

ADMINISTRATIVE REPORT

TO: Robert Nicolay, City Manager	DATE: January 17, 2023
FROM: Rory Tarant, Director of Intergovernmental Affairs	MEETING: Operational Services Committee
SUBJECT: Stormwater Utility Implementation	

RECOMMENDATIONS

That Committee recommends Council approve the following recommendations in implementing a Stormwater Utility structured on an impervious surface area fee model:

1. That the Utility will be revenue neutral to the City overall upon implementation. The annual utility cost to customers would be offset by an equivalent property tax reduction.
2. That the annual utility cost will be recovered through a uniform impervious area charge (\$/m²) based on the building footprint for residential customers and an impervious parcel area for non-residential customers.
3. That exemptions to utility charges will include Agricultural (AG) and Urban Reserve (UR) land uses, undeveloped vacant land and parcels draining directly to Bear Creek or a natural drainage course without entering the storm drainage system.
4. That exclusions from utility charges include road rights of way, public utility lots, park green spaces and playgrounds, cemeteries, and Environmental Reserves.
5. That the annual utility cost to customers be offset by a tax reduction that is uniformly applied by the same percentage across all property types.
6. That a credit system be developed to incentivize measures taken beyond development permit requirements to reduce stormwater runoff or improve stormwater quality.
7. That a grant proposal be developed for tax exempt properties that provide a municipal community benefit.

PREVIOUS COUNCIL / COMMITTEE DIRECTIONS

On September 6, 2022, City Council passed the following motion:

That Council proceed with the implementation of a Stormwater Utility that is structured on an impervious surface area fee model.

BACKGROUND

The City's stormwater drainage system is managed by Transportation and Engineering Services, who work together to operate, maintain, and improve stormwater infrastructure. Operations and maintenance of the City's stormwater drainage system is performed by Transportation. Stormwater studies, planning, and major capital construction projects are performed by Engineering.

Currently, the stormwater system is funded through municipal taxes and provincial grants. However, many cities across Canada have chosen to shift the funding of their stormwater system away from their municipal tax base to a utility funded through user fees. Currently, in Alberta, sixteen municipalities have a stormwater utility in place.

Since Council's decision in September 2022 to proceed with the implementation of the Stormwater Utility, more detailed refinements have been made to the impervious surface area maps and cost models.

ANALYSIS

To progress the Utility forward, there are several decisions that need to be made to inform the development of its bylaws, policies and governing documents.

Recommendation #1

That the Utility will be revenue neutral to the City overall upon implementation. The annual utility cost to customers would be offset by an equivalent property tax reduction.

The overall costs generated from new utility charges will be offset with an equivalent mill rate reduction so that the change to a utility will be revenue neutral to the City overall. Implementation of a new utility will impact various classes of customers differently, with the greatest increase in costs incurred by tax-exempt customers (discussed below). A Stormwater Utility would require revenue of \$7.4M on a cash basis in 2024 (see Attachment 1); to be recovered from customers based on parcel impervious areas.

Recommendation #2

That the annual utility cost will be recovered through a uniform impervious area charge (\$/m²) based on the building footprint for residential customers and a parcel impervious area for non-residential customers.

Variable charges based on parcel impervious surface area are more equitable than fixed charges as these charges are based on the proportionate amount of stormwater generated by a parcel. The impervious area method is also the most complex to implement and results in the greatest variability in charges.

A comparison of other City stormwater utility rates is shown in Table 1. Fixed-rate charges between residential and non-residential customers range from being the same in Calgary to non-residential charges being 5.6 times residential charges in Spruce Grove.

Much greater variability exists in the impervious area methods. Saskatoon charges the same amount to all residences and caps non-residential charges regardless of property size at 100 times a base unit rate which is charged to single-family residential properties.

Edmonton's Impervious Area method charges are calculated using property size (**A**), development intensity (**I**), and a runoff coefficient (**R**) based on land zoning and a city-wide monthly **Rate: $A \times I \times R \times \text{Rate} = \text{Stormwater utility charge}$** . In Edmonton, a typical residential charge based on the average lot size in Grande Prairie is \$14.96/month. There is no cap or maximum stormwater charge for non-residential uses.

