



Financial Services Staff Report

Report Number:	F19-2024
Report Title:	Water Wastewater Financial Plan and Rate Study
Author:	Colm Lynn, Director of Finance & Treasurer
Meeting Type:	Council Meeting
Meeting Date:	October 22, 2024
eDocs or File ID:	File
Consent Item:	No
Final Version:	Yes
Reviewed By:	SMT
Final Review:	Senior Management Team

Recommendation:

That the Council of the Township of Woolwich, considering Report F19-2024 Water Wastewater Financial Plan and Rate Study:

1. Receive the BMA Water and Wastewater Rate Study; and
2. Direct staff to conduct additional financial analysis on the rate recommendations outlined in the BMA Water and Wastewater Rate Study when proposing the 2025 rate increases, including contributions for water and wastewater rate stabilization reserves for implementation as of March 1, 2025.

Background:

The Township sets its water and wastewater rates annually as part of the budget process. Regular review of water and wastewater rates is essential to ensure that revenues generated adequately covers the costs of operations and to ensure long term financial sustainability of the capital program.

Best practices suggest that rates be reviewed annually for reasonability and an in-depth review takes place every 5 years. The Township has adjusted its annual rate primarily based on the wholesale rates supplied by the region. An in-depth review of utility rates has not been performed since 2005 (with recommendations implemented in 2006).

As a result, both the water and wastewater programs are in poor financial health with water and wastewater capital reserves in a negative position and large operating deficits

are forecast in the current fiscal year. Additionally, there are also negative balances in the development charge reserves which could impact capacity to support future growth.

The BMA water wastewater rate study recommends significant increases to both the water and wastewater rates to ensure long term sustainability. Township staff have identified additional financial needs which also need to be addressed and will need to be incorporated into the final rate recommendations for Council.

The Township does not have existing water and wastewater operating reserves, and potential operating deficits require funding by capital reserves. Additional amounts would be required to fund a water and wastewater operating stabilization reserves. This will also be considered as part of the proposed 2025 rates as part of the budget process.

Over the short to medium term, debenture financing will likely be required to return the existing reserves to a positive balance and will need to be looked at as part of a broader long term financial plan in accordance with the Township debt policy.

Improved analysis and monitoring of utility budgets and individual utility accounts is needed to better understand the financial situation of these services. More broadly there is a need for improved long-term financial planning and analysis capability of the Township.

Comments:

History

Overview

The Township's water and wastewater utility operates as a tiered system, with the Region of Waterloo providing most of the water and wastewater services, with the Township responsible for local infrastructure and ongoing maintenance and monitoring of the local water and wastewater system. The Region charges the municipality a wholesale rate for water and wastewater services, and the Township adds an additional fee on top of this wholesale rate to cover local capital and operating costs.

The Township's rate includes both an operating component (which covers day to day operating costs including salaries, materials, contract services, etc.) and a capital (reserve) component which provides for ongoing funding related to capital infrastructure.

Rate Study History

Regular review of water and wastewater rates is essential to ensure that revenues generated adequately covers the costs of operations and to ensure long term financial sustainability.

Best practices recommend rates are reviewed annually with an in-depth review every 5 years. The Township has adjusted its rates each year based primarily on the wholesale rates supplied by the Region; however, an in-depth review of utility rates has not been

performed since 2005. This is partially due to limited finance staff capacity needed to perform this analysis.

Current Water Rates

The Township has a tiered rate structure due to pipe capacity and a fixed charge for capital costs also related to pipe size. The current water rate for most households is \$2.11 per cubic metre and \$26 as a fixed capital charge. The historic water rates can be shown in the table below.

