THE CORPORATION OF THE

CITY OF WHITE ROCK

CORPORATE REPORT

DATE: **June 8, 2021**

TO: **Water Community Advisory Panel**

FROM: **Colleen Ponzini, Director, Financial Services**

SUBJECT: **Two Water User Fee Rate Options for Council**

RECOMMENDATION

THAT the Water Community Advisory Panel (WCAP) receive this draft report for Council for discussion.

The recommendation for Council would be:

THAT Council direct staff to implement a new water use fee rate structure based on either Option 1 or Option 2 as outlined in this report.

EXECUTIVE SUMMARY

The City's water user fee structure is largely based on the structure used by Epcor prior to the City's purchase of the water utility from them in 2015. Over the past few years, work has been done to move to a fee structure that was based more on consumption. Council had set up a Water Community Advisory Panel that was in part tasked with working with staff to develop such a model for Council's consideration.

On Dec 2, 2019, a new fee structure was presented to Council with the WCAP's recommendation to have the WCAP continue working with staff to examine options to implement the changes to the structure in a phased approach. Since then, the new Director of Finance was hired and the Covid-19 pandemic was declared. Work continued with the WCAP later in 2020 to update the model with current figures and to phase in the impacts over time.

In March of 2021, the WCAP resolved to seek Council's approval to have two alternatives for Council's consideration which was approved on April 12, 2021. This report provides Council with the two options that have been developed and provides Council with some opinions of the WCAP members and staff on the pros and cons of each option.

PREVIOUS COUNCIL DIRECTION

Motion # & Meeting Date	Motion Details
April 12, 2021	THAT Council direct staff to continue to work on finalizing a water rate structure with alternatives with the Panel and report back to Council.

INTRODUCTION/BACKGROUND

The City's water user fee structure is largely based on the structure used by Epcor prior to the City's purchase of the water utility from them in 2015. The structure is partially fixed and partially variable. The fixed base fees include usage of up to certain maximum amounts of water. A further variable rate is charged for additional water that is consumed. Some users have shared concerns that they pay too much for their water as their water consumption is well below the levels allowed in the fixed base fees.

Council set up a Water Community Advisory Panel that was in part tasked with working with staff to develop such a model for Council's consideration. Over the past few years, work has been done to move to a fee structure that was would correlate the amount paid for water to the amount of water used, and subsequently encourage water conservation.

The water user fees are the main source of revenue used to build, maintain and operate the Water Utility. The total amount of fees to be recovered through the water user fees is determined through the annual financial planning process. The following schedule shows the 5-year financial plan for the City's Water Utility that is included in the City's Consolidated 2021 - 2025 Financial Plan Bylaw No. 2377, 2021 with the related revenues highlighted in blue.

CORPORATION OF THE CITY OF WHITE ROCK
WATER FUND BUDGET

	2021 Budget	Budget Projections 2022	2023	2024	2025
REVENUE					
Utility Rates	**$ 5,605,500**	$ 5,969,900	$ 6,357,900	$ 6,771,200	$ 7,211,300
Utility Service Connection Fees	**300,000**	305,000	310,000	315,000	320,000
Grants from Other Governments	**-**	-	-	333,300	333,300
Capital Contributions and DCC's	**129,900**	110,000	100,000	293,000	110,000
Other Revenue	**161,900**	184,800	208,400	232,800	257,900
Interest and Penalties	**5,000**	5,000	5,000	5,000	5,000
Total Revenues	**6,202,300**	**6,574,700**	**6,981,300**	**7,950,300**	**8,237,500**
EXPENSES					
Operating Expenses	**2,782,000**	3,140,900	2,688,800	2,797,600	3,308,300
Interest and Bank Charges	**681,300**	681,300	681,300	681,300	681,300
Amortization	**1,173,000**	1,204,000	1,247,000	1,296,000	1,296,000
Total Expenses	**4,636,300**	**5,026,200**	**4,617,100**	**4,774,900**	**5,285,600**
INCREASE IN TOTAL EQUITY	**1,566,000**	**1,548,500**	**2,364,200**	**3,175,400**	**2,951,900**
Reconciliation to Financial Equity					
Amortization of Tangible Capital Assets	**1,173,000**	1,204,000	1,247,000	1,296,000	1,296,000
Capital Expenses	**(3,696,000)**	(2,875,000)	(1,863,000)	(2,925,000)	(2,430,000)
Debt Retirement	**(709,800)**	(732,700)	(756,200)	(780,600)	(805,800)
Transfer from/(to) Other Funds	**(39,800)**	305,800	(112,600)	(112,900)	(113,300)
Internal Charges	**(489,000)**	(499,000)	(509,000)	(519,000)	(529,000)
CHANGE IN FINANCIAL EQUITY (Reserves)	**(2,195,600)**	**(1,048,400)**	**370,400**	**133,900**	**369,800**
Financial Equity , beginning of year	**5,786,048**	3,590,448	2,542,048	2,912,448	3,046,348
FINANCIAL EQUITY (Reserves), end of year	**$ 3,590,448**	**$ 2,542,048**	**$ 2,912,448**	**$ 3,046,348**	**$ 3,416,148**
	WATER FUND CAPITAL BUDGET				
CAPITAL EXPENSES					
Water Infrastructure	**$ 3,696,000**	$ 2,875,000	$ 1,863,000	$ 2,925,000	$ 2,430,000
Total Capital Expenses	**$ 3,696,000**	**$ 2,875,000**	**$ 1,863,000**	**$ 2,925,000**	**$ 2,430,000**
FUNDING SOURCES					
Reserve Funds	**$ 3,566,100**	$ 2,765,000	$ 1,763,000	$ 2,298,700	$ 1,986,700
Development Cost Charges	**20,000**	10,000	-	93,000	10,000
Grants from Other Governments	**-**	-	-	333,300	333,300
Contributions	**109,900**	100,000	100,000	200,000	100,000
Total Capital Funding	**$ 3,696,000**	**$ 2,875,000**	**$ 1,863,000**	**$ 2,925,000**	**$ 2,430,000**

There are numerous approaches to changing the current water rate structure and reasons that support making one change over another. Understanding that the goal is to implement a rate structure that aligns water consumption to water utility costs and promotes water conservation, in a phased approach, the following two options are presented.

Option 1

Each account is charged a fixed fee that is meant to cover the costs of administering the invoice, including meter reading. All water consumption would be charged at the same rate.

Option 2

Each account is charged a fixed fee that would be related to the size of the meter. All water consumption would be charged at the same rate.

The two options are similar in that they both have a fixed fee and a water consumption fee. The main difference is that one has a fixed fee based on administrative costs and the other has a fixed fee based on meter size.

Determining the Fixed Fees Portions

Option 1
For this model, each account is charged a fixed fee that is meant to cover the costs of administering the invoice, including meter reading. Using 2020 figures, the fixed fee per billing account to cover the administrative costs of billing, including the meter reading would have been $22 per account. This would equate to approximately eight percent (8%) of the total annual water user fee revenues.

Option 2
This model requires two pieces of information: 1) the scale for charging the fixed fee and 2) the amount to be charged as the fixed fee. The scale was created through a review of the rates of other municipalities with similar rate structures (Surrey, Richmond, West Vancouver, Chilliwack, Maple Ridge, and Vancouver). Based on the review, the scale was determined to be an average of the rates imposed by these municipalities.

The model was then created with the total amount to be charged as the fixed fee set to thirty (30%) of total annual water user fee revenues. However, when comparing the fixed fee that was needed to generate this amount of revenue, the City's fees ended up being double the average of the comparative municipalities' rates. In order to bring the fixed fee rates more in line with the comparative municipalities, the model was changed to have the fixed fee set to recover fifteen percent (15%) of total annual water user fee revenues.

The water rate structure based on meter sizing resulted in the following fixed fees per meter size (using 2020 figures):

Meter Size	White Rock Fixed Fee	Comparative municipalities' average
5/8 inch	38.30	36.70
1 inch	42.10	37.74
1 1/2 inch	65.10	60.28
2 inch	88.10	87.38
3 inch	203.00	203.47
4 inch	268.10	275.26
6 inch	455.80	453.68

Phased Approach
Prior reports to Council and the Committee had introduced fee structures that would result in some customers having large changes in their Water Utility bills. The direction was to phase in the changes to the new structure over a period of a few years to soften the impact. It was recommended that the phasing in take place over three years such that by year four, the new fee structure would be in place. The following describes the phasing approach for each option. Note that all figures used in this report reflect costs and rates based on 2020 figures.

Option 1
It is proposed that the current water user fee rates be changed by 25% each year for three years so that by year four the rate structure would be the same for all customers. The following table shows the proposed changes to the current rates to get to the proposed flat fee and consumption-based model.

Year	Base Charge	Included consumption	Water Rate (using 2020 budget)
1	75% of 2020 base charge	75% of 2020 included consumption	0.0529
2	50% of 2020 base charge	50% of 2020 included consumption	0.0612
3	25% of 2020 base charge	25% of 2020 included consumption	0.0657
4	$22	0	0.0631

Option 2

It is proposed that the current water user fee rates be changed by 20% each year for three years and then in year four, implement the proposed water user fee rate structure based on meter sizing as outlined above. The following table shows the proposed changes to the current rates to get to the proposed flat fee and consumption-based model.

Year	Base Charge	Included consumption	Water Rate (using 2020 budget)
1	80% of 2020 base charge	80% of 2020 included consumption	0.0501
2	60% of 2020 base charge	60% of 2020 included consumption	0.0583
3	40% of 2020 base charge	40% of 2020 included consumption	0.0633
4	As Proposed	0	0.0580

For both options, the Water Utility would recover less revenues over time from the base charge by removing the assumed water consumption that is currently included and would recover more from a consumption based water rate.

Impacts

Percentage of Revenues Per Customer Group

Once the change is fully rolled out in year four, the percent of revenue charged per customer group shifts compared to the current fee structure. In both options, the percent of total consumption revenues is directly related to actual consumption as both options have one consumption rate. The following tables show the changes per option.

Option 1

The total percent of revenue charged per customer group will be distributed to align closer with total consumption.

Customer Group	Current % of total consumption	Current % of total revenues	Proposed % of total revenues	Proposed % of total consumption revenues
Single-Family	49%	56%	52%	49%
Multi-Family	33%	29%	31%	33%
Commercial	17%	15%	17%	17%

Option 2

The total percent of revenues charged per customer group reflects the number and size of the meters per customer group.

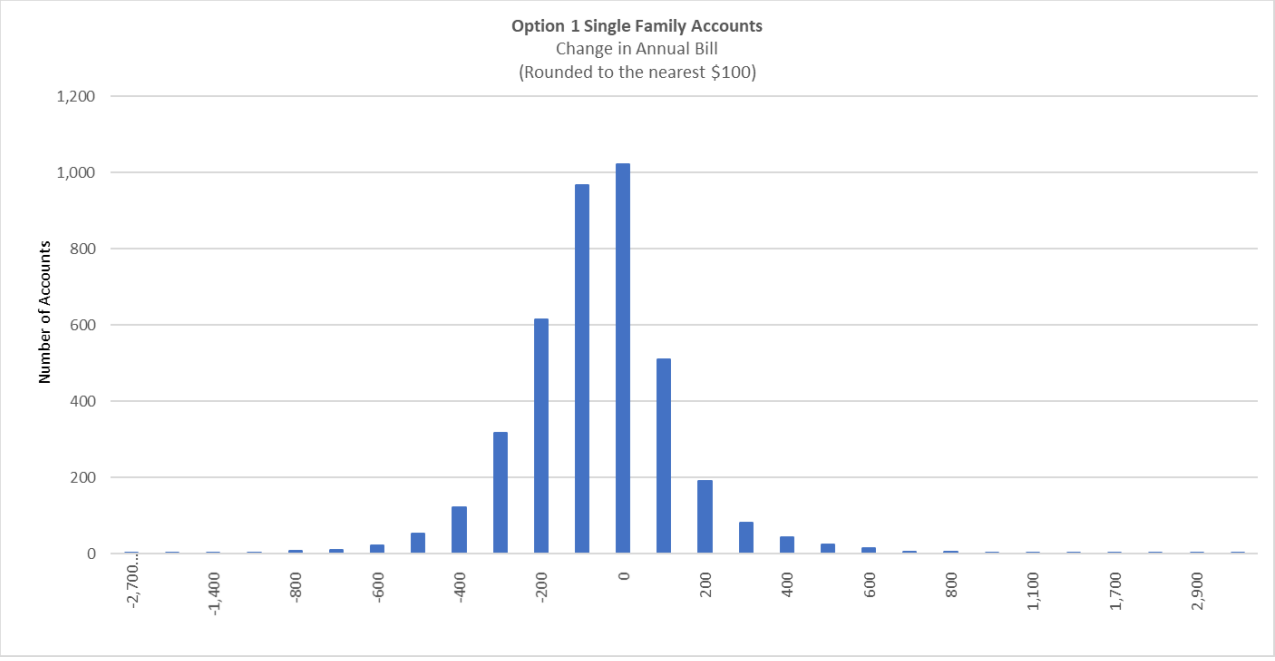
Customer Group	Current % of total consumption	Current % of total revenues	Proposed % of total revenues	Proposed % of total consumption revenues
Single-Family	49%	56%	54%	49%
Multi-Family	33%	29%	30%	33%
Commercial	17%	15%	16%	17%

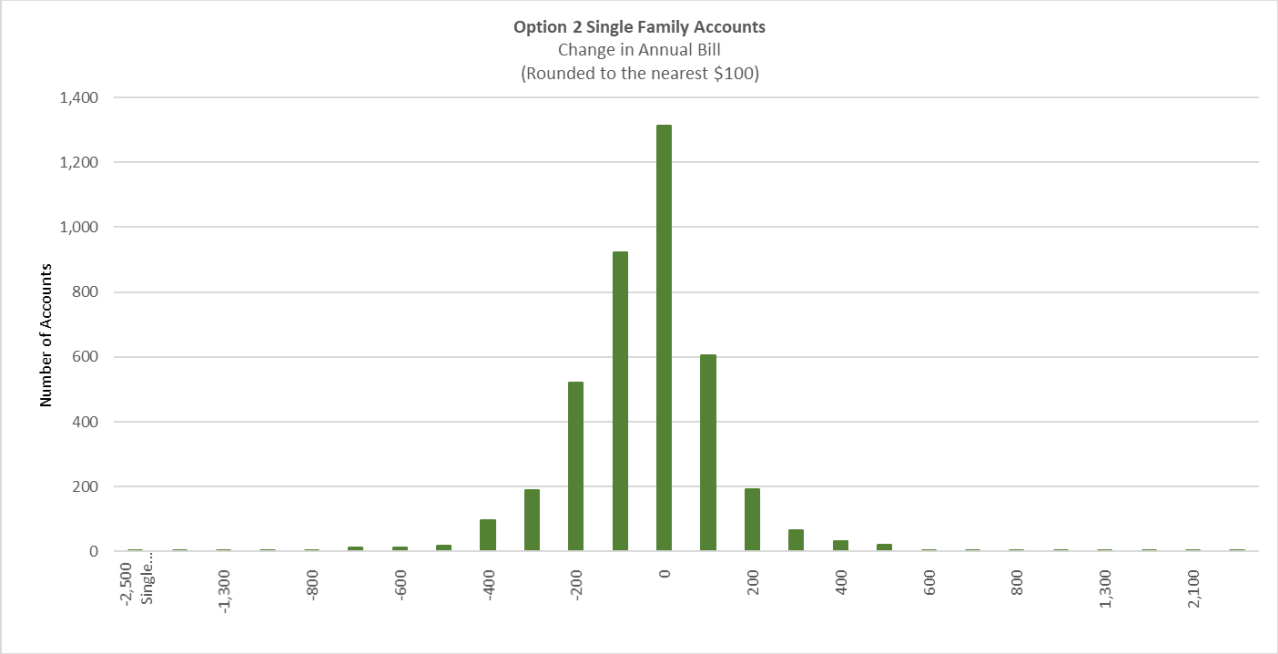
Impacts on Single-Family Residences

The following two graphs illustrate the changes in the annual fees for single family residences under each option if total consumption remained the same and assuming 2020 figures.

This summary of the graphed data shows the impacts from Option 1 and (the impacts from Option 2 shown in brackets and in red).

Of the 4,031 single family accounts, 25% (33%) are projected to remain virtually the same, 24% (23%) decrease by approximately $100, and 13% (15%) increase by approximately $100 annually. A further 13% (21%) decrease more than $100, and 8% (8%) increase between $200 and $500, while 1% (1%) increase more than $500 (34 accounts / 14 accounts).



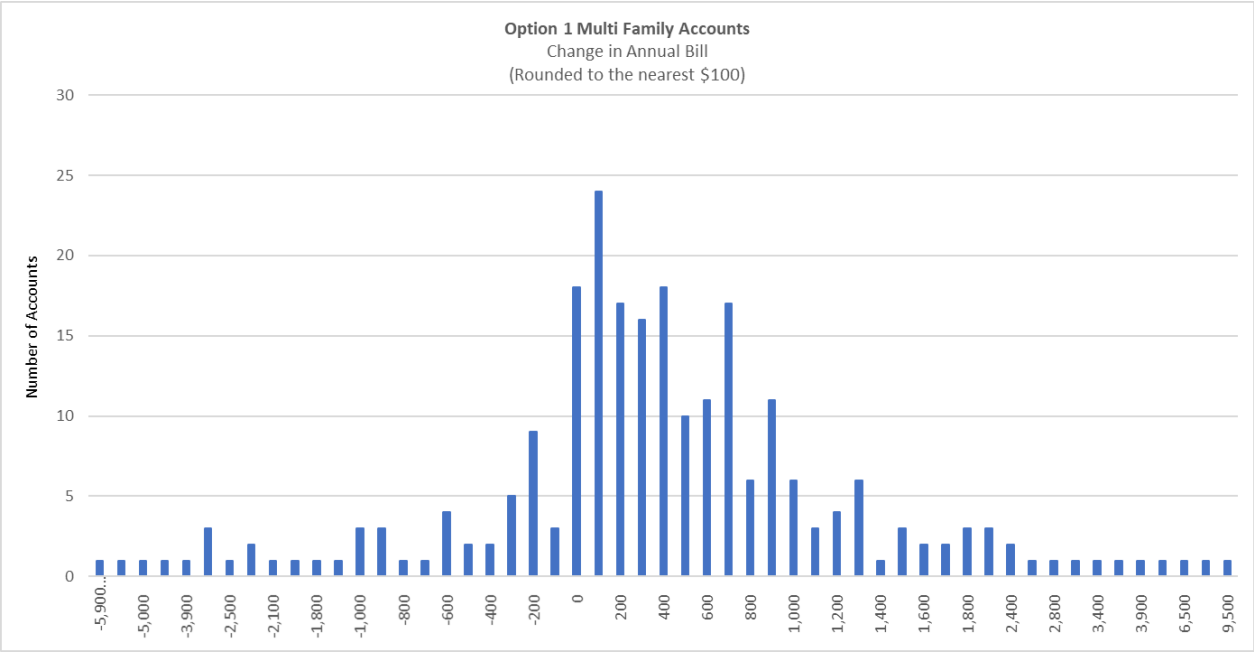


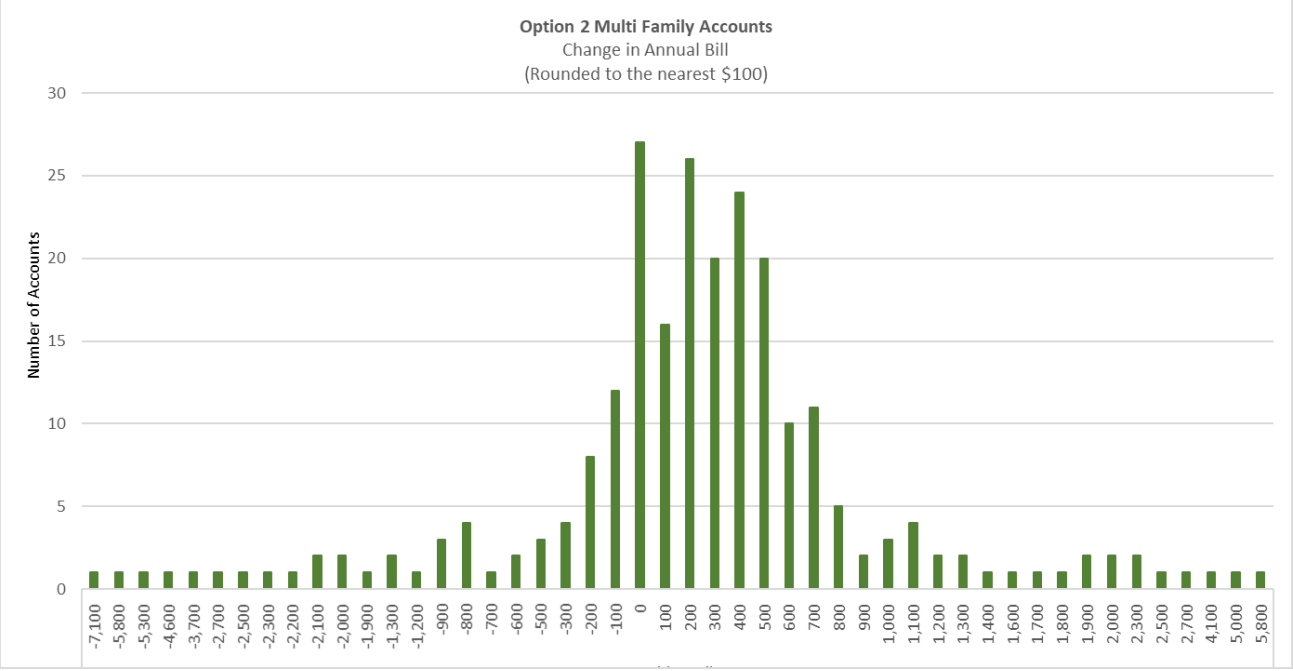
Impacts on Multi-Family Residences

The following two graphs illustrate the changes in the annual fees for multi-family residences under each option if total consumption remained the same and assuming 2020 figures.

This summary of the graphed data shows the impacts from Option 1 and (the impacts from Option 2 shown in brackets and in red).

Of the 241 multi-family residents 27% (34%) remain the same or decrease annually; 35% (44%) increase up to $500 annually; and 21% (13%) increase between $600 and $1,000 annually. A further 16% (10%) increase more than $1,000 annually (39 accounts / 23 accounts).



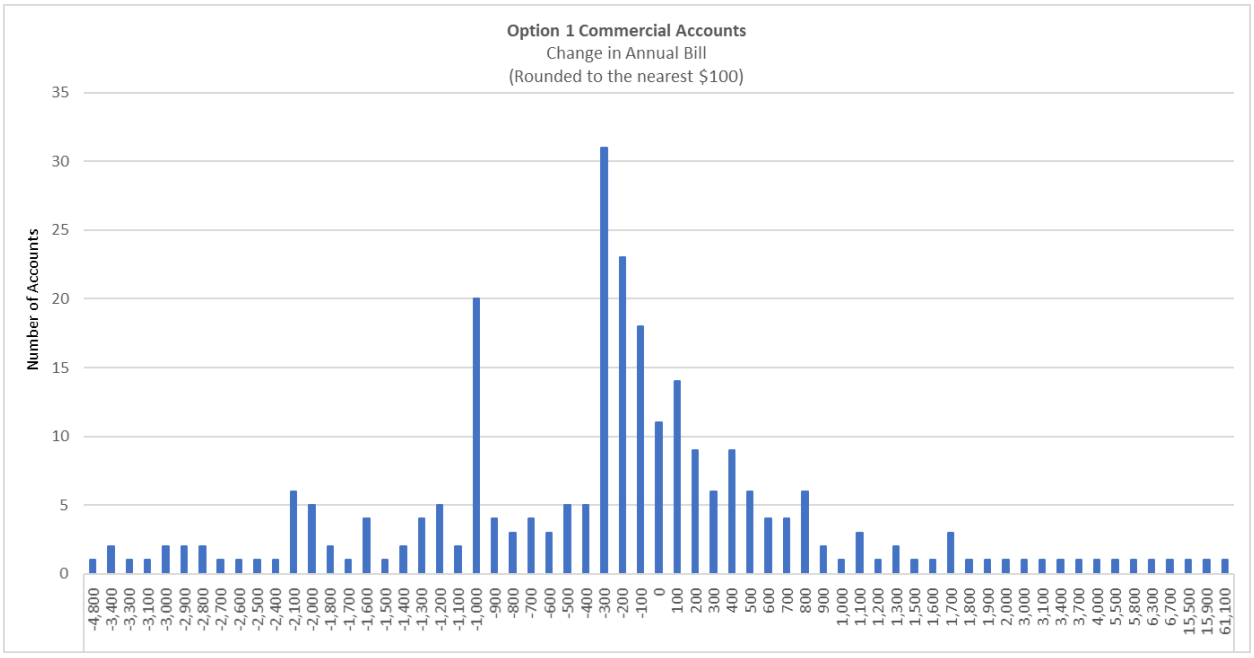


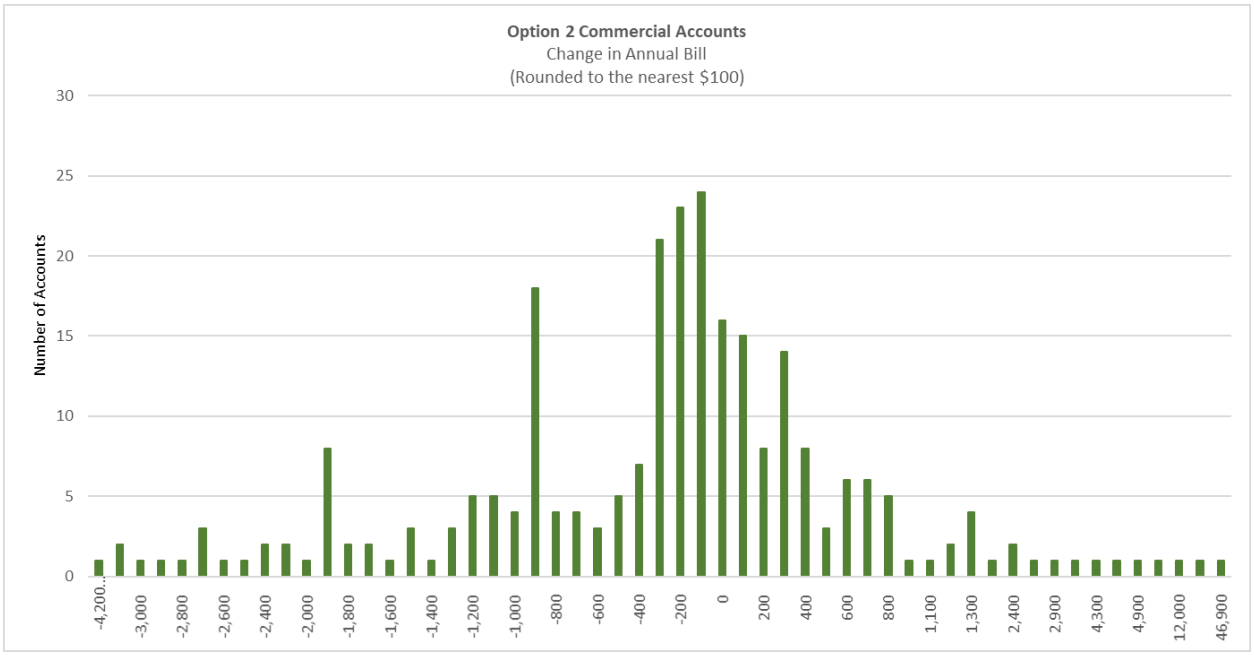
Impacts on Commercial Properties

The following two graphs illustrate the changes in the annual fees for commercial properties under each option if total consumption remained the same and assuming 2020 figures.

This summary of the graphed data shows the impacts from Option 1 and (the impacts from Option 2 shown in brackets and in red).

Of the 262 commercial accounts, 66% (67%) remain the same or decrease annually; 17% (18%) increase up to $500 annually; 7% (7%) increase between $600 and $1,000 annually. A further 10% (8%) increase more than $1,000 annually (27 accounts / 20 accounts)





Quarterly Bill Comparisons

The following table shows a sample of customer quarterly bills comparing the City's current rate structure with that of Options 1 and 2. The averages were calculated based on 2020's consumption data and 2020 rates. Note that some customers will be below the average and some will be above as is shown in the graphs in the previous sections of this report.

Account Type	Number of Accounts	Average Consumption *	Current Charges	Option 1	Option 2
Single Family 5/8" Meter	3,850	2,238 cubic feet	165	163	168
Single Family 1" Meter	169	3,394 cubic feet	272	236	239
Multi Family 1 1/2" Meter	41	13,767 cubic feet per account	791	891	864
Multi Family 1 1/2" Meter	41	1,059 cubic feet per unit	61	69	66
Multi Family 2" Meter	126	24,096 cubic feet per account	1,407	1,542	1,486
Multi Family 2" Meter	126	1,004 cubic feet per unit	59	64	62
Multi Family 3" Meter	33	48,069 cubic feet per account	2,826	3,055	2,991
Multi Family 3" Meter	33	981 cubic feet per unit	58	62	61
Commercial 5/8" Meter	110	2,831 cubic feet	157	201	202
Commercial 1" Meter	58	4,574 cubic feet	285	311	307
Commercial 1 1/2" Meter	48	9,269 cubic feet	587	607	603

* Average consumption based on 2020 consumption data

Pros and Cons of the Two Options

There are a number of issues and concerns for each option that could be seen as pros or cons that are listed in the following table that have been identified by various members of the WCAP and staff who have been involved with the WCAP. Please note that these are high level comments that may not be agreed to by all as interpretation depends on a person's perspective.

Issue / Concern	Option 1	Option 2
All water consumption is based on one rate	X	X
Easy to explain to customers	X	X
Removes asumed consumption from the base rates	X	X
Promotes water conservation	X	X
Rates are comparable with neighbouring municipalities that have metered water.		X
Aligns revenues with consumption	X	
Graduating scale reflects the relative costs of maintaining the system		X
Higher % of customers have less overall impact		X
Higher water consumption rate encourages more conservation	X	
All water invoices are charged the same fee	X	
Increased revenue stability with higher percentage of revenues from a fixed fee		X
Instability of revenues based on consumption	X	X

FINANCIAL IMPLICATIONS

The intent of the changes to the water rates structure is to redistribute the costs to operate the Water Utility to customers based on consumption of water with the expectation that the rates would help to incentivize water conservation. The rates in and of themselves does not change the total water user fee revenues, just the distribution of who pays those revenues. While most accounts are not expected to be impacted by the changes in the proposed rate structures, those accounts that are currently on the outer edge of the rate structure will.

LEGAL IMPLICATIONS

Not applicable.

COMMUNICATION AND COMMUNITY ENGAGEMENT IMPLICATIONS

Communication will need to be carried out in advance of any new rate implementation which would be in effect for 2022 to inform all customers to allow sufficient time for customers to plan for potential financial impacts.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS

Not applicable.

CLIMATE CHANGE IMPLICATIONS

There is a potential to decrease water consumption in the community.

ALIGNMENT WITH STRATEGIC PRIORITIES

One of City Council's strategic priorities is to review the current water rate structure to align the fees with water consumption.

OPTIONS / RISKS / ALTERNATIVES

This report introduces two options for a new water user fee structure that would be phased in over three years so that by year four the new structure would be in place.

Option 1) Implement a phased in approach to a new water user fee structure where each account is charged a fixed fee that is meant to cover the costs of administering the invoice, including meter reading. All water consumption would be charged at the same rate.

Option 2) Implement a phased in approach to a new water user fee structure where each account is charged a fixed fee that would be related to the size of the meter. All water consumption would be charged at the same rate.

Alternatively, **Option 3**) would be to continue to use the current water user fee rate structure which is viewed by some as inequitable due to the inclusion of assumed consumption in the rates.

CONCLUSION

Council set up a Water Community Advisory Panel that was in part tasked with working with staff to develop a new water user fee rate structure. The understanding of the goal was to implement a rate structure that aligns water consumption to water utility costs and promotes water conservation, in a phased approach.

This report provides Council with two options for a new water user fee rate structure and includes some opinions of the WCAP members and staff on the pros and cons of each option.

Respectfully submitted,

Colleen Ponzini
Director of Financial Services