Victoria has an annual stormwater utility charge to property owners based on Impervious Area plus a charge per meter of street frontage and a fixed annual Intensity Code charge based on property type. In Victoria, a typical residential charge based on the Residential average building footprint in Grande Prairie is \$8.85/month (frontage charges excluded). There is no cap or maximum stormwater charge for non-residential uses.

Based on current analysis, an average Residential stormwater utility charge in Grande Prairie would be about \$7.00/month. The Impervious Area charge proposed for Grande Prairie is less than Edmonton and Victoria (see Table 1). Grande Prairie rates are indicative at this time and changes may occur before they are finally implemented.

More information on rate development and impacts are provided under the "Net Impacts" section below. A comparison of other cities' current stormwater utility charges is shown in the following table:

Table 1 Stormwater Utility Rates – Other Cities (monthly)

CITY	RESIDENTIAL	NON-RESIDENTIAL	CAP	METHOD
CALGARY	\$ 15.63	\$ 15.63	-	Fixed
ST ALBERT	\$ 16.18	\$ 43.09	-	Fixed
SPRUCE GROVE	\$ 11.50	\$ 46.00	-	Fixed
CHESTERMERE	\$ 14.75	\$ 26.97	-	Fixed
SASKATOON	\$ 8.90	\$ 17.80 (min)	\$ 890.00	Impervious Area
EDMONTON	\$ 15.02 ¹	4.84 cents/m ² ²	No	Impervious Area
VICTORIA	\$ 8.85	5.71 cents / m ² ³	No	Impervious Area
GRANDE PRAIRIE	\$ 7.00⁴	4.51 cents / m²	-	Impervious Area

¹ 526m² lots size – Average of 2022 Tax data for RM, RS, RG zones – 14,676 lots.

² Assumes GP non-residential average non-residential parcel impervious area of 85%.

³ Excludes Victoria Street Frontage, Intensity Code and Codes of Practice charges.

⁴ Average residential rate

Building Footprint and Parcel Impervious Area

For residential customers (single family, duplexes, up to and including four-plexes), the stormwater utility charge will be based on the building footprint of the home and accessory buildings (detached garages and sheds requiring a development permit).

The building footprint area comes from foundation plans submitted in the development process or rooftop outlines from recent air photos.



Non-residential customers (everyone else) will be based on the impervious area of the parcel as determined from Geographic Information Services (GIS) routines developed using 2022 air photos. Impervious areas were calculated for each non-residential parcel.

An example of the GIS impervious area developed for Muskoseepi Park is shown in Figure 1, with grey being impervious area and green being pervious. Impervious surfaces don't allow water to pass through, such as roofs, concrete, asphalt, gravel, and packed soil.

Parcel impervious area calculated is then associated with related tax rolls and Tax/Assessment information such that a mill rate/municipal tax reduction and stormwater utility charge is calculated for each customer class and potential customer.

Figure 1 Muskoseepi Park Impervious Area

Net Impacts

The distribution of the net impact on residential customers is shown in Figure 2.

Ninety-six percent (96%) of residential Customers will see a Net Annual Cost Change ranging from a savings of \$96 to an increase of \$32.