		2019	2020	2021	2022	2023	2024
Water							
Water Usage Charge (Volumetric) per m3		\$ 1.730	\$ 1.760	\$ 1.760	\$ 1.820	\$ 1.890	\$ 2.110
Water Charge based on Meter Size Bi-Monthly	5/8"	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00
	1"	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00
	1.5"	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00
	2"	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00
	3"	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00
	4"	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00
	6"	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00
	8"	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00
	10"	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00
Volumetric Rate Change		0.6%	1.7%	0.0%	3.4%	3.8%	11.6%
Fixed Rate Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 1 – Water Rate History

Wastewater Rates

The current wastewater rate for most households is \$3.39 per cubic metre and \$26 as a fixed capital charge. The historic wastewater rates can be shown in the 2 below.

		2019	2020	2021	2022	2023	2024
Wastewater							
Wastewater Usage Charge (Volumetric) per m3		\$ 2.850	\$ 2.910	\$ 2.910	\$ 3.000	\$ 3.180	\$ 3.390
Wastewater Charge based on Meter Size Bi-Monthly	5/8"	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00	\$ 26.00
	1"	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00	\$ 38.00
	1.5"	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00	\$ 64.00
	2"	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00
	3"	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00	\$ 126.00
	4"	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00	\$ 505.00
	6"	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00
	8"	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00	\$ 885.00
	10"	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00	\$ 1,263.00
Volumetric Rate Change		5.9%	2.1%	0.0%	3.1%	6.0%	6.6%
Fixed Rate Change		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 2 – Wastewater Rate History

Capital Reserve Contributions

In addition to the variable usage charge, each user pays a fixed capital charge to support infrastructure costs which varies according to pipe capacity. This is currently \$26 bi-monthly for most residential users. Unlike the volumetric rate, this fixed charge has not been adjusted annually and has remained fixed at this rate since the 2005 rate study (which was implemented in 2006).

Capital costs increases have significantly outpaced inflation in recent years. Over the past five years, many capital costs have increased by over 40%. As this fixed charge is the primary funding source of our capital renewal and has not increased in 18 years, this would put significant pressure on our capital program and was not sustainable.

Operating Reserves

Best practice includes an operating rate stabilization reserve to respond to fluctuations in water revenues and unforeseen operating costs. This is usually funded by operating contributions or surpluses to allow for contingencies in the event of annual deficits. The Township does not currently have utility rate stabilization or operating reserves.

Past Council direction was to allocate any operating surpluses to support the capital program. However, this approach has meant that in the event of any operating deficits, any funds needed would have to be drawn from the capital reserve. As described above, the fixed charge was not adjusted to since 2006 and operating deficits would exacerbate this capital funding situation.

O Reg 453/07 Financial Plan

O Reg 453/07 requires all operators of a water system to submit a financial plan every 5 years under the Safe Drinking Water Act. This ensures the ongoing sustainability of the drinking water system. A similar plan is not currently required for wastewater.

Among the requirements of the financial plan includes:

- Financial plans must be approved by Council resolution indicating that the drinking water system is financially viable
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six-year period

This required plan was completed in house by finance staff and submitted in 2020 and would be due for renewal in 2025. The BMA report that follows provides an update to this financial plan. It should be noted that this report needs further refinement and review by finance before presented and adopted.

BMA Study

Overview

The township has not performed an in-depth utility rate analysis since 2005 with recommendations taking effect in 2006.

An interim finance director was appointed in late 2023 who identified a critical need to perform an in-depth analysis of water and wastewater rates. In 2024 an RFP was issued, and BMA was selected to perform a water and wastewater rate study. The attached report contains the details of those findings.

Cost of Service / Comparators Overall

Page 13 of the BMA report outlines the current cost of the total water and wastewater utility service compared to our peers. The overall annual cost of \$1,275 for water and wastewater services is in line with the average from this comparator group. Woolwich rates as a percentage of household income is also in line with our comparator group.

However, a more reasonable comparison would be to compare municipalities in the same region who would be subject to the same regional wholesale rate. The average of these comparators is \$1,194 per year which is approximately 9% below the current annual average of Woolwich at \$1,275. However, there are differences between the two services as outlined below. The breakdown of water and wastewater into the overall utility rate varies greatly between municipality as seen in table 3 below.

