34		Growth Capital as per 2014 and 2019 DC Studies		10,538,700	-	10,538,700		10,538,700	
35		Capital Renewal		539,200	539,200			539,200	
36		Total All Expenditures (2019\$)		11,077,900	539,200	10,538,700		11,077,900	
37									
38		Inflated \$	26.68%						
39		Major Maintenance (Items under \$5,000)		19,736	19,736	-	-	19,736	
40		Total Capital Projects		14,033,152	683,042	13,350,110	-	14,033,152	
41		Growth Capital as per 2014 and 2019 DC Studies		13,350,110	-	13,350,110		13,350,110	
42		Capital Renewal		683,042	683,042	-	-	683,042	
43		Total Capital		14,033,152	683,042	13,350,110	-	14,033,152	



CLEARVIEW		Clearview Township							
2028		Capital Project Expenditures							
		Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
		Municipal Waterworks Services							
		Admin, Bldg. and Equip							
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fees
	2-4-420-840	Laptop Replacement (Stephanie & Dale)		10,000	10,000			10,000	
2	2-4-420-840								
3	2-4-420-840								
4	2-4-420-840								
5		Stayner Waterworks							
6	2-4-421-845								
7	2-4-421-845								
8	2-4-421-845								
9									
10									
11		Creemore Waterworks							
12	2-4-422-8								
13									
14		New Lowell Waterworks							
15	2-4-423-840	Wells 1,2,& 6		165,000	165,000	-		165,000	
16	2-4-423-840	Pressure / Flow control valve		3,000	3,000	-		3,000	
17	2-4-423-840	Generator replacement		197,000	197,000	-		197,000	
18									
19		Nottawa Waterworks							
20		n/a							
21									
22		Colling-Woodlands Waterworks							
23		raw water meters		3,200	3,200	-		3,200	
24									
25									
26		Buckingham Woods							
27	2-4-424-840	Well 2 and 3 work		47,958	47,958	-		47,958	Taxation/User Fees
28									
29		Total All Expenditures (2019\$)		440,658	440,658	-		440,658	
30		Major Maintenance (Items under \$5,000)		6,200	6,200			6,200	
31		Total Capital Projects		434,458	434,458	-	-	434,458	
32		Growth Capital as per 2014 and 2019 DC Studies		-	-	-		-	
33		Capital Renewal		434,458	434,458			434,458	
34		Total All Expenditures (2019\$)		434,458	434,458	-		434,458	
35									
36		Inflated \$ 30.48%							
37		Major Maintenance (Items under \$5,000)		8,090	8,090	-	-	8,090	
38		Total Capital Projects		566,869	566,869	-	-	566,869	
39		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
40		Capital Renewal		566,869	566,869	-	-	566,869	
41		Total Capital		566,869	566,869	-	-	566,869	



CLEARVIEW		Clearview Township							
2029		Capital Project Expenditures							
		Project Description	DC Study Y Yes	Budget	User Fees	Dev Charge	Grants, subsidies etc	Total	Funding Source
		Municipal Waterworks Services							
		Admin, Bldg, and Equip							
1	2-4-420-840	Hydrants Valves CR & ST combined		14,500	14,500	-		14,500	Taxation/User Fees
	2-4-420-840	Laptop Replacement (Todd)		5,000	5,000			5,000	
2	2-4-420-840								
3	2-4-420-840								
4	2-4-420-840								
5		Stayner Waterworks							
6	2-4-421-845	Chlorine pumps (x2)		12,196	12,196	-		12,196	Taxation/User Fees
7	2-4-421-845	Clearhib pumps (x2)		12,196	12,196	-		12,196	Taxation/User Fees
8	2-4-421-845								
9									
10									
11		Creemore Waterworks							
12	2-4-422-8	Water meter		9,757	9,757	-		9,757	Taxation/User Fees
13	2-4-422-8	Pressure Transducer		2,033	2,033	-		2,033	Taxation/User Fees
14									
15		New Lowell Waterworks							
16	2-4-423-840	TNT Line and Distribution water meters		24,596	24,596	-		24,596	Taxation/User Fees
17	2-4-423-840								
18	2-4-423-840								
19									
20		Nottawa Waterworks							
21	2-4-425-840	Replace Well 3		40,656	40,656	-		40,656	Taxation/User Fees
22	2-4-425-840	Treated Water meter		9,757	9,757	-		9,757	Taxation/User Fees
23	2-4-425-840	update / replace electrical , piping , HVAC		550,000	550,000	-		550,000	Taxation/User Fees
24									
25		Colling-Woodlands Waterworks							
26		Pressure & Flow Control Valve		3,049	3,049	-		3,049	Taxation/User Fees
27									
28									
29		Buckingham Woods							
30	2-4-424-840	Well # 1 pump		8,741	8,741	-		8,741	Taxation/User Fees
31		Well # 3 Level Logger		2,033	2,033	-		2,033	Taxation/User Fees
32									
33		Total All Expenditures (2019\$)		694,514	694,514			694,514	
34		Major Maintenance (Items under \$5,000)		7,115	7,115			7,115	
35		Total Capital Projects		687,399	687,399	-	-	687,399	
36		Growth Capital as per 2014 and 2019 DC Studies		-	-	-		-	
37		Capital Renewal		687,399	687,399			687,399	
38		Total All Expenditures (2019\$)		687,399	687,399	-		687,399	
39									
40		Inflated \$ 34.39%							
41		Major Maintenance (Items under \$5,000)		9,562	9,562	-	-	9,562	
42		Total Capital Projects		923,807	923,807	-	-	923,807	
43		Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-	
44		Capital Renewal		923,807	923,807	-	-	923,807	
34		Total Capital		923,807	923,807	-	-	923,807	



