

CITY OF YELLOWKNIFE WATER AND SEWER RATES REVIEW

OVERVIEW

GOVERNANCE AND PRIORITIES COMMITTEE

April 14, 2025

INTRODUCTION: WHY REVIEW WATER AND SEWER RATES?

InterGroup Consultants was retained by the City of Yellowknife to conduct water and sewer utility rate structure review in the Spring of 2021.

Current rate structure has been in place since the 1990's – since that time, there has been significant growth of trucked services.

The current rate structure includes cross-subsidization, from piped services to the more expensive trucked services – is this degree of cross-subsidization appropriate?

What is the rationale underpinning rates?

The current rate structure also does not distinguish between water and sewer services, which leads to operational issues and is not reflective of best practices.

To address these issues, InterGroup has reviewed rate structures and best practices in comparable jurisdictions, developed a detailed cost of service model for water and sewer services, and has identified options and principles to apply in landing on a rate structure that works for Yellowknife.

PRINCIPLES OF RATE DESIGN

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Key guiding principles of the American Water Works Association Manual:

- ***Recover Full Cost of Providing Service:*** This ensures that the utility is sustainable in the long term and not underfunded or subsidized by other municipal revenues.
- ***Rates Should Reflect the Costs to Serve Customers***
- ***Rates and Fees Should be Easy to Understand:*** This speaks to the use of a complicated ERU noted above.
- ***Send a Price Signal to Consumers Regarding the Costs of Consumption:*** Simply put, this principle is about using a combination of fixed and variable rates that results in charging higher users more than lower users.
- ***Ensure Administrative Efficiency and Simplicity***
- ***Implement Separate Rates and Fees for Water and Sewer Utilities***
- ***Unexpected Changes to Customers Bills Should be Minimized***

TIMELINE

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- Review initiated in Spring of 2021. Early work focused on the technical analysis, including a line-item review of budgets and system costs, and the development of a cost-of-service model and revenue forecasts.
- Fall of 2021: Covid outbreak, public health orders necessitated that the project be deferred.
- Work resumed in the summer of 2022. This included the completion of the rate modeling and the development of an Interim Report.
- Early 2023: Strike at the City of Yellowknife results in a pause in the project.
- June 4, 2023: Interim Report was released and public engagement process launched via the City's PlaceSpeak website.
- Wildfires in the summer of 2023 caused another one-year delay in the project.
- A draft Final Report was developed in the fall of 2024, but not in time for consideration during the 2025 City budgeting process.

ANALYSIS

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- Revenue Requirement Forecast to **2027**
 - Cost-of-service (COS) model, Revenue to Cost Coverage Ratios (RCC) and estimated bill impacts from **2025 to 2027***.
 - Bill Impacts.
 - Summary of Findings
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- ***Note: The Final Report reflects a three-year forecast and initial implementation period. As we are currently in 2025, and implementation would not occur until 2026, 'Year 3' would be 2028. There have been no material changes in costs and revenues since the 2027 model was developed and InterGroup is confident that there would be no material impacts on the findings and rate recommendations of the Final Report.**

2027 YELLOWKNIFE WATER AND SEWER REVENUE REQUIREMENT

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Line No.		Water	Sewer	
1	Operation & Maintenance Expense	7,310	4,705	
2	Wages and Employee Costs	2,083	1,721	
3	Supplies and Services	5,227	2,984	
	3(i) Contracted and general services	1,827	1,684	
	3(ii) Total Materials & supplies	341	105	
	3(iii) Maintenance	248	97	
	3(iv) Utilities - electricity	1,294	378	
	3(v) Utilities - fuel	819	38	
	3(vi) Vehicle O&M	81	67	
	3(vii) Administration Fee to General Fund	616	616	
4	Debt Costs for Major Capital	125	-	
5	Capital Spending	2,350	4,000	
	5(i) Water & Sewer Infrastructure Replacement	1,000	1,000	
	5(ii) Other Major Capital	1,350	3,000	
6	Total Revenue Requirement	9,785	8,705	\$ 18,490
7	Less: Non Rate Revenues	3,052	4,490	
	7(i) External Capital Funding	1,177	2,615	
	7(ii) Non-Rate Revenue & Operating Grants	243	243	
	7(iii) Infrastructure Levy	1,632	1,632	
8	Net Revenue Required from Treated Water Rates	6,734	4,215	\$ 10,949

FINAL REPORT: COS RESULTS, COMBINED WATER AND SEWER

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Customer Type	2027 Forecast		
	Revenue Forecast at 2024 Approved Rates (\$000)	COS Results (\$000)	RCC Ratio
Combined Water & Sewer Service	A	B	C=A/B
Piped Service	8,912	8,581	103.9%
Residential	4,100	4,128	99.3%
Multi-residential	1,582	1,344	117.7%
Commercial	3,128	2,683	116.6%
Bulk (incl. Unmetered)	101	99	102.3%
Community gardens/services/surface lines	0	328	0.0%
Trucked	1,514	2,367	64.0%
Total	10,426	10,949	95.2%

- A RCC ratio of greater than 100% indicates current rates recover more than the costs to serve that customer class; while a RCC ratio of less than 100% indicates current rates do not recover the full costs of serving a customer class.
- At 95 percent, the system as a whole is not quite recovering enough revenue to offset costs.

FINAL REPORT: COS RESULTS, WATER SERVICES

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For water services, there is a revenue shortfall. However, piped services generally fall within the range of reasonableness of between 90% to 110%, while trucked services are under-paying at about 63%.

