



Staff Report

Finance and Corporate Services Department

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REPORT TO: Special Council

DATE OF MEETING: October 2, 2023

SUBMITTED BY: Bu Lam, Director of Sanitary and Stormwater Utilities, 519-741-2200 ext. 4212

Greg St. Louis, Director of Gas & Water Utilities, 519-741-2200 ext. 4538

PREPARED BY: Christopher Leishman, Project Manager Water Infrastructure Program, 519-471-2200 ext. 4026

WARD(S) INVOLVED: All

DATE OF REPORT: October 2, 2023

REPORT NO.: INS-2023-437

SUBJECT: 2024 Water Infrastructure Program Summary and Rate Options

RECOMMENDATION:

For discussion

REPORT HIGHLIGHTS:

- The purpose of the Water Infrastructure Program (WIP) report is to assess the service levels of the water, sanitary and stormwater utilities to ensure that the services provided meet customer expectations and legislative requirements. The WIP review ensures that the utilities are operated sustainably, risks are minimized, and that critical services are reliably delivered and protective of the environment and public health and safety.
- The key findings of the WIP review are that infrastructure investments are needed to avoid significant failures in the areas of trunk sewers and pumping stations, address high priority infrastructure renewals not previously captured under previous WIP programs, close inspection gaps, and meet legislative requirements for maintenance (e.g., Oil/grit separators for stormwater quality).
- Staff assessed the rate impacts between 2024-2027 for three options associated with different levels of capital investments for the replacement of water, sanitary and stormwater infrastructure through both the road reconstruction program, as well as standalone asset renewals for highest risk infrastructure (e.g., trunk sewers).
- Using the Council-endorsed WIP guiding principles, with a primary emphasis on customer affordability, staff recommend rate option 3, or a 6.3% rate increase each

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year for the next four years, which includes the associated resourcing requirements of 11.5 FTEs.

- This report supports the delivery of core services.

BACKGROUND:

The drinking water, sanitary and stormwater systems are critical infrastructure that deliver essential services to the residents of the City of Kitchener. This infrastructure provides a source of reliable & safe drinking water, conveys wastewater to Regional treatment facilities, reduces flooding risk from climate related events, and contributes to the health and safety of Kitchener's residents and the environment.

The Accelerated Infrastructure Replacement Program (AIRP) was launched in 2002. The purpose of the program was to evaluate the age and useful life of linear water infrastructure and plan for the replacement of approximately 260 km of end-of-life water, sanitary and stormwater pipes through triple-funded projects by 2032.

In 2018, the AIRP was renamed the Water Infrastructure Program (WIP) and outlined the utility's needs for the sustainable delivery of water services over a 5-year window, 2018 – 2022 for both capital investments and operations and maintenance programs. The 2018 WIP involved engagement and direction from the Corporate Leadership Team and Council which led to the development of WIP's guiding principles which remain unchanged in this current iteration of WIP. These guiding principles are:

- Ensure regulatory requirements are met or exceeded.
- Consider the likelihood of infrastructure failure and the financial and service delivery impacts.
- Ensure the City is able to deliver consistent, quality service to customers today and into the future.
- Consider customers' ability to pay.
- Information about the Water Infrastructure Program (including what makes up water utility rates and any rate changes) is clearly communicated to customers.

The program that was endorsed by council prior to setting the 2018 budget was:

- Combined water utility rates of 6.5%, 6.5%, 4.5%, 4.5%, 4.5% respectively for a 5-year period spanning 2018 to 2022
- An extended timeframe to close the infrastructure replacement gap from 2032 to 2044
- Providing increased maintenance funding to the stormwater and water utilities, \$2 million and \$1.3 million, respectively, over the 5 years to address critical maintenance program gaps.

The primary purpose of the WIP is to establish utility rates that will ensure the three water utilities are operating sustainably and that risks to the water utilities and residents of Kitchener are minimized. The pandemic and other macroeconomic factors have made achieving sustainable operations for each utility challenging. Impacts continue to be felt today in the form of rising inflation (i.e., higher consumer price index (CPI)),

higher interest rates, increased fuel costs and supply chain challenges, which have all led to higher expenses to deliver the same level of service.

To proactively address the financial impacts of the pandemic and to minimize affordability challenges to Kitchener residents, Council passed a 0.9% utility rate increase in 2021 and rate increases of 2.2% and 4.5% in 2022 and 2023, respectively. These rate increases were purposely kept low to protect against affordability challenges for Kitchener residents; however, the rates passed were not able to keep pace with inflation in those years, and important programs to address critical infrastructure replacement needs were deferred to future years. Additionally, some of the investments planned during the 2018 WIP were similarly deferred, including the funding to address maintenance gaps for the water and stormwater utilities (i.e., 40% of the funding earmarked during the last WIP was not delivered).