APPENDIX-H- WASTEWATER CAPITAL PROJECTS 2019-29

2019							
Municipal Wastewater Services							
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Building & Equipment						
2	2-4-406-840 Sewer Camera control unit		7,565	7,565	-		7,565
3	2-4-406-840						
4	Stayner Wastewater						
5	2-4-408-840 Clarifier drives and skimmers Eng. assessment		20,000	20,000	-		20,000
6	2-4-408-840 SPS #1 Grinder		27,810	27,810	-		27,810
7	2-4-408-840 PLC SCADA up-grade		21,200	21,200	-		21,200
8	2-4-408-840 TSS Probes in Aeration tank		13,400	13,400	-		13,400
9	2-4-408-845 Lock Ave and Jonathon CT. Sewer design		19,500	19,500	-		19,500
10							
11	Creemore Wastewater						
12	2-4-407-840 COMPUTER 2		5,000	5,000	-		5,000
13	2-4-407-840 CYCLIC AIR VALVE		6,000	6,000	-		6,000
14	2-4-407-840 AIR COMPRESSOR #1		2,000	2,000	-		2,000
15	2-4-407-840 RAS PUMP		10,000	10,000	-		10,000
16	2-4-407-840 ZW-1 SUCTION VALVE TO P-35-S		2,500	2,500	-		2,500
17	2-4-407-840 EFFLUENT DISCHARGE VALVE		2,500	2,500	-		2,500
18	2-4-407-840 ZW-1 DISCHARGE FROM P-35-S		2,500	2,500	-		2,500
19	2-4-407-840 ZW-1 BACKPULSE SUCTION VALVE		2,500	2,500	-		2,500
20	2-4-407-840 ZW-1 BACKPULSE VALVE		2,500	2,500	-		2,500
21	2-4-407-840 ZW-1 BACKPULSE FILL VALVE		2,500	2,500	-		2,500
22	2-4-407-840 ZW-1 SUCTION VALVE		2,500	2,500	-		2,500
23	2-4-407-840 WAS PUMP		5,000	5,000	-		5,000
24	2-4-407-840 VACUUM PUMP		3,500	3,500	-		3,500
25	2-4-407-840 INFLUENT PUMP #2		10,000	10,000	-		10,000
26							
27	Total All Expenditures (2019\$)		168,475	168,475	-		168,475
28	Major Maintenance (Items under \$5,000)		23,000	23,000			
29	Total Capital Projects		145,475	145,475	-	-	145,475
30	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-
31	Capital Renewal		145,475	145,475			145,475
32	Total All Expenditures (2019\$)		145,475	145,475	-	-	145,475
33							
34	Inflated \$	0.00%					
35	Major Maintenance (Items under \$5,000)		23,000	23,000			
36	Total Capital Projects		145,475	145,475	-	-	145,475
37	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-
38	Capital Renewal		145,475	145,475			145,475
39	Total Capital		145,475	145,475	-	-	145,475