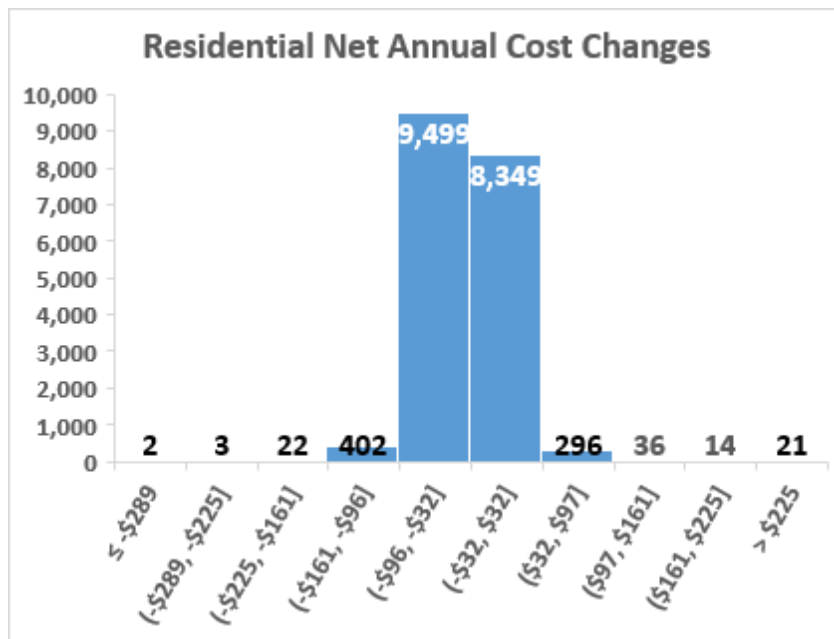


Figure 2 Residential Customer Net Change in Annual Costs

Figure 3 shows the net annual impact of stormwater utility charges on the non-residential customer class. Ninety-two percent (92%) of non-residential customers (excluding condos) will see a net annual cost change ranging from a reduction of \$4,350 to an increase of \$4,155. Condominium complexes' net average annual cost saving is \$3,324.

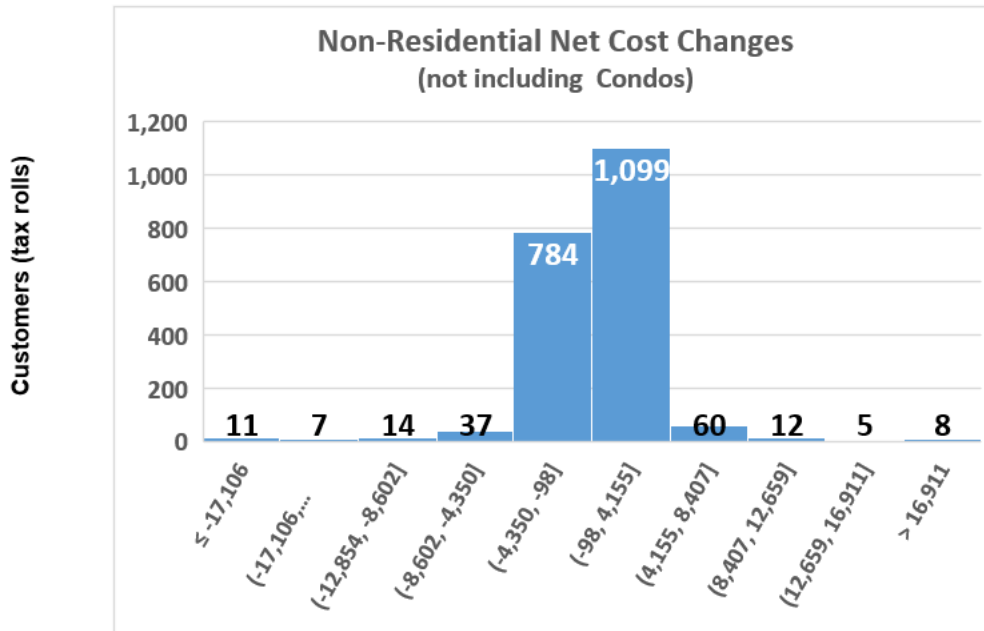
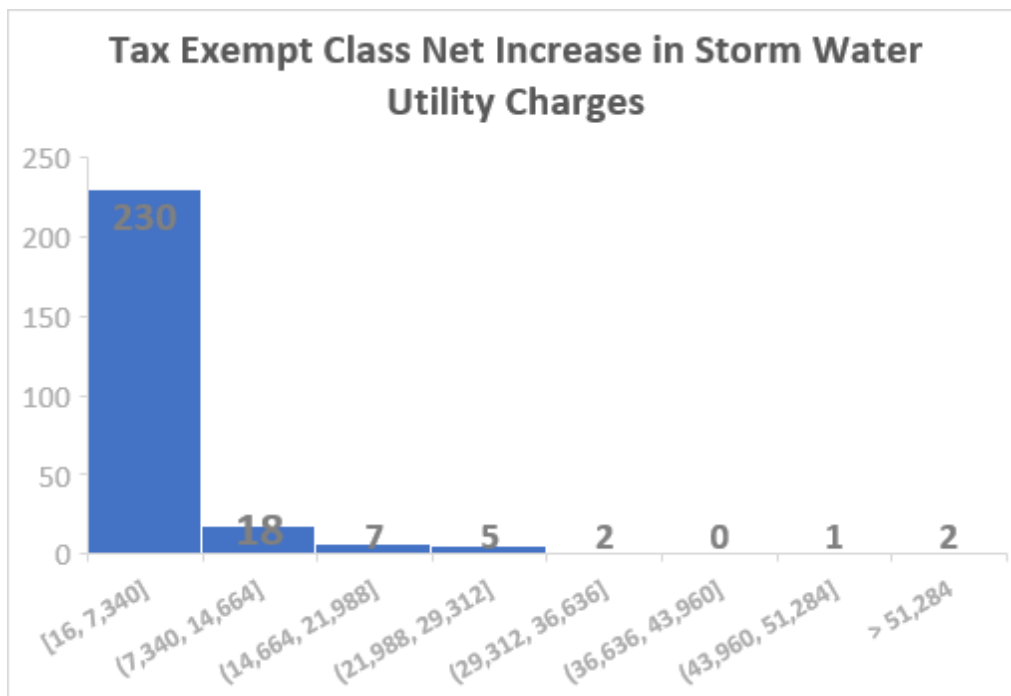