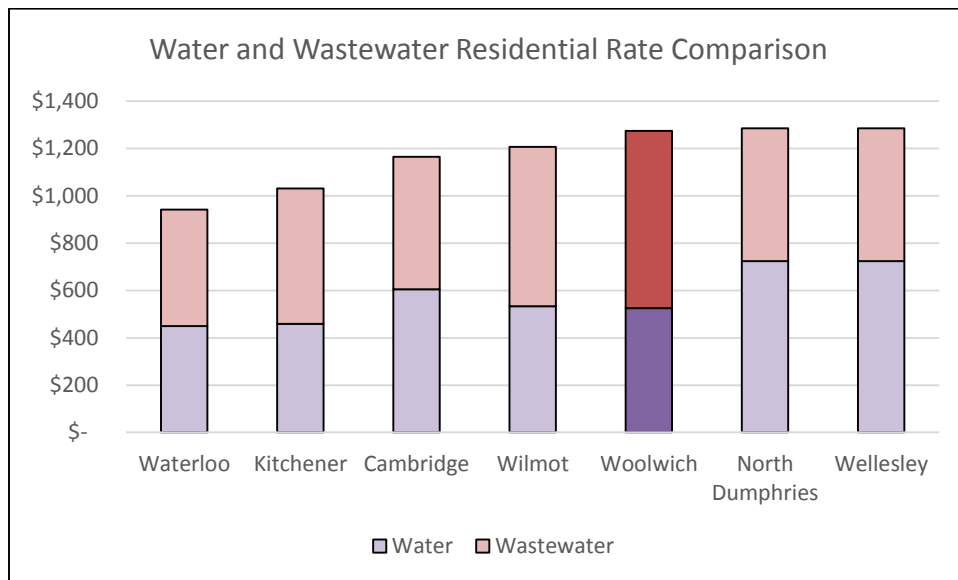


Figure 3 – Water and Wastewater Rate Comparisons

Water Comparison

Page 14 of the BMA report outlines the current cost of the individual water and wastewater utility services compared to our peers. The Woolwich water cost \$525 is approximately -19% below the comparator group. Compared to our regional peers, the

Townships water cost is -6% below the regional peer average of \$596. Our low fixed rate likely contributes to this position.

Wastewater Comparison

Page 14 of the BMA report outlines the current cost of the individual water and wastewater utility services compared to our peers. The Woolwich wastewater cost \$749 is approximately 14% above the comparator group. Compared to our regional peers, the Townships water cost is 26% higher than the regional peer average of \$574. This can be seen in figure 4 below:

Municipality 5/8	Water	Wastewater	Total
Waterloo	\$ 450	\$ 492	\$ 942
Kitchener	\$ 459	\$ 572	\$ 1,031
Cambridge	\$ 605	\$ 560	\$ 1,165
Wilmot	\$ 533	\$ 674	\$ 1,207
Woolwich	\$ 525	\$ 749	\$ 1,274
North Dumphries	\$ 724	\$ 561	\$ 1,285
Wellesley	\$ 724	\$ 561	\$ 1,285
Average	\$ 574	\$ 596	\$ 1,170
% above/(below)	26%	-6%	10%

Figure 4 – Water and Wastewater Rate Details

Fixed Capital Contribution

As outlined above, the Township has not adjusted its bi-monthly fixed capital contribution rate since 2006 at \$26 for more households. Keeping this capital rate unchanged should reduce the overall rate over time as the capital contribution has not kept pace with long term capital needs.