2020								
Municipal Wastewater Services								
Admin, Building & Equipment								
	Project Description	DC Study Y or	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total	
1	2-4-406-840							
2	Stayner Wastewater							
3	2-4-408-840 Clarifier drives and skimmers Eng. assessment		20,000	20,000	-	-	20,000	Taxation/User
4	2-4-408-840 SPS #1 Grinder		20,000	20,000			20,000	
5	2-4-408-840 PLC SCADA up-grade		20,000	20,000			20,000	
6	2-4-408-840 broadband radio replacement		7,790	7,790			7,790	
7	2-4-408-840 SPS # 1 piping (Build)		60,000	60,000			60,000	
8	depth	Y	238,700	-	238,700	-	238,700	
9	2-4-408-840 Locke/Jonathan Sewermain		695,750			695,750	695,750	Local improve
10	Creemore Wastewater							
11	Dip Tank Relining		30,000	30,000			30,000	
12	2-4-407-840 DIP TANK MOTOR		2,000	2,000	-	-	2,000	Taxation/User
13	2-4-407-840 DIP TANK MOTOR		2,000	2,000	-	-	2,000	Taxation/User
14	2-4-407-840 DIAPHRAGM PUMP		4,000	4,000	-	-	4,000	Taxation/User
15	2-4-407-840 DIAPHRAGM PUMP		4,000	4,000	-	-	4,000	Taxation/User
16	2-4-407-840 DIAPHRAGM PUMP		4,000	4,000	-	-	4,000	Taxation/User
17	2-4-407-840 VACUUM PUMP		3,500	3,500	-	-	3,500	Taxation/User
18	2-4-407-840 WAS PUMP		5,000	5,000	-	-	5,000	Taxation/User
19	2-4-407-840 RAS PUMP #3		10,000	10,000	-	-	10,000	Taxation/User
20	2-4-407-840 PROCESS PUMP		2,000	2,000	-	-	2,000	Taxation/User
21	2-4-407-840 PRESSURE TRANSMITTER		1,000	1,000	-	-	1,000	Taxation/User
22	2-4-407-840 PRESSURE TRANSMITTER		1,000	1,000	-	-	1,000	Taxation/User
23	2-4-407-840 PRESSURE TRANSMITTER		1,000	1,000	-	-	1,000	Taxation/User
24	2-4-407-840 PRESSURE TRANSMITTER		1,000	1,000	-	-	1,000	Taxation/User
25	2-4-407-840 BLOWER		15,000	15,000	-	-	15,000	Taxation/User
26	2-4-407-840 BLOWER		15,000	15,000	-	-	15,000	Taxation/User
27	2-4-407-840 SILO MILTRONICS		1,000	1,000	-	-	1,000	Taxation/User
28	2-4-407-840 TRANSFER PUMP		5,000	5,000	-	-	5,000	Taxation/User
29	2-4-407-840 FLOW METER		3,000	3,000	-	-	3,000	Taxation/User
30	2-4-407-840 TRAIN 1 VALVING		17,500	17,500	-	-	17,500	Taxation/User
31	INSTALL 4 16 MM CASSETTES	RJB	286,000	114,400	171,600	-	286,000	
32	INSTALL INSTRUMENTATION UPGRADES	RJB	138,000	55,200	82,800	-	138,000	
33							-	
34	Total All Expenditures (2019\$)		1,613,240	424,390	493,100	695,750	1,613,240	\$ 1,613,240
35	Major Maintenance (Items under \$5,000)		29,500	29,500				
36	Total Capital Projects		1,583,740	394,890	493,100	695,750	1,583,740	
37	Growth Capital as per 2014 and 2019 DC Studies		662,700	169,600	493,100	-	662,700	
38	Capital Renewal		921,040	225,290	-	695,750	921,040	
39	Total All Expenditures (2019\$)		1,583,740	394,890	493,100	695,750	1,583,740	
40								
41	Inflated \$	3.00%						
42	Major Maintenance (Items under \$5,000)		30,385	30,385	-	-		
43	Total Capital Projects		1,631,252	406,737	507,893	716,623	1,631,252	
44	Growth Capital as per 2014 and 2019 DC Studies		682,581	174,688	507,893	-	682,581	
45	Capital Renewal		948,671	232,049	-	716,623	948,671	
46	Total Capital		1,631,252	406,737	507,893	716,623	1,631,252	