Figure 3 Non-Residential Customer Class Net Cost Changes

Figure 4 shows the Stormwater Utility impact on Tax-Exempt customers. Seventy-six percent (76%) of Tax-Exempt customers could pay up to \$7,340 annually with a new Stormwater Utility Charge. Seventeen (17) customers could pay more than \$14,664, while five customers could pay more than \$29,312 annually.



Total annual Stormwater Utility Charges on Tax-Exempt customers (excluding City facilities) is shown in figure 5.

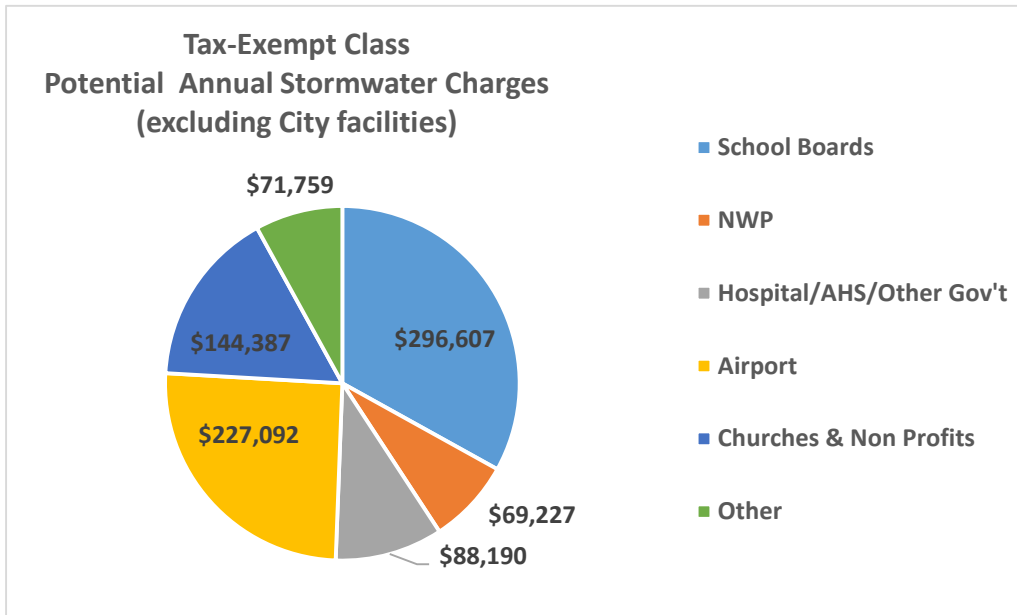


Figure 4 Tax-Exempt Customer's Annual Total Stormwater Charges (excluding City facilities)

