**Town of Woodstock**
**Water and Sewer Rate Adjustment Proposal**
**Report to Town Council**

**Date:** January 28, 2025
**Prepared by:** CAO and Staff
**Subject:** Recommendation regarding Residential Metering and 2025 Water & Sewer Rates.

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## PART 1 – Recommendation to remain with the residential fixed rate billing system long-term

### 1. Background and Current Challenges

In 2023, the municipality changed their water and sewer rate billing from a metered rate system to a tiered fixed rate system. At the same time, the municipality increased the water and sewer rates to ensure the operational needs were being met. To help with the significant change in costs for many residential users, a tiered water rate system was implemented, based on historically reported metered usage. At that time the municipality committed to analyzing whether switching to an externally read metered system was financially advisable as a long-term solution.

**Considerations:**

**Effectiveness of meters**

Meters allow billing to be done at an individual unit consumption basis, ensuring each household is billed only based on their usage, but this does have several drawbacks.

1. Meters measure only water usage, not sewage output, and both components are part of the overall utility cost.

2. An estimated **73 % of total utility costs are fixed** and are incurred by a household independent of their water consumption. Changes in household usage, within a wide range, do not change these fixed costs. Therefore, **an equitable pricing structure would be a flat rate to cover fixed costs and a variable rate to cover usage.** This means that the per m3 rate variance among households of varying usages would be relatively small.

| Fixed vs. Variable Cost | | |
|---|---|---|
| Expense | 2025 Budget | % by type |
| Fixed | $1,560,712 | 73.6% |
| Variable | $560,700 | 26.4% |
| Total | $2,121,412 | 100.0% |

3. Meters, in today's environment, must be externally read in some form. Self reporting of meter readings has been demonstrated to be ineffective.

4. Meters **do not reduce the cost of providing water and sewer services**, merely redistribute that cost across users, while adding to the total cost of service.

5. Externally readable meters come at a significant cost. Initial base cost is estimated at $400 each including installation for an inline meter with external reading device. This is the most cost-effective option as a true Smart meter can cost up to $1,000 each. For 1500 residents, the total cost of implementing new meters is $600,000. Spreading these costs over 5 years, excluding interest, would result in a $80 fee per household per year for 5 years. On an ongoing basis, 5 % of the meters will need to be replaced each year at a cost of $30,000 per year, resulting in an ongoing meter fee of $20/year, plus inflation. **The additional cost per household to have external readable meters is a minimum of $100 per year for five years, then $20 per year, plus inflation ongoing.**

6. Externally readable meters must be manually read. To read twice per year takes the Utility team of four one week per reading, **for an estimated annual cost of $21,000, or $14 per household per year**. In addition, it is administratively more complex and costly to issue meter-based invoices.

**Advantages of Flat Rate Billing**

While there are some drawbacks, the advantages of flat rate billing include:

1. No need for initial and ongoing investments in meters and data management system.
2. Predictability of billing amounts for budgeting purposes by residents
3. Predictability of revenue for Municipality.
4. Billing is administratively simpler and easier to understand.

**Conclusion and recommendation re meters:**

Moving back to meters would involve a significant capital investment and on ongoing meter renewal cost, as well as additional costs to read the meters and prepare the invoices. all of which **add costs to the system while not lowering the cost of operating the water and sewer services**. To be equitable, this system would require a flat rate fee to cover the 74% of fixed costs, plus a metered rate to cover the remaining 26% of cost.

**It is therefore recommended that the municipality remain with a fixed rate for water and sewer services** because it offers administrative simplicity, financial stability, and it is lower cost and more predictable for residents. **It is also recommended that rates migrate from the current 4-tier system to a single rate** as the tiered system relied on historic data that will no longer be relevant over time. This should be accomplished over a three or four year timeframe to spread out any impact to users. It is further recommended that a deeper discount be considered for low-income and fixed-income households and that the threshold amount be revisited.

## PART 2 – Water and Sewer Rate Increases

### 1. Summary

This section outlines the primary cost drivers of maintaining a safe, functional, drinking and wastewater system. The proposed rate adjustments are necessary to support the significant investments required for infrastructure updates, maintenance, and operational costs to ensure the continued delivery of high-quality water and sewer services to the community. These increases are essential for meeting both current and future demands, addressing aging infrastructure, and complying with regulatory requirements.

