

Briefing Note

Title	Wastewater Utility Rate Study
Issue	During the 2019 Budget Information Request (BIR) process, BIR-2019-017 requested Administration to bring forward the 2016 Water and Wastewater Utility Rate Study to assist in understanding the implications of adjusting the current 90 percent wastewater rate charge. In addition, Administration also investigated potential irrigation meter options.
Previous Council Direction	June 28, 2016 – Motion 228/16: That Council receives the 2016 Water & Wastewater Utility Rate Study as information and directs Administration to use the study for 2017 budget purposes.
Report	<p><u>Background Information</u></p> <ul style="list-style-type: none"> During the 2019 budget information request (BIR) process, BIR-2019-017 raised the question about the 90 percent formula used for the County's wastewater charge. The BIR requested Administration to bring forward the 2016 Utility Cost of Service Study with the intent of understanding any implications of adjusting the wastewater rate. Previously, concerns were raised by a few utility customers who thought the rate formula might be too high and that 90 percent was not representative of their individual irrigation practices. As part of their concerns with the wastewater formula, the question for a separate irrigation meter was raised and requested to be investigated. This was related to the potential for more reflective consumption rate billing. <p><u>Utility Wastewater Rate</u></p> <ul style="list-style-type: none"> Prior to 2012, the County's wastewater rate formula was 100 percent of water used during the year. The 100 percent wastewater rate factor suggested that water and wastewater usage were a one-to-one ratio. This implied all water used made its way to wastewater collection systems for treatment. In 2013, the County amended its wastewater rate to a 90 percent formula, recognizing that some water will not enter the wastewater collection system. At that time, County staff determined that during summer months an average of 20 percent of a household's water-use was estimated for irrigation purposes (i.e. lawn watering).

- The current 90 percent formula accounts for 100 percent of water entering the wastewater system in the winter months and 80 percent during the summer months.

- An example of how the rate formula is calculated is illustrated below:

Example:

$$= 60m^3 * 0.9 = 54m^3 \text{ of wastewater used}$$

$$= 54m^3 * \$2.34/m^3 = \$126.36$$

$$= \$126.36 + (\$53 \text{ WW flat rate})$$

$$= \$179.36 \text{ wastewater charge on the bimonthly Utility Bill}$$

(Average water consumption in the County is 60m³ in a bimonthly period)

Utility Cost of Service Summary

- In 2016, Utility Services initiated a “Utility Cost of Service Study” to review the current Utility Rate Model. The intent of the study was to independently assess increased predictability in rates; evaluate and provide recommendations for full cost recovery and rate simplification of the County’s existing water and sewer rates.
- The consultant provided a comprehensive review and expert analysis of the Utility Rate Model, while providing a 10-year forecasted model strategy that would adequately fund water and sewer utility operations, capital costs, debt and stabilize utility rates where possible.
- The report also outlined key recommendations for the County’s existing utility rate structure. The consultant recommendations included:
 - Modify the existing water customer classes to better reflect each unique rate structure found within each water segment. This includes creating a residential customer class that segregates customers on “well-feed” distribution systems and customers along the “Legal West” waterline (*see Exhibit 5, from the COSS summary report*).
 - The creation of a new “Wholesale” customer class for the wholesale of water to Alexander First Nation and all water cooperatives.
 - Lastly, modify the existing wastewater customer classes to “metered” and “unmetered” to account for the analysis which determined that the institutional, commercial and industrial (ICI) and Bulk customer classes were not fully recovering their respective allocated cost of their service through current rate revenues collected.
- All of these recommendations were agreed upon by Utility Services, however, they have not yet been established as water agreements between Alcomdale Water Cooperative and the Town of Legal are being finalized.
- In addition, the consultant evaluated water block rates from residential, institutional, commercial and industrial (ICI) customers.

Based on their analysis, the consultant recommended keeping the residential water block rate at an escalated rate where fee increases apply at consumption rates over 60m³ of water usage. The ICI would also stay the same, keeping the de-escalated block rate when a customer uses greater than 1000m³

- Furthermore, the consultant determined that the “water utility” is achieving full cost recovery. The report also indicated the “wastewater utility” was close to full cost recovery at 96 percent.
- Utility Services has been working steadily at improving the wastewater return, similar to that of the water utility, to ensure full cost recovery of 100 percent on Industrial and Commercial wastewater rates.
- With the consultant confirming that the Utility Rate Model is a balanced structure, any decreasing adjustments to the current wastewater formula (90 percent), would require an increase to the wastewater variable per m³ rate (\$2.34/m³) or bi-monthly flat rate fee to achieve (\$53 *Wastewater Bi-monthly Flat Fee*)
 - An 80 percent wastewater factor would result in a 13 percent increase to the variable rate to achieve the same financial return to the County. Using an average consumption of 60m³, the calculation is illustrated below.