2021

Municipal Wastewater Services

		Total		User Fees		Dev Charge			
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total		
1									
2	2-4-406-840								
3	2-4-406-840								
4	Stayner Wastewater								
5	2-4-408-840 COD Reactor		2,060	2,060			2,060		
6	2-4-408-840 Sludge Depth Recorder		309	309			309		
7	2-4-408-840 Influent Splitter Box Engineering Design		20,000	20,000			20,000		
8	2-4-408-840								
9	2-4-408-840 3500 m3/d Sewage Pumping Station (Sunnidale St)	Y	1,912,500	191,300	1,338,700	382,500	1,912,500		
10	2-4-408-840 Forcemain (Sunnidale St) 900m	Y	757,400	75,700	530,200	151,500	757,400		
11	2-4-408-845 Brock Street Sewer	Y	1,673,200	557,700	1,115,500		1,673,200		
12	2-4-408-840 Clarifier Rebuild		200,000	200,000			200,000		
13	Creemore Wastewater								
14	2-4-407-840		5,000	5,000			5,000		Taxation/User
15	2-4-407-840 COMPUTER #1		5,000	5,000			5,000		Taxation/User
16	2-4-407-840 WAS PUMP		3,500	3,500			3,500		Taxation/User
17	2-4-407-840 VACUUM PUMP		10,000	10,000			10,000		Taxation/User
18	2-4-407-840 RAS PUMP		2,000	2,000			2,000		Taxation/User
19	2-4-407-840 PROCESS PUMP #2		1,000	1,000			1,000		Taxation/User
20	2-4-407-840 PRESSURE TRANSMITTER 5		1,000	1,000			1,000		Taxation/User
21	2-4-407-840 PRESSURE TRANSMITTER 6		1,000	1,000			1,000		Taxation/User
22	2-4-407-840 PRESSURE TRANSMITTER 7		1,000	1,000			1,000		Taxation/User
23	2-4-407-840 PRESSURE TRANSMITTER 8		1,000	1,000			1,000		Taxation/User
24	2-4-407-840 4 Membrane Cassettes	RJB	286,000	114,400	171,600		286,000		
25	miltronc Multiranger								
26	Sludge storage tank	Y	1,785,000		1,785,000		1,785,000		
27	Install Upgraded Screen	RJB	460,000	184,000	276,000		460,000		
28	2-4-407-840								
29	Total All Expenditures (2019\$)		7,126,969	1,375,969	5,217,000	534,000	7,126,969		
30	Major Maintenance (Items under \$5,000)		12,869	12,869			-		
31	Total Capital Projects		7,114,100	1,363,100	5,217,000	534,000	7,114,100		
32	Growth Capital as per 2014 and 2019 DC Studies		6,874,100	1,123,100	5,217,000	534,000	6,874,100		
33	Capital Renewal		240,000	240,000			240,000		
34	Total All Expenditures (2019\$)		7,114,100	1,363,100	5,217,000		7,114,100		
35									
36	Inflated \$	6.09%							
37	Major Maintenance (Items under \$5,000)		13,653	13,653	-		-		
38	Total Capital Projects		7,547,349	1,446,113	5,534,715	566,521	7,547,349		
39	Growth Capital as per 2014 and 2019 DC Studies		7,292,733	1,191,497	5,534,715	566,521	7,292,733		
40	Capital Renewal		254,616	254,616	-		254,616		
41	Total Capital		7,547,349	1,446,113	5,534,715	566,521	7,547,349		