Customer Type	2027 Forecast		
	Revenue Forecast at 2024 Approved Rates (\$000)	COS Results (\$000)	RCC Ratio
Water Service	A	B	C=A/B
Piped Service	5,347	5,298	100.9%
Residential	2,460	2,478	99.3%
Multi-residential	949	856	110.9%
Commercial	1,877	1,698	110.5%
Bulk (incl. Unmetered)	61	62	98.3%
Community gardens/services/surface lines	0	204	0.0%
Trucked	908	1,436	63.3%
Total	6,256	6,734	92.9%

FINAL REPORT COS RESULTS, SEWER SERVICES

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For sewer services, there is a minor shortfall in revenue, acceptable for modeling purposes. Notable is that trucked customers are paying about 65% of the cost of services received, being offset by higher rates to multi-residential and commercial customers.

Customer Type	2027 Forecast		
	Revenue Forecast at 2024 Approved Rates (\$000)	COS Results (\$000)	RCC Ratio
Sewer Service	A	B	C=A/B
Piped Service	3,565	3,284	108.6%
Residential	1,640	1,649	99.4%
Multi-residential	633	488	129.7%
Commercial	1,251	985	127.0%
Bulk (incl. Unmetered)	41	37	108.9%
Community gardens/services/surface lines	0	124	0.0%
Trucked	606	931	65.0%
Total	4,170	4,215	98.9%

RCC RATIOS: INTERIM TO FINAL REPORT

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	2026 Water	2027 Water	2026 Sewer	2027 Sewer
Piped Services	110.5%	100.9%	104.5%	108.6%
Residential	107.9%	99.3%	97.1%	99.4%
Multi-residential	122.4%	110.9%	122.5%	129.7%
Commercial	121.7%	110.5%	121.1%	127%
Bulk	106%	98.3%	102.1%	108.9%
Trucked Services	82%	63.3%	66.4%	65%

Final Report: Estimated Bill Impacts						
Customer Classes	Final Report Recommendations			Interim Report Phased Approach: W&S Rate and Fee Changes Only		
	Annual %	Annual \$ Impact	3 Year \$ Impact	Annual %	Annual \$ Impact	3 Year \$ Impact
Piped						
Residential Average Bill (12 M3)	0.0%	\$0	\$0	0.0%	\$0	\$0
Multi-Residential						
Average Bill (200 m3)	-0.7%	-\$125	-\$375	-1.7%	-\$310	-\$930
High Consumption (347 m3)	-5.2%	-\$3,636	-\$10,907	-5.6%	-\$3,869	-\$11,608
Commercial						
Average Bill (40 m3)	-1.7%	-\$68	-\$203	-2.8%	-\$104	-\$311
Low Consumption (3 M3)	-9.2%	-\$526	-\$1,578	-9.0%	-\$515	-\$1,546
High Consumption (1,348 m3)	-0.3%	-\$319	-\$957	-1.4%	-\$1,580	-\$4,739
Trucked						
Average Bill (8 m3)	9.6%	\$213	\$693	5.0%	\$111	\$334
Low Consumption (5 m3)	8.9%	\$167	\$501	4.6%	\$80	\$241
High Consumption (130 m3)	5.9%	\$724	\$2,173	4.5%	\$528	\$1,583
Mid-Consumption (66 m3)	4.7%	\$326	\$977	3.6%	\$245	\$735

APPROACH TO RATE CHANGES

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InterGroup is recommending a phased approach as the resulting bill impacts are spread out over time:

- The first proposed step is to focus on rate rebalancing; implementation of separate water and sewer rates; adding rate premiums to trucked sewer service; and removing Equivalent Residential Unit (ERU) component from Access Fee charge. This 'phased approach' would be implemented over three years.
- In year four, the City should look at further simplifying rate structure by rolling the Infrastructure Levy into the water and sewer rates.
- The final phase – year five or six - should limit the rate structure components to only demand and consumption charges for both water and sewer utilities.

REVIEW OF OTHER MUNICIPALITIES

A review of peer municipalities provided a number of findings that pointed to the need for the City to simplify the current rate structure:

- None of the peer utilities reviewed include an Equivalent Residential Unit (ERU) component in their water and sewer rate structure.
- None of the peer municipalities reviewed have multiple fixed fees in their rate structure.
- Most of the peer utilities charge both fixed and variable fees for water and sewer service.
- Most municipalities do not have different consumption rates by customer class.

While some of the utilities noted that there is a degree of cross-subsidization within their rate structure, they all acknowledged that this is not an ideal approach..

OTHER RECOMMENDATIONS

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- Develop additional sewage disposal charges for trucked customers requiring more than two trips per week, as covered by the existing City contract.
- Develop a non-resident bill surcharge to capture those customers utilizing City water and sewer services but only paying the cost of the commodity and making no contribution towards infrastructure costs. For simplicity, it is proposed that a 10 percent surcharge be added to non-resident rates.
- Implement recommendations with to address the need for Over Strength matter regulations.
- Establish utility reserve accounts.

SUMMARY

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- This water and sewer rate structure review has provided the City with a detailed analysis of the water and sewer revenue requirement and detailed cost of service models for separate water and sewer utilities. This work will provide the City with useful planning and analysis tools to help manage the system into the future.
- The Interim Report used as the basis for public engagement reflected a 5% increase in rates to average trucked services customers for three years. The Final Report reflects a 9.6% rate increase for three years.
- Options to mitigate the impact on trucked services customers would involve maintaining a degree of cross-subsidization by piped customers.
- If some level of cross-subsidization is maintained, InterGroup would recommend that system costs continue to be appropriately assigned to the respective water and sewer systems and that the cross-subsidy is identified and transparent.

QUESTIONS ?