Regional cost increases

Regional costs comprise the largest item in the budget and costs are forecast to increase over the next 10 years, with increases of 5.4% and 6.4% anticipated each year over the next few years. Figure 5 summarizes the regional projections:

	Regional % Increase	
	Water	WW
2025	5.4%	6.4%
2026	5.4%	6.4%
2027	5.4%	5.4%
2028	5.4%	5.4%
2029	5.4%	2.4%
2030	5.4%	2.4%

Figure 5 – Projected Regional Increases

Capital Plan

The BMA report has used the 2024-2028 capital budget to project capital works. As a 6-year plan is required and the Township only produces a 5-year capital plan, assumptions were made for the remaining two years (2029-2030). As the Township is currently developing its 2025 budget, any changes to the original 2024 plan will need to be considered when setting and adjusting rates.

Reserves

The annual contributions to capital reserves should be set at an amount that provides sufficient funding to cover the costs to replace assets. Reserves facilitate multi-year financial planning and are the critical component of financial sustainability. The Water and Wastewater Reserves are funded from fixed contributions from the water and wastewater rates.

The amounts for these capital contributions have not been increased in 18 years. Both the water and wastewater reserves are currently in a deficit position in 2024 meaning reduced capacity to undertake infrastructure work or to absorb unexpected events.

In addition, the Township does not maintain rate stabilization or operating reserves. This means any shortfalls on the water and wastewater operating budget must be taken from capital reserves. Funding these operating deficits will put additional pressure on the already underfunded capital reserves.

Development Charge Reserves

Development charges (DC's) are used to fund growth related infrastructure. These charges are set by service based on a development charge background study. As of 2023 year end the water DC reserve had a negative balance of \$970,000 and the wastewater DC reserve had an almost \$1.3 million negative balance.

Negative balances are not uncommon for water and sewer as servicing projects are required up front to be done to support future growth. However, this does mean that water and wastewater services are effectively internally borrowing from other DC programs until water and sewer DCs are collected.

BMA Study Recommendations

Capital Reserve Balances

The BMA report recommends best practice for the water and wastewater reserves to maintain a minimum balance of 2% of the asset replacement value. As the Township has negative reserve balances, it is considerably short of this target. The BMA recommendations present a modest plan to increase reserve balances but still do not achieve this 2% target level by 2030.

Revenue Stabilization Reserves

The BMA states that “the Township does not currently have rate stabilization reserves which has posed challenges in that significant deficits have been experienced in the (water and) wastewater operations over the past two years, resulting in a deficit in the Capital Reserve and erodes the ability to pay for future capital projects”.

“A leading practice is to establish Water and a Wastewater Rate Stabilization Reserves, through annual contributions. Any operating deficits could be funded in the future from these reserves and operating surpluses transferred in years where revenues exceeded operating expenditures. The recommended target balance for these reserves is 5%-15% of the operating revenue requirements.”

For the Township of Woolwich, this would equate to approximately \$350,000 to \$700,000 in operating stabilization reserves. The BMA report recommends a starting transfer for both water and wastewater of 0.5% of rate revenue requirements. However, it should be noted that at these levels the Township will only be 2.5% or at half the minimum recommendation of 5% of revenues by 2030.

Debt Strategies

Debt management may be defined as the process of providing for the payment of interest and principal payments on existing debt and the planning for new debt issuance at a level which will optimize borrowing cost and not impair the financial position of the municipality.

Due to the current deficiencies in capital reserves, the BMA report recommends \$1.5 million in new debt for water and \$3.0 million in new debt for wastewater in 2025 to return the reserves to a positive balance. While debt is likely a critical component of the Townships financial plan, this recommendation approach is not feasible which is outlined in more detail on page 11 below.

