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Town of Aurora
Memorandum
Finance

Re: Proposed Water and Wastewater Rate Strategy

To: Finance Advisory Committee

From: Sandeep Dhillon, Senior Advisor, Financial Management

Date: April 15, 2025

Recommendation

1. That the memorandum regarding the Proposed Water and Wastewater Rate Structure be received; and
2. That the Finance Advisory Committee comments regarding the proposed water and wastewater rate structure be received and referred to staff for consideration and further action as appropriate.

Background

Presently the Town's water and wastewater rate structure consists of a single variable rate for both water and wastewater. As Town's fixed costs for the delivery of water and wastewater services continue to rise as infrastructure ages, so too does the need to ensure an equitable distribution of this burden across all user rate payers. The Town engaged DFA Infrastructure International Inc. to undertake a review of the existing water and wastewater rates and recommend a future rate structure. In March 2024, DFA presented the proposed fixed and variable water and wastewater rate strategies to Council as part of a public consultation meeting which was followed by a staff prepared detailed memo in May 2024 that addressed concerns raised by the residents at the public consultation meeting.

The current memo provides an overview of the further analysis done by staff of the impact of alternative rate structures on the Town as well as to the average Aurora resident and seeks FAC guidance to proceed with one recommended rate structure.

Analysis

Each rate structure was assessed based upon guiding principles

When assessing each of the alternative rate structures, the following guiding principals as summarized under Table 1 were considered.

Table 1
Guiding Principals

Rate Structure	Description
Full Cost Recovery	Ensures cost recover of all water / wastewater system costs
Promote Conservation	Encourages water conservation
Fair & Equitable	Does not unduly favour one ratepayer class over another
Ease of Administration	Minimizes administrative effort and cost
Rate / Revenue Stability	Minimizes annual swings in rates and maximizes revenue predictability
Affordable/Minimizes shifts in Burden	Should strive to minimize impact on ratepayers
Defensible	Must be transparent and defensible
Support Economic Development	Promotes commercial/industrial growth

Two new water and wastewater rate structure options are presented for consideration

The proposed fixed and variable rate structure consists of a base charge, based on meter size, which recovers the fixed cost associated with contributions to the water and wastewater reserves for future infrastructure replacement and a volumetric charge which recovers all variable costs based on volume consumption.

A base charge allows for the more equitable sharing of the fixed cost burden across all potential users. Meaning all residents and businesses will contribute toward the fixed cost recovery whether they consume water or not for a given billing period. Only those who consume water or wastewater services would contribute toward the cost recovery of a service's variable costs through the volumetric charge.

Further, a base charge also allows for greater assurance of fixed cost recovery regardless of the volume of water consumed each year. The amount of water sold each year is variable, demand is impacted by weather and other factors. Under a current single volumetric rate, the Town risks not being unable to fully recover all of its fixed costs.

Under the single volumetric rate, all Town customers are billed based on a single volumetric charge on all recorded water consumption. The combination of fixed and single volumetric rate structure promotes greater cost recovery fairness and offers the most transparent rate structure.

In consideration of water conservation promotion, a two-tiered volumetric charge is also presented. The two-tiered volumetric charge option considers the basic water needs of a household, providing water at a lower rate for the first 50 cubic meters per billing cycle. Once an average consumption of 50 cubic meters per billing cycle is reached, a higher rate will be charged for any water usage in excess of 50 cubic meters. A two-tier variable rate structure will encourage water conservation and provide some financial relief for basic water consumption needs as shown in Table 2.

Table 2
Current and Proposed Rate Structure Options
(based on average 2025 rates)

Option 1: 100% Variable - Current Structure				
	<u>per cubic meter</u>			
Water	\$2.62			
Wastewater	<u>\$3.09</u>			
Combined	\$5.71			
Option 2: Fixed & Single volumetric Charge - Proposed Rate Structure				
Fixed Chage based on meter size				
	<1.5"	2"	3" to 6"	>6"
Water	\$111	\$334	\$1,335	\$4,340
Wastewater	\$84	\$251	\$1,004	\$3,262
Combined	\$195	\$585	\$2,339	\$7,602
Volumetric Charge:				
	<u>per cubic meter</u>			
Water	\$2.21			
Wastewater	\$2.78			

Combined	<hr/> \$4.99			
Option 3: Base & tiered volumetric Charge - Proposed Rate Structure				
Fixed Charge (based on meter size):				
	<1.5"	2"	3" to 6"	>6"
Water	\$111	\$334	\$1,335	\$4,340
Wastewater	\$84	\$251	\$1,004	\$3,262
Combined	\$195	\$585	\$2,339	\$7,602
<hr/>				
Volumetric Charge:				
	0 to 200m ³	>200m ³		
Water	\$2.09	\$2.34		
Wastewater	\$2.66	\$2.91		
Combined	\$4.75	\$5.25		

The total revenue/cost recovery under the current and proposed rate structures remains unchanged

The objective of the proposed rate structures is to promote fairness, ensure water conservation and maintain sustainable water and wastewater infrastructure. Therefore, the overall revenue generated from each proposed rate structure remains the same, it is only the distribution of each service's cost recovery from customers that changes with each option.