City facilities (\$260,633) and the airport (\$227,092) Utility charges amount to \$491,000 out of \$1.16M in total charges to tax-exempt customers or 42% of the total tax-exempt class.

Billing Providers

The two most feasible options for utility billing are to have it provided in-house or through Aquatera. Aquatera and the City are planning to implement new software systems used for billing in 2023. The direction provided in this report will allow Administration to better assess costs and other factors associated with the two billing options. A billing provider analysis and options report will be brought to Council for decision early in Q2 2023.

Recommendation #3

That exemptions to utility charges will include Agricultural (AG) and Urban Reserve (UR) Land Uses, undeveloped vacant land and parcels draining directly to Bear Creek or a natural drainage course without entering the storm drainage system.

Exemption options from stormwater utility charges include:

Vacant land

Vacant land is undeveloped, having little or no impervious area.

Drainage Direct to Creek / Natural Drainage Course

Some properties drain directly to Bear Creek or a natural drainage course without accessing the stormwater system of ditches and sewers.

Urban Reserve (UR) And Agricultural (AG) land uses

AG land uses are on the periphery of the City, generally having larger parcel areas and proportionately little impervious area. UR land uses are generally undeveloped.

Recommendation #4

That exclusions from Utility Charges include Road Rights of Way, Public Utility Lots, Park green spaces and playgrounds, cemeteries, and Environmental Reserves.

Excluded from total impervious areas and from Stormwater Utility charges are Public Utility Lots (PULs), Park green spaces and playgrounds, the Cemetery, Road Rights of Way, and Environmental Reserves (ERs). Roads, lanes, PULs and ERs form part of the stormwater conveyance system. Park green spaces act as stormwater retention areas or drain directly to Bear Creek.

Recommendation #5

That the annual utility cost to customers be offset by a tax reduction that is uniformly applied by the same percentage across all property types.

When charges are applied based on the impervious surface area to the various property classes, a uniform 6.3% tax reduction will result in the following net changes to the taxes levied to each category based on a \$7.4M annual utility cost:

Property Class	Stormwater Charges	Tax Reduction (6.3%)	Net Change to Tax Levied
Residential	\$1.6M	-\$3.8M	- \$2.1M
Non-residential	\$4.7M	-\$3.6M	+\$0.9M
Tax-exempt	\$1.2M*	0	+\$1.2M*

*\$0.7M when City and Airport properties are excluded

Alternative

Council has the option to vary the tax reductions between the different classes. A differential mill rate reduction between Residential and Non-Residential customers so that the net cost change to the two classes is similar would result in a mill rate reduction of 3.8% for Residential customers and 8.8% for Non-Residential Customers.

Property Class	Stormwater Charges	Tax Reduction (3.8% Residential, 8.8% Non-residential)	Net Change to Tax Levied
Residential	\$1.6M	-\$2.2M	- \$0.6M
Non-residential	\$4.7M	-\$5.3M	- \$0.6M
Tax-exempt	\$1.2M*	0	+\$1.2M*

*\$0.7M when City and Airport properties are excluded

Recommendation #6

That a credit system be developed to incentivize measures taken beyond development permit requirements to reduce stormwater runoff or improve stormwater quality.

A credit or reduction of stormwater utility charges can be provided for properties that reduce their Impervious Area with measures that go beyond development permit (DP) requirements for stormwater management.