2022								
Municipal Wastewater Services								
		Project Description	DC Study Y or RJB	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Build	Project Description						
2	2-4-406-840							
3	2-4-406-840							
4	Stayner Wastewater							
5	2-4-408-840	Blower #1		50,000	50,000			50,000
6	2-4-408-840							
7	2-4-408-840							
8	2-4-408-840							
9	Creemore Wastewater							
10	2-4-407-840					-	-	-
11	2-4-407-840	WAS PUMP		5,000	5,000	-	-	5,000
12	2-4-407-840	VACUUM PUMP		3,500	3,500	-	-	3,500
13	2-4-407-840	RAS PUMP		10,000	10,000	-	-	10,000
14	2-4-407-840	SAMPLER		4,000	4,000			4,000
15	2-4-407-840	VFD		1,000	1,000			1,000
16	2-4-407-840	VFD		1,000	1,000			1,000
17	2-4-407-840	VFD		1,000	1,000			1,000
18	2-4-407-840	VFD		1,000	1,000			1,000
19	2-4-407-840	VFD		1,000	1,000			1,000
20	2-4-407-840	PROCESS PUMP		2,000	2,000			2,000
21	2-4-407-840	PRESSURE TRANSMITTER		1,000	1,000			1,000
22	2-4-407-840	PRESSURE TRANSMITTER		1,000	1,000			1,000
23	2-4-407-840	PRESSURE TRANSMITTER		1,000	1,000	-	-	1,000
24	2-4-407-840	B-85-S CONTROL VALVE		3,000	3,000	-	-	3,000
25	2-4-407-840	B-85-S CONTROL VALVE		3,000	3,000			3,000
26	2-4-407-840	FLOW METER		3,000	3,000			3,000
27	2-4-407-840	FLOW METER		3,000	3,000			3,000
28		UV System		40,000	40,000	-		40,000
29		Sewage Pumping Station (Alliance)	Y	1,912,500			1,912,500	1,912,500
30		Sewage Forcemain related to SPS 950m	Y	658,900		-	658,900	658,900
31		Dip Tank Heater		5,500	5,500	-	-	5,500
32		Submersible Pumps (x 2)		6,500			6,500	6,500
33	Total All Expenditures (2019\$)			2,717,900	140,000	-	2,577,900	2,717,900
34	Major Maintenance (Items under \$5,000)			29,500	29,500		-	
35	Total Capital Projects			2,688,400	110,500	-	2,577,900	2,688,400
36	Growth Capital as per 2014 and 2019 DC Studies			2,571,400	-	-	2,571,400	2,571,400
37	Capital Renewal			117,000	110,500		6,500	117,000
38	Total All Expenditures (2019\$)			2,688,400	110,500	-	2,577,900	2,688,400
39								
40	Inflated \$			9.27%				
41	Major Maintenance (Items under \$5,000)			32,235	32,235	-	-	
42	Total Capital Projects			2,937,687	120,746	-	2,816,941	120,746
43	Growth Capital as per 2014 and 2019 DC Studies			2,809,838	-	-	2,809,838	2,809,838
44	Capital Renewal			127,849	120,746	-	7,103	127,849
45	Total All Expenditures (2019\$)			2,937,687	120,746	-	2,816,941	2,937,687



2023							
Municipal Wastewater Services							
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Building & Equipment						
2	24,406,840						
3	24,406,840						
4	Stayner Wastewater						
5	24,408,840 Splitter Box Rebuild		200,000	200,000			200,000
6	24,408,840						
7	24,408,840						
8	24,408,840						
9	Creemore Wastewater						
10	24,407,840 WAS PUMP		5,000	5,000	-		5,000
11	24,407,840 VACUUM PUMP		3,500	3,500	-		3,500
12	24,407,840 RAS PUMP		10,000	10,000	-		10,000
13	24,407,840 MLSS DO CONTROL BOX		1,500	1,500	-		1,500
14	24,407,840 MLSS TSS CONTROL BOX		1,500	1,500	-		1,500
15	24,407,840 EFFLUENT DO CONTROL BOX		1,600	1,600	-		1,600
16	24,407,840 EFFLUENT TSS CONTROL BOX		1,600	1,600	-		1,600
17	24,407,840 Design of Refurbishment	RJB	700,000	280,000	420,000		700,000
18	Total All Expenditures (2019\$)		\$ 924,700	\$ 504,700	\$ 420,000	\$ -	\$ 924,700
19	Major Maintenance (Items under \$5,000)		9,700	9,700			-
20	Total Capital Projects		915,000	495,000	420,000	-	915,000
21	Growth Capital as per 2014 and 2019 DC Studies		700,000	280,000	420,000	-	700,000
22	Capital Renewal		215,000	215,000	-	-	215,000
23	Total All Expenditures (2019\$)		915,000	495,000	420,000	-	915,000
24							
25	Inflated \$	12.55%					
26	Major Maintenance (Items under \$5,000)		10,917	10,917	-		-
27	Total Capital Projects		1,029,841	557,127	472,714	-	1,029,841
28	Growth Capital as per 2014 and 2019 DC Studies		787,856	315,142	472,714	-	787,856
29	Capital Renewal		241,984	241,984	-	-	241,984
30	Total Capital		1,029,841	557,127	472,714	-	1,029,841