The proposed fixed and variable rate structures, options 2 and 3, consists of a base charge based on meter size which recovers the fixed cost associated with contributions to the water and wastewater reserves for future infrastructure replacement and a volumetric charge which recovers all variable costs based on volume consumption.

The three presented options have varying impacts on the average water bill for residential and commercial customers

Currently, the burden of fixed infrastructure cost lies more on higher consumption residential and commercial customers. By introducing a fixed (base) rate charge, this burden is shared equitably among all customers including vacant homes which currently do not pay anything for water and wastewater as they have zero consumption. A base charge allows for the more equitable sharing of the fixed cost burden across all potential users. Meaning all residents and businesses will contribute toward the fixed cost recovery whether they consume water or not. Only those who consume water or

wastewater services would contribute toward the cost recovery of these services' variable costs through the volumetric charge. The presented water and wastewater rate structure options have varying impact on customers based on their water usage as shown in figure 1 and 2.

Figure 1
Impact on Average Volume Consumption Customers

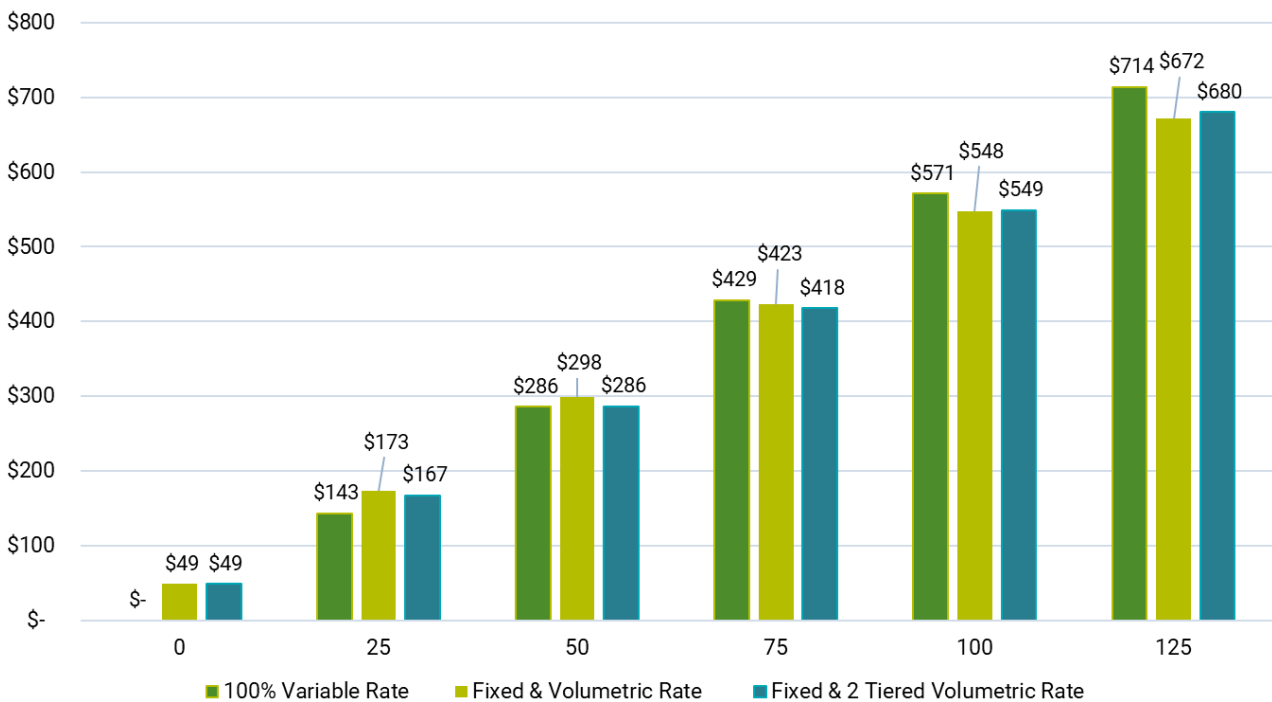
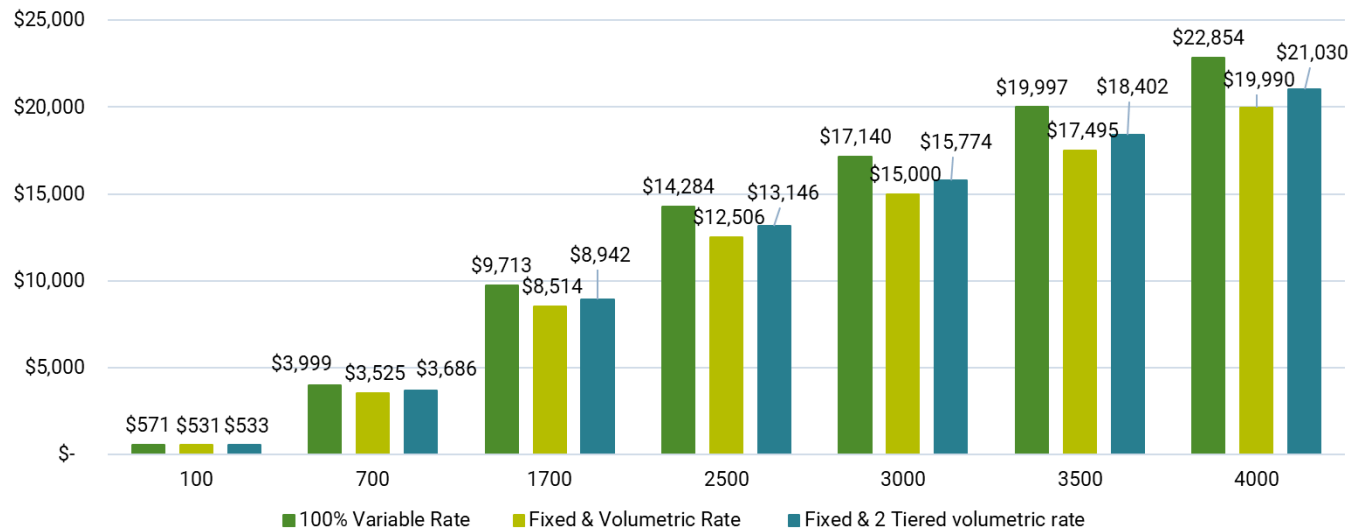