Measures beyond DP requirements to reduce stormwater runoff quality may include, but are not restricted to rain gardens, cisterns, permeable pavement, infiltration galleries, green roofs, rainwater harvesting systems, bioswales, stormwater reuse (tanks/ponds).

Recommendation #7

That a grant proposal be developed for select tax-exempt properties to mitigate the disproportionate net impact the Utility will have on them.

Customers most impacted with a net increase in costs in the implementation of a Stormwater Utility are the Tax-Exempt Class (that don't benefit from a mill rate reduction).

Tax-exempt categories include:

- City Properties / Facilities
- Schools
- Northwestern Polytechnic
- Grande Prairie Airport
- Churches & Non-profits
- Hospitals, AHS facilities, Nursing Homes and Other Government

Figure 5 includes the corresponding charges that would be levied to each category.

A potential granting program by the City for some tax-exempt properties could be implemented or phased in to reduce the impact on targeted tax-exempt customers. If Council moves this recommendation forward, a report will be brought forward at a future Committee meeting prior to Bylaw development exploring the options available.

Relationship to City Council's Areas of Focus / Strategic Priorities

Innovative Efficiencies & Economic Readiness: Strategic Growth – pursuing alternate revenue sources to provide a more sustainable future through diverse and innovative economic opportunities.

Environmental Impact

A fully funded and well-managed stormwater drainage system reduces flood risk to people and property, reduces environmental impact by improving the quality of runoff by capturing sediment and harmful substances, and reduces the risk of river bank erosion and instability by reducing peak flows.

Economic Impact

A revenue-neutral transition to a Stormwater Utility will reduce City mill rates making Grande Prairie more tax competitive with other Cities that also have a Stormwater Utility.

Social Impact

Tax-exempt (including non-profit, health and education) organizations will experience increased costs from Stormwater Utility charges without the offsetting benefit of a mill rate reduction.

Relevant Statutes / Master Plans / City Documents

- Storm Drainage Master Plan (2018)
- Drainage Bylaw C-1241

Risk

A perception risk exists that a new stormwater utility charge is an overall increase in taxes and charges by the City. This can be mitigated by clear information and stakeholder engagement that also communicates the mill rate and tax reduction.

Impervious Area/user pay approach attributes Utility costs proportionate to the system impact based on a property's impervious area.

STAKEHOLDER ENGAGEMENT

Administration has held extensive engagement on the Stormwater Utility to date and will continue to engage with stakeholders on implementation, including but not limited to:

- Local School Boards
- Northwestern Polytechnic
- Grande Prairie Ministerial Association
- Grande Prairie & District Chamber of Commerce
- Grande Prairie & Area Association of Realtors
- Grande Prairie Downtown Association

BUDGET / FINANCIAL IMPLICATIONS

Stormwater Utility implementation is planned to be revenue neutral to the City. The annual stormwater utility system costs (including billing and administration) will be recovered through direct customer utility charges. Storm utility budget and financial implications are further described in Attachment 1.

SUMMARY / CONCLUSION

In order to move ahead with the Stormwater Utility, Administration is requesting Council's input on a variety of aspects of the Utility which will guide the development of the Stormwater Utility Bylaw.

Next steps for implementation of the Stormwater Utility include:

- Further refinement of Stormwater Utility Charges
- Developing a potential grant program.
- Continued Stakeholder engagement and communications, with emphasis on customers potentially experiencing the greatest net cost increase.
- Billing details: Confirm billing provider, costs and time frames, potentially impacting implementation dates.
- Stormwater Utility Bylaw drafting.

Administration requests that Committee recommend Council approve the recommendations as outlined in this report.

ATTACHMENTS

Attachment 1 – Stormwater Utility Revenue Requirements

Attachment 1 - Stormwater Utility Revenue Requirements

Revenue requirements determine the rates needed to fully fund the Utility. \$7.4M annually is required to fund the Utility based on current operating and capital plan forecasts from 2022-2026 and projections to 2030.

Rate Setting: Cash vs Utility Approach

A Cash approach is used herein – forecasting the Utility's cash requirements and corresponding utility rates.