### 2. Background and Current Challenges

The Town of Woodstock provides vital water and sewer services to approximately 5,600 residents across 1,750 single and multi unit residences, plus 150 businesses. The water and sewer systems, however, are experiencing increasing pressure due to:

- **Aging Infrastructure**: Many parts of the water and sewer systems were installed up to 75 years ago, with some areas dating back much further, and are nearing the end of their useful lifespan. Without substantial upgrades, the risk of system failures, leaks, and water quality issues will increase, resulting in higher long-term costs and service disruptions.
- **Regulatory Compliance**: To comply with wastewater quality standards the municipality must invest a minimum of $400,000 in equipment and systems to continue to meet these standards and ensure we continue to provide safe, potable water and acceptable wastewater effluent.
- **Population Growth and Demand**: The population is expected to continue to grow and the number of new housing units expected to be connected to the water and sewer system in the coming years is driving higher demand for water and sewer services. To meet these needs, system capacity must be expanded and upgraded. At this time, there are three sizeable housing projects underway in the downtown core, and another significant development in the planning stage. The Town is investing over $120,000 this year in infrastructure assessment, design and prioritisation to allow us to effectively plan for this growth.
- **Inflation and Rising Operational Costs**: The cost of raw materials, chemicals for water treatment, and energy for pumping stations has risen significantly, increasing the overall cost of providing water and sewer services.
- **Staffing Operational Costs**: The municipality has also committed to expanding the Utility team to add qualified team members to ensure they are better equipped to manage the extensive workload and system upgrades. We currently have a Director of Utilities and four operators. In 2025 we will be adding a Utility Supervisor and continuing to upgrade the training and capabilities of the operators.

### 3. Need for Rate Adjustment

To maintain the quality of service, safeguard public health, and ensure financial sustainability, an adjustment in water and sewer rates is required. The proposed rate increases will:

### 3.1 Fund Necessary Infrastructure Improvements

- **Water Treatment Plant Upgrades**: Costs and timing to upgrade the water treatment plant, including a potential storm wall on the causeway, are expected to be determined with the utility infrastructure assessment being done the summer of 2025.
- **Waste Water Treatment Plant Upgrades**. Major upgrades include an ultraviolet wastewater outflow treatment system in 2025 to bring us into compliance, and a replacement of the lagoon curtain by 2027, valued in total at $650,000
- **Water Distribution system, ex pipelines**. Major upgrades include a refurbishment of the Eastwood Reservoir, upgrade of the St. Andrews booster station with new pumps and a generator. Estimated cost is a $1,255,00 with the generator project still being costed.
- **Replacement of heavy equipment**. A backhoe replacement is required in 2025, estimated at $200,000.
- **Replacement of Aging Pipelines**: There are over 122 kms of water, storm and sewer pipes underground. The water and sewer mains are in need of extensive repairs and a long-term replacement strategy. Some sections of the infrastructure are over 75 years old and prone to leaks, which can lead to service disruptions and water loss. Replacing the entire system over even a 50-year time frame requires 2.5 km of pipes and roadway to be replaced annually. A comprehensive inspection and assessment of our infrastructure's current state and future needs is planned for the summer of 2025, and this will determine the investment required for infrastructure refurbishment and flood mitigation and resilience improvements.

### 3.2 Ensure Compliance with Regulatory Standards

To remain compliant, the municipality must invest in updated treatment technologies. These improvements will ensure continued safe drinking water and help avoid potential fines for non-compliance. This is an ongoing expense to maintain and upgrade all of our systems that will only increase as the demand on our system continues to grow.

### 3.3 Sustain Service Quality and Reliability

- **Regular Maintenance and Repairs**: The increased revenue from rate adjustments will also help cover routine maintenance costs, such as pipe inspections, valve replacements, and pump station repairs, ensuring the continued reliability of services.
- **Emergency Fund for Unexpected Failures**: Establishing an emergency fund to address unforeseen failures in the system, such as water main breaks or pump station failures, will reduce the likelihood of large-scale service disruptions.

## 4. Proposed 2025 Rate Increase and Impact on Customers

The proposed rate increase is designed to balance the need for infrastructure improvements and regulatory compliance with the affordability of services for residents and businesses. While for now it continues a multi-tier rate, it begins to close the gap as we migrate to a one-tier residential rate program.