2024								
Municipal Wastewater Services								
Admin, Building & Equipment								
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total	
1	2-4-406-840 ?							
2	2-4-406-840							
3	Stayner Wastewater							
4	2-4-408-840 DO Probes		11,000	11,000	-		11,000	Taxation/User Fees
5	2-4-408-840 Sludge Pump #1		2,700	2,700	-		2,700	Taxation/User Fees
6	2-4-408-840							
7	2-4-408-840							
8	Creemore Wastewater							
9	2-4-407-840 WAS PUMP		6,000	6,000	-		6,000	Taxation/User Fees
10	2-4-407-840 VACUUM PUMP		4,000	4,000	-		4,000	Taxation/User Fees
11	2-4-407-840 RAS PUMP		10,000	10,000	-		10,000	Taxation/User Fees
12	2-4-407-840 LAB PH METER		1,600	1,600	-		1,600	Taxation/User Fees
13	2-4-407-840 TURBIDITY METER		5,000	5,000	-		5,000	Taxation/User Fees
14	TURBIDITY METER		5,000	5,000	-		5,000	Taxation/User Fees
15	AIR COMPRESSOR		3,000	3,000	-		3,000	Taxation/User Fees
16	Chemical pump #3		3,800	3,800	-		3,800	Taxation/User Fees
17	Chemical pump #4		3,800	3,800	-		3,800	Taxation/User Fees
18	2-4-407-840 Plant Refurbishment	RJB	7,960,000	3,184,000	4,776,000		7,960,000	RJB Aug 2019
19	Total All Expenditures (2019\$)		8,015,900	3,239,900	4,776,000	-	8,015,900	
20	Major Maintenance (Items under \$5,000)		18,900	18,900				
21	Total Capital Projects		7,997,000	3,221,000	4,776,000	-	7,997,000	
22	Growth Capital as per 2014 and 2019 DC Studies		7,960,000	3,184,000	4,776,000	-	7,960,000	
23	Capital Renewal		27,000	27,000	-	-	27,000	
24	Total All Expenditures (2019\$)		7,987,000	3,211,000	4,776,000	-	7,987,000	
25								
26	Inflated \$	15.93%						
27	Major Maintenance (Items under \$5,000)		21,910	21,910	-	-	21,910	
28	Total Capital Projects		9,270,715	3,734,022	5,536,693	-	9,270,715	
29	Growth Capital as per 2014 and 2019 DC Studies		9,227,822	3,691,129	5,536,693	-	9,227,822	
30	Capital Renewal		31,300	31,300	-	-	31,300	
31	Total Capital		9,259,122	3,722,429	5,536,693	-	9,259,122	



2025							
Municipal Wastewater Services							
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Building & Equipment						
2	2-4-406-840						
3	2-4-406-840						
4	Stayner Wastewater						
5	2-4-408-840 Chemical Pumps (x2)		\$ 6,000	\$ 6,000	\$ -		\$ 6,000
6	2-4-408-840 Alum Drain Valve 19		\$ 1,200	\$ 1,200	\$ -		\$ 1,200
7	2-4-408-840 Admin Building Sewage Pump Control		\$ 1,200	\$ 1,200	\$ -		\$ 1,200
8	Clarifier Telescopic Valves		\$ 6,000	\$ 6,000	\$ -		\$ 6,000
9	VFD		\$ 2,500	\$ 2,500	\$ -		\$ 2,500
10	Sludge Valves		\$ 10,000	\$ 10,000	\$ -		\$ 10,000
11	Sludge Pump 2		\$ 3,000	\$ 3,000	\$ -		\$ 3,000
12	Flow Meters (x2)		\$ 7,000	\$ 7,000	\$ -		\$ 7,000
13	Blower 1 Valves		\$ 3,600	\$ 3,600	\$ -		\$ 3,600
14	Room Heaters (x4)		\$ 5,000	\$ 5,000	\$ -		\$ 5,000
15	Temperature Gauge		\$ 250	\$ 250	\$ -		\$ 250
16	SPS 2 Sump Pump		\$ 600	\$ 600	\$ -		\$ 600
17	Creemore Wastewater						\$ -
18	2-4-407-840 WAS PUMP		\$ 6,000	\$ 6,000	\$ -		\$ 6,000
19	2-4-407-840 VACUUM PUMP		\$ 4,000	\$ 4,000	\$ -		\$ 4,000
20	2-4-407-840 RAS PUMP		\$ 10,000	\$ 10,000	\$ -		\$ 10,000
21	2-4-407-840 DIP TANK PUMP		\$ 1,000	\$ 1,000	\$ -		\$ 1,000
22	2-4-407-840 BLOWER CHECK VALVES		\$ 12,000	\$ 12,000	\$ -		\$ 12,000
23	2-4-407-840 CHEMICAL PUMP		\$ 5,000	\$ 5,000	\$ -		\$ 5,000
24	2-4-407-840 CHEMICAL PUMP		\$ 5,000	\$ 5,000	\$ -		\$ 5,000
25	2-4-407-840 Membrane Cassette		\$ 50,000	\$ 50,000	\$ -		\$ 50,000
26	2-4-407-840 Membrane Cassette		\$ 50,000	\$ 50,000	\$ -		\$ 50,000
27	2-4-407-840 Membrane Cassette		\$ 50,000	\$ 50,000	\$ -		\$ 50,000
28	Add 2 cassettes (400m3/day) 2 of 8	Y	\$ 316,200	\$ -	\$ 316,200		\$ 316,200
29	Mixer		\$ 1,200	\$ 1,200	\$ -		\$ 1,200
30	Cleaning Table		\$ 1,250	\$ 1,250	\$ -		\$ 1,250
31							
32	Total All Expenditures (2019\$)		558,000	241,800	316,200	-	558,000
33	Major Maintenance (Items under \$5,000)		19,800	19,800			19,800
34	Total Capital Projects		538,200	222,000	316,200	-	538,200
35	Growth Capital as per 2014 and 2019 DC Studies		316,200	-	316,200	-	316,200
36	Capital Renewal		222,000	222,000	-	-	222,000
37	Total All Expenditures (2019\$)		538,200	222,000	316,200	-	538,200
38							
39	Inflated \$	19.41%					
40	Major Maintenance (Items under \$5,000)		23,642	23,642	-	-	23,642
41	Total Capital Projects		642,639	265,080	377,559	-	642,639
42	Growth Capital as per 2014 and 2019 DC Studies		377,559	-	377,559	-	377,559
43	Capital Renewal		265,080	265,080	-	-	265,080
44	Total Capital		642,639	265,080	377,559	-	642,639



