

Capital investment strategy

2019-2028 proposed capital budget and forecast



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2019–2028 proposed capital budget and forecast

A funded capital budget and forecast

A critical deliverable and priority for staff was to deliver a comprehensive ten-year capital budget and forecast to Council which is funded and developed following our asset management principles. City staff from the entire organization has developed the plan before Council which is a deliverable worth celebrating as it will lay the foundation for future priority conversations to come in 2019.

The City is focused on making investment decisions that align with corporate objectives including, the future Community Plan, the Corporate Administrative Plan, the Downtown Secondary Plan, Guelph Innovation District, Clair-Maltby Secondary Plan and the various service master plans that collectively provide a guide for the future of Guelph. These investments need to be implemented in a way that balances affordability with maintaining and growing critical infrastructure that meets legislative changes, safety requirements and obligations from other levels of government.

This is a dynamic plan that needs flexibility and agility to respond to an environment that is impacted by weather, legislative changes, social and community considerations and other levels of government requirements. A reserve and reserve fund strategy has been integral in achieving a plan that can be responsive to changing needs. Consistent, reliable sources of funding like the Federal and Provincial Gas Tax are also critical to the plan as presented.

Asset management principles guide budget decisions

The City is maturing with its asset management practices leading to more evidence-based investment decisions and changing priorities as this discipline rolls out through the organization. This is creating the need to be flexible and dynamic as new, iterative data is challenging the old static financial modeling.

Asset management drove a second key milestone for the capital budget and forecasting process; resetting the current budget model to align with asset management principles. Council has appropriately recognized the importance of this function in the organization and the next step to an integrated, sustainable long-term financial plan is to use this data and evidence to drive decision making.

The City of Guelph is one of the first in the province to link asset management to the capital budgeting process to this extent which is also an achievement worth celebrating.

One capital budget

For the second consecutive year, we are providing Council with a single, fully integrated capital budget for approval, separate from the respective operating budgets that fund the various capital reserve funds. The 2019 capital budget and forecast is built based on a complex funding model of reserve funds and external sources that is combined into one plan. This represents the further integration and development of long-term financial planning within the City.

Once again, the capital budget is being presented in advance of the operating budget, which continues to demonstrate the distinction between capital reserve transfers (operating budget) and capital project expenditures (capital budget).

There are reasons for this direction:

- There is an urgency to approve the capital budget and ensure a competitive advantage in pricing of many significant construction contracts that should not be delayed.
- Council has already endorsed a strategy that supports moving towards a sustainable level of funding over a ten-year period for tax funded services and a continuation of a sustainable strategy for the non-tax or rate funded services; the 2019 capital budget is a reflection of this strategy.

Staff is presenting a capital budget that is funded within the previously approved revenue streams discussed in more detail below. Reductions in operating transfers to the capital reserve funds will have a negative impact to the capital budget and forecast model by limiting the City's ability to meet its current level of service standards.

Balancing infrastructure renewal with growth and city building

A common theme that was encountered while building this proposed budget and forecast was the constant challenge to maximize and optimize the best distribution of limited funding sources between infrastructure renewal, growth and city building. Council has recognized, through past budgets and policy setting, that the priority need for our City is investing in our current infrastructure. This is evidenced by the investment and creation of an Asset Management division and the approval of the Capital Funding Allocation Policy that directs 80 per cent of the tax supported capital transfer to the Infrastructure Renewal Reserve Fund.

In many cases though, the growth priorities, including the implementation of the Downtown Secondary Plan, the Guelph Innovation District, and the forthcoming Clair-Maltby Secondary Plan, as well as the city building initiatives like the Active Transportation Network, and Technology Innovation, are challenging the constraints of the remaining 20 per cent of tax supported funding.

Funding constraints include:

- Affordable property tax and user fees
- Limited ability to raise funds through other revenue tools
- Capital Funding Allocation Policy
- Debt levels set by the City's Debt Policy and the external credit rating agency
- Federal and Provincial Gas Tax Funding
- Development Charge Act restrictions that prevent full cost recovery for growth-related capital
- Limited availability of other on-going capital grant funding that can be relied upon for capital planning

These constraints led to difficult conversations, concessions and alternative funding strategies to produce the proposed document before Council. These include:

- Extension of maintenance replacement programs for vehicles, technology and fleet equipment putting greater pressure on the operating maintenance costs over the long-term.
- Deferral of service programs over a longer time horizon including bridge rehabilitation, playground equipment replacement, road rehabilitation programs, and the build out of the Active Transportation Network which will likely reduce the level of service currently delivered by the City.
- Reconsideration of past Council decisions in order to reduce costs on projects in the downtown or find alternative funding sources.

The document before Council is a first step in prioritizing projects within these funding limitations while maximizing external revenue sources, leveraging debt capacity, and strategically managing the City's capital reserve funds. Council is asked to approve the 2019 capital budget only, and will revisit the policy and funding strategies for the forecast period through 2019.

Staff advises that there are strategies and projects that were not able to be accommodated within the current ten-year plan because of current funding limitations that need to be revisited in 2019 through strategic priority setting sessions. These include but are not limited to:

- Facility needs assessment results for the City's aging facilities that need to accommodate a growing population. Facilities including Parks Operations and Fire Headquarters.
- Full implementation of the Downtown Secondary Plan.
- All day, two-way GO (municipal costs, if any, not yet known).
- Inter-regional transit.
- Parkland acquisition.
- Federal-Provincial Bi-lateral Grant Agreement allocation and municipal matching funds.

- Cash flow management strategy for development charge funded linear infrastructure.

Staff is looking forward to having strategic conversations with Council about the next term's agenda that will include priority setting, a new Community Plan, and updates to master plans and service reviews. As the City matures in asset management process, improved asset condition and needs assessment data will continue to improve and optimize projects. These will all be reviewed and incorporated through facilitated, engaged conversations to form the City's pathway forward.

Proposed capital investment

Figure 1, 2019 capital expenditure type

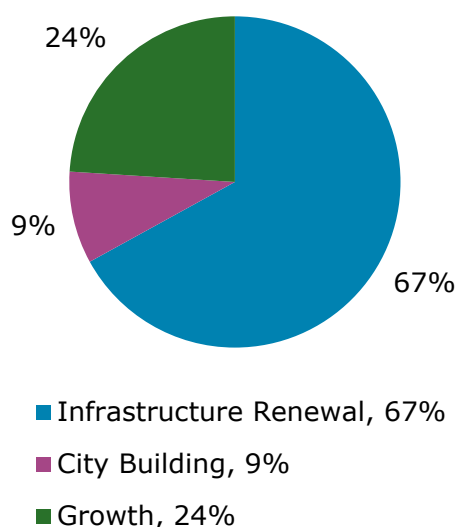
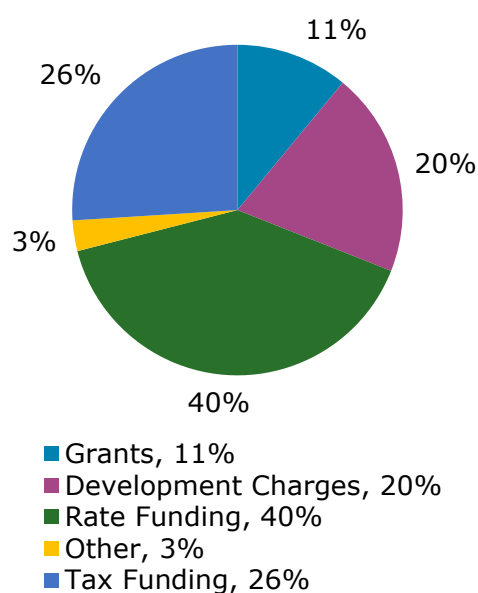


Figure 2, 2019 capital funding sources



The proposed 2019 capital budget and 2020–2028 forecast represents administration's response to the challenge of balancing a wide and complex range of short-term and long-term needs within existing funding and capacity resources.

The total 2019 budget, including all sources of funding, is heavily focused on infrastructure renewal, with 67 per cent of the requested budget going towards projects that will provide for the replacement, renewal or reconstruction of existing City assets. These projects ensure that the City is able to deliver services while maintaining health and safety standards and meeting legislative requirements.

The 24 per cent of the budget attributed to growth is primarily funded from development charges and supports projects required to meet the increased demands on City services by new residents and businesses. The nine per cent of the budget invested in city building reflects ongoing projects to enhance City services to improve the overall benefit to all citizens.

The nine-year forecast sees a shift from infrastructure renewal to a greater focus on growth primarily due to the forecasted work to implement the Downtown Secondary Plan, the Guelph Innovation District and the forthcoming Clair-Maltby Secondary Plan.

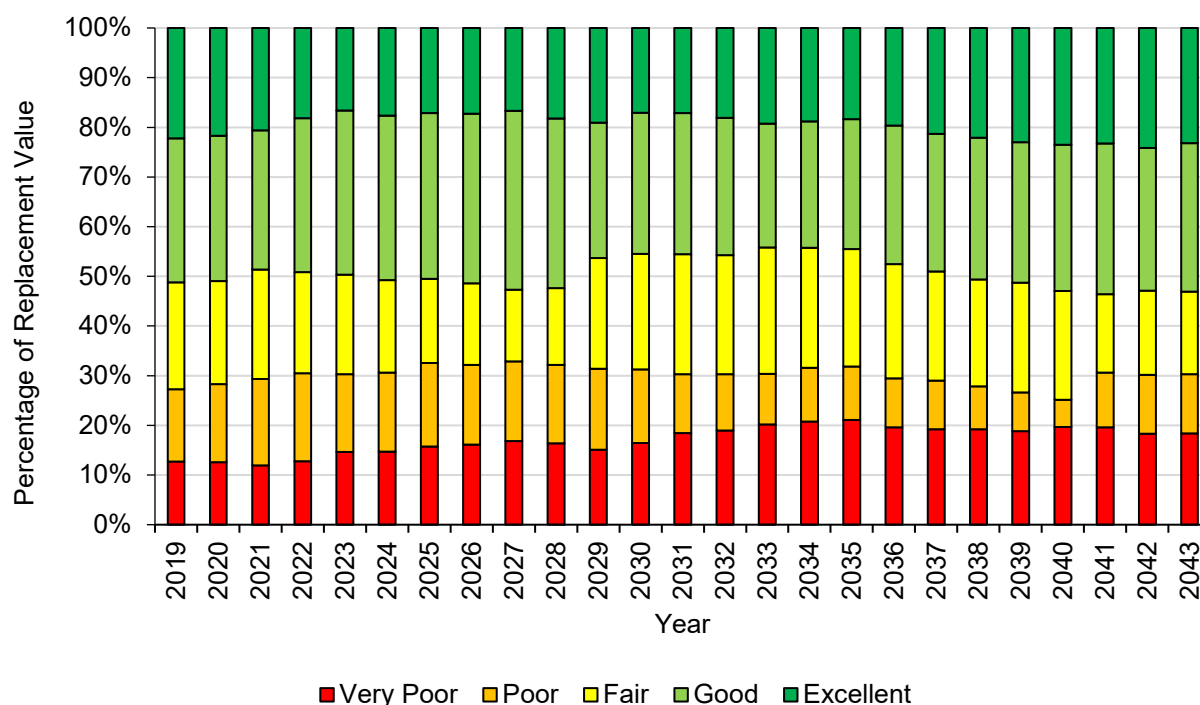
Service level impacts

Progress in the City's asset management program has enabled us to forecast the expected service level performance based upon the capital forecast. This has provided greater insights into the potential impacts of each investment strategy on service delivery over the long term. Figure 3 provides the forecasted performance based on the current capital investment between 2019 and 2043. It should be noted that this graph includes the infrastructure levy between 2019 and 2026. The graph shows that if the current funding strategy and infrastructure levy is maintained, levels of service can be maintained and eventually improved over the long term.

Managing our assets through capital investment

Figure 3 includes all of the City's assets, it shows that between now and 2032 the portion of assets in Very Poor condition increases and the portion in Excellent and Good decrease, this reflects that tax funding strategies to achieve sustainable funding are being built up. Beginning in 2032 the Very Poor portion becomes stable and improvement is made to Excellent and Good. This reflects the achievement of sustainable funding levels for tax. This graph demonstrates that if current funding strategies are maintained over the next 25 years it will be possible to close the annual infrastructure gap and ensure that levels of service are maintained over the long term. There may be short-term impacts to service as funding strategies are implemented.

Figure 3, 2019 to 2043 City-wide Overall Portfolio



This graph will appear through the balance of this document as each program of work includes a version specific to their group of assets and allocated funding (except for Contaminated Sites).

For those programs primarily supported by tax funding, the results are similar to the city-wide performance chart in Figure 3. However, for non-tax funded, specifically Water Services and Wastewater Services, there is a very different result. Through a focused, Council supported plan to build capital funding towards a sustainable level, the investment in these assets provide a significant impact to their overall level of service. This continues to be the model that the tax supported business is endeavoring to replicate.

Sustainable funding assumptions

The capital budget and forecast is prefaced on the following revenue assumptions that build towards sustainable levels of funding for infrastructure renewal, city building and growth related investment:

- The tax supported capital transfer increasing annually to reflect construction price index and the capital impact of prior year approval of City Building and Growth expenditures.
- An accumulating, annual one per cent Dedicated Infrastructure Levy through 2026.

- Water, Wastewater and Stormwater capital transfers increasing by \$2.12 million annually as a build towards sustainability continues.
- Federal Gas Tax funding consistent with the announced planned increases in 2019 and 2021.
- Provincial Gas Tax funding remaining constant at current 2018 levels.
- The Council-approved one-time dividend allocation from the Guelph Hydro/Alectra Inc. merger remains in place.
- Development charge revenues will be collected at an average rate of 85% of the residential forecast and 45% of the non-residential forecast.
- New parking revenues in accordance with the Council-approved financial model.

Further to this, staff is recommending that the following revenue strategies are put in place through 2019 and 2020 to ensure the City will be adequately funded to meet the emerging needs of the City:

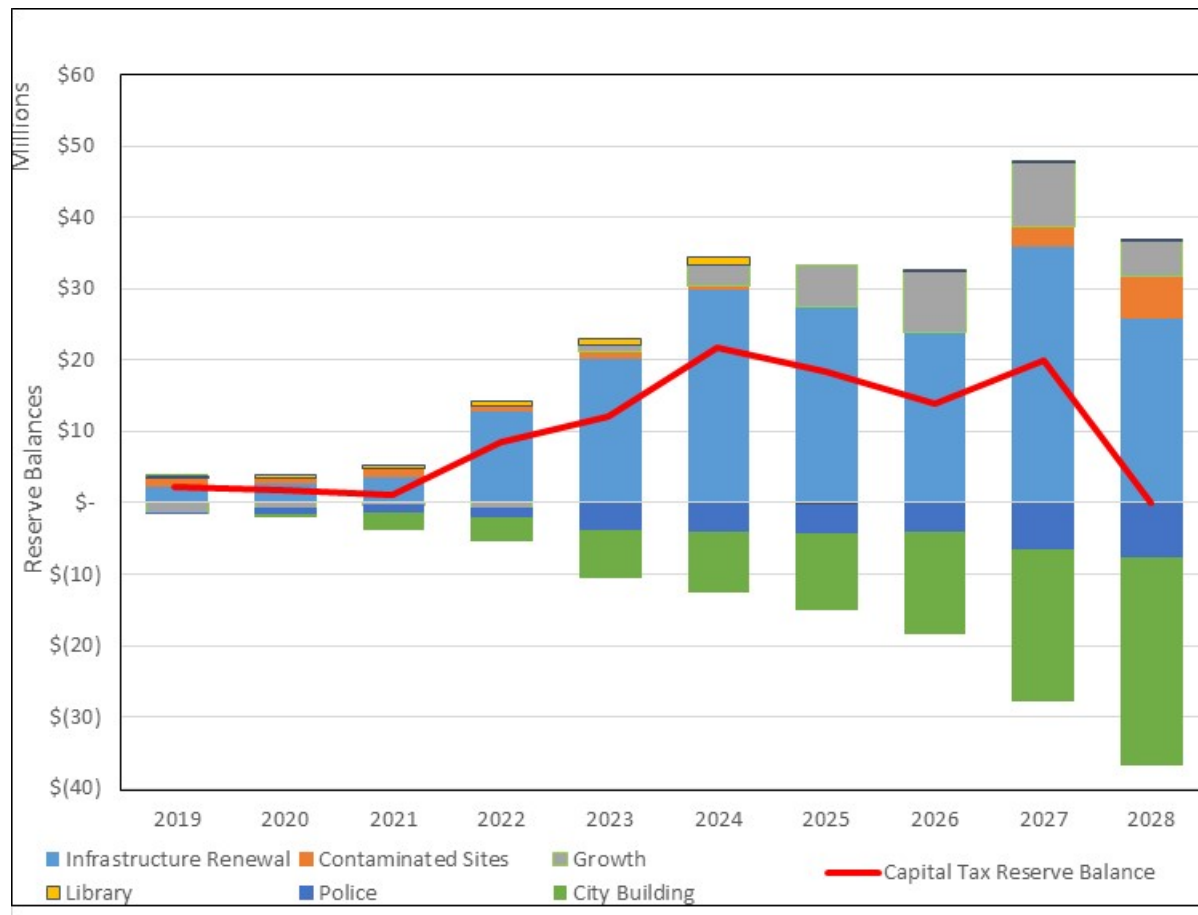
- A funding shortfall for the tax supported cost of growth infrastructure has resulted from the updated 2018 Development Charge Study. Staff will report back through the 2020 budget with a long-term strategy to fund this shortfall.
- Any net new dividend revenues from Alectra Inc. or Guelph Junction Railway be directed to the City's Infrastructure Renewal needs to maintain City assets at expected levels and to build appropriate contingency reserve funds for flexibility and immediate needs.

Capital Reserve Fund long-range projections

The following figures show the City's ability to manage the capital requirements over a ten-year horizon. Collectively, the long-term capital plan maximizes the full extent of the City's tax supported and non-tax supported reserve funds although in some years, inter-reserve fund borrowing is required. This is an evolving model that will continue to be monitored and updated as new information, strategies and priorities are determined.

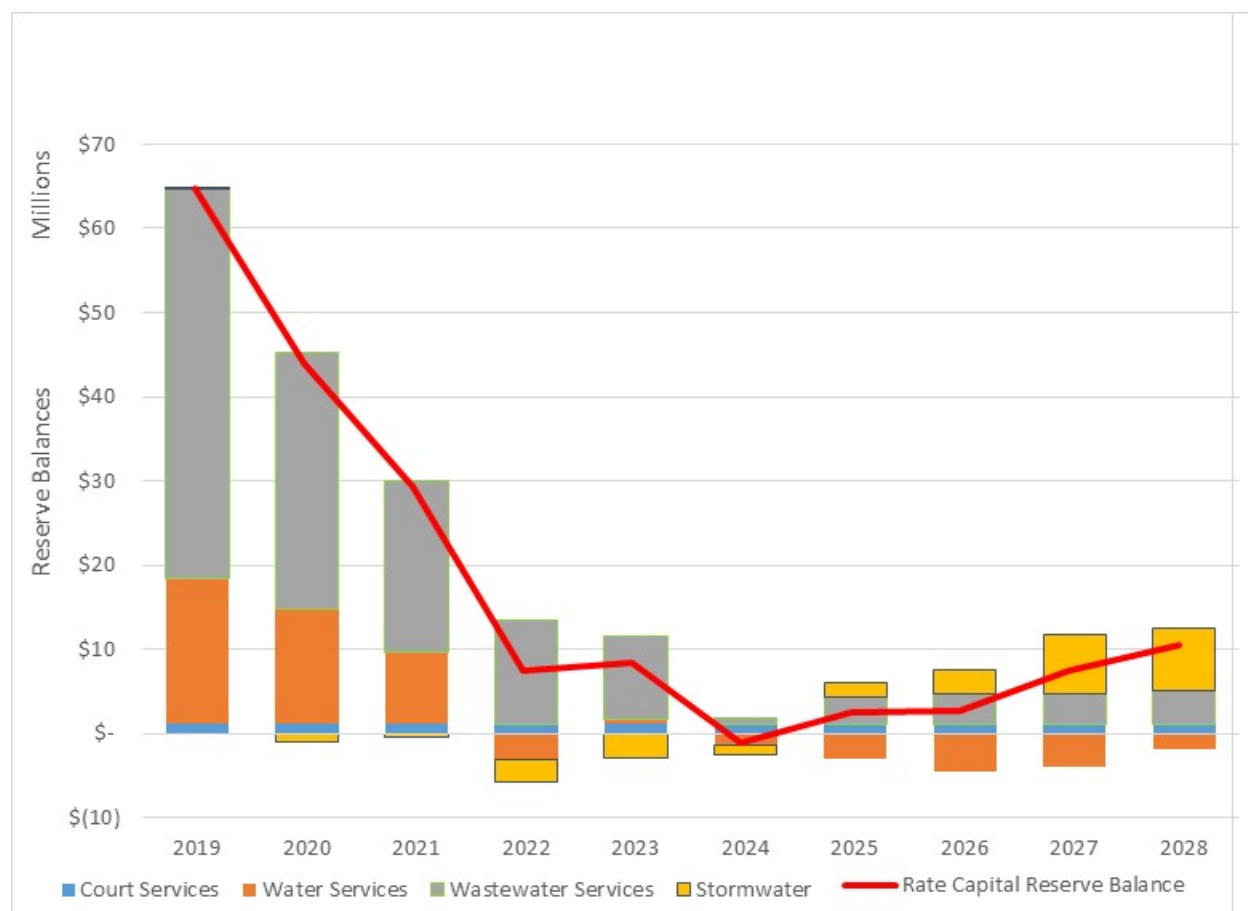
The tax funded capital reserve funds in Figure 4 are funded from the approved transfer from the tax supported operating budget. This funding source is the primary constraint on which the entire capital budget and forecast was developed. These funds represent the biggest challenge when developing the long-term capital plan, specifically, the City Building Reserve Fund which is forecasted to be over-drawn and will require priority conversations with Council through 2019. The forecast shows (through the red line in Figure 4) reserve balances growing modestly over the first five years, and then being drawn down to near zero in 2028.

Figure 4, Forecasted tax funded Capital Reserve Fund balances



The non-tax funded capital reserve funds in Figure 5 have the benefit of long-term sustainable funding streams and are sufficiently able to fund the forecasted capital needs. The current balances will be drawn down as recently developed asset renewal plans are executed, which were developed based on the City's Asset Management Plan. This continues to be the funding model that the City is striving to replicate for its tax funded operations.

Figure 5, Forecasted non-tax Capital Reserve Fund balances



Development Charge (DC) Reserve Fund long-range projections

DC Reserve Funds are funded from DC revenues as set through a legislated background study and bylaw process that occurs on a five-year cycle. The City is targeted to put new DC rates into effect March 2, 2019. DC revenues are paid by developers, businesses and home owners as set out in the DC bylaw.

The DC Study revenues and expenditures assume that 100 per cent of growth will occur in accordance with the Provincial Places to Grow legislation and the City's Official Plan (OP) targets by 2031. While the DC Study takes into consideration timing of projects as it relates to provincial and OP requirements, it does not attempt to align projects with the actual growth the City may experience.

This requires that the City carefully plan and align the construction of growth necessitated projects to the actual growth experience in order to keep the DC revenues in a liquid position. The timing of the completion of the DC Study has not allowed for the completion of this growth capital planning through the 2020–2028 forecasted period. Current proposed timing of DC funded projects within the capital plan are not affordable from a cash flow and debt management perspective due to

this misalignment of DC revenue collection and capital investment. Through 2019, staff will engage with Council to discuss the re-alignment of growth capital projects, optimizing debt planning, and strategies to finance front-ended linear investment in secondary plan areas.

Debt strategy

Debt is a significant part of the City's strategy for investment in assets that have a long standing useful life. Debt is a way to match the cost of construction with those that will use the service and minimize variation in the tax and non-tax rates for significant projects.

Current approved and forecasted debt funding ('000s)

The City has currently issued or approved to be issued debt of the following:

Table 1, Current approved debt obligations

Description	Year of issue	Tax (includes Tax- increment Based Grant obligations)	Non-tax and other debt	Development charge debt	Total debt issued or to be issued
Previously issued debt	Various	\$74,449	\$9,435	\$25,684	\$109,568
Previously approved not issued	2019	\$24,387		\$11,500	\$35,887
Total		\$98,836	\$9,435	\$37,184	\$145,455

Currently forecasted in the 10-year plan is the use of debt for the following projects:

Table 2, 2020 to 2028 forecast debt obligations

Description	Year of approval	Tax debt	Non-tax debt	Development charge debt	Total debt to be approved
Water Supply Upgrade	2019-2024		\$30,000		\$30,000
South End - Community Centre	2020	\$9,973		\$30,000	\$39,973
Downtown Library	2021	\$16,977		\$16,300	\$33,277
Downtown Parkade	2022		\$18,966	\$7,000	\$25,966
Downtown Redevelopment	2023 & 2027	\$30,000			\$30,000
Water Aqueduct Upgrades	2023-2025		\$36,000		\$36,000
Silvercreek Underpass	2027			\$8,000	\$8,000
Transit Facility	2028	\$23,000		\$41,600	\$64,600
Operations and Fleet Facility	2028	\$36,800		\$13,200	\$50,000
Total		\$116,750	\$84,966	\$116,100	\$317,816

Debt Management Policy

The City has a Debt Management Policy that dictates when it is appropriate to use debt as a funding strategy and sets the maximum allowable amount of debt obligation that the City can afford at a point in time.

Leveraging the City's assets to issue debt is a positive strategy as long as it is kept within the appropriate affordability and risk range. Figures 6 and 7 show that the City is within its debt affordability limitations but that there is risk that the external credit rating agency will have concerns where the City's debt holdings exceed 30 per cent of operating revenues.

Figure 6, Debt servicing costs as a percentage of operating revenues

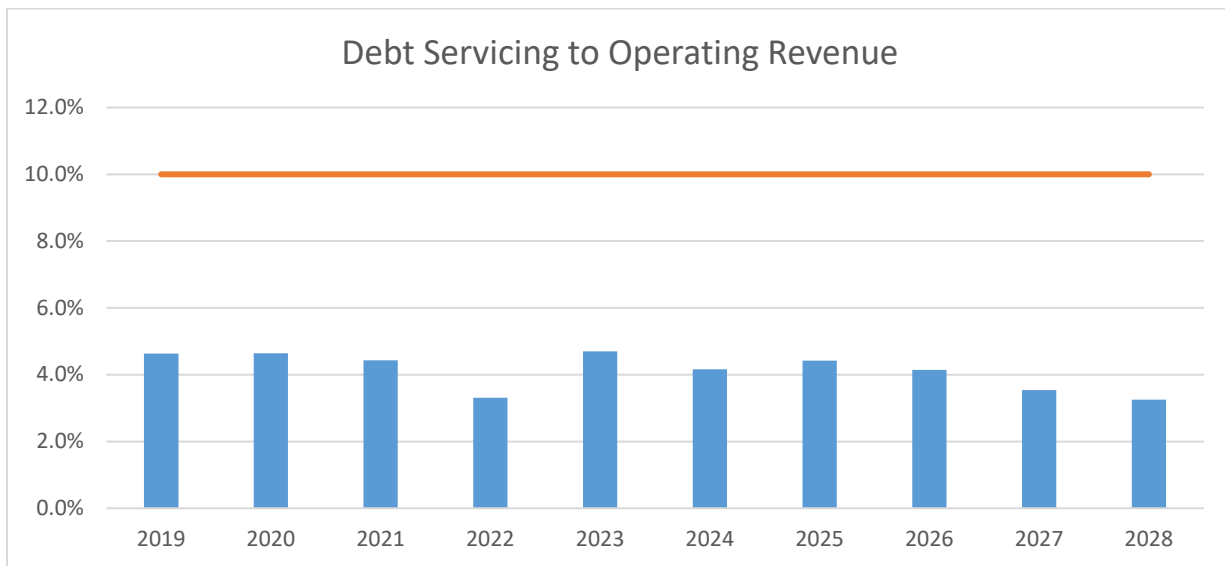


Figure 7, Total debt outstanding as a percentage of total operating revenues



Long-term Financial Plan (LTFP)

The LTFP will set a clear strategy to identify sustainable funding requirements and alternative funding sources, resulting in better service delivery planning and improved predictability of service level impacts. The plan will support achievable and sustainable long-term financial goals for the City that responds to growth, city building and excellent public service.

The development of an LTFP has been on-going for the past five years through the following initiatives:

- Implementation of the Stormwater User-pay Model (2017)
- Approval of the Parking Enterprise Model (2017/2018)
- Reserve and Reserve Fund Review and Consolidation (2016/2017)
- Capital Transfer Allocation Policy (2017)
- Comprehensive Asset Management Plan (2018)
- Updated Development Charge Study and bylaw (2018/2019)
- Funded 10-Year Capital Budget and Forecast (2019)

Through 2019 and 2020, the final building blocks to the LTFP will be completed which include:

- Multi-year Budgeting Policy
- Assessment Growth Allocation Policy
- Debt Management Policy Review
- Implementation of the Parking Enterprise Model
- Update to the Downtown Secondary Plan financial model
- Financial modeling of the Clair-Maltby Secondary Plan
- Parkland Dedication Bylaw update

To formalize the City's LTFP, the above initiatives will be integrated into a visionary plan that identifies the City's long-range financial goals and outcomes.

Programs of Work

The following programs have been presented to align with front-facing service delivery. This is intended to provide the public and Council with a clear picture of the capital needs of the City's core services.

New in 2019, staff has included detailed project information for all 2019, 2020 and 2021 capital projects. This information is available online only to save on printing costs and be environmentally friendly. The level of detailed information will provide valuable decision-making information for Council.

Operating impacts

City Building and Growth projects directly impact department operating budgets in order to support or deliver the enhanced or expanded service. We have identified proposed 2019 projects that will have a direct impact on future operating budgets. These items will be included in the 2020 base operating budget and not as new budget requests. Council should consider the operating impact at the time of capital project approval in order to make an informed decision. Departments continue to work at projecting out long-term impacts of future capital work as well as the impacts of delaying capital projects into future years.

Table 3, 2019 Program of Work summary and 2020 operating impacts

Program of work	2019 budget	2020 operating impact	Highlights
Contaminated Sites	\$3,325,000	\$0	
Corporate Projects	\$8,361,000	\$190,000	Software licencing
Emergency Services	\$4,926,000	\$515,100	Paramedic – 4 FTE & Operating and Maintenance (O&M) Police – O&M
Open Spaces, Recreation, Culture and Library	\$7,916,000	\$200,450	Parks Operations – Seasonal Staff and O&M
Solid Waste Services	\$3,107,000	\$578,000	4 FTE and O&M
Stormwater Management	\$4,683,700	\$0	
Transportation Systems	\$14,502,000	\$155,200	Transit – 1 FTE and O&M Operations – O&M
Wastewater Services	\$13,104,400	\$0	
Water Services	\$27,445,000	\$334,000	O&M
Total City	\$87,370,100	\$1,972,750	
	Total Tax Supported	\$1,638,750	
	Total Non-tax Supported	\$334,000	

Contaminated Sites

2019 Capital investment: \$3,325,000

Operating budget impact from 2019 projects: \$0

Description

- Investments required to manage and mitigate the City's liabilities associated with City-owned environmentally contaminated sites.
- The City has identified 43 properties, roads and/or right-of-ways (ROW) that are known to be contaminated or are potentially contaminated based on their historical use (e.g. as former industrial or commercial uses or historical landfill sites).
- The financial liability associated with these sites is significant; it is estimated that it could cost up to \$30 million to maintain, mitigate, or remediate these properties based on current information.
- The main focus is to proactively manage the City's contaminated site liabilities from an engineering perspective.

Capital expenditure

Figure 8, 2019 capital expenditure type

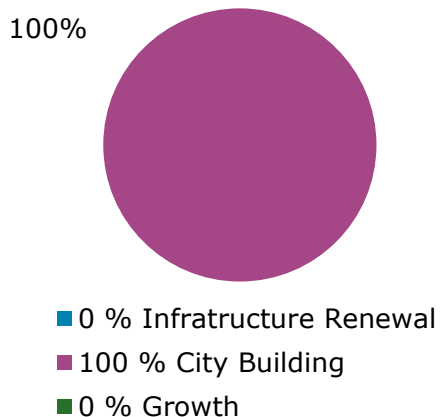
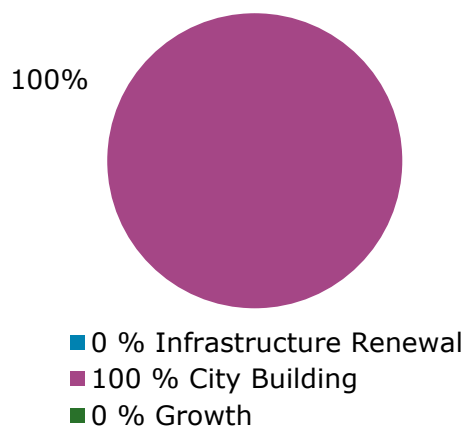


Figure 9, 2020 to 2028 capital expenditure type



Benefits and associated risks

The benefits of managing these sites include:

- investing in under-utilized assets to activate potential divestiture or redevelopment
- working towards revitalizing neighborhoods
- protecting the city's groundwater
- managing public health and safety concerns
- compliance with the Ministry of Environment, Conservation and Parks regulations (MOECP)

Focusing on these sites allows for the cultivation of potential investment partnerships with other levels of government and/or the private sector. Active discussion and promotion of the potential for redevelopment of sites is key to accessing external sources of funding.

The risks of not managing the contaminated site portfolio include: risk to public health and safety, fines for non-compliance with MOECP Orders, issuance of future orders (loss of control of scope, schedule, and cost), stalling redevelopment, exacerbation of contamination (i.e. making the problem worse), and inability to manage environmental protection.

Inadequate funding of redevelopment promotion may impede the City's ability to respond in a thoughtful manner with the Council-approved development partners. It may also put at risk the City's ability to react quickly to grant funding program announcements, which may benefit the remediation of these brownfield properties.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget.

- A focus on redevelopment of under-utilized sites in the Downtown contributing to revitalization of neighbourhoods, meeting provincial intensification targets, driving economic development.
- Complying with MOECP requirements and addressing environmental risks for city-owned sites.
- Continued cleanup of historical landfill sites.

Operating impacts

There are no operating impacts from this program.

Contaminated Sites detailed budget

Table 4, Contaminated Sites

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0018 Fountain Street Environmental Investigation	250,000					250,000				250,000
PN0019 Historical Landfill Investigation	700,000					700,000				700,000
PN0020 Beverley Street Monitoring and Remediation	950,000					950,000				950,000
PN0021 Other Site Monitoring and Remediation	475,000					475,000				475,000
PN0679 Baker Street Remediation	700,000					700,000				700,000
PN0681 Environmental Data Management	100,000					100,000				100,000
PN0867 City Site Environmental Assessment	150,000					150,000				150,000
Total budget for Contaminated Sites	3,325,000					3,325,000				3,325,000

Contaminated Sites 10-year forecast budget

Table 5, Contaminated Sites

Project Number and Name	2019	2020	2021	2022	2023	2024–2028	Total
PN0679 Baker Street Remediation	700,000	850,000	50,000	50,000	50,000	200,000	1,900,000
PN0020 Beverley Street Monitoring and Remediation	950,000	750,000	1,500,000	150,000	150,000	525,000	4,025,000
PN0867 City Site Environmental Assessment	150,000	150,000	100,000	20,000	20,000	80,000	520,000
PN0681 Environmental Data Management	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
PN0018 Fountain Street Environmental Investigation	250,000	300,000	300,000	1,700,000	2,500,000	10,400,000	15,450,000
PN0019 Historical Landfill Investigation	700,000	1,400,000	1,400,000	1,800,000	750,000	1,000,000	7,050,000
PN0021 Other Site Monitoring and Remediation	475,000	200,000	100,000	75,000	75,000	1,850,000	2,775,000
Total 10-year forecast budget for Contaminated Sites	3,325,000	3,750,000	3,550,000	3,895,000	3,645,000	14,555,000	32,720,000

Corporate Projects

2019 Capital investment: \$ 8,361,000

Operating budget impact from 2019 projects: \$190,000

Description

- The Corporate Projects program of work focuses on a diverse range of projects that support the City's operating departments and include planning studies, renewal of administration facilities, investment in corporate technology, and renewal of vehicle and equipment.
- Planning and Strategic Initiatives identifies projects, and corporate focused studies and reviews that include: The City's Official Plan, secondary plans, asset management and facility space needs assessments.
- Facility Renewal and Expansion identifies investments required to accommodate corporate functions that include: Finance, Human Resources, Legal and Realty Services, Court Services, Fleet Services and Operations.
- Equipment and Vehicle Renewal and Expansion includes the necessary supporting assets for corporate functions and includes technology infrastructure, ancillary equipment and fleet vehicles.

Performance observations

Figure 10 below includes assets from Facilities Management, Fleet Services and Information Technology departments that form the backbone of the organization and provide the space, vehicle and equipment necessary to provide frontline services

Between 2020 and 2031 approximately 40 per cent of the assets move from good to fair or poor ratings. In 2031, these assets transition into the very poor rating category, meaning that they will be nearing the end of their life and are likely to show signs of reduced performance. Starting in 2038, the assets are forecasted to improve slightly with five per cent moving from the very poor rating category to excellent. This is the result of some of the assets at the end of their life being replaced with new assets.

By the end of 25 years, the current forecasts suggest that the performance of approximately 50 per cent of assets will decrease as they near the end of their lives. As a result, the reliability and performance of assets will decrease in areas such as City Hall office spaces, information technology systems including both

public and internal networks, as well the ability to manage the overall operations of the organization.

Figure 10, 2019 to 2043 asset performance for corporate assets

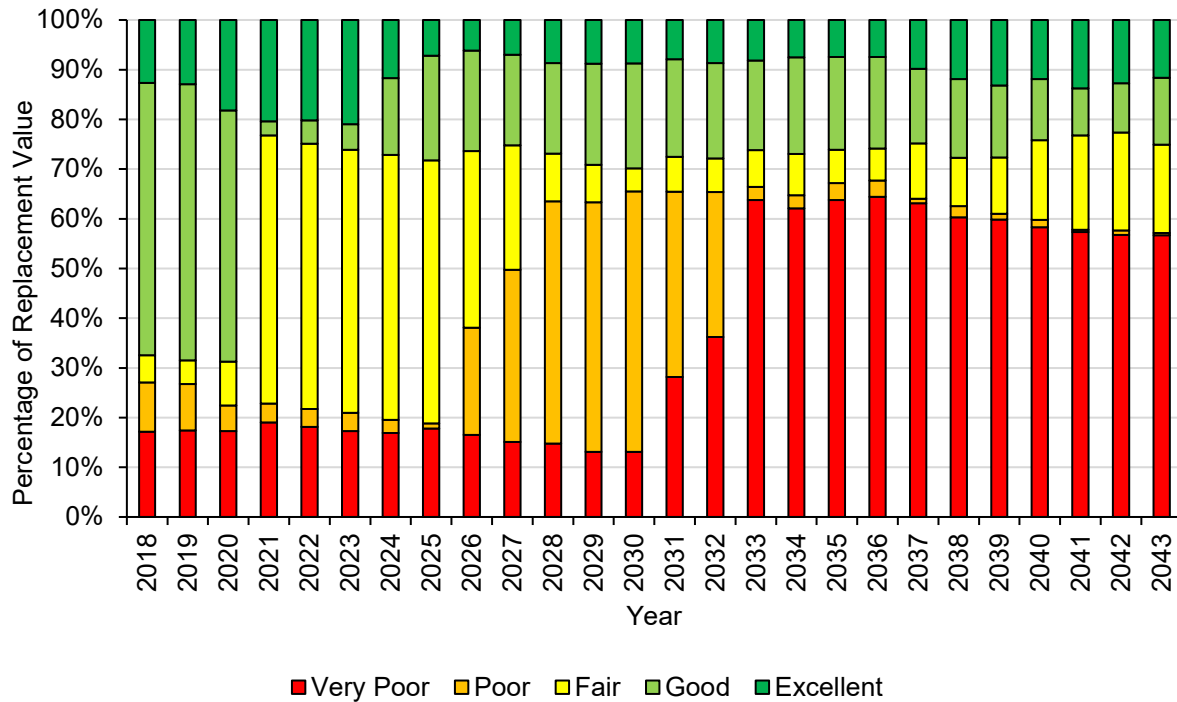


Figure 11, 2019 Capital expenditure type

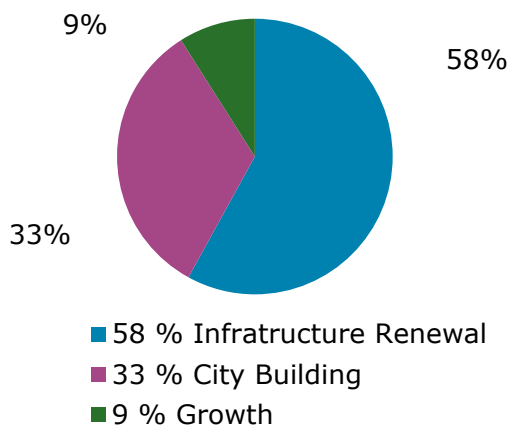
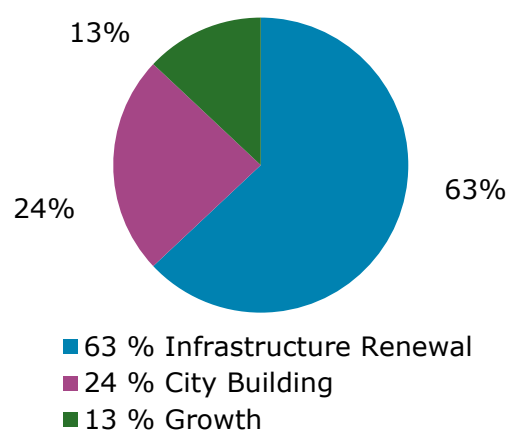


Figure 12, 2020 to 2028 capital expenditure type



Benefits and associated risks

- Developing robust, strategic, City-wide plans for population and job growth that provide critical information to drive future service delivery.
- Aligning the desires of the public, development and business communities, and Council.
- Maintaining the facilities, equipment and vehicles to meet expected service delivery without interruption for a growing city.
- Integration and updating of existing technology systems and software including deploying new technologies to improve the overall effectiveness and productivity of City operations.
- Significant City-wide operational and reputational risks are mitigated through this investment.
- Lack of clarity of future needs, impacts the City's ability to effectively plan for future financial requirements and may lead to inefficient use of resources or poor outcomes.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project information sheets can be found on guelph.ca/budget

Planning and strategic initiatives

- Advancement of the Baker District land acquisition and related works to have the site in a ready-state for development within the understood timelines with our partner Windmill Development Inc.
- Alignment of the revised Hanlon Creek Business Park forecast based on direction as approved by Council in 2018.
- Commencement of Official Plan review process, to be completed over next three years.
- Implementation of action plans including the Urban Design Action Plan, Natural Heritage Action Plan and the Cultural Heritage Action Plan in accordance with the Council-approved priorities.
- Continued development of Asset Management Plans at the service level, including asset inventories, condition assessments and service level metric development.

Facility renewal and expansion

- Preparation of facility space and location needs assessment, structural condition assessments, accessibility improvements and security system renewal to ensure on-going integrity, access and safety of all facilities for staff and the public.

- Planning for construction of new integrated Operations site, to include Fleet, Public Works and Transit facilities on single site.
- Minor upgrades, and renewal of City administration facilities.
- Assessment and repair of Drill Hall as contractually agreed to with Metrolinx (funded by \$600,000 previously approved by Council for repayment of the Metrolinx obligation).

Equipment and vehicle renewal

- Fleet vehicle and equipment lifecycle program, as well as, the technology lifecycle program was modified to meet current funding constraints that will lead to utilizing equipment past its useful life and increasing the risk of failure and increased operating costs.
- Implementation of Electronic Agenda Management that will significantly decrease the amount of manual work required to deliver corporate legislative services, including report and agenda management as well as a reduction in the amount of paper used.
- Leverage civic data and digital platforms to support better decision making through the creation of business intelligence, reporting and information dashboards.
- Provide innovative enhancements to back-end services to deliver new functionality, automate manual processes and support more mobile working.
- Continued adoption of cloud-based solutions and remote professional services to decrease reliance on City-owned technology infrastructure.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$190,000.

- Annual IT licencing costs: \$162,000 for enhancements to existing systems and new applications purchased.
- Meeting management software: \$28,000 annually for license, operations and maintenance.

Estimated impacts from 2020–2028 forecasted capital spending will be approximately \$750,000 to \$1,000,000 in total.

Corporate Projects detailed budget

Table 6, Planning and Strategic Initiatives

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
GG0239 Development Charge Background Study	100,000		90,000			10,000		10,000		
PL0024 Heritage Initiatives	200,000		18,000			182,000	180,000	2,000		
PL0054 Official Plan Review 2019	175,000		118,100			56,900	43,800	13,100		
PL0056 Urban Design Guidelines	200,000		90,000			110,000		10,000	100,000	
PL0057 Community Improvement Studies	320,000		144,000			176,000	160,000	16,000		
PL0063 Watershed Planning	300,000		216,000	84,000						
PN0168 Geographic Information System (GIS) Data Modelling	200,000			200,000						
PN0565 Maintenance and Enterprise Asset Management (EAM) Software Optimization	200,000			170,000		30,000	30,000			
PN0814 Asset Inventories, Risk Assessments and Condition Assessments	250,000					250,000	100,000		150,000	
PN0815 Corporate Asset Management Training Program	50,000					50,000			50,000	
PN0816 Natural Capital Asset Valuation	150,000					150,000			150,000	
PN0817 Corporate Asset Risk Management Strategy	200,000				100,000	100,000	100,000			
PN0819 Corporate Project Management Improvement Initiatives	30,000					30,000			30,000	
PN0820 Corporate Project, Program and Portfolio Management	40,000			24,900		15,100			15,100	

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0862 Corporate Project Management Support	150,000					150,000			150,000	
SS0002 Hanlon Creek Business Park	450,000				450,000					
Total budget for Planning and Strategic Initiatives	3,015,000		676,100	478,900	550,000	1,310,000	613,800	51,100	645,100	

Table 7, Facility renewal and expansion

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
FM0001 Corporate Facilities Needs Assessment Phase 2	500,000					500,000	500,000			
FM0005 Drill Hall Renewal	600,000				600,000					
GG0158 Courts Facility Renewal	25,000				25,000					
GG0234 Structural Assessments and Renewal	80,000					80,000	80,000			
GG0245 Administration Facilities Renewal	1,314,000					1,314,000	1,114,000		200,000	
Total budget for Facility Renewal and Expansion	2,519,000				625,000	1,894,000	1,694,000		200,000	

Table 8, Equipment and vehicle renewal

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
FT0002 Vehicle and Equipment Replacement	1,300,000					1,300,000	1,300,000			
GG0249 Council Electronic Meetings Management	52,000					52,000			52,000	
IT0044 Desktop Replacement	130,000			20,100	8,600	101,300	101,300			

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
IT0045 Network Replacement	353,000			47,500	25,400	280,100	280,100			
IT0046 Server Replacement	150,000			20,200	10,800	119,000	119,000			
IT0047 Software Replacement	107,000			14,400	7,700	84,900	84,900			
IT0052 Information Technology Enhancements	735,000					735,000			735,000	
Total budget for equipment and vehicle renewal	2,827,000			102,200	52,500	2,672,300	1,885,300		787,000	

Table 9, Total budget for Corporate Projects

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Corporate Projects	8,361,000		676,100	581,100	1,227,500	5,876,300	4,193,100	51,100	1,632,100	

Corporate Projects 10-year budget forecast

Table 10, Planning and Strategic Initiatives

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0814 Asset Inventories, Risk Assessments and Condition Assessments	250,000	250,000	250,000	250,000	250,000	1,250,000	2,500,000
PN0687 Asset Management Capability Audit and Roadmap Development		100,000				100,000	200,000
SS0027 Bakers Street Phase 2 – 2018						30,000,000	30,000,000
PL0055 Brownfield Initiatives					50,000		50,000
PL0057 Community Improvement Studies	320,000			425,000		325,000	1,070,000
PN0815 Corporate Asset Management Training Program	50,000	50,000	50,000	50,000	50,000	50,000	300,000
PN0817 Corporate Asset Risk Management Strategy	200,000						200,000
PN0819 Corporate Project Management Improvement Initiatives	30,000	30,000	30,000	30,000	30,000	30,000	180,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0862 Corporate Project Management Support	150,000	150,000	150,000				450,000
PN0820 Corporate Project, Program and Portfolio Management	40,000	100,000		750,000			890,000
GG0239 Development Charge Background Study	100,000			360,000		450,000	910,000
PL0020 Environmental Initiatives			375,000			600,000	975,000
PN0168 Geographic Information System (GIS) Data Modelling	200,000	200,000	200,000	200,000	200,000		1,000,000
SS0002 Hanlon Creek Business Park	450,000	365,000	350,000	350,000			1,515,000
PL0024 Heritage Initiatives	200,000				275,000	275,000	750,000
PL0061 Housing Initiatives						175,000	175,000
PN0565 Maintenance and Enterprise Asset Management (EAM) Software Optimization	200,000	200,000	200,000	200,000			800,000
PN0816 Natural Capital Asset Valuation	150,000					150,000	300,000
PL0054 Official Plan Review 2019	175,000	375,000	375,000		275,000	725,000	1,925,000
PL0056 Urban Design Guidelines	200,000			250,000		525,000	975,000
PL0063 Watershed Planning	300,000	550,000		250,000		800,000	1,900,000
PL0021 Zoning By-Law Review		250,000				575,000	825,000
Total 10-year budget forecast for Planning and Strategic Initiatives	3,015,000	2,620,000	1,980,000	3,115,000	1,130,000	36,030,000	47,890,000

Table 11, Facility renewal and expansion

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
GG0180 Accessibility Improvements			250,000	250,000	250,000	1,250,000	2,000,000
GG0245 Administration Facilities Renewal	1,314,000	1,609,000	1,607,000	1,266,000	825,000	4,504,000	11,125,000
FM0001 Corporate Facilities Needs Assessment Phase 2	500,000						500,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
GG0158 Courts Facility Renewal	25,000	24,000	20,000	20,000	20,000	202,900	311,900
FM0005 Drill Hall Renewal	600,000						600,000
OP0001 Public Works Building and Yard Replacement						48,280,000	48,280,000
GG0234 Structural Assessments and Renewal	80,000	80,000	80,000	80,000	80,000	400,000	800,000
Total 10-year budget forecast for facility renewal and expansion	2,519,000	1,713,000	1,957,000	1,616,000	1,175,000	54,636,900	63,616,900

Table 12, Equipment and vehicle renewal

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
GG0249 Council Electronic Meetings Management	52,000						52,000
CS0001 Court Services Equipment		10,000		2,500		19,500	32,000
IT0044 Desktop Replacement	130,000	80,000	65,000	11,000	11,000	121,000	418,000
IT0109 Geographic Information Systems (GIS) Orthophotography		6,000	6,000		30,000	60,000	102,000
IT0052 Information Technology Enhancements	735,000	590,000	50,000	475,000	400,000	2,000,000	4,250,000
IT0051 Meeting Room A/V Lifecycle		15,000	15,000	75,000	75,000	375,000	555,000
IT0043 Mobile Replacement		36,000	18,000	3,000	3,000	52,000	112,000
IT0045 Network Replacement	353,000	282,000	363,000	195,000	222,000	949,000	2,364,000
IT0048 Printer Replacement			14,000	11,000	11,000	71,000	107,000
IT0046 Server Replacement	150,000	150,000	150,000	298,000	306,000	1,612,000	2,666,000
IT0047 Software Replacement	107,000	200,000	143,000	256,000	194,000	1,577,000	2,477,000
IT0049 Telephone Replacement			398,000	5,000	3,000	676,000	1,082,000
FT0002 Vehicle and Equipment Replacement	1,300,000	3,535,000	3,570,000	3,782,000	3,744,000	19,950,000	35,881,000
Total 10-year budget forecast for equipment and vehicle renewal	2,827,000	4,904,000	4,792,000	5,113,500	4,999,000	27,462,500	50,098,000

Table 13, Total 10-year budget forecast for Corporate Projects

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Corporate Projects	8,361,000	9,237,000	8,729,000	9,844,500	7,304,000	118,129,400	161,604,900

Emergency Services

2019 Capital investment: \$4,926,000

Operating budget impact from 2019 projects: \$515,100

Description

- Includes Fire, Paramedic and Police services.
- Ensures that our Emergency Service providers have the vehicles, equipment, technology and facilities required for uninterrupted and safe service delivery
- Lists minor upgrades, renovations and expansions to existing facilities
- Includes projects in this program that are directed by industry best practice and service specific related legislation.

Performance observations

Figure 13 below shows the forecasted levels of service in the emergency service assets based on current funding levels. They are forecasted to be sustainable over the next 25 years, with some increased investment required in 2041 to 2043.

From 2029 to 2040, it is projected that approximately 50 per cent of the assets will move to the fair and poor performance categories.

Fire and Paramedic services make up the majority of the assets in the very poor category between the years of 2019 and 2040, this is mainly driven by aging facilities that require replacement over that timeframe.

Figure 13, 2019 to 2043 asset performance for Emergency Services

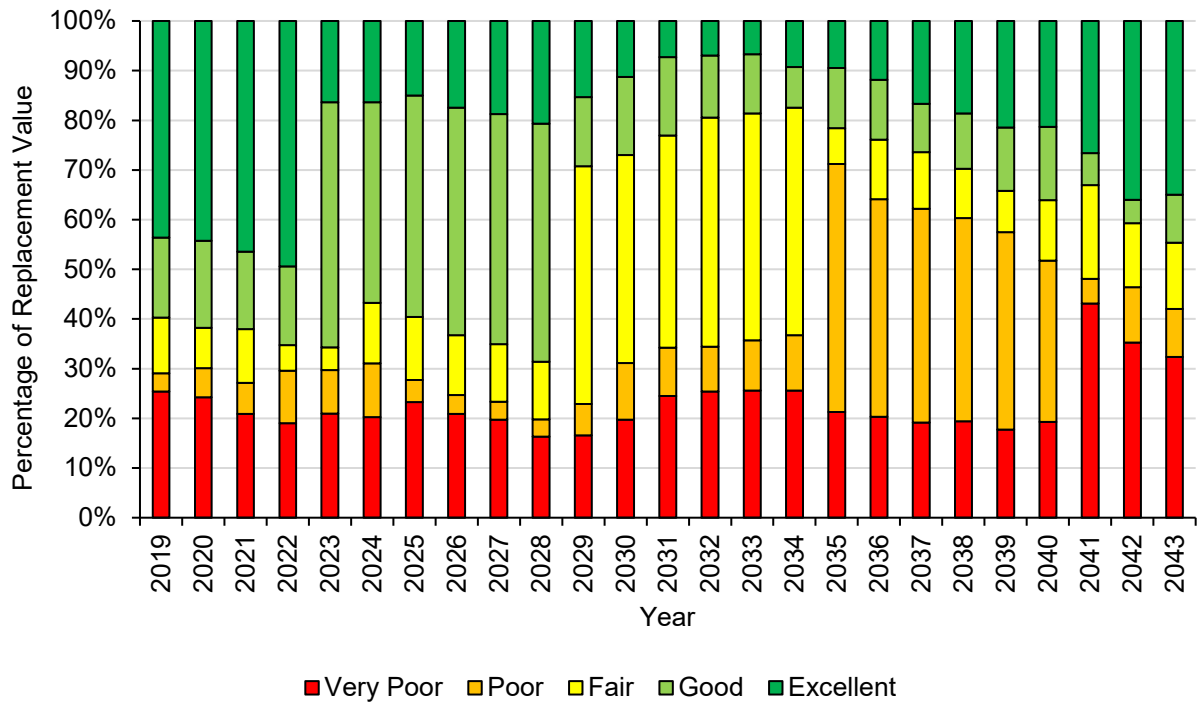


Figure 14, 2019 capital expenditure type

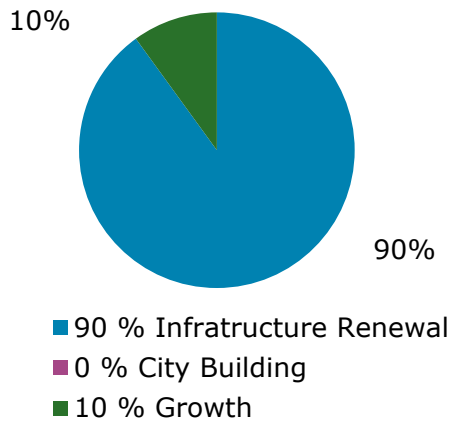
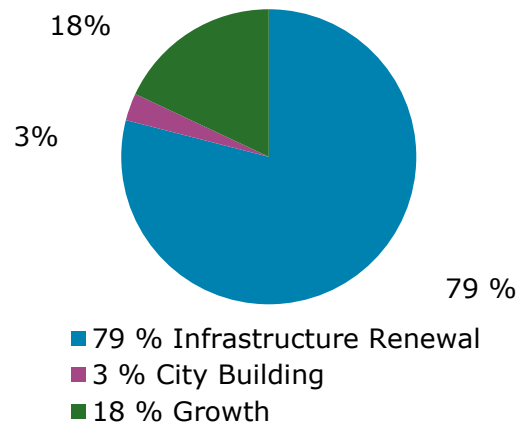


Figure 15, 2020 to 2028 capital expenditure type



Benefits and associated risks

- By having the appropriate vehicles, equipment and facilities in well maintained and operational condition, first responders are able to achieve established response times and ensure they are in a position to provide the service expected of them.
- If capital assets are not available during emergency situations, first responders risk not only their personal health and safety, but also that of the citizens they are assisting. Providing them with the tools to do their jobs is critical to achieving the best possible outcome.
- Meeting the needs of growth in order to ensure that the City has proper emergency service response and support.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget

- Renewal and investment in equipment, technology and vehicles for current and growth related service delivery is the primary project focus of this program including replacement fire pumpers in 2020 & 2023 and fleet greening initiatives for police patrol vehicles in 2019.
- Downtown Paramedic Facility planned for 2028 is currently included in Phase 2 of the Corporate Facility Needs Assessment (as is the fire facility needs review) and further refinement of timing and cost will be forthcoming in future capital budgets.
- A need identified through growth planning is a shared ES training facility currently planned in 2028.
- Police facility upgrades are currently planned for 2023 to outfit the 4th floor shell of the GPS Headquarters building.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$515,100.

- GPS Fleet Expansion: \$22,000 for maintenance and operations of three vehicles
- GPS HQ Upgrades: \$9,100 preventative maintenance costs for planning and development of additional fourth floor space outfitting
- Paramedics Service Growth: \$484,000 for 4 Paramedics and O&M costs of two new ambulances (50% to be covered by MOH starting in 2021)

Estimated impacts from 2020–2028 forecasted capital spending will be \$5,000,000 to \$6,000,000 in total.

Emergency Services detailed budget

Table 14, Fire Services

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
FS0054 Facilities Renewal	229,000					229,000	229,000			
FS0070 Equipment Replacement	543,000					543,000	543,000			
Total budget for Fire Services	772,000					772,000	772,000			

Table 15, Paramedic Services

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
AM0012 Vehicle Replacement	900,000				567,000	333,000	333,000			
AM0013 Equipment Replacement	555,000				349,600	205,400	205,400			
PM0001 Facilities Renewal	231,000				143,720	87,280	87,280			
PM0002 Vehicles Growth	420,000				155,400	264,600		264,600		
PM0003 Equipment Growth	78,000		44,200		28,900	4,900		4,900		
Total budget for Paramedic Services	2,184,000		44,200		1,244,620	895,180	625,680	269,500		

Table 16, Guelph Police Services

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PS0044 Information Technology Hardware	855,100					855,100	855,100			
PS0045 Body Armour	71,500					71,500	71,500			
PS0046 Furniture Replacement	18,000					18,000	18,000			

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PS0047 Vehicle Based Equipment	208,900					208,900	208,900			
PS0048 Tactical Equipment	23,200					23,200	23,200			
PS0049 Equipment General	102,800					102,800	102,800			
PS0057 Vehicle Replacement	675,000				8,000	667,000	667,000			
PS0072 Headquarter Facilities Upgrades	15,500					15,500	15,500			
Total budget for Guelph Police Services	1,970,000				8,000	1,962,000	1,962,000			

Table 17, Total budget for Emergency Services

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Emergency Services	4,926,000		44,200		1,252,620	3,629,180	3,359,680	269,500		

Emergency Services 10-year budget forecast

Table 18, Fire Services

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
FS0075 Equipment Growth					341,200		341,200
FS0070 Equipment Replacement	543,000	361,000	1,110,000	208,000	2,234,000	3,476,000	7,932,000
FS0054 Facilities Renewal	229,000	237,000	243,000	269,000	524,000	520,000	2,022,000
FS0077 Facility Growth		2,276,000					2,276,000
FS0073 Master Plan				100,000			100,000
FS0074 Planning Study and Needs assessment			20,000			20,000	40,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
FS0072 Vehicle Replacement		1,800,000		163,000		8,300,000	10,263,000
FS0071 Vehicles Growth					2,200,000	1,621,800	3,821,800
Total 10-year budget forecast for Fire Services	772,000	4,674,000	1,373,000	740,000	5,299,200	13,937,800	26,796,000

Table 19, Paramedic Services

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PM0003 Equipment Growth	78,000				84,000	179,000	341,000
AM0013 Equipment Replacement	555,000	78,000	76,000	126,000	42,000	1,269,000	2,146,000
PM0004 Facilities Growth						4,000,000	4,000,000
PM0001 Facilities Renewal	231,000	65,000	96,000	10,000	10,000	50,000	462,000
PM0005 Planning Study and Needs Assessment			106,000			121,000	227,000
AM0012 Vehicle Replacement	900,000	573,000	584,000	596,000	608,000	3,434,000	6,695,000
PM0002 Vehicles Growth	420,000	191,000			405,000	1,556,000	2,572,000
Total 10-year budget forecast for Paramedic Services	2,184,000	907,00	862,000	732,000	1,149,000	10,609,000	16,443,000

Table 20, Guelph Police Services

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PS0045 Body Armour	71,500	51,800	65,100	45,400	40,100	301,800	575,700
PS0071 Data Information Management System-DIMS		250,000					250,000
PS0074 Deployment Strategy				100,000			100,000
PS0049 Equipment General	102,800	199,600	93,200	62,500	73,100	722,400	1,253,600
PS0046 Furniture Replacement	18,000	18,400	18,800	19,200	19,600	104,600	198,600

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PS0072 Headquarter Facilities Upgrades	15,500				2,213,800		2,229,300
PS0044 Information Technology Hardware	855,100	438,200	366,100	476,500	623,100	4,509,000	7,268,000
PS0063 PC Radar			13,900				13,900
PS0048 Tactical Equipment	23,200	29,600	11,600	70,200	144,600	239,300	518,500
PS0047 Vehicle Based Equipment	208,900	153,200	104,200	121,200	139,100	804,100	1,530,700
PS0057 Vehicle Replacement	675,000	532,200	481,200	521,200	573,700	3,781,600	6,564,900
PS0067 Vehicles Growth			72,600			230,400	303,000
Total 10-year budget forecast for Guelph Police Services	1,970,000	1,673,000	1,226,700	1,416,200	3,827,100	10,693,200	20,806,200

Table 21, Emergency Services joint training facility

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
ES0001 Emergency Services Joint Training Facility						3,100,000	3,100,000
Total 10-year budget forecast for Emergency Services joint training facility						3,100,000	3,100,000

Table 22, Total 10-year budget forecast for Emergency Services

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Emergency Services	4,926,000	7,254,000	3,461,700	2,888,200	10,275,300	38,340,000	67,145,200

Open Spaces, Recreation, Culture & Library

2019 Capital investment: \$7,916,000

Operating budget impact from 2019 projects: \$200,450

Description

- Focuses on ensuring equipment and facilities are maintained, renewed and expanded to meet expected service level delivery of a growing population for open spaces, recreation, culture and library.
- Includes all assets and associated studies and plans required to develop robust asset management plans, master plans and growth strategies.
- Promotes a connected, vibrant and healthy community by providing safe and accessible public spaces that facilitate gathering, events, programs, recreation and destinations.
- Provides enriching life experiences through performing arts, museums, public art, events and entertainment facilities.

Performance observations

Figure 16 below includes assets from parks, open spaces, recreation, culture and the library. A large proportion of this portfolio is the recreation facilities and park amenities, these items tend to have long useful lives and high replacement costs. The graphs show that overall performance of the program assets will deteriorate from 2021 to 2028, with around 15 per cent of assets moving into the very poor rating category, meaning that they are nearing the end of their useful lives.

In the years 2028 to 2040, between 30 per cent and 25 per cent of assets are near the end of life and would require major renewal or replacement.

By the end of 25 years, the current forecasts suggest that the performance of approximately 15 per cent of assets will decrease as they near the end of their lives. As a result, the reliability and performance of assets will decrease in areas such as recreation and cultural facilities will decrease, resulting in facilities potentially being unavailable for use or unable to meet citizens' needs.

Figure 16, 2019 to 2043 asset performance for Open Spaces, Recreation, Culture and Library

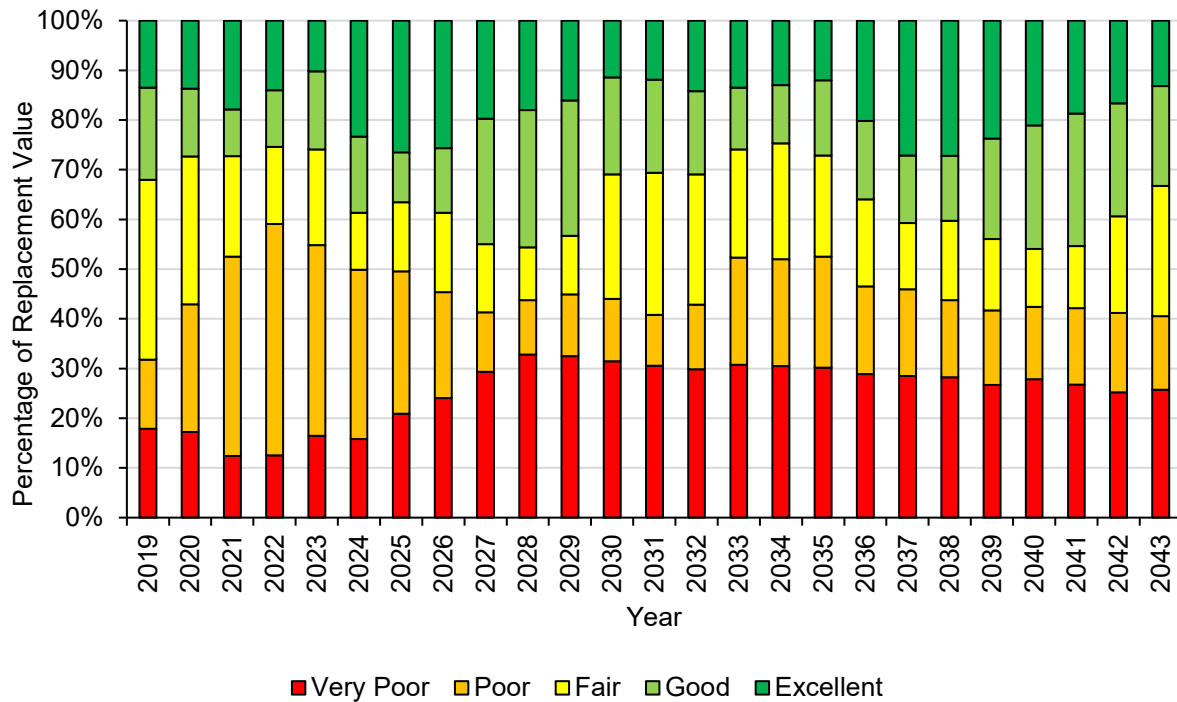


Figure 17, 2019 capital expenditure type

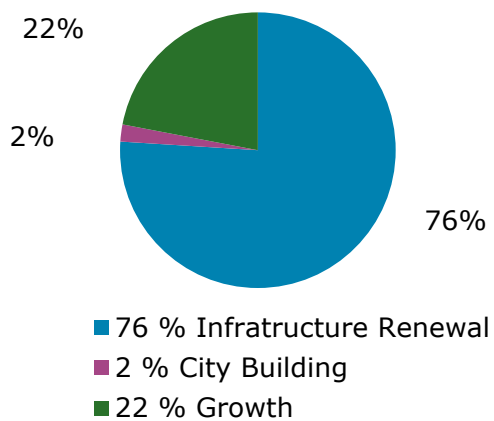
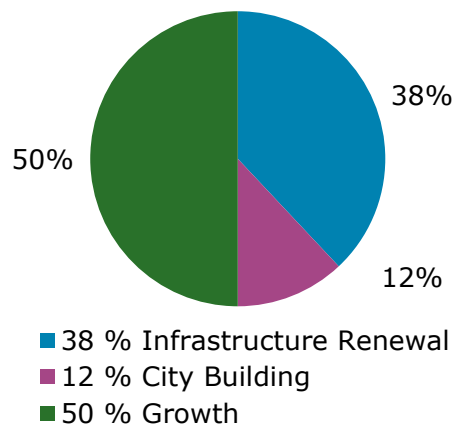


Figure 18, 2020 to 2028 capital expenditure type



Benefits and associated risks

- Ensuring our most significant publicly accessible assets are in a state of good repair enables the City to deliver expected services while maintaining the health and wellbeing of citizens and staff.
- Delivering a diverse offering of services allows the community multiple opportunities to engage and enjoy the City.
- Future growth of the City is dependent on its ability to continue to be a City that people enjoy living, working and playing in.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on Guelph.ca/budget

Open Spaces and Recreation

- The new South End Community Centre.
- Renewal of playground equipment, park and recreation facilities and outdoor open spaces.
- Planning and construction of new trails to continue the connection of the City via non-vehicle modes.
- Management of the Emerald Ash Borer (EAB) infestation and its impact on Guelph's urban forest.

Culture

- Museum exhibition refresh of permanent galleries to provide current and relevant content to visitors.
- River Run Centre equipment renewal to ensure the continued exceptional level of programming.
- Sleeman Centre replacement of equipment to meet existing client expectations and to attract new opportunities.

Library

- Minor upgrades and repairs to current main branch to enable use and access until new main branch is constructed at Baker Street planned to begin in 2021
- Investment in technology to support the ever evolving nature of access and use of the library system.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$200,450

- Parks Operations: Impact from additional work required to repair and maintain growing number of fields, parks, trails and trees.
 - \$123,450 – for additional staff
 - \$1,800 – for additional materials
 - \$75,200 – for additional services

Estimated impacts from 2020–2028 forecasted capital spending will be \$3,000,000 to \$5,000,000 in total.

Open Spaces, Recreation, Culture & Library detailed budget

Table 23, Culture and Tourism

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
CT0002 Culture Facilities Renewal	385,000					385,000	385,000			
RF0028 Concession Equipment Replacement	25,000					25,000	25,000			
RF0052 Enhancements	74,000				60,000	14,000			14,000	
RF0090 Culture and Tourism	15,000					15,000	15,000			
RR0103 River Run Technical and Theatre Renewal	294,000					294,000	294,000			
Total budget for Culture and Tourism	793,000				60,000	733,000	719,000		14,000	

Table 24, Guelph Public Library

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
LB0019 Information Technology System and Network Upgrades	200,000					200,000	200,000			
LB0020 Main Branch Upgrades	100,000					100,000	100,000			
LB0033 Branch Upgrades and Sustainability	100,000					100,000	100,000			
LB0034 Facilities Renewal	7,000					7,000	7,000			
Total budget for Guelph Public Library	407,000					407,000	407,000			

Table 25, Recreation

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
RF0080 Facilities Renewal	616,000	426,000				190,000	190,000			
RF0082 Equipment Renewal	150,000					150,000	150,000			
Total budget for Recreation	766,000	426,000				340,000	340,000			

Table 26, Parks and Open Spaces

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PK0002 New Trail Construction	1,030,000		927,000			103,000		103,000		
PK0025 Norm Jary Park Amenity Replacements and Upgrades	165,000					165,000	165,000			
PK0075 Downtown Pedestrian Bridge New Design and Construction	125,000		56,250			68,750	62,500	6,250		
PK0076 Dallan New Park Master Plan and Construction	125,000		112,500			12,500		12,500		
PK0097 Guelph Lake Sports Field	150,000					150,000	150,000			
PK0102 Playground Equipment Replacement	1,012,000	790,000				222,000	222,000			
PK0104 Starwood Park	500,000		450,000			50,000		50,000		
PO0008 Trees for Guelph Community Planting Events	30,000					30,000			30,000	
PO0013 Emerald Ash Borer Plan Implementation	300,000					300,000	300,000			
PO0014 Park New Equipment	46,000		41,400			4,600		4,600		

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PO0017 Sports Fields / Courts Replacement and Upgrade	180,000					180,000	180,000			
PO0021 Parks Facilities Renewal	1,799,000	1,754,000				45,000	45,000			
PO0025 Parks Infrastructure Replacement and Upgrade	319,000					319,000	319,000			
PO0026 Tree Canopy New Plantings	29,000					29,000	29,000			
PO0028 Trail Replacement and Upgrade	127,000					127,000	127,000			
PO0033 Recreation Trails - Active Transportation Network	13,000					13,000			13,000	
Total budget for Parks and Open Spaces	5,950,000	2,544,000	1,587,150			1,818,850	1,599,500	176,350	43,000	

Table 27, Total budget for Open Spaces, Recreation, Culture and Library

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Open Spaces, Recreation, Culture and Library	7,916,000	2,970,000	1,587,150		60,000	3,298,850	3,065,500	176,350	57,000	

Open Spaces, Recreation, Culture & Library 10-year budget forecast

Table 28, Culture and Tourism

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
MU0019 Civic Museum - Gallery Exhibit Replacement					325,000	325,000	650,000
RF0028 Concession Equipment Replacement	25,000	76,000	27,000	164,000	29,000	557,000	878,000
CT0002 Culture Facilities Renewal	385,000	2,615,000	392,000	1,561,000	633,000	938,000	6,524,000
RF0090 Culture and Tourism	15,000	15,000	15,000	15,000	15,000	75,000	150,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
RF0052 Enhancements	74,000						74,000
RF0089 Farmers' Market Renewal		15,000		15,000		45,000	75,000
MU0013 McCrae Coach House Renovations						100,000	100,000
RR0104 River Run Front Of House Renewal			25,000	25,000		475,000	525,000
RR0103 River Run Technical and Theatre Renewal	294,000	136,000	315,000	84,000	100,000	450,000	1,379,000
Total 10-year budget forecast for Culture and Tourism	793,000	2,857,000	774,000	1,864,000	1,102,000	2,965,000	10,355,000

Table 29, Guelph Public Library

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
LB0021 Branch Expansion- Bullfrog			310,000				310,000
LB0033 Branch Upgrades and Sustainability	100,000	35,000		40,000		545,000	720,000
LB0035 Collection - New Main Branch					2,920,000		2,920,000
LB0034 Facilities Renewal	7,000			40,000		1,328,000	1,375,000
LB0019 Information Technology System and Network Upgrades	200,000	200,000		150,000		380,000	930,000
LB0028 Main Branch New			48,260,000				48,260,000
LB0020 Main Branch Upgrades	100,000	100,000		20,000	50,000	550,000	820,000
LB0036 Master Plan			100,000			50,000	150,000
LB0018 Radio-Frequency Identification (RFID) Inventory Control System				100,000	150,000	100,000	350,000
Total 10-year budget forecast for Guelph Public Library	407,000	335,000	48,670,000	350,000	3,120,000	2,953,000	55,835,000

Table 30, Recreation

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
RF0082 Equipment Renewal	150,000	175,000	200,000	375,000	200,000	800,000	1,900,000
RF0080 Facilities Renewal	616,000	50,000	1,040,000	450,000	1,542,000	6,544,000	10,242,000
RF0091 South End Community Centre Equipment Growth				587,140			587,140
RP0290 South End Community Centre New		68,000,000					68,000,000
Total 10-year budget forecast for Recreation	766,000	68,225,000	1,240,000	1,412,140	1,742,000	7,344,000	80,729,140

Table 31, Parks and Open Spaces

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PK0091 Bicycle Skills Facility						416,000	416,000
PK0080 Cityview Drive						865,000	865,000
PK0076 Dallan New Park Master Plan and Construction	125,000		550,000				675,000
PK0075 Downtown Pedestrian Bridge New Design and Construction	125,000	1,750,000					1,875,000
PK0072 Downtown River Systems New Policy Plan				300,000			300,000
PK0060 Downtown Riverwalk New Amenity Construction		100,000		600,000			700,000
PO0029 Downtown Tree Canopy and Associated Infrastructure New/Replacement Plantings						938,000	938,000
PK0014 Eastview Community Park New Amenity Construction						2,150,000	2,150,000
PO0013 Emerald Ash Borer Plan Implementation	300,000	600,000	600,000	500,000	800,000	300,000	3,100,000
PK0027 Exhibition Park Amenity Replacements and Upgrades						150,000	150,000
PO0036 Urban Forestry Management Plan			200,000				200,000
PK0081 Guelph Innovation District Neighbourhood Park						1,060,000	1,060,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PK0050 Guelph Innovation District New Community Park Master Plan						220,000	220,000
PK0097 Guelph Lake Sports Field	150,000	300,000					450,000
PK0077 Hart's Farm New Park Master Plan/Construction						790,000	790,000
PK0034 Kortright East New Park Master Plan/Construction			150,000		600,000		750,000
PK0078 Lee Street Park New Amenity Construction		100,000					100,000
PK0028 Margaret Greene Park Master Plan						200,000	200,000
PK0002 New Trail Construction	1,030,000	450,000	970,000	600,000	1,750,000	4,375,000	9,175,000
PK0025 Norm Jary Park Amenity Replacements and Upgrades	165,000		330,000			1,100,000	1,595,000
PK0057 Orin Reid Park New Amenity Construction						1,700,000	1,700,000
PK0105 Paisley-Whitelaw New Park						875,000	875,000
PO0014 Park New Equipment	46,000	111,000	125,000	121,000	121,000	1,810,000	2,334,000
PO0021 Parks Facilities Renewal	1,799,000	400,000	692,000	1,475,000	135,000	1,046,000	5,547,000
PO0025 Parks Infrastructure Replacement and Upgrade	319,000	326,000	357,000	342,000	342,000	5,366,000	7,052,000
PK0040 Peter Misersky Park Master Plan						1,000,000	1,000,000
PK0102 Playground Equipment Replacement	1,012,000	640,000	486,000	1,213,000	1,813,000	2,841,000	8,005,000
OP0002 Public Works Salt Domes New						3,265,000	3,265,000
PO0033 Recreation Trails - Active Transportation Network	13,000	13,000	15,000	24,000	24,000	351,000	440,000
PK0106 Silvercreek New Park (35-40)						190,000	190,000
PK0099 Speedvale Avenue Underpass Trail			250,000	2,100,000			2,350,000
PO0017 Sports Fields / Courts Replacement and Upgrade	180,000	128,000	249,000	194,000	194,000	3,067,000	4,012,000
PK0104 Starwood Park	500,000						500,000
PK0068 Starwood/Watson Roads New Park Master Plan/Construction				150,000	650,000		800,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PK0005 Sunny Acres Park Wading Pool Replacement						150,000	150,000
PK0092 Tennis Court Lifecycle			600,000				600,000
PK0079 Trail Master plan Update						300,000	300,000
PO0028 Trail Replacement and Upgrade	127,000	133,000	150,000	145,000	145,000	2,300,000	3,000,000
PO0026 Tree Canopy New Plantings	29,000	31,000	45,000	42,000	42,000	523,000	712,000
PO0008 Trees for Guelph Community Planting Events	30,000	35,000	35,000	35,000	35,000	175,000	345,000
PK0071 Wellington Park						13,350,000	13,350,000
PK0086 Wilson Farm Park		150,000		450,000			600,000
Total 10-year budget forecast for Parks and Open Spaces	5,950,000	5,267,000	5,804,000	8,291,000	6,651,000	50,873,000	82,836,000

Table 32, Total 10-year budget forecast for Open Spaces, Recreation, Culture and Library

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Open Spaces, Recreation, Culture and Library	7,916,000	76,684,000	56,488,000	11,917,140	12,615,000	64,135,000	229,755,140

Solid Waste Services

2019 Capital investment: \$3,107,000

Operating budget impact from 2019 projects: \$578,000

Description

The Solid Waste Resources division provides residential and commercial waste management services in compliance with all provincial legislation and regulations.

Services include waste collection, materials recycling, organics processing, household hazardous waste management and waste disposal. Solid Waste Resources delivers waste reduction education programs designed to reduce the amount of waste sent to landfill, reduce greenhouse gas emissions and reach the City's goal to achieve a diversion target of 70 per cent by 2021. There is ongoing planning and implementation of waste reduction programs as described in applicable legislation and as outlined in the approved Solid Waste Management Master Plan.

The proposed 2019 capital program and forecast is required to ensure continued and effective and efficient service delivery, diversion, and compliance with applicable legislation. Projects included in the proposed 2019 program of work support services that have been reviewed as part of the 2017–2018 Solid Waste Resources Service Review. These projects are needed now to support these services.

Capital repair and replacement mitigates risks related to unbudgeted disposal costs from equipment and process failure, and non-compliance with provincial requirements for site operations.

Performance observations

Figure 19 below includes assets required to deliver solid waste collection, sorting, diversion, organics and recycling. From 2019 to 2028 the assets stay in a stable state with some improvement towards 2028.

Beginning in 2029 the overall forecasted performance declines as major facilities reach their expected end of life and require significant upgrades and/or replacement. Between 2026 and 2043 approximately 50 per cent of assets are projected to move into the very poor or poor rating categories.

This would potentially lead to downtime at the processing facility which could result in delays for both City collection vehicles and public drop off. It may also lead to decreased diversion and increased costs of disposal.

Figure 19, 2019 to 2043 asset performance for Solid Waste Services

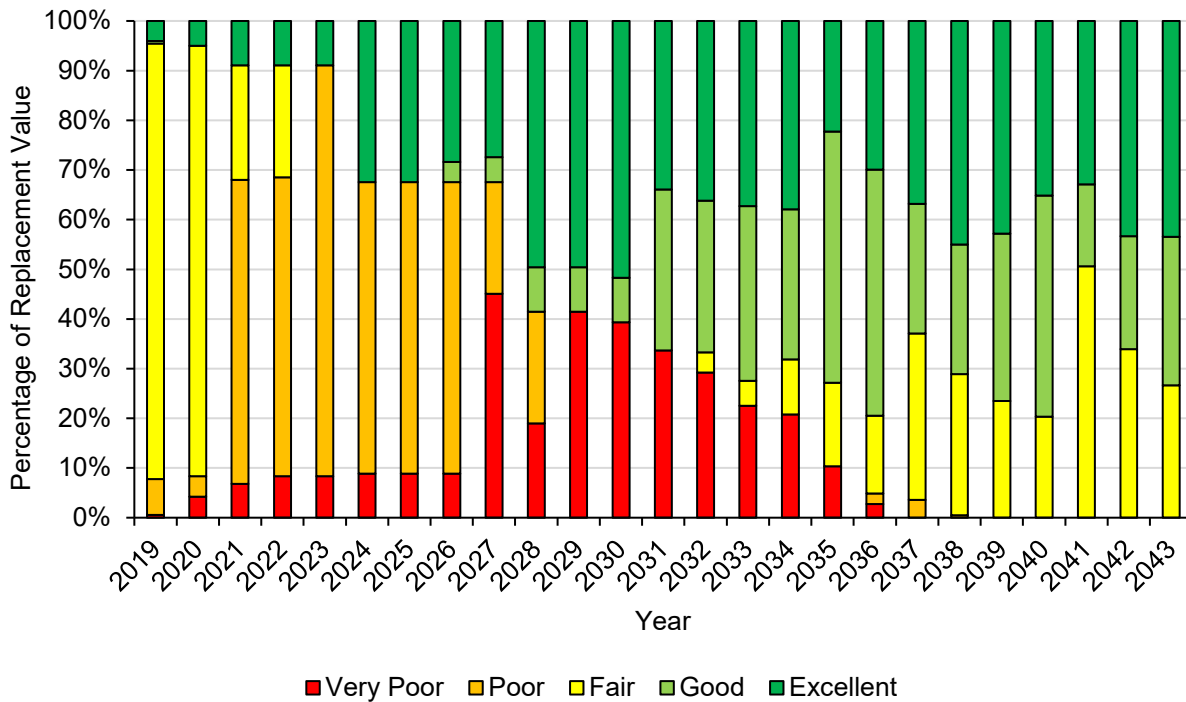


Figure 20, 2019 capital expenditure type

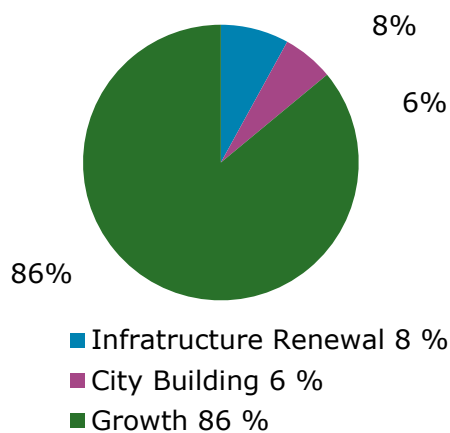
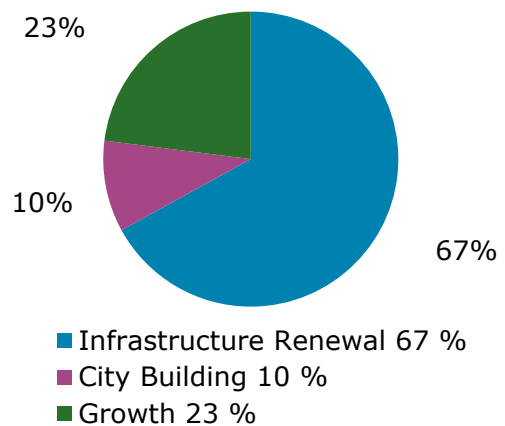


Figure 21, 2020 to 2028 capital expenditure type



Benefits and associated risks

The 2019 capital program and forecast provide for continued customer and service, growth, site compliance, operation, maintenance, planning and program development of critical infrastructure required to maintain diversion, thereby minimizing landfill disposal costs while reducing the environmental foot print of waste management operations in the City.

Projects within this program address both customer service and environmental priorities. Addressing these priorities will result in decreased wait times and other direct positive impacts to customers. Maintaining critical environmental protection systems such as the Leachate Collection System at the former Eastview Landfill site protects the integrity of the City's groundwater supply.

The program as proposed also takes into account recommendations arising from the 2017–2018 Solid Waste Resources Service Review and recommendations including realignment of the Material Recovery Facility (MRF) operation and the need to monitor emerging regulatory requirements and reassess planned investments with respect to the MRF. As a result, the 10-year capital forecast has been reduced by \$8.3M or 58 per cent from what was forecast as being required as part of the 2018 budget development process.

2019–2028 project highlights

Please refer to the detailed 2019 project listing below for more information.

Project detail and information sheets can be found on guelph.ca/budget.

- Design of administration office expansion
- Site and processing equipment maintenance at Waste Resources Innovation Centre (WRIC) site
- Sanitary sewer upgrades at WRIC site
- Waste collection carts for new developments
- Eastview maintenance and upgrades
- Scale capacity upgrades
- Addition of collection vehicle and front end bins to service multi-residential properties
- Solid Waste Management Master Plan review

Operating impacts

- Forecasted impacts from 2019 recommended capital spending will be \$578,000 for solid waste collection growth and increased resourcing associated with the public drop-off scale upgrades.
- Estimated impacts from 2020–2028 forecasted capital spending will be \$828,500 for anticipated solid waste collection growth and operating impacts from planned facility upgrades.

Solid Waste Services detailed budget

Table 33, Total budget for Solid Waste Services

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
WC0003 Administration Building Renewal	270,000		135,000			135,000	45,000	90,000		
WC0016 Vehicles Growth	400,000		229,800			170,200		170,200		
WC0018 Materials Recovery Facility	201,000	201,000								
WC0023 Site Renewal	265,000					265,000	265,000			
WC0024 Collection Carts Growth	391,000		56,900			334,100	300,100	34,000		
WC0026 Public Drop Off Upgrades	14,000					14,000	14,000			
WC0027 Eastview Site Renewal	147,000				147,000					
WC0029 Bins	69,000		18,000			51,000		12,000	39,000	
WP0006 Public Drop Off Scales and Software Upgrade	1,000,000		378,700			621,300	(683,100)	1,304,400		
WP0008 Master Plan	350,000		210,000			140,000	115,500	24,500		
Total budget for Solid Waste Services	3,107,000	201,000	1,028,400		147,000	1,730,600	56,500	1,635,100	39,000	

Solid Waste Services 10-year budget forecast

Table 34, Total 10-year budget forecast for Solid Waste Services

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
WC0003 Administration Building Renewal	270,000		2,100,000			1,515,000	3,885,000
WC0029 Bins	69,000	34,000			66,000	66,000	235,000
WC0024 Collection Carts Growth	391,000	391,000	391,000	391,000	391,000	1,955,000	3,910,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
WC0027 Eastview Site Renewal	147,000	245,000	165,000	165,000	165,000	905,000	1,792,000
WC0015 Inventory and Condition Assessment					300,000	300,000	600,000
WP0008 Master Plan	350,000				50,000	350,000	750,000
WC0018 Materials Recovery Facility	201,000	335,000	495,000	245,000	610,000	5,575,000	7,461,000
WC0020 Organic Waste Processing Facility		100,000	963,000	1,224,000	1,277,000	2,376,000	5,940,000
WC0030 Packer Storage Facility						5,000,000	5,000,000
WP0006 Public Drop Off Scales and Software Upgrade	1,000,000						1,000,000
WC0026 Public Drop Off Upgrades	14,000	14,000	114,000	14,000	14,000	1,576,000	1,746,000
WR0002 Reuse Centre		50,000	550,000				600,000
WC0023 Site Renewal	265,000	890,000	60,000	140,000	205,000	1,921,000	3,481,000
WC0002 Transfer Station Upgrades		426,000		3,206,000	700,000	825,000	5,157,000
WC0016 Vehicles Growth	400,000		400,000			800,000	1,600,000
Total 10-year budget forecast for Solid Waste Services	3,107,000	2,485,000	5,238,000	5,385,000	3,778,000	23,164,000	43,157,000

Stormwater Management

2019 Capital investment: \$4,683,700

Operating budget impact from 2019 projects: \$0

Description

- This program provides funding for the 124 City-owned and operated stormwater management facilities (SWM) and 154 oil and grit separators (OGS).
- Renewal, replacement and growth of these integrated systems provides flood and erosion control, water quality treatment, and environmental protection.
- The program is funded primarily through the dedicated stormwater service fee.

Performance Observations

Figure 22 below includes assets from stormwater management including storm sewers, stormwater management ponds, and culverts. These assets play a critical function in minimizing overland flooding and treating stormwater as it is diverted back to the environment.

Between 2018 and 2032, approximately 20 per cent of the assets move from good to the fair or poor rating categories. Between 2025 to 2031, five per cent of assets in the very poor category are renewed resulting in an overall improvement in performance. This is the result of funding levels reaching sustainability. From 2033 onwards, increased investment results in assets in the fair and poor rating categories being renewed, and represents the reduction of the investment backlog due to increased investment.

By the end of 25 years, the current forecasts suggest that the performance of approximately 15 per cent of assets will decrease as they near the end of their lives. As a result, the reliability and performance of approximately 20 per cent of assets will increase in areas such as storm sewer replacement and stormwater management ponds. This is likely to result reduced risk of stormwater surface flooding during storms and reduced risks of emergency repairs on storm sewers and culverts.

Figure 22, 2019 to 2043 asset performance for Stormwater Management

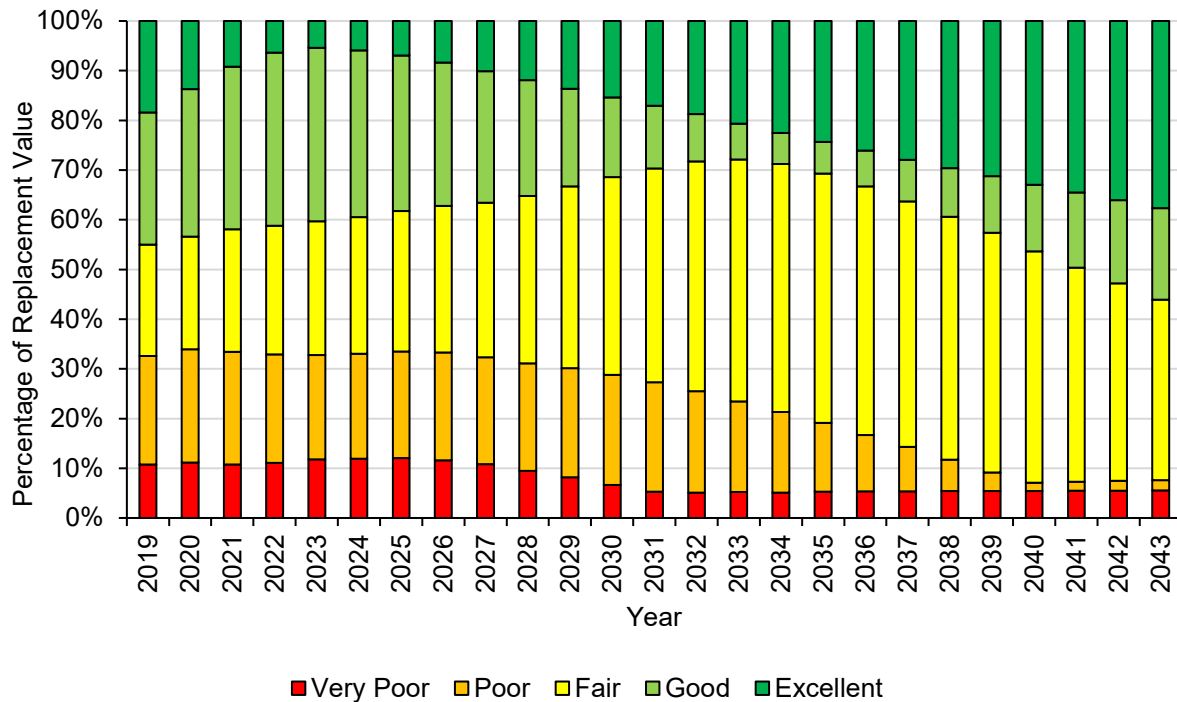


Figure 23, capital expenditure type

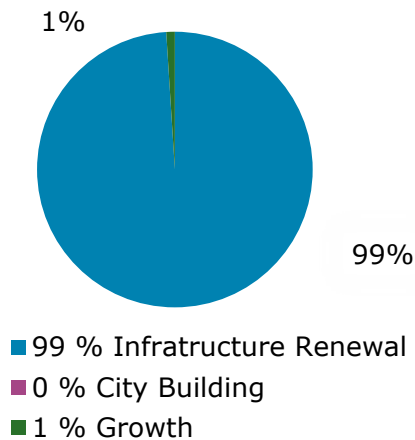
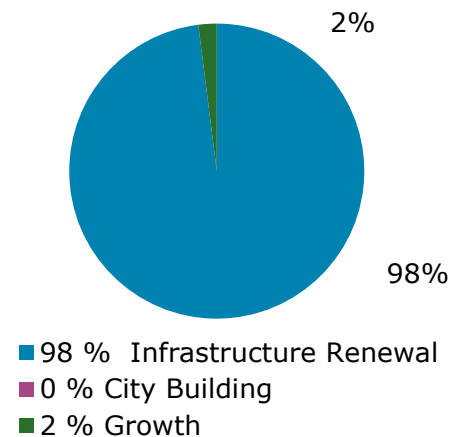


Figure 24, 2020 to 2028 capital expenditure type



Benefits and associated risks

- Improved stormwater runoff quality which protects the health of our streams and rivers.
- Mitigating flooding in extreme weather thereby reducing property damage or risk to human life.
- Avoiding non-compliance with Ministry of Environment, Conservation and Parks, which could lead to charges and/or fines.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget

- Stormwater Management Master Plan in 2019
- Storm Sewer Relining and Repair program annually
- Stormwater management pond retrofits and rehabilitation

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$0.

Estimated impacts from 2020–2028 forecasted capital spending will be \$0.

Stormwater Management detailed budget

Table 35, Total budget for Stormwater Management

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0156 Sewer Investigation	400,000			400,000						
PN0158 Benchmarking and Performance Measurement	40,000			40,000						
PN0562 Pond Retrofits	300,000			300,000						
PN0622 Oil and Grit Separator Monitoring and Compliance	10,000			10,000						
PN0627 Pond Monitoring	150,000			150,000						
PN0843 Oil and Grit Separator Repair and Replacement	100,000			100,000						
PN0844 River Outlet Repair and Replacement	100,000			100,000						
PN0853 Emergency Repairs	150,000			150,000						
SW0051 Pond Rehabilitation	550,000			550,000						
SW0062 Sewer Relining and Repair	400,000			400,000						
SW0068 Servicing Studies Development	50,000		37,500	12,500						
SW0075 Master Plan	600,000			600,000						
SW0091 Management Ward 1 EA Update	300,000			300,000						
From Transportation Systems Program	1,500,200			1,500,200						
From Water Services Program	33,500			33,500						
Total budget for Stormwater Management	4,683,700		37,500	4,646,200						

Stormwater Management 10-year budget forecast

Table 36, Total 10-year budget forecast for Stormwater Management

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0158 Benchmarking and Performance Measurement	40,000	190,000	40,000	190,000	40,000	650,000	1,150,000
PN0625 Cost Of Service Study						25,000	25,000
SW0066 Drainage Oversizing		150,000		150,000		450,000	750,000
PN0853 Emergency Repairs	150,000	150,000	300,000	300,000	300,000	1,500,000	2,700,000
SW0091 Management Ward 1 EA Update	300,000	150,000		500,000			950,000
SW0075 Master Plan	600,000					250,000	850,000
PN0623 North-West Well Channel Naturalization						1,200,000	1,200,000
PN0559 Oil and Grit Separator Condition Assessment Program						100,000	100,000
PN0622 Oil and Grit Separator Monitoring and Compliance	10,000	10,000	10,000	10,000	10,000	50,000	100,000
PN0843 Oil and Grit Separator Repair and Replacement	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
PN0627 Pond Monitoring	150,000	150,000	150,000	50,000	50,000	250,000	800,000
SW0051 Pond Rehabilitation	550,000	800,000	435,000	715,000	935,000	1,500,000	4,935,000
PN0562 Pond Retrofits	300,000	400,000	500,000	500,000	500,000	2,500,000	4,700,000
PN0560 River Outlet Condition Assessment Program					400,000	400,000	800,000
PN0844 River Outlet Repair and Replacement	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
SW0068 Servicing Studies Development	50,000	50,000	50,000	50,000	50,000	250,000	500,000
PN0156 Sewer Investigation	400,000	400,000	500,000	500,000	500,000	2,000,000	4,300,000
SW0062 Sewer Relining and Repair	400,000	450,000	500,000	500,000	1,000,000	9,000,000	11,850,000
From Transportation Systems Program	1,500,200	3,322,900	2,765,400	4,864,600	4,188,700	20,683,000	37,324,800

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
From Wastewater Services Program			1,000			800	1,800
From Water Services Program	33,500	23,800	211,500	287,700		450,000	1,006,500
Total 10-year budget forecast for Stormwater Management	4,683,700	6,446,700	5,662,900	8,817,300	8,173,700	42,258,800	76,043,100

Transportation Systems

2019 Capital investment: \$14,502,000

Operating budget impact from 2019 projects: \$155,200

Description

- This program of work captures the City-wide road restoration and resurfacing program and the expansion and improvements of the road surface including road widening, installation of turning lanes, design and installation of bike facilities, installation of new and modernization of existing traffic control signals, localized road improvements identified through the Neighborhood Traffic Management Program, new and upgraded bus stops and bus route expansions.
- The City owns and maintains a large number of bridges, culverts, retaining walls, and stairs, many of which are over 50 years old and require ongoing operation and maintenance activities to ensure public safety.
- Capital projects are based on the recommended life cycle rehabilitation work as reported in the structure inspection reports. These projects are then aligned with the reconstruction of streets, underground infrastructure improvements, and active transportation planning to prioritize work and optimize planning. The need for road widening, turning lanes or bike facilities is determined by the City's Master Plans as well as overall growth plans.
- Guelph Transit and parking facilities, vehicles and equipment are also included in the program as they are key to an integrated transportation system. A balance approach to maintain current facilities and fleet to delivery service as well as investment in capital to meet growing population demand is a primary goal of this program.

Performance observations

Figure 25 below includes assets that provide the City's transportation services including roads, traffic signals and intersections, bridges, sidewalks, and transit.

Between 2018 and 2034, approximately 20 per cent of the assets move from fair and poor rating categories to the very poor rating category. This means that the assets are nearing the end of their lives. During this period, the assets in the good category also increase, which is due to increased planned early rehabilitation programs such as road resurfacing. From 2039 onwards, the assets in the very poor category remain consistent due to the funding reaching sustainable levels.

By the end of 25 years, the current forecasts suggest that the performance of approximately 20 per cent of assets will decrease as they near the end of their lives. On the other hand, due to increased early rehabilitation in roads, the quantity of assets in the good and very good category increased from 55 per cent to 63 per cent. Overall, this means that there will be less assets in the fair rating category, and the community will experience higher levels of service in many areas and at the same time there will also be many more areas that are predicted to be at the end of their life in a deteriorated state.

Figure 25, 2019 to 2043 asset performance for Transportation Systems

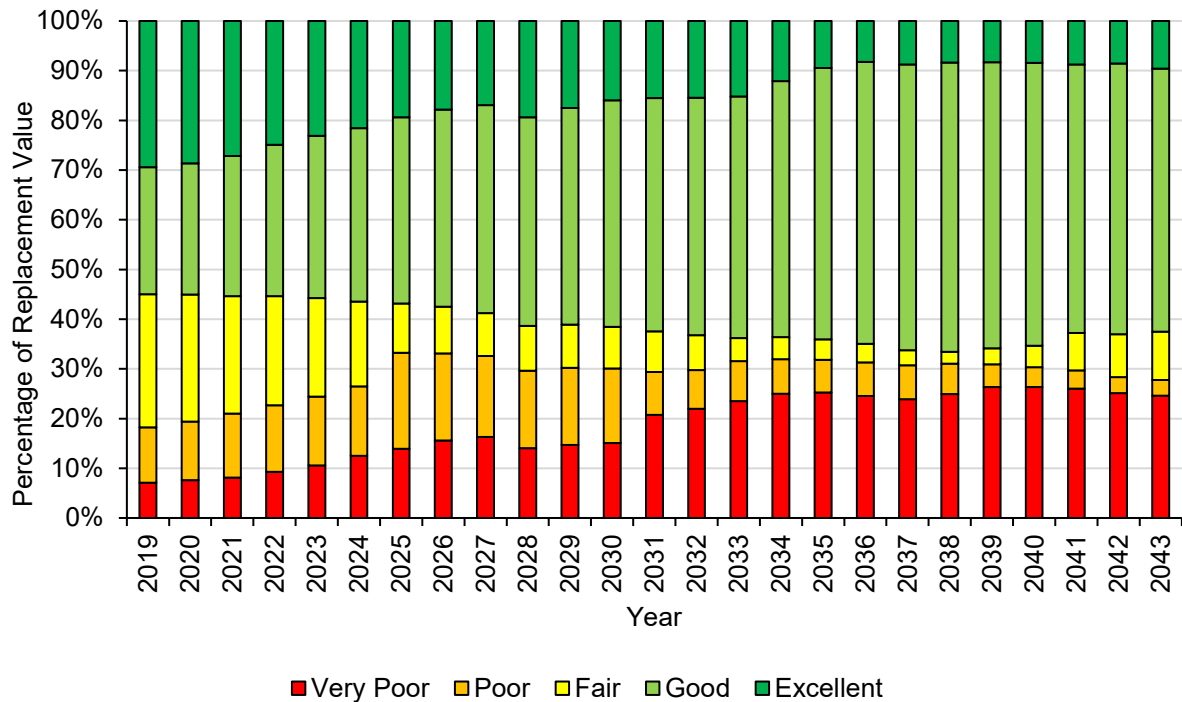


Figure 26, 2019 capital expenditure type

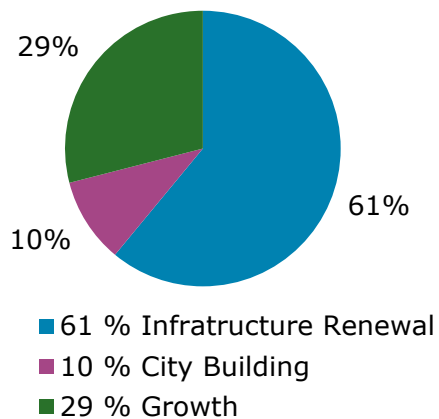
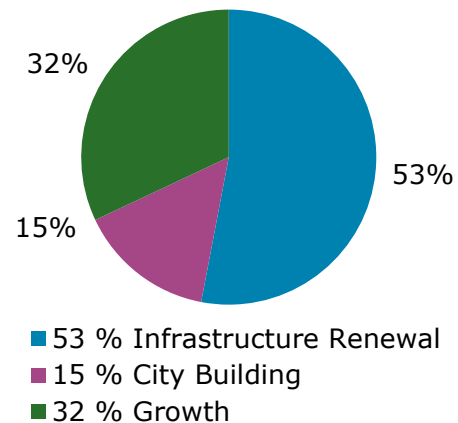


Figure 27, 2020 to 2028 capital expenditure type



Benefits and associated risks

- An active restoration and resurfacing program ensures that all road surfaces are maintained at the desired condition levels, improving traffic flow and safety. Work is also undertaken to improve adjoining storm water infrastructure and pedestrian usage. Improvements through road reconstruction improve the connections between roads and development for motorists, active transportation users and those accessing public transit.
- The City's paved road surface should provide a durable even running surface with adequate skid resistance. Over time, the pavement surface becomes worn or damaged, resulting in pot holes, rutting, cracking and many other defects. Rehabilitating the road extends the life of the road, and restores the road surfaces level of service.
- Impacts of trenching to replace water and wastewater linear may cause additional costs or unexpected interruptions in service. Road quality will continue to decline based on use of this technique.
- Pedestrian and vehicle bridges are a substantial and vital part of the City's transportation infrastructure system. Provincial regulations require that all bridges be inspected at least once every two years, and it is through these inspections that the capital budget is developed. In many cases, the bridges span over watercourses and roadways, and require regular maintenance, rehabilitation, and eventual replacement to minimize the risk of failure, and ensure levels of service. Ensuring that the City's bridges and structures are maintained consistently and according to industry standards also minimizes operational costs, and costs associated with unexpected failure, as well as to realize efficiencies in both scheduling and pricing by coordinating with other similar works. The bridge maintenance and replacement program is under pressure, required inspections and reviews being carried out but current funding levels for replacements does not meet needs.
- Implementation of City-wide new traffic control signals, existing improvements to signalized locations as a result of customer requests, overall network improvements, and traffic signal enhancements. Neighborhood traffic management initiatives are proposed to be implemented on local and collector roads that qualify. If funding is not obtained there is a health and safety risk to our customers and a greater potential for sections of the traffic signal network to be inefficient, creating delays, congestion and driver frustration as well as not address neighborhood issues regarding traffic speeds and cut-through traffic.
- Investment into the City's transit infrastructure will provide service to areas currently with no Transit and will improve service to other areas City-wide. Accessibility and customer experience will be improved through upgrading bus stops with concrete pads and shelters.

- Timing of downtown linear renewal may not align with Baker Street redevelopment; servicing of site will be accommodated, but overall road, water, wastewater and street scape work may be delayed.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget

- Execution of the Council approved Parking Master Plan with a focus on facility renewal and expansion, most notably the planned Baker Street Parkade in 2022.
- A road rehabilitation program that have been identified based on available road condition information, number of work orders for cracks and pot holes based on the Minimum Maintenance Standard (MMS) for municipal highways, and operational input. All projects identified for resurfacing have been assessed to ensure that the underground and adjacent infrastructure do not require replacement or rehabilitation.
- Speedvale Avenue widening beginning in 2018 through 2023.
- York Road Wastewater Trunk and Paisley Feedermain and road reconstruction continued through 2024.
- Operations and Transit facility expansion in 2028 to accommodate city growth needs in an integrated campus driving optimal operational savings. This strategy is currently under development through the City's Facility Needs Assessment.
- A continued annual investment in developing the Active Transportation Network, maintaining transit fleet vehicle replacement, traffic signal / intersection maintenance and pedestrian crossovers.
- Proposed growth to mobility, community, conventional and inter-regional transit routes, are included in the forecast but will be contingent on Council's review of the Transit Service Review.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$155,200.

- New Bus Shelters: \$6,400 for the maintenance and repair of additional bus shelters.
- Transit Facility Upgrades: \$12,000 for operations and maintenance of upgrades at Transit Facility on Watson Road.
- Mobility Van Growth: \$111,800 for operator, fuel, licencing and maintenance of additional Mobility Van.
- Roads Growth: \$25,000 for the maintenance of the expanded road network.

Estimated impacts from 2020-2028 forecasted capital spending will be \$4,000,000.

Transportation systems detailed budget

Table 37, Parking

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PG0066 Parking Facility Renewal	460,000					460,000	460,000			
PN0115 Parkade Inventory and Condition Assessment	150,000					150,000	150,000			
Total budget for Parking	610,000					610,000	610,000			

Table 38, Road and Right of Way

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
GG0231 Operations Facility Renewal	190,000					190,000	190,000			
PN0007 Vehicle Bridge Reconstruction Program	100,000	100,000								
PN0024 Applewood Crescent- Rehabilitation	550,000			550,000						
PN0039 Lane Street- Stevenson Street North to Palmer Street	102,000			88,463		13,537	13,537			
PN0066 Arthur Trunk Sewer - Phase 2- Howitt Street- York Road to Neeve Street	150,000					150,000	150,000			
PN0073 Bristol Street Trunk Sewer - Phase 3 - Edinburgh Street to St. Arnaud Street	143,000			143,000						
PN0097 Speedvale Transmission Trunk Sewer - Phase 1 - Speedvale to Woolwich	2,500,000	470,200	800,700	1,229,100						
PN0100 Stevenson Trunk Sewer - Eramosa to York - Phase 2 - Bennett to Eramosa	2,015,000		146,000	1,594,000		275,000	275,000			

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0110 York Trunk Sewer and Paisley Feedermain - Phase 3 - York to Victoria	502,000		290,200	92,900		118,900	118,900			
PN0126 Road Restoration and Resurfacing Program	1,900,000	1,900,000								
PN0142 Gordon Street- Lowes Road to Edinburgh Road South	287,000		287,000							
PN0149 Watson Parkway South-York Road / Watson	249,000		93,100	155,900						
PN0171 Roadway Condition Assessment	150,000					150,000	150,000			
PN0354 Pre-Design Right-of-Way Construction Projects	500,000			450,000		50,000	50,000			
PN0558 Roadway Preventative Crack Sealing	50,000					50,000	50,000			
PN0563 Road Reconstruction Surface Asphalt sealer	100,000					100,000	100,000			
PN0605 Bridge and Culvert Preventative and Corrective Maintenance Program	50,000					50,000	50,000			
PN0629 Multi-Use Path Study	150,000					150,000			150,000	
PN0750 CCTA Administration and Site Inspection	700,000			700,000						
PN0754 Railway Crossings at Edinburgh Road	750,000		525,000			225,000			225,000	
PN0775 Water Distribution Piping Replacement and Loop (W-I-20)	300,000		60,000	240,000						
PN0784 Whitelaw Road- Shoemaker Crescent To Paisley Road	300,000		295,300	4,700						
PN0812 Wyndham Street South: Wellington Street East To Surrey Street East	152,000			106,500	32,700	12,800	12,800			

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0813 Cycling Master Plan Implementation	470,000					470,000			470,000	
PN0832 University Ward Conceptual Design	150,000			112,500		37,500	37,500			
PN0833 Erin Avenue- Lane Street To End	102,000			94,280		7,720	7,720			
PN0865 Grand and Cityview - new turn lanes	35,000		31,500			3,500	3,500			
PN0870 Provision for Road Design	200,000		200,000							
RD0283 New Sidewalk Construction	200,000	160,000				40,000			40,000	
RD0295 Road Infrastructure Sustainability	60,000					60,000	60,000			
RD0321 Active Transportation	800,000	250,000	250,000			300,000			300,000	
RD0333 Right-of-way Infrastructure Sustainability	50,000					50,000	50,000			
RD0350 Road Growth Vehicles and Equipment	370,100		367,600			2,500		2,500		
SL0001 Streetlights Infrastructure Renewal - GEHSI	300,000					300,000	300,000			
From Water Services Program	213,500						213,500			
To Stormwater Management Program	(1,500,200)			(1,500,200)						
To Wastewater Services Program	(2,683,400)		(549,500)	(2,133,900)						
To Water Services Program	(2,393,000)		(465,700)	(1,927,300)						
Total budget for Road and Right of Way	8,264,000	2,880,200	2,331,200		32,700	2,806,400	1,832,400	2,500	1,185,000	

Table 39, Traffic Control and Planning

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0174 Transportation Strategy and Demand Management	150,000		75,000			75,000	75,000			
PN0869 Signals / Intersection Improvements	375,000		337,500			37,500	37,500			
TF0003 Signal Equipment Replacement	184,000	184,000								
TF0004 Intersection Signal Rebuild	750,000	750,000								
TF0008 Management Initiatives	250,000	125,000	125,000							
TF0009 Accessible Pedestrian Signals	175,000					175,000			175,000	
TF0010 Pedestrian Countdown Heads	225,000					225,000			225,000	
TF0017 Pedestrian Crossovers	100,000	100,000								
TF0018 School Zone Signals	24,000					24,000				
Total budget for Traffic Control and Planning	2,233,000	1,159,000	537,500			536,500	112,500		400,000	

Table 40, Guelph Transit Services

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
GG0233 Facilities Renewal	267,000					267,000	267,000			
TC0043 Bus Shelter Purchase	200,000					200,000	100,000		100,000	
TC0058 Bus Replacement	2,200,000	1,980,000				220,000	220,000			
TC0060 Facilities	450,000	450,000								
TC0061 Shuttle Vehicle	63,000	63,000								
TM0005 Mobility Van - Expansion	215,000		193,500			21,500		21,500		

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Guelph Transit Services	3,395,000	2,493,000	193,500			708,500	587,000	21,500	100,000	

Table 41, Total budget for Transportation Systems

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Transportation Systems	14,502,000	6,532,200	3,062,200	0	32,700	4,661,400	3,141,900	24,000	1,709,000	14,502,000

Transportation systems 10-year budget forecast

Table 42, Parking

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PG0079 Downtown Parkade 2				26,788,000			26,788,000
PN0115 Parkade Inventory and Condition Assessment	150,000					150,000	300,000
PG0059 Parking Equipment Replacement and Renewal		10,000	470,000			1,000,000	1,480,000
PG0066 Parking Facility Renewal	460,000	890,000	1,045,000	611,000	985,000	4,136,000	8,127,000
PG0075 Parking System Study					160,000		160,000
Total 10-year budget forecast for Parking	610,000	900,000	1,515,000	27,399,000	1,145,000	5,286,000	36,855,000

Table 43, Road and Right of Way

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
RD0321 Active Transportation	800,000	800,000	800,000	800,000	800,000	4,000,000	8,000,000
PN0023 Alma Street North- Willow To Paisley				9,575,000			9,575,000
PN0024 Applewood Crescent- Rehabilitation	550,000						550,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0065 Arkell - Wellington Street Transmission Main (W-I-14)					505,000	4,632,000	5,137,000
PN0564 Arthur Street Wastewater Trunk Capacity Upgrades (Ww-I-21) (Dt)			3,620,000				3,620,000
PN0066 Arthur Trunk Sewer - Phase 2- Howitt Street- York Road to Neeve Street	150,000					15,000	165,000
PN0026 Baker Street- Quebec To Woolwich				503,000		7,470,000	7,973,000
PN0836 Block Plan Area and Glenholme Drive Area - 33						1,155,000	1,155,000
PN0838 Block Plan Area and Glenholme Drive Area - 930						49,000	49,000
PN0605 Bridge and Culvert Preventative and Corrective Maintenance Program	50,000	50,000	50,000	100,000	100,000	500,000	850,000
PN0073 Bristol Street Trunk Sewer - Phase 3 - Edinburgh Street to St. Arnaud Street	143,000		1,969,000				2,112,000
PN0075 Bull Frog Stormwater - Phase 2- William Street - Elizabeth / Cassino		102,000		2,610,000			2,712,000
PN0076 Bull Frog Stormwater - Phase 3- Cassino - William / Stevenson					2,610,000		2,610,000
PN0078 Bull Frog Stormwater - Phase 5- Industrial - Elizabeth / York						1,942,000	1,942,000
PN0750 CCTA Administration and Site Inspection	700,000	700,000	700,000	700,000	700,000	3,500,000	7,000,000
PN0793 Cardigan Street- Woolwich Street To Norfolk Street (W, Ww)						206,000	206,000
PN0855 Clair-Maltby Road Reconstruction						25,000,000	25,000,000
PN0139 College Avenue East- Victoria Road South To Dundas Lane						2,052,000	2,052,000
PN0752 Crawley Road- Clair Road West To Maltby Road West					159,000		159,000
PN0813 Cycling Master Plan Implementation	470,000	220,000	1,695,000	140,000	570,000	4,655,000	7,750,000
PN0780 Delhi Street - Eramosa To Emma			7,395,000				7,395,000
PN0207 Delhi Street-Riverview / Marlborough		547,000					547,000
RD0309 Development Cityview					19,000	164,000	183,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0256 Downey Road- Niska To Teal Drive Transportation Improvement Study Implementation				900,000			900,000
PN0031 Edinburgh Road South-Speed River / College Avenue West						502,000	502,000
PN0846 Edinburgh Road- London To Waterloo						102,000	102,000
PN0033 Elginfield Drive- Cheltonwood Avenue To Glenburnie Drive						421,000	421,000
PN0226 Eramosa Road- Stevenson Street North / Meyer Drive			2,015,000				2,015,000
PN0833 Erin Avenue- Lane Street To End	102,000			1,325,000			1,427,000
PN0799 Essex Street- Dublin Street To Waterloo Avenue (W, Ww, S)					153,000	1,281,000	1,434,000
PN0080 Gordon Street - Clair / Maltby (Ww0070)						501,000	501,000
PN0809 Gordon Street- Breadbar Plaza Entrance To University					502,000	6,336,000	6,838,000
PN0142 Gordon Street- Lowes Road to Edinburgh Road South	287,000		2,860,000				3,147,000
PN0865 Grand and Cityview - new turn lanes	35,000					250,000	285,000
PN0764 Guelph Innovation District (GID) Implementation				250,000		250,000	500,000
PN0821 Guelph Innovation District Development-Phase 1 - New Street A						1,008,000	1,008,000
PN0823 Guelph Innovation District Development-Phase 2 - GID New Street B						236,000	236,000
PN0824 Guelph Innovation District Development-Phase 3 - Main Street Construction						328,000	328,000
RD0325 Hanlon Road - Kortright Road						2,520,000	2,520,000
PN0571 Imperial Culvert (225) Replacement		100,000	100,000	500,000	500,000	2,500,000	3,700,000
PN0082 Kathleen / Stevenson Transmission - Phase 1 - Eramosa-Stevenson			160,000		1,600,000		1,760,000
PN0083 Kathleen / Stevenson Transmission - Phase 2 - Cardigan Street-London					187,000	1,865,000	2,052,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0084 Kathleen / Stevenson Transmission - Phase 3 - Norwich- Cardigan Street						1,257,000	1,257,000
PN0085 Kathleen / Stevenson Transmission - Phase 4 - Arthur -Norwich Street						2,119,000	2,119,000
PN0086 Kathleen / Stevenson Transmission - Phase 5 - London - Kirkland Street						6,043,000	6,043,000
PN0087 Kathleen / Stevenson Transmission - Phase 6 - Eramosa - Arthur						9,778,000	9,778,000
PN0039 Lane Street- Stevenson Street North to Palmer Street	102,000				5,050,000	5,050,000	10,202,000
PN0794 MacDonell Street- Norfolk Street To Carden Street (W, Ww)				502,000		12,418,000	12,920,000
PN0041 MacDonell Street- Wyndham Street North /Carden Street						6,958,000	6,958,000
PN0145 Maltby Road East- Gordon Street / Victoria Road South						4,808,000	4,808,000
PN0847 Manitoba Street- Ontario Street To Huron Street		2,525,000					2,525,000
PN0043 Metcalfe- Speedvale / Eramosa-Phase 2-Terry / Eramosa			3,510,000				3,510,000
PN0629 Multi-Use Path Study	150,000						150,000
PN0753 New Railway Crossing Installation					240,000	1,200,000	1,440,000
RD0283 New Sidewalk Construction	200,000	240,000	200,000	240,000	240,000		1,120,000
PN0011 Norwich Pedestrian Bridge		100,000		750,000	1,000,000	7,800,000	9,650,000
PN0800 Nottingham Street- Dublin Street To Gordon Street (W, Ww)						160,000	160,000
PN0746 Ontario Structure Inspection Manual (OSIM) Inspection Program		60,000		60,000		180,000	300,000
GG0231 Operations Facility Renewal	190,000	36,000	28,000				254,000
PN0354 Pre-Design Right-of-Way Construction Projects	500,000	500,000	500,000	500,000	500,000	2,500,000	5,000,000
PN0870 Provision for Road Design	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
OP0001 Public Works Building and Yard Replacement						33,500,000	33,500,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0048 Quebec Street- Wyndham Street North / Norfolk Street						8,359,000	8,359,000
PN0754 Railway Crossings at Edinburgh Road	750,000	750,000	750,000				2,250,000
PN0049 Regal Road- Woodlawn Road West To End						403,000	403,000
RD0333 Right-of-way Infrastructure Sustainability	50,000	50,000	50,000	50,000	50,000	250,000	500,000
RD0350 Road Growth Vehicles and Equipment	370,100	194,900		71,900		1,010,000	1,646,900
RD0295 Road Infrastructure Sustainability	60,000	60,000	60,000	60,000	60,000	300,000	600,000
PN0563 Road Reconstruction Surface Asphalt sealer	100,000	100,000					200,000
PN0126 Road Restoration and Resurfacing Program	1,900,000	1,900,000	2,000,000	4,000,000	4,500,000	30,000,000	44,300,000
PN0171 Roadway Condition Assessment	150,000			100,000		200,000	450,000
PN0558 Roadway Preventative Crack Sealing	50,000	50,000	75,000	100,000	100,000	500,000	875,000
PN0090 Robinson / Silvercreek Transmission / Trunk - Phase 1-Yorkshire		201,000		1,985,000			2,186,000
PN0091 Robinson / Silvercreek Transmission / Trunk - Phase 2A-Yorkshire				503,000		8,055,000	8,558,000
PN0092 Robinson / Silvercreek Transmission / Trunk - Phase 2B-London				154,000		1,245,000	1,399,000
PN0093 Robinson / Silvercreek Transmission / Trunk - Phase 3-York					503,000	6,475,000	6,978,000
PN0094 Robinson / Silvercreek Transmission / Trunk - Phase 4-Kathleen						6,662,000	6,662,000
PN0095 Robinson / Silvercreek Transmission / Trunk - Phase 5-Exhibition						8,762,000	8,762,000
PN0096 Silvercreek- Waterloo / Paisley including CN Grade (W-I-16)						16,230,000	16,230,000
PN0778 South End - Transmission Mains (Ring S)(W-I-27)		174,000					174,000
PN0785 Southgate Extension To Maltby Road					150,000		150,000
PN0097 Speedvale Transmission Trunk Sewer - Phase 1 - Speedvale to Woolwich	2,500,000	8,450,000		3,800,000	3,850,000		18,600,000
PN0004 Steps Rehabilitation (110)		750,000					750,000

Project number and name	2019	2020	2021	2022	2023	2024-2028	Total
PN0100 Stevenson Trunk Sewer - Eramosa to York - Phase 2 - Bennett to Eramosa	2,015,000						2,015,000
SL0001 Streetlights Infrastructure Renewal - GEHSI	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
PN0804 Surrey Street- Bristol Street To Gordon Street (W, Ww, Sw)						2,206,000	2,206,000
PN0806 Surrey Street- Wyndham Street To End (W, Ww, Sw, R)						2,877,000	2,877,000
PN0054 Talbot Street- Forest Street To University Avenue West						314,000	314,000
PN0176 Transportation Master Plan Update				980,000		980,000	1,960,000
PN0832 University Ward Conceptual Design	150,000	150,000	150,000				450,000
PN0007 Vehicle Bridge Reconstruction Program	100,000	100,000	100,000	500,000	1,500,000	16,500,000	18,800,000
PN0101 Victoria - Dakota / Woodlawn Road East (W-I-28)						6,313,000	6,313,000
PN0209 Victoria Road North-Brunswick Line / Victoria Road North						243,000	243,000
PN0056 Victoria Road Street-Railroad / Elizabeth Street				197,000		1,785,000	1,982,000
PN0148 Victoria- Eramosa River / Stone-Phase 2- Stone / Eramosa						359,000	359,000
PN0147 Victoria- Eramosa River to Stone Road - Phase 1						385,000	385,000
PN0775 Water Distribution Piping Replacement and Loop (W-I-20)	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
PN0102 Water- Maple / Gordon (Ww-I-8)						4,315,000	4,315,000
PN0796 Waterloo Avenue- Yorkshire Street To Essex Street (W, W)						5,188,000	5,188,000
PN0103 Waterloo Street- Silvercreek / Yorkshire (Ww-I-4)						501,000	501,000
PN0149 Watson Parkway South-York Road / Watson	249,000		2,475,000				2,724,000
PN0784 Whitelaw Road- Shoemaker Crescent To Paisley Road	300,000		4,435,000				4,735,000
PN0002 Woodlawn Road West		600,000	1,500,000				2,100,000
PN0104 Woodlawn Watermain / E Transmission - Phase 1- Victoria - East City limit						8,218,000	8,218,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0105 Woodlawn Watermain / E Transmission - Phase 2- Woolwich / Victoria						502,000	502,000
PN0811 Woolwich Street- MacDonell To Norfolk Street (Ww, W)						6,519,000	6,519,000
PN0060 Wyndham - Carden / Woolwich-Phase 1-Carden / full reconstruction			479,000		4,775,000		5,254,000
PN0812 Wyndham Street South: Wellington Street East To Surrey Street East	152,000		1,134,000				1,286,000
PN0061 Wyndham- Carden / Woolwich- Phase 2 -Cork Street /Douglas						7,325,000	7,325,000
PN0062 Wyndham- Carden / Woolwich- Phase 3- Douglas / Woolwich						6,475,000	6,475,000
PN0850 Wyndham- Carden / Woolwich- phase 2- MacDonell Street to Cork Street						4,775,000	4,775,000
PN0110 York Trunk Sewer and Paisley Feedermain - Phase 3 - York to Victoria	502,000	502,000		4,821,000	4,821,000	4,821,000	15,467,000
PN0264 York- GJR Spurline -Stevenson		4,130,000					4,130,000
PN0271 York- Stevenson-Victoria			4,522,000				4,522,000
From Wastewater Services Program	0	0	42,000	0	0	41,700	83,700
From Water Services Program	213,500	549,400	1,024,500	1,484,700	0	2,642,900	5,915,000
To Stormwater Management Program	(1,500,200)	(3,322,900)	(2,765,400)	(4,864,600)	(4,188,700)	(20,683,000)	(37,324,800)
To Wastewater Services Program	(2,683,400)	(5,826,500)	(15,744,000)	(8,836,000)	(7,162,300)	(55,441,000)	(95,693,200)
To Water Services Program	(2,393,000)	(4,902,100)	(11,530,500)	(6,307,600)	(5,879,000)	(58,581,500)	(89,593,700)
Total 10-year budget forecast for Road and Right of Way	8,264,000	11,439,800	15,158,600	19,053,400	19,314,000	208,242,100	281,471,900

Table 44, Traffic Control and Planning

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
TF0009 Accessible Pedestrian Signals	175,000	178,000	182,000	185,000	190,000	1,045,000	1,955,000
PN0786 Design Of Left Turn Lanes at Starwood and Keating						250,000	250,000
PN0762 Intersection College and Scottsdale					1,801,000		1,801,000
TF0004 Intersection Signal Rebuild	750,000	551,000	579,000	608,000	638,000	3,350,000	6,476,000
PN0761 Intersection- Speedvale and Silvercreek					2,026,000		2,026,000
TF0008 Management Initiatives	250,000	376,000	376,000	376,000	376,000	1,880,000	3,634,000
TF0010 Pedestrian Countdown Heads	225,000						225,000
TF0017 Pedestrian Crossovers	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
TF0018 School Zone Signals	24,000	26,000	27,000	28,000	30,000	62,000	197,000
TF0003 Signal Equipment Replacement	184,000	193,000	203,000	213,000	223,000	1,195,000	2,211,000
PN0869 Signals / Intersection Improvements	375,000	375,000	375,000	375,000	375,000	1,950,000	3,825,000
TF0016 Traffic Signal Control System 2021			900,000				900,000
PN0174 Transportation Strategy and Demand Management	150,000	150,000	150,000	240,000	150,000	840,000	1,680,000
Total 10-year budget forecast for Traffic Control and Planning	2,233,000	1,949,000	2,892,000	2,125,000	5,909,000	11,072,200	26,180,200

Table 45, Guelph Transit Services

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
TC0058 Bus Replacement	2,200,000	2,387,000	3,043,000	3,104,000	3,166,000	16,806,000	30,706,000
TC0043 Bus Shelter Purchase	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
TC0060 Facilities	450,000	610,000	310,000				1,370,000
GG0233 Facilities Renewal	267,000	394,000	397,000	254,000	475,000	900,000	2,687,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
TM0005 Mobility Van - Expansion	215,000			228,000		498,000	941,000
TC0059 Operations Facility						80,000,000	80,000,000
TC0064 Route Expansions		600,000	1,215,000	620,000	632,000	645,000	3,712,000
TC0061 Shuttle Vehicle	63,000						63,000
TC0063 Terminal Upgrades			500,000				500,000
TC0006 Transit Satellite Location Clair and Gordon						5,000,000	5,000,000
Total 10-year budget forecast for Guelph Transit Services	3,395,000	4,191,000	5,665,000	4,406,000	4,473,000	104,849,000	126,979,000

Table 46, Total 10-year budget forecast for Transport Systems

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Transportation Systems	14,502,000	18,479,800	25,230,600	52,983,400	30,841,000	329,449,300	471,486,100

|

Wastewater Services

2019 Capital investment: \$13,104,400

Operating budget impact from 2019 projects: \$0

Description

- Focused on ensuring that the assets required to deliver wastewater services including the network of collection pipes, the treatment plant facilities and all related equipment are maintained, renewed and expanded to keep pace with a growing population.
- This program is funded from wastewater rates and development charges. Tremendous progress has been made in progressing towards sustainable levels of capital funding over the past ten years.

Performance observations

Figure 28 below includes assets that provide the City's wastewater services including wastewater sewers, the wastewater treatment plant, and pumping stations. The current wastewater capital forecast is forecasted to result in whole system improvements between 2023 and 2043. This will improve overall system reliability by reducing unexpected breakdowns in addition to being well positioned to meet future effluent discharge compliance limits.

Significant investment will be required in wastewater facilities between 2022 and 2035, and projected funding levels and reserves are sufficient. An in-progress condition assessment will provide a prioritized investment strategy.

Investments in the wastewater collection network are planned to increase between 2019 and 2024 in order to mitigate the risk of service disruptions.

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Figure 28, 2019 to 2043 asset performance for Wastewater Services

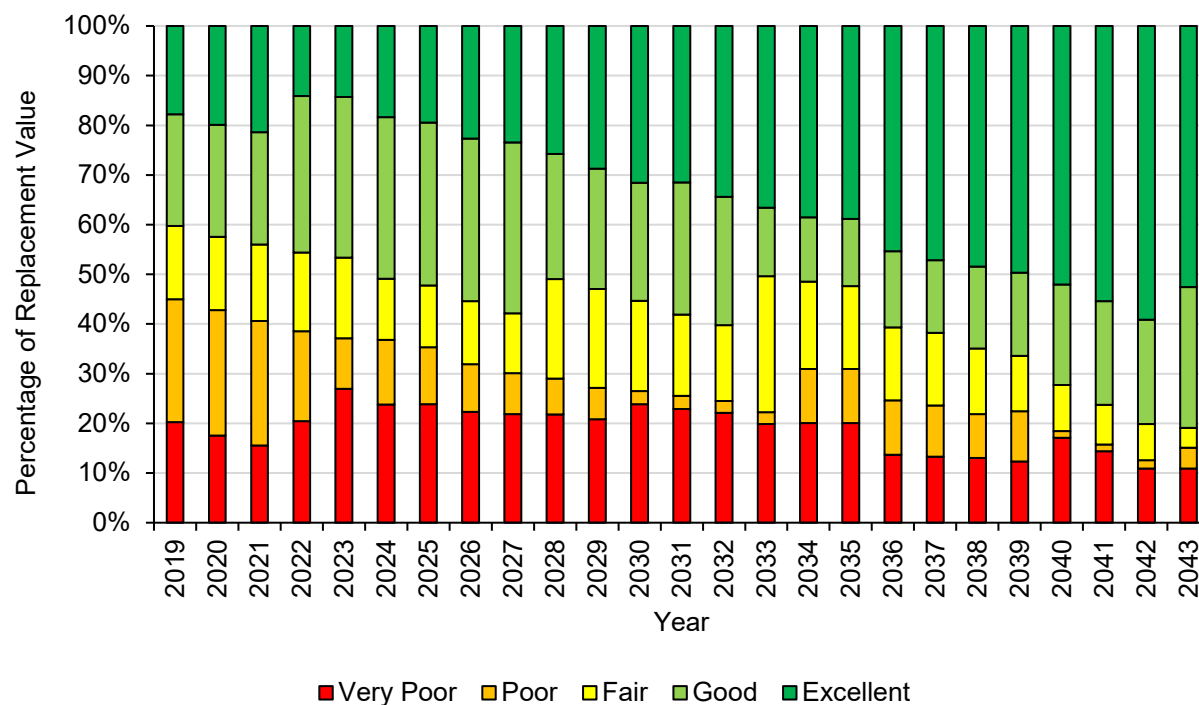


Figure 29, 2019 capital expenditure type

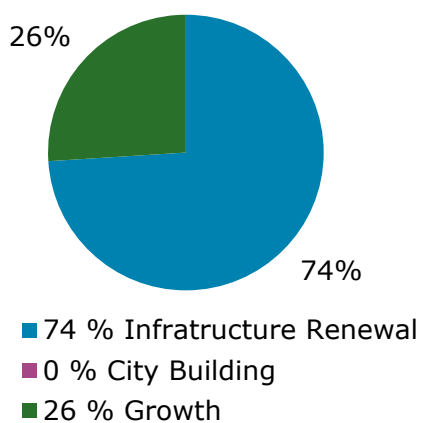