Example:

$$\begin{aligned}
 &= 60\text{m}^3 * 0.8 = 48\text{m}^3 \text{ of wastewater} \\
 &= 48\text{m}^3 * \$2.64/\text{m}^3 \text{ (13 percent adjustment)} = \$126.72 \\
 &= \$126.72 + \$53 \text{ bimonthly flat rate} \\
 &= \$179.72 \text{ wastewater charge on the bimonthly Utility Bill}
 \end{aligned}$$




Wastewater Rates Formula Comparators:

St. Albert
<i>Charges 80 percent year-round on water charged.</i>
<i>Charges additional cubic meter fee for capital expenditures.</i>
Parkland County
<i>Charges 100 percent wastewater on water consumed.</i>
Strathcona County
<i>Determines winter average, takes winter average and applies to summer rate.</i>
<i>Commented on reviewing their formula.</i>
Leduc County
<i>Charges 100 percent wastewater on water consumed.</i>

Irrigation Water Meters

- Utility Services investigated the implications of installing residential irrigation meters and surveyed neighbouring municipalities to determine alignment with industry practice.
- The City of Edmonton (EPCOR) has initiated a pilot project where a few irrigation meters were installed at a select number of large residential properties. Through conversations, the EPCOR representative indicated they have been met with utility billing challenges with more than one meter requiring to be read and associated billing software issues.

	<ul style="list-style-type: none"> • The City of St. Albert allows for a select number of irrigation meters to be installed on commercial properties only. • The City of Calgary has also allowed for residential irrigation meters; however, irrigation water rates were calculated at higher than normal water rates due to the added infrastructure costs. • No other municipality interviewed has considered installing or allowing residential irrigation meters (Parkland, Leduc County, Strathcona County). • Based on an internal investigation regarding potential residential irrigation meters, the following concerns were raised: <ul style="list-style-type: none"> ○ Addition of waterlines would not promote water conservation efforts in the County; ○ Difficulty enforcing during water bans; ○ Additional utility billing (impact Financial Services resources); ○ Additional waterlines limit future growth as existing waterlines were sized per lot; ○ Possibility of increased water loss; ○ Low return on investment for customer (\$10K-\$15K) to install new waterlines. • Currently, Utility Services is not recommending residential irrigation water meters. <p><u>Possible Recommendation for the Wastewater Rate Formula</u></p> <ul style="list-style-type: none"> • The County has the ability with its utility billing software system to adjust the rates pertaining to the season. Winter (100 percent) and summer (80 percent) adjustments can be made to the specific use during the period. • However, with customers typically paying more for other utilities like natural gas and electricity in the winter months, the change could be an unexpected cost increase to an already burdened rate payer. <p><u>External Communication</u></p> <ul style="list-style-type: none"> • None. <p><u>Relevant Policy/Legislation/Practices:</u></p> <ul style="list-style-type: none"> • 2013 Summary of Fiscal Principles, Practices and Policies • Reserve Policy
Implication	<p><u>Strategic Alignment:</u></p> <p>Strong Local Governance and Regional Leadership – The presented Wastewater Utility Rate Study demonstrates the fiscal sustainability of the Utility.</p> <p>Environmental Stewardship – Keeping the existing Utility Rate Model will assist the County in water conservation efforts by promoting water conversation through escalating the utility block rate.</p>

	<p><u>Organizational:</u></p> <p>Any changes to the wastewater rate will require additional support from the Finance Department for rate formula adjustments.</p> <p><u>Financial:</u></p> <p>With the Utility Rate Model confirmed as a balanced accounting structure, any adjustments to the wastewater 90 percent formula would result in an increase to the wastewater variable rate (i.e., 10 percent reduction to the 90 percent formula would result in an increase the variable rate of an additional 13 percent)</p>
Follow Up Action	Bring forward a Request for Decision regarding a Wastewater Utility Rate Adjustment to a future Council Meeting.
Attachment (s)	Stack'd Consulting Summary Report
Report Reviewed by:	<p> Jeff Yanew, Manager, Utility Services</p> <p> Scott MacDougall, General Manager, Municipal Services</p> <p> Reegan McCullough, County Commissioner – CAO</p>