Suggested water rate increases

Page 30 of the BMA report outlines an operating budget forecast as well as the existing fixed charge. For water, the report recommends a 6.3% increase for both fixed and volumetric rates each year over the next 6 years. It should be noted that if rate increases are lower than this target, especially in earlier years, there will be a larger impact in future years

Suggested wastewater rate increases

Page 30 of the BMA report outlines an operating budget forecast as well as the existing fixed charge. For wastewater, the report recommends an 10.2% increase for both fixed and volumetric rates each year over the next 4 years and an 7.3% increase in the final two years. It should be noted that if rate increases are lower than this target, especially in earlier years, there will be a larger impact in future years

Rate Structure

The BMA report recommends continuing with the uniform rate structure which charges the same volumetric rate to all users regardless of consumption. This is also the easiest structure to understand and administer and is consistent with the rate recommendations above.

O-Reg 453/07 Financial Plan

The BMA report supplies an appendix which includes a 6-year financial plan for both water and wastewater which would meet the requirements of O-Reg 453/07. This plan will need to be further refined by BMA and finance staff before it can be presented and adopted to meet the O-Reg 453/07 requirements.

Internal Review

Overview

The BMA report is a strong foundational body of work which makes several important recommendations to improve the Township's water and wastewater financial position. However, finance staff can provide additional insights and take a more holistic view before proposing final rate recommendations.

The following paragraphs list additional factors that need to be considered when preparing final rate / utility recommendations. These recommendations will be presented to Council as part of the 2025 budget discussions using the BMA findings as a baseline.

2024 Operating Budgets used as a Baseline

Page 9 of the BMA report states the 2024 Operating budget was used as a basis to forecast for future years. However, the Township is currently projecting significant deficits in both the water and wastewater program and the BMA report assumes that a sustainable level of funding is currently in place. Further analysis is required to understand if potential additional rate increases are required to address to avoid future operating deficits.

2024 Asset Management Plan

The BMA report relies on the 2024 Asset Management Plan to determine the backlog of future replacement requirements. The 2024 AMP was based primarily on data gathered in 2022. In addition, the associated AMP financial plan is still under development with at 2025 completion date. It is likely that the water / wastewater financial plan will need to be adjusted based on the ongoing AMP financial work.

2023 Financial Return

The 2023 Financial Information Return (FIR) was used as a basis in the preparation of the financial plan. Due to the transitions in finance, the 2023 financial statements have not yet been confirmed by the auditors.

The 2023 FIR includes approximately \$39 million in construction in progress (CIP) which are capital projects which have not yet been capitalized. The financial capitalization process is an essential part of the asset management / capital close process which puts the assets on our financial statements and calculates amortization expenses.

While a small CIP balance is expected, the Township has not capitalized any assets since 2020 and currently has a CIP balance of over \$39 million. These assets are not actually construction in progress but are currently in service and will incur maintenance and replacement costs. These should be considered in developing long term maintenance and funding needs that may be higher than presented in this report. Addressing this CIP backlog as well as additional work through the asset management financial plan will improve the confidence in the funding required.

Capital processes

The standard industry practice for capital projects is to request / approve and the full cost of a project through the annual capital budget. For projects which span multiple years, standard process is to show the overall impact over each year but to commit the total funding against the reserves. Upon project completion, a close process is performed which compares the total cost of the project to the budget and returns any surplus funds to reserve or identifies alternate funding options.

Woolwich's capital process differs from this standard approach. In the Township, previously approved capital projects which remain unspent at the end of a capital year are re-budgeted in the following year. It is not uncommon for the same project to be budgeted multiple times in subsequent budget years. This makes the understanding of the true historic capital spending and reserve analysis and future forecasts more difficult. System limitations, staff capacity and a lack of assigned project numbers adds to the difficulty in understanding the capital program.

There is therefore an increased risk that any historical analysis or future requirements may be less accurate. Work is underway through the recently adopted long term financial framework (LTFF) to improve the capital planning program and adjustments and refinements will be reflected to future financial plans.

Capital Reserves

BMA used existing reserve balances as at year end 2023. As the study progressed large deficits were forecasted for both water and wastewater. BMA was made aware of this late in the process, however, the full implications of these deficits have not been accounted for.