2026								
Municipal Wastewater Services								
		Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subs idies, Dev Charges	Total
1	Admin, Building & Equipment							
2	2-4-406-840							
3	2-4-406-840							
4	Stayner Wastewater							
5	2-4-408-840	Trunk Sewer Upgrade (Montreal/Brock/Easement)	Y	1,740,400	580,100	1,160,300		1,740,400
6		Reline 950 m of sewerline from main SPS to the WWTP		400,000	400,000			400,000
7	Creemore Wastewater							
8	2-4-407-840	WAS PUMP		6,000	6,000	-		6,000
9	2-4-407-840	VACUUM PUMP		4,000	4,000	-		4,000
10	2-4-407-840	RAS PUMP		10,000	10,000	-		10,000
11	2-4-407-840	CHEMICAL PUMP		5,000	5,000	-		5,000
12	2-4-407-840	CHEMICAL PUMP		5,000	5,000	-		5,000
13		Aeration Grid #2		31,000	31,000	-		31,000
14								
15	Total All Expenditures (2019\$)			\$ 2,201,400	\$ 1,041,100	\$ 1,160,300	\$ -	\$ 2,201,400
16	Major Maintenance (Items under \$5,000)			4,000	4,000	-		4,000
17	Total Capital Projects			2,197,400	1,037,100	1,160,300	-	2,197,400
18	Growth Capital as per 2014 and 2019 DC Studies			1,740,400	580,100	1,160,300	-	1,740,400
19	Capital Renewal			457,000	457,000	-	-	457,000
20	Total All Expenditures (2019\$)			2,197,400	1,037,100	1,160,300	-	2,197,400
21								
22	Inflated \$		22.99%					
23	Major Maintenance (Items under \$5,000)			4,919	4,919	-	-	4,919
24	Total Capital Projects			2,702,525	1,275,502	1,427,023	-	2,702,525
25	Growth Capital as per 2014 and 2019 DC Studies			2,140,472	713,450	1,427,023	-	2,140,472
26	Capital Renewal			562,052	562,052	-	-	562,052
27	Total Capital			2,702,525	1,275,502	1,427,023	-	2,702,525



2027									
Municipal Wastewater Services									
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total		
1	Admin, Building & Equipment								
2	2-4-406-840								
3	2-4-406-840								
4	Stayner Wastewater								
5	2-4-408-840 ?								
6	2-4-408-840								
7	2-4-408-840								
8	2-4-408-840								
9	Creemore Wastewater								
10	2-4-407-840 WAS PUMP		6,000	6,000	-		6,000	Taxation/User Fees	
11	2-4-407-840 VACUUM PUMP		4,000	4,000	-		4,000	Taxation/User Fees	
12	2-4-407-840 RAS PUMP		10,000	10,000	-		10,000	Taxation/User Fees	
13	2-4-407-840 CHEMICAL PUMP		2,500	2,500	-		2,500	Taxation/User Fees	
14	2-4-407-840 CHEMICAL PUMP		2,500	2,500	-		2,500	Taxation/User Fees	
15	Air Compressor		2,000	2,000	-		2,000	Taxation/User Fees	
16									
17	Total All Expenditures (2019\$)		\$ 27,000	\$ 27,000	\$ -	\$ -	\$ 27,000		
18	Major Maintenance (Items under \$5,000)		11,000	11,000	-	-	11,000		
19	Total Capital Projects		16,000	16,000	-	-	16,000		
20	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-		
21	Capital Renewal		16,000	16,000	-	-	16,000		
22	Total All Expenditures (2019\$)		16,000	16,000	-	-	16,000		
23									
24	Inflated \$	26.68%							
25	Major Maintenance (Items under \$5,000)		13,934	13,934	-	-	13,934		
26	Total Capital Projects		20,268	20,268	-	-	20,268		
27	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-		
28	Capital Renewal		20,268	20,268	-	-	20,268		
29	Total Capital		20,268	20,268	-	-	20,268		