These gaps have elevated risks associated with operating the utilities and have created financial shortfalls that need to be addressed to meet established and legislated service levels. The following tables show the 2018 WIP proposed rate and maintenance funding increases, and the approved rates that were implemented.

Table 1: 2018 WIP Proposed vs Actual Utility Rate Increases (2018-2022)

	2018	2019	2020	2021	2022	2023
Proposed Combined Rate Increase	6.50%	6.50%	4.50%	4.50%	4.50%	Non-WIP Year
Actual Combined Rate Increase	6.50%	6.50%	4.40%	0.90%	2.20%	4.50%

Table 2: 2018 WIP Maintenance Funding (2018-2022)

	2018	2019	2020	2021	2022	Total
Stormwater	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Water	\$260,000	\$260,000	\$260,000	\$260,000	\$260,000	\$1,300,000
Sanitary	\$0	\$0	\$0	\$0	\$0	\$0
Planned Total	\$660,000	\$660,000	\$660,000	\$660,000	\$660,000	\$3,300,000
Actuals Totals	\$660,000	\$660,000	\$400,000	\$0	\$0	\$1,720,000
Shortfall	\$0	\$0	\$260,000	\$660,000	\$660,000	\$1,580,000

REPORT:

The WIP Project Team worked closely with multiple stakeholders to assess areas of utility performance and associated investment needs for each of the three water utilities. This included a review of overall targets for triple-utility asset replacements that have been the hallmark of this program since its inception in 2002, but also other priority needs that can best achieve long-term sustainability and risk mitigation for the utilities.

The key drivers of the 2024 – 2027 WIP review include the following factors:

- Economic Drivers
- Regulatory Drivers
- Affordability Drivers

Economic Drivers

From 2021-2023, macroeconomic factors such as the COVID pandemic, labour shortages, higher fuel costs, supply chain disruptions, and extensive inflation have led to significant increases in the costs to deliver utility services in Kitchener and across Canada.

Over the past several years, the Canadian economy has seen sharp increases in inflation. The average Consumer Price Index (CPI) over the last three years has been 3.6% (2023 - estimated), 6.8% (2022) and 3.5% (2021), and the average for the 10 years prior was 1.78% (2011-2022). This shows a significant upward trend in costs across all sectors. Kitchener's water utilities have seen similar impacts from inflation in operations and maintenance and capital programs.

- Operations and maintenance cost increases have been driven by higher fuel prices, shortages of contractors to perform work, and material/equipment delays. This has resulted in reductions in certain program/service areas (e.g., reduced CCTV inspections, reduced pipe repairs, and reduced catchbasin/casting repairs) and/or increased delays for the completion of maintenance works.
- Capital cost increases have been driven by unit price escalations. For example, tender values for triple funded utility replacements have escalated by almost 50% between 2021 and 2023 (tender pricing trends can be seen in Attachment B). This has resulted in significant reductions in the triple-funded road reconstruction accomplishments for 2021 and 2022 of 5% and 21%, respectively. Planned triple-funded road reconstruction work in 2023 is estimated to be 27% less than what was modeled in the 2018 WIP.

Maintaining levels of service and meeting planned construction targets requires budget increases to offset inflationary impacts. Without budget increases, customers should expect additional service level reductions and reduced annual capital renewals.

Regulatory Drivers

The Provincial Government has developed several new regulations since the 2018 WIP that impose new or modified responsibilities on all Ontario municipalities. These regulations impact all three of Kitchener's utilities, increasing demands on the utilities to meet these new standards, including the need to collect/analyze data, meet service delivery timelines, and in some cases, report annually on regulatory compliance. Adherence to these regulations is mandatory and is the first Council-endorsed Guiding Principal for WIP. Table 3 provides a listing of the regulatory changes that have occurred since 2018 and their impacts to the utilities.

Table 3: Regulatory Changes Since 2018 That Impact the Three Utilities

REGULATION	REG. NAME	BILL	IMPACTS
O. Reg 588/17	Asset Management Planning for Municipal Infrastructure	Infrastructure for Jobs and Prosperity Act, 2015	<ul style="list-style-type: none"> • Creation of Strategic Asset Management Policy & update at least every 5 years (2023). • AMPs for Core Infrastructure Assets. Update at least every 5 years. • AMPs for all non-core Infrastructure Assets. Update at least every 5 years. • Document Proposed Levels of Service. • Lifecycle management and financial strategy.
O. Reg 406/19	On-Site and Excess Soil Management	Environmental Protection Act, 2019	<ul style="list-style-type: none"> • Geotechnical investigations have increased 30%.
Bill 93	An Act to amend the Building Broadband Faster Act, 2021 and the Ontario Underground Infrastructure Notification System Act, 2012	Bill 93, Getting Ontario Connected Act, 2022	<ul style="list-style-type: none"> • Sanitary and stormwater have only 1 locator (hired in 2014) for addressing 6,000 locates. Locates have more than doubled since that time. • Financial penalties to Utilities for not completing normal locates within 5 days. 2 days for emergency locates. • All damages and delays will be recovered from Utilities
O. Reg. 208/19	Environmental Compliance Approval Regulation in Respect of Sewage Works Regulation (CLI-ECA)	Environmental Protection Act	<ul style="list-style-type: none"> • Responsible for the intake and review of ECA applications for new capital works within the municipal boundary for sanitary and stormwater infrastructure. Responsibility previously resided with the Ministry. • Updated training requirements. • Creation of new business processes and requirements for annual reporting. • New system and environmental monitoring requirements

To meet the new regulatory changes, several investments in operational and maintenance programming are required. The most significant investments are in inspection programs, which allow the utilities to better assess asset condition, evaluate and mitigate risks, minimize service disruptions for customers, and reduce impacts to persons, property and the environment.

Affordability Drivers

Affordability is a Council-endorsed guiding principle of WIP and a central tenet for the health and well-being of a community. As such, affordability has been a top consideration in the design and development of the 2024-2027 WIP program. Purposeful investments have been made in programs that directly assist residents to pay their bills, such as Kitchener's water leak adjustment program/policy, which helps customers offset high water bills due to undiscovered leaks. This program has seen a steady increase in the number of applications since 2020 and given the current state of the economy, it is anticipated that applications for this program will continue to trend upwards. Investments to directly expand the amount of funding available for this program will allow more residents to apply. Similarly, as part of the 2024-2027 WIP, staff will be examining other supplemental programs and best practices that can be implemented to address affordability and equity challenges in our community.

Keeping rates affordable requires a delicate balance between investing to meet utility needs while also assessing what programs can be slowly ramped-up or deferred to minimize financial impacts to residents. With an affordability lens in mind, and recognizing the significant inflationary impacts over recent years, the 2024-2027 WIP includes balanced investments that:

- Direct funding to the highest risk program categories to minimize service disruptions and mitigate against system failures. For example, capital renewals for infrastructure categories like pumping stations and trunk sanitary sewers were prioritized for investments as these have not been previously captured in WIP and are in significant need for rehabilitation.
- Only apply moderate increases in programs that have already made steady gains, such as the triple-utility replacement program (full road reconstructions), which has already replaced much of the oldest infrastructure in the City over the last two decades.
- Re-direct planned increases from lower risk programs to fund higher risk infrastructure needs (i.e., diverting increases from the triple-utility replacement program to fund higher risk trunk sanitary sewers, as described above). This is a prudent measure to ensure limited funds are directed to the highest risk utility programs as a priority.
- Defer expansion of service levels (i.e., implementing a similar service level to current year) for a range of annual programs, including leaf collection, pipe-flushing, valve turning, etc. While there are no planned reductions to these programs, there similarly are no plans to expand services to these program areas.
- Defer new programs such as Advanced Metering infrastructure (AMI), as the capital and operating costs are beyond the ability of the utility to sustain.

The measures above are examples of some of the balanced financial planning measures taken as part of the rate design for WIP 2024-2027. In some instances, programs have been implemented over longer periods of time to minimize short term impacts on rates. This approach will result in funding reductions of up to 60% in some capital programs. For example, some single-utility capital programs (e.g., mainline and trunk sewer rehabilitations), which were initially earmarked to be delivered in the next five years, have had implementation timelines extended to 10-15 years. While there are measured risks with a slower ramp-up of these programs, staff feel that risks can be managed with increased maintenance programming, and service levels can still be achieved, although there will be moderate service level reductions, but none that will be significantly felt/seen by the average customer. These balanced approaches are a necessity to protect the affordability of water services for residents of Kitchener.

2024-2027 WIP Program Gaps

The 2024-2027 WIP review focused on important program investments required to address maintenance and capital program delivery gaps and to enhance customer service and associated affordability program supports. Program gap areas have been grouped into five broad categories as defined in Table 4.

Table 4: WIP Program Gaps

Maintenance	These investments look to reduce reactive maintenance and infrastructure failures by increasing proactive maintenance. These investments will save money in the future as preventative maintenance will reduce emergency reactive works, which can often cost 6-10x more than routine maintenance measures. Preventative maintenance also ensures greater service reliability and helps assets meet or exceed their estimated useful lives. Investments in this category include addressing gaps related to pumping station maintenance and condition inspections of sanitary and storm mains, trunks, and maintenance manholes.
Single Utility Investments	These investments address infrastructure replacement needs that fall outside the triple-utility replacement program (e.g., sanitary trunk sewers, pumping stations, high-risk watermain replacements). Historically, single utility projects have not been appropriately funded in WIP, as a comprehensive program of this nature has not previously been developed.
Meeting Industry Standards	These investments look to fill important gaps in the City's inspection (CCTV, zoom camera inspections), data collection and analysis programs to improve investments in asset renewals as well as improve service levels to better align with industry standards. Investments in this category will also develop and adopt legislated maintenance programs that currently do not exist at the City.
Addressing Climate Change Risks	These investments will mitigate the impacts from climate change, such as projects funded through stormwater utility programs like the Disaster Mitigation and Adaptation Fund (DMAF). Investments in weather stations will allow better tracking and response to storm events, as well as the ability to utilize data to refine hydraulic models to build resiliency within the utilities.
Improving Customer Service Levels	These investments will enhance customer service levels in several Council-endorsed strategic areas, such as affordability (expanded financial support programs), equity, and community engagement.

Attachment A is a complete list of areas for investment outside of the triple-funded road reconstruction funding. These investments have been grouped into the aforementioned investment categories and include a description of the program, benefits, investment

levels and any associated full-time equivalent (FTE) positions required to implement these new/expanded programs.

Triple Funded Capital Program Review

As part of the 2024-2027 WIP review, an analysis was conducted to see how much additional funding would be required to reinstate the 2018 WIP targets and achieve the 260km of planned road reconstructions by 2044. The annual rate increase that would be needed was projected to be 8.9%. This projection is shown as Scenario #1 in Figure 1 below and illustrates the level of funding infusion needed to simply get the utilities back on track to what was planned as part of the 2018 WIP.

The 8.9% rate increase in this scenario would simply bring the utilities back in-line with the planned target to replace end-of-life water, sanitary and stormwater assets by 2044. The 8.9% rate projection does not include funding to address high risk infrastructure outside the triple-utility program (e.g., pumping stations and trunk sanitary sewers), and similarly does not include implementing programs to address regulatory changes that have occurred since 2018, including the associated requirements for maintenance. When these elements are factored in, the projected rate increase exceeds 12% annually, for the next 4 years of WIP.

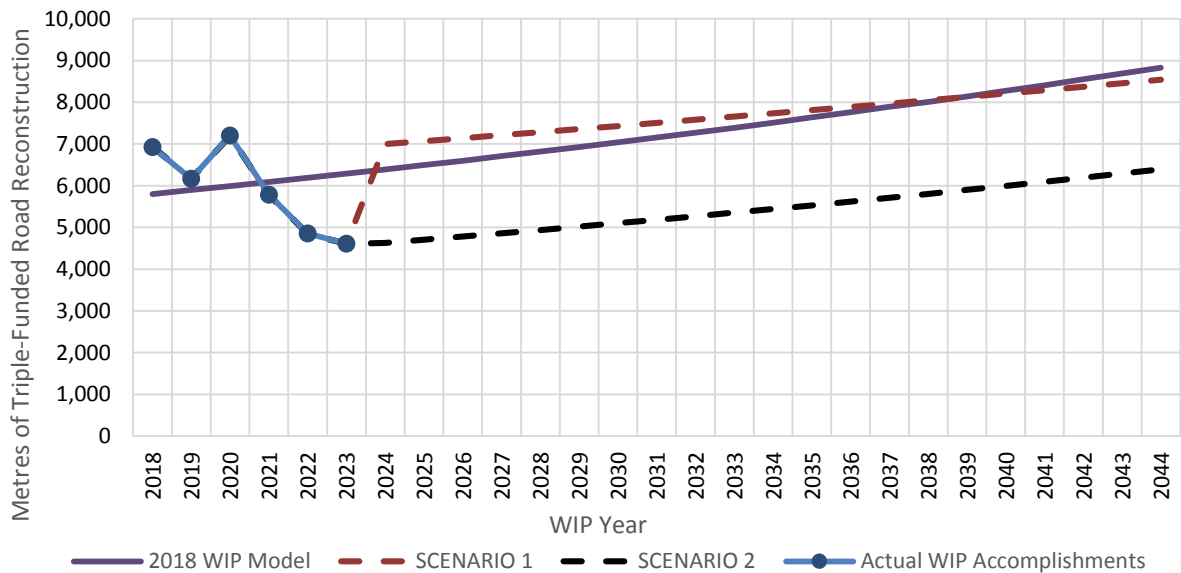


Figure 1: WIP Scenarios Compared with the 2018 WIP model. Scenario #1 shows the program increase needed to achieve the 2018 WIP targets (i.e., achieving replacement targets by 2044). As a reference, Scenario #2 shows the current trajectory of the triple-funded program based on the current (2023) financial state of the utilities.

The 12% annual increase described above was used only as a projection to guide rate option development. It was clear to staff that 12% annual increase for the next four years was not an affordable rate for residents, and similarly the rate did not align with Council's guiding principle of affordability. However, the 12% modeled scenario did provide context for the magnitude of reductions in utility programs that would be required in order to bring annual utility rate increases down as part of the 2024-2027 WIP.

The rate options proposed in the following section have been developed with affordability as a key priority. Significant effort has gone into balancing utility program needs with risks, and implementing strategies to keep annual rate increases as low as possible by deferring capital programs and/or delivering programs over longer timeframes. While deferring projects/capital programs does introduce greater risks to the utilities, these risks are manageable through the implementation of maintenance programs.

Rate Options

Rate Option 1 – 8.6% annually for next four years:

- A reduction of road reconstruction accomplishments (2024-2027) by **15%** annually, from 2018 WIP targets
- Includes programs to meet legislative requirements, industry standards, and address capital/maintenance gaps
- Includes 2.2% Regional increase
- 2024 annual cost increase to homeowner of \$105.

Rate Option 2 – 7.6% annually for next four years:

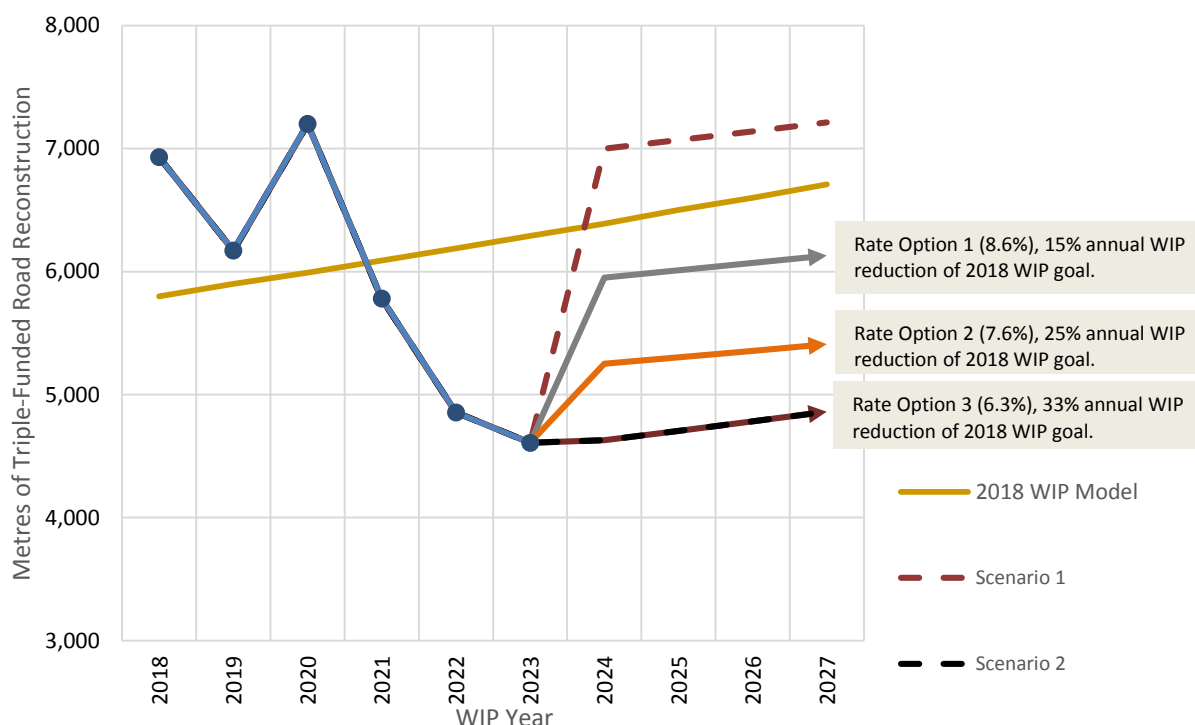
- A reduction of road reconstruction accomplishments (2024-2027) by **25%** annually, from 2018 WIP targets
- Includes programs to meet legislative requirements, industry standards, and address capital/maintenance gaps
- Includes 2.2% Regional increase
- 2024 annual cost increase to homeowner of \$93.

Rate Option 3 – 6.3% annually for next four years:

- A reduction of road reconstruction accomplishments (2024-2027) by **33%** annually, from 2018 WIP targets
- Includes programs to meet legislative requirements, industry standards, and address capital/maintenance gaps
- Includes 2.2% Regional increase.
- 2024 cost increase to homeowner of \$77.

Figure 2 provides a visual comparison of the three proposed rates set against the 2018 WIP model and projections. Note: the starting point for all three rate options already assumes the current state of the utilities in 2023, which is a reduced road reconstruction level of service. None of the proposed rate options will allow the utilities to achieve the 2018 WIP goal of closing the infrastructure gap by 2044.

Figure 2: Rate Options as Compared to Rate Scenarios and 2018 WIP Model



A comparative summary of all 3 rate options can be found in Table 5.

Table 5: Summary of Proposed Combined Rate Options

	Rate Option 1	Rate Option 2	Rate Option 3
Total Combined Rate Increase	8.6%	7.6%	6.3%
City Combined Rate Increase	6.4%	5.4%	4.1%
Regional Rate Increase	2.2%	2.2%	2.2%
2024 Cost Increase to Household	\$105	\$93	\$77
Annual Metres of Road Reconstruction (Average - 4 Years of WIP)	~6000	~5300	~4700
Reduction in WIP Accomplishments From 2018 WIP Model	15%	25%	33%
Meeting Current Legislative Requirements	Yes	Yes	Yes

STRATEGIC PLAN ALIGNMENT:

This report supports the delivery of core services.

FINANCIAL IMPLICATIONS:

Capital Budget – The report proposes new utility rates for 2024 and includes any impacts to the Capital Budget.

Operating Budget – The report proposes new utility rates for 2024 and includes any impacts to the Operating Budget.

COMMUNITY ENGAGEMENT:

INFORM – This report has been posted to the City's website with the agenda in advance of the council / committee meeting.

PREVIOUS REPORTS/AUTHORITIES:

- INS-17-070 Water Infrastructure Program Summary and Rate Options

APPROVED BY: Denise McGoldrick, General Manager Infrastructure Services

ATTACHMENTS:

Attachment A – WIP Areas of Investment

The below is a complete list of areas for investment outside of the triple-funded road reconstruction funding. These investments have been grouped into the forementioned investment categories along with associated investment requirements and fulltime employee (FTE) needs.

WIP Areas of Investment

				Capital Funding			
				Operating Funding			
				New funding requested			
DESCRIPTION	INVESTMENT CATEGORY	FTE	UTILITY(S)	2024	2025	2026	2027
<p>Inspection and Monitoring Programs – This includes the development and implementation of various inspection programs for mainline sewers, trunk sewers, and forcemains. This includes expanded CCTV data collection and new Manhole/Zoom Inspection Program for the collection of condition data of gravity sewers and manholes (main & trunk). Investments will also be made in the installation of network-wide flow monitoring equipment, as well as resourcing to support analysis, detection of flow anomalies, project scoping, prioritization and planning.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none">▪ <i>Meet legislative requirements.</i>▪ <i>Ensure sanitary capacity can support service demands and anticipate/mitigate service disruptions and risk of spills/property damage.</i>▪ <i>Allows for data-driven operations, maintenance, prioritization and capital program development, ensuring targeted/efficient spending.</i>▪ <i>Reduces risks of sewer surcharge/backups during wet weather.</i>▪ <i>Ensures the system can continue to deliver reliable services to customers as designed/intended.</i>	MAINTENANCE; SINGLE UTILITY INVESTMENTS	3	SAN/STM	1,025,000	1,630,000	1,575,000	1,675,000

<p>Pumping Station Maintenance and Asset Replacements – Ensures funding to achieve base operations and maintenance service levels and capital replacements/improvements to pumping station equipment/facilities. Investments also include resources and equipment (e.g., crane truck) to deliver daily maintenance to extend the life of infrastructure and prevent service disruptions/failures.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Reduced service disruptions for customers</i> ▪ <i>Minimize risk of failures which could result in spills to the environment.</i> ▪ <i>Ensures pumps and other station systems run at optimal levels, and equipment is maintained and/or replaced at end of service life or point of failure.</i> ▪ <i>Ensures response time during system emergencies are met.</i> 	MAINTENANCE	2	SAN	583,888	200,000	1,050,000	200,000
<p>[NEW] Legislated and Preventative Operations and Maintenance Programs – Support for the sanitary and stormwater utilities (SSU) to address program growth, increased service requests, workorders and workload. Includes investment in resources to create and delivery legislated and preventative maintenance programs.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Improved service delivery and crew oversight to support program delivery.</i> ▪ <i>Higher customer service with more timely delivery and oversight of core programs</i> <i>Proper filing and tracking of paperwork to ensure legislative requirements are met.</i> ▪ <i>Capacity to implement new preventative maintenance programs.</i> ▪ <i>Reduced service level disruptions for customers.</i> 	MAINTENANCE	4	50% SAN, 50% STM	233,848	0	199,572	0
<p>[NEW] Sanitary Condition-based Renewal Projects (Mainline and Trunk Sewers) - Condition-based mainline and trunk (pipes >375mm) sanitary pipe replacements. Poor condition trunk sanitary sewers are currently the highest risk infrastructure in the City. Investments will include multiple modes of work, such as full excavation/replacement, re-lining, etc. The full extent of priorities will be addressed over 10 - 15 years. The highest risk projects will be addressed in the first 4 years.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Will target highest risk infrastructure for replacement before failures occur, reducing overall system risk.</i> ▪ <i>Mitigate against service disruptions for customers.</i> ▪ <i>Reduce risk of spills and/or property damage.</i> 	SINGLE UTILITY INVESTMENTS		SAN	2,500,000	2,750,000	5,000,000	7,000,000

<p>Sanitary Condition-based Renewal Projects (Pumping Stations) - To address funding needs identified in the Sanitary Master Plan for Moore, Oxford, and Manchester pumping stations, which require immediate work and/or are the highest risk stations in the network. Additional works for the remaining pumping stations will be captured in future WIP programs.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Will target highest risk infrastructure for replacement before failures occur, reducing overall system risk.</i> ▪ <i>Mitigate against service disruptions for customers.</i> ▪ <i>Reduce risk of spills and/or property damage.</i> 	SINGLE UTILITY INVESTMENTS		SAN	619,000	304,000	1,790,000	1,790,000
<p>Water Risk-based Projects – Addresses 10 high risk "water only" replacement projects identified by Asset Management and the Water Utility.</p> <p><i>Key Benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>To address projects with poor condition water mains where other water utilities and the road surface are in good to fair condition.</i> ▪ <i>Targets system locations that are of highest risk for failure/service disruption.</i> ▪ <i>Removes pipes that have a high break occurrence and/or unreliable material types.</i> 	SINGLE UTILITY INVESTMENTS		WATER	163,600	390,000	903,000	1,851,500
<p>SCADA – Supervisory Control and Data Acquisition (SCADA) provides enhanced monitoring (real-time) and process automation/control for the City's sanitary pumping stations. This phase of work will provide for building upgrades, where needed, and the implementation of new SCADA systems in all Kitchener sanitary pumping stations.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Provides more effective control and monitoring of pumping stations so operators can manage systems more effectively, and in real-time, even while not on-site.</i> ▪ <i>Mitigate the risk of pump and station failures, which could result in service disruptions, sewage back-ups into residential homes/ businesses, and/or spills to the environment.</i> 	MEETING INDUSTRY STANDARDS		SAN	800,000	800,000	0	0
<p>[NEW] Develop New and Improve Existing Sanitary and Stormwater Maintenance Programs – Implement corrective and preventative maintenance programs to help identify/prioritize internal maintenance activities. This includes resourcing to implement new legislated maintenance programs for OGS and LID that are a requirement under the City's CLI-ECA, but currently aren't undertaken.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Will achieve legislative compliance for stormwater maintenance.</i> 	MEETING INDUSTRY STANDARDS	1	STM	571,980	250,000	50,000	50,000

<ul style="list-style-type: none"> ▪ Will improve downstream water runoff quality and improve environmental outcomes. ▪ Ensures timely coordination of sanitary and stormwater maintenance programs to mitigate against service failures/disruptions. ▪ Tracks and monitors maintenance program to enhance efficiencies and cost-savings. 							
<p>[NEW] Improve Data Management and Risk Prioritization - Helps the utilities with growing data holdings through new and expanded inspection programs, performance metrics, analysis, and program development.</p> <p>Key benefits:</p> <ul style="list-style-type: none"> ▪ Supports data-driven decision-making. ▪ Supports planning and prioritization to ensure highest risk projects/programs are identified and funds can be appropriately allocated to address them. ▪ Ensures proper frameworks are developed to collect and analyze data, develop dashboards and track/report on performance. 	MEETING INDUSTRY STANDARDS	1.5	STM/SAN/ WATER	0	187,500	0	0
<p>[NEW] Installation of Weather Stations - Purchase and install 10 - 15 weather stations to monitor changing weather patterns and the intensity/impact of individual storms that hit the City, which will support planning for, and response to, extreme weather events. 2024 costs are to purchase and implement stations. Maintenance costs are factored in thereafter.</p> <p>Key benefits:</p> <ul style="list-style-type: none"> ▪ Will provide near-real-time weather tracking information to coordinate City response during major storm events. ▪ Data collected from weather stations can inform/calibrate models to better identify system vulnerabilities so they can be prioritized and addressed (e.g., areas prone to flooding when certain precipitation thresholds are met). ▪ Data can inform the modification/development of emergency response plans for major storm events. ▪ Data can support emergency response and/or planning for other City divisions (e.g., Roads, Parks/Forestry, and Facilities Management) 	ADDRESSING CLIMATE CHANGE RISKS		STM	170,000	50,000	0	0
<p>[NEW] Raising Water Air Relief Valves/Chambers - Water air relief valves within chambers that have been installed in areas prone to flooding will need to be relocated outside of chambers.</p> <p>Key benefits:</p>	ADDRESSING CLIMATE CHANGE RISKS		WATER	25,000	25,000	25,000	25,000

<ul style="list-style-type: none"> ▪ <i>Reduce the risk of drinking water contamination.</i> ▪ <i>Ensure access for maintenance during flooding events.</i> 							
<p>[NEW] Equity/Affordability Study & Customer Affordability Programs - Working with EDI Staff to develop new and supplemental affordability programs to provide assistance to customers who have challenges with paying for utilities. This funding also supports a doubling of the current leak adjustment policy (current funding = \$100K/yr). A review of the current utility rate model will also be conducted and revamped as need to incorporate greater affordability/equity objectives in addition to financial sustainability objectives. These initiatives will ultimately examine approaches/programs to provide more equitable services to customers.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Ensuring services are accessible and affordable for the most under-represented and vulnerable populations within the community.</i> ▪ <i>Creating new programs to help low-income and under-represented groups improve their access to utility services.</i> ▪ <i>Advances customer affordability and equity objectives, while also supporting water conservation.</i> ▪ <i>Ensuring equal opportunity for all residents to participate and provide input on utility services, program development and decision-making.</i> 	IMPROVING CUSTOMER SERVICE LEVELS		STM/SAN/ WATER	50,000	150,000	100,000	0
<p>[NEW] Enhanced community engagement - To bring utilities in-line with the City's corporate engagement standards/objectives. Funding will support initiatives such as relationship building with First Nations, education and outreach initiatives, updated branding/communications, and implementing best practices to ensure effective participation and feedback is received from residents on utility programs and services. This funding will also partially fund seasonal resourcing to support engagement activities when needed.</p> <p><i>Key benefits:</i></p> <ul style="list-style-type: none"> ▪ <i>Builds rapport and trust between the utilities and the community.</i> ▪ <i>Supports greater education on utility services, which could mitigate system impacts (i.e., no flushable wipes in the toilet) and reduce service interruptions and/or maintenance costs.</i> ▪ <i>Ensures residents have an opportunity to be informed and participate in decision-making on utility services, program development and capital projects that impact their community.</i> 	IMPROVING CUSTOMER SERVICE LEVELS		STM/SAN/ WATER	100,000	100,000	150,000	200,000

	Investment Totals:	6,842,316	6,836,500	10,842,572	12,791,500
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Attachment B – WIP Tender Costing Analysis

WIP tender pricing is tracked and monitored by Engineering Services Division. Pricing is tracked for per metre overall tender costs.

WIP Program Tendered Costing Analysis, Total Price per Metre