Also, since The Township has also not increased its capital contribution amount since 2006 and has limited long range forecasting, it is very likely that the existing contribution rate has long been insufficient and has impacted the capital program. More analysis

including work involving the asset management financial plan will be needed to understand any potential backlog and the true impact of this static fixed rate.

For these factors, it is likely the suggested rates increase in the BMA report may need to be adjusted as capital planning improves, and more information becomes available through the asset management financial plan.

Operating Reserves

The Township does not currently maintain operating rate stabilization reserves. The BMA report suggests a modest contribution of 0.5% of revenues to begin to address this, but this still falls well short of the 5% minimum target by 2030. As the Township's utility deficits have fluctuated considerably in recent years, both a much higher contribution rate and a high target level beyond the 5% minimum would be recommended. Staff will consider these additional needs as part of the proposed rate recommendations in 2025.

Utility Billing Analysis

There have been considerable revenue fluctuations in utilities in recent years. Utility consumption and revenues have not been proactively analyzed due to limited finance staff capacity. There is an increased risk of large revenue fluctuations until a more proactive monitoring program can be put in place. This will require increased capacity and analysis to monitor.

There has been limited analysis when setting annual rates for budget. Suggested increases have mainly followed the increases in regional wholesale rates. This report and recent operating deficits have demonstrated a clear need for improved understating and analysis in utilities required for setting future rates.

Debt Capacity

The BMA report recommends \$1.5 million in new debt for water and \$3.0 million in new debt for wastewater to return the utility reserves to a positive balance in 2025. While debt is likely a critical component of the Townships overall financial plan, this approach is not feasible for several reasons.

First, as per the Municipal Act, the Township must issue all debt through the Region and only for capital works. There is no mechanism for the Township to issue debt solely to address reserve shortfalls. The municipal also act specifically excludes issuing debt for operating expenses and a portion of the current reserve shortfall is related to operating deficits.

Second, there are significant additional debt requirements which have not been accounted for in this report. The Township's overall debt capacity and ability to repay would need to be considered in the issuance of future debt. This is anticipated to be address through a future debt policy incorporating the long term needs of the corporation.

Interdepartmental Impacts:

The Operations team is a key stakeholder in the setting of water and wastewater rates and the understanding of related revenues. Many expenses in the operations budget are funded directly from water and wastewater rate revenues. Shortfalls in these areas directly impact operations department sustainability. Understanding the financial implications of the utility program is crucial for long term planning and funding of future capital and maintenance works.

Setting appropriate water and wastewater rates will ensure sustainable funding for related operating costs and the future capital program. Improving analysis and understating of the utility program will improve the overall fiscal health of the organization.

Financial Impacts:

There are no direct fiscal impacts in the recommendations in this report. Recommendations from this report will be incorporated into the annual rate setting process for 2025.

However, for context, the baseline recommended increase of water rates by 6.3% would generate an additional \$300,000 annually. This would be an increase of approximately \$33 annually for the average residential user.

The recommended increase of wastewater rates by 10.2% would generate approximately \$530,000 annually. This would be an increase of \$77 annually for the average residential user.

Community Strategic Plan Impacts:

Setting rates which are sustainable improves the overall fiscal health of the organization and will ensure the strategic goals of fiscal sustainability and long-term prosperity.

Conclusion:

Industry best practice suggests that water and wastewater rates are reviewed annually, and an in-depth review takes place every 5 years. The Township has adjusted its rates annually but has not performed in-depth review of utility rates since 2005.

The current financial health of both the water and wastewater program is poor, with reserves in a negative position and large operating deficits forecast for 2024. The BMA study recommends significant increases to both the water and wastewater rates to ensure long term sustainability.

Staff will consider the findings of the BMA review and closely monitor the year end financial position of the water and wastewater programs. This additional analysis will be incorporated into setting the final rates with as part of the budget process for 2025.

Attachments:

1. BMA - Water and Wastewater Financial Plan and Rate Study