Figure 2
Impact on Higher Volume Consumption Customers



Under option two, being the fixed and single volumetric rate structure, an average Town resident's water and wastewater bill will be \$13 higher per billing cycle. However, residents whose water and wastewater consumption are higher than 75 cubic meter per billing cycle would recognize savings due to the more equitable distribution of the fixed cost burden across all rate payers.

Under option three, being the fixed and two-tiered volumetric rate structure, an average Town resident's water and wastewater bill will be same as under the current rate structure (100% variable rate) per billing cycle. However, residents with water and wastewater consumption greater than 100 cubic meter per billing cycle will not enjoy the true benefit of moving toward a fixed and variable rate structure as the tier 1 volumetric charge is discounted to benefit the average resident.

Each proposed rate structure has its own benefits and challenges with respect to the guiding principles

Table 3 provides a summary of the benefits and challenges of the current and each proposed rate structure. In order for Town staff to proceed further with a report to Council, staff seeks guidance from the Finance Advisory Committee to recommend its desired rate structure deciding between the two new proposed fixed and variable rate structure options.

Table 3
Benefits and Challenges of Proposed Water and Wastewater Rate Structure

Benefits and Challenges	Option 1	Option 2	Option 3
	Variable Rate Structure	Fixed and Single Variable Rate	Fixed and Two - Tiered Variable Rate
Full Cost Recovery	Ensures cost recover of all water / wastewater system costs	Ensures cost recover of all water / wastewater system costs	Ensures cost recover of all water / wastewater system costs
Promote Conservation	Do not promote conservation of water	Do not promote conservation of water	Encourages water conservation as the higher consumption customers pay higher water and wastewater cost due to 2-tier variable charge
Ease of Implementation	No change Status quo	Staff to confirm one-time capital cost of implementation of the new rate structure in the water and wastewater billing system and verify meter size database with operations team for accurate billing.	

	Option 1	Option 2	Option 3
Benefits and Challenges	Variable Rate Structure	Fixed and Single Variable Rate	Fixed and Two - Tiered Variable Rate
Fair & Equitable	Does not promote fairness as the higher water consumption customers bears the burden of fixed infrastructure cost	Promotes fairness and does not favour one rate payer over another	Promotes fairness for fixed charge. However, the higher consumption customers pay slightly more. For example, apartment buildings, commercial customers, school boards and senior center.
Affordable/Minimizes shifts in Burden	Favours the average and lower consumption customers	Average rate payers bill increases by \$13/ billing cycle	Strive for minimal impact on average ratepayers
Rate / Revenue Stability	Minimal revenue predictability due to volume-based revenue collection.	Minimizes annual swings in rates and maximizes revenue predictability	Minimizes annual swings in rates and maximizes revenue predictability

If approved, the new water and wastewater rate structure would become effective in 2027

The Town's May 1, 2025, water, and wastewater rates have already been approved, and it will take time to roll out a change in the rate structure, therefore the first opportunity to introduce any new rate structure would be in time for the Town's May 1, 2027 rate update. Table 4 presents a summary of the remaining key milestones in this review.

Table 4
Key Remaining Review Milestones

Date	Milestone / Activity
March 26, 2024	Public Open House (Complete)
May 19, 2024	Finance Advisory Committee Update (Complete)
April 15, 2025	Finance Advisory Committee Update
September 9, 2025	Committee of the Whole
September 23, 2025	Council possible approval of alternative water & wastewater rate structure
December, 2026	Council adoption of 2027 water & wastewater rates based on the new recommended rate structure
March, 2027	May 1, 2027, water & wastewater rate by-law approval

Attachments

1. Water and Wastewater Proposed Rate Structure Presentation