### 4.1 Rate Structure

The proposed rate adjustments are as follows:

| Class | Current | increase | Proposed | % increase |
|---|---|---|---|---|
| Residential, Tier 1, annual | $550.00 | $100 | $650.00 | 18.2% |
| Residential, Tier 2, annual (default) | $725.00 | $50 | $775.00 | 6.9% |
| Residential, Tier 3, annual | $825.00 | $0 | $825.00 | 0.0% |
| Residential, Tier 4, annual | $925.00 | $0 | $925.00 | 0.0% |
| Residential, added rental unit | $350.00 | $50 | $400.00 | 14.3% |
| Multi unit, annual per unit | $350.00 | $50 | $400.00 | 14.3% |
| Water only | $225.00 | $75 | $300.00 | 33.3% |
| Sewer only | $325.00 | $0 | $325.00 | 0.0% |
| Commercial/industrial water/sewer, low consumption | $225.00 | $75 | $300.00 | 33.3% |
| Commercial/industrial water, metered, per m gallon | $5.88 | $0 | $5.88 | 0.0% |
| Woodstock First Nations (Sewer, sliding scale) | $1.94 | $0.00 | $1.94 | new |
| Commercial/industrial sewer rate | $325.00 | $0 | $325.00 | 0.0% |
| Campground, water & sewer, seasonal campers | $0.00 | $145 | $145.00 | new |
| School, water, unmetered per 15 students | $162.00 | $0 | $162.00 | 0.0% |
| School, sewer, unmetered per 15 students | $325.00 | $0 | $325.00 | 0.0% |
| Municipal, water/seer Tier 2 | | | $775.00 | new |

An alternative to the above is to hold the base rates at current levels (or increase a small percentage annually to cover operating cost expenses) and annually set an infrastructure renewal fee that can vary from year to year based on capital projects planned for that year.

The advantage of a separate renewal fee is visibility to capital upgrades versus ongoing operating expenses, and the ability to vary it year by year based on actual needs, although rates can still be varied year by year without the capital surcharge feature.

The disadvantage is the variance this can introduce to annual rates if a particularly large project is scheduled for a given year, and the capital portion will have to include any financing costs for large projects, The use of a set rate and building then drawing down a reserve fund can smooth out annual rate variances.

**Either way, sufficient rate revenue needs to be achieved to fund the required capital.**

These adjustments add 15% or $248,000 to the total water and sewer revenue. While not addressing all of the capital requirements, it does cover increased operational costs and allow some contribution to capital.

### 4.2 Impact on Average Residential Customer

While this represents an increase in household utility bills, it is essential to note that these rates will help ensure the long-term sustainability and reliability of the water and sewer systems**. For the average residential customer, safe drinking water and reliable sewage removal is being provided at a cost of under $2.00/day per household.**

## 5. Financial Forecast and Sustainability

High level capital investments over the next three years are estimated at $2,660,000, or $886,000 per year. Assuming external funding can be found for 30% of this requirement**, the Town will still need to invest an estimated $620,000 per year**, not including a renewal program for underground water, sewer and storm piping.

**Our 2025 budget has a total water and sewer capital amount of $69,736**.

| Description | 3 year capital plan |
|---|---|
| Well # 3 completion | $433,000 |
| St. Andrews pump upgrade | $55,000 |
| Backhoe replacement | $200,000 |
| Utility system review | $122,500 |
| Eastwood reservoir | $1,200,000 |
| Waste water outflow | $400,000 |
| Lagoon curtain replacement | $250,000 |
| | |
| Total | $2,660,500 |
| 3 year average | $886,833 |

Gradually moving to a single tier rate over four years will begin to cover the above capital requirements, with the example below generating additional revenue from rates of $566,000. As above, the single tier rate could have some combination of base operating cost rate and an infrastructure investment levy. In addition, continued residential growth will add further revenue, but will also come at additional cost.

**Proposed four-year residential rate structure**

| Class | Current | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|
| Residential, Tier 1, annual | $550.00 | $650.00 | $725.00 | $800.00 | $850.00 |
| Residential, Tier 2, annual (default) | $725.00 | $775.00 | $800.00 | $825.00 | $850.00 |
| Residential, Tier 3, annual | $825.00 | $825.00 | $850.00 | $850.00 | $850.00 |
| Residential, Tier 4, annual | $925.00 | $925.00 | $925.00 | $925.00 | $850.00 |
| Residential, added rental unit | $350.00 | $400.00 | $450.00 | $500.00 | $550.00 |
| Multi unit, annual per unit | $350.00 | $400.00 | $450.00 | $500.00 | $550.00 |

**This four-year rate proposal should be reviewed annually to ensure it continues to meet the needs of the users of the Town's utility system.**

**Conclusion and recommendation re rates:**

In conclusion, increasing water and sewer rates is a necessary step to ensure that the municipality can continue to provide reliable, high-quality services to its residents and businesses. These rate increases will allow us to invest in critical infrastructure improvements, meet regulatory requirements, and safeguard the long-term sustainability of our water and sewer systems.

**We request approval from Council to implement the proposed 2025 rate adjustments, effective June 1, 2025,** and to move forward with the necessary steps to maintain and enhance our community's essential services.