2028							
Municipal Wastewater Services							
	Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Building & Equipment						
2	2-4-406-840						
3	2-4-406-840						
4	Stayner Wastewater						
5	2-4-408-840 Alum Tank Heat Trace Cable		3,500	3,500	-		3,500
6	2-4-408-840						
7	2-4-408-840						
8	2-4-408-840						
9	Creemore Wastewater						
10	2-4-407-840 WAS PUMP		6,000	6,000	-		6,000
11	2-4-407-840 VACUUM PUMP		4,000	4,000	-		4,000
12	2-4-407-840 RAS PUMP		10,000	10,000	-		10,000
13	2-4-407-840 CHEMICAL PUMP		2,500	2,500	-		2,500
14	2-4-407-840 CHEMICAL PUMP		2,500	2,500	-		2,500
15	Chlorometer		2,500	2,500	-		2,500
16	PLC #1		25,000	25,000	-		25,000
17	Cyclic Air Valve		8,000	8,000	-		8,000
18	DO Probe & Controller		5,000	5,000	-		5,000
19							
20	Total All Expenditures (2019\$)		69,000	69,000	-	-	69,000
21	Major Maintenance (Items under \$5,000)		15,000	15,000	-	-	15,000
22	Total Capital Projects		54,000	54,000	-	-	54,000
23	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-
24	Capital Renewal		54,000	54,000			54,000
25	Total All Expenditures (2019\$)		54,000	54,000	-	-	54,000
26							
27	Inflated \$ 30.48%						
28	Major Maintenance (Items under \$5,000)		19,572	19,572	-	-	19,572
29	Total Capital Projects		70,458	70,458	-	-	70,458
30	Growth Capital as per 2014 and 2019 DC Studies		-	-	-	-	-
31	Capital Renewal		70,458	70,458	-	-	70,458
32	Total Capital		70,458	70,458	-	-	70,458



2029								
Municipal Wastewater Services								
		Project Description	DC Study Y or RJB Study	Budget	User Fees	Dev Charge	Grants/Subsidies, Dev Charges	Total
1	Admin, Building & Equipment							
2	2-4-406-840							
3	2-4-406-840							
4	Stayner Wastewater							
5	2-4-408-840	computer and printers		3,713	3,713	-		3,713
6	2-4-408-840	fridge		580	580	-		580
7	2-4-408-840	SPS 1 Grinder pump		36,000	36,000	-		36,000
8	2-4-408-840							
9	Creemore Wastewater							
10	2-4-407-840	WAS PUMP		6,000	6,000	-		6,000
11	2-4-407-840	VACUUM PUMP		4,000	4,000	-		4,000
12	2-4-407-840	RAS PUMP		10,000	10,000	-		10,000
13	2-4-407-840	Computer # 2		6,000	6,000	-		6,000
14	2-4-407-840	Membranes		200,000	200,000	-		200,000
15								
16	Total All Expenditures (2019\$)			266,293	266,293	-		266,293
17	Major Maintenance (Items under \$5,000)			8,293	8,293	-	-	8,293
18	Total Capital Projects			258,000	258,000	-	-	258,000
19	Growth Capital as per 2014 and 2019 DC Studies			-	-	-	-	-
20	Capital Renewal			258,000	258,000	-	-	258,000
21	Total All Expenditures (2019\$)			258,000	258,000	-		258,000
22								
23	Inflated \$ 34.39%							
24	Major Maintenance (Items under \$5,000)			11,145	11,145	-	-	11,145
25	Total Capital Projects			346,730	346,730	-	-	346,730
26	Growth Capital as per 2014 and 2019 DC Studies			-	-	-	-	-
27	Capital Renewal			346,730	346,730	-	-	346,730
28	Total Capital			346,730	346,730	-	-	346,730



The End