Alternatively, a Utility approach would add amortization of capital assets and return on capital targets, generating cash for asset replacement and dividends.

A Cash approach is appropriate as asset replacement is funded through the capital plan and the City has not indicated a desire for dividends or a franchise fee from the new Utility as a means of keeping rates lower.

Revenue Requirements

Operating Expenses

The Stormwater system is presently fully integrated into Transportation and Engineering programs and activities. Annual Stormwater system operating expenses average \$3.3M from 2022-2026.

Direct storm sewer expenses include all of the Storm Sewer and Street Cleaning Programs plus a portion of Asphalt Roads and Concrete programs attributable to the storm sewer system.

Overhead and administration costs are between 10-11% of total stormwater system costs and include:

- An allocation of corporate overhead proportional to stormwater costs relative to overall City operating expenses,
- An Engineering allocation including one new FTE dealing supporting transitional non-residential impervious area appeals and
- An allowance for third-party billing.

Segregating the stormwater system from other Transportation activities will need to occur to better budget, report and control storm system costs. Segregating Transportation and Storm Water activities can result in weather-related seasonal variances that, at present, is absorbed within the larger Transportation budget but going forward, may result in variances in either Transportation Operations or the stormwater utility. Winter operations may be extended due to a late spring or early winter that reduces time spent on stormwater system activities – or vice versa – for example.

Working Capital: It is assumed that cash flow will continue to be provided by the City. As such, working capital requirements are not included in the operating budget.

Capital

The stormwater capital plan identifies projects and funding for contracted maintenance, asset rehabilitation and replacement as well as system improvements to accommodate growth and reduce the risk of flooding.

The 2018 Storm Drainage Master Plan identifies almost \$100M in drainage improvements aimed at providing a 100-year level of flood protection for the most at-risk areas of the City. These system improvements will occur on a priority basis, subject to available funding. Average annual capital funding from 2022-2026 is \$4.0M, funded from cash.

Funding Sources

Capital expenditure funding sources include:

Cash: Historically funded from tax levies. Going forward, cash will be generated from utility user charges.

Borrowing / Debt: No debt is currently attributable to the stormwater system. Borrowing can be a viable funding source for larger capital projects, reducing swings in utility rates while paying for an asset over time.

Grants: Much of the existing stormwater system has been funded by 'no-cost capital'; either from grants or developer contributions and levies.

Grants are unpredictable, though when allocated to stormwater projects will reduce utility cash requirements. Grants have been allocated to road improvements and related storm sewer and drainage improvements in the past.

Developer Contributions and Levies: Developers build and fund stormwater improvements on their lands and transfer them at no cost to the City through City Development Permits and Servicing Agreements. Developers contribute to off-site stormwater improvements through Transportation levies.

The following table shows the Operating and Capital Utility Cash requirements. Rate modelling will use a target of \$7.4M in annual cash required.

Storm Sewer Utility Operating and Capital Costs

Operating Expenses	2022	2023	2024	2025	2026	2027	2028	2029	2030
3710 Storm Sewers	1,178,276	1,409,129	1,411,819	1,413,494	1,414,815				
3214 Street Cleaning	860,482	891,156	922,680	953,348	954,438				
3215 % Asphalt Roads	33,721	35,214	35,275	35,312	35,342				
3216 % Concrete	204,189	210,771	211,236	211,524	211,750				
Overhead / Admin	721,936	736,375	751,102	766,124	781,447				
Total Operating	2,998,603	3,282,645	3,332,112	3,379,803	3,397,791	3,546,851	3,566,068	3,635,013	3,708,714
Ave: \$3,427,511									
Capital	4,245,000	3,670,000	3,695,000	3,870,000	3,895,000	4,420,000	3,895,000	4,070,000	4,095,000
Ave: \$3,983,889									
Total Storm Utility Expenses	7,243,603	6,952,645	7,027,112	7,249,803	7,292,791	7,966,851	7,461,068	7,705,013	7,803,714
Average Total 2023-2030	\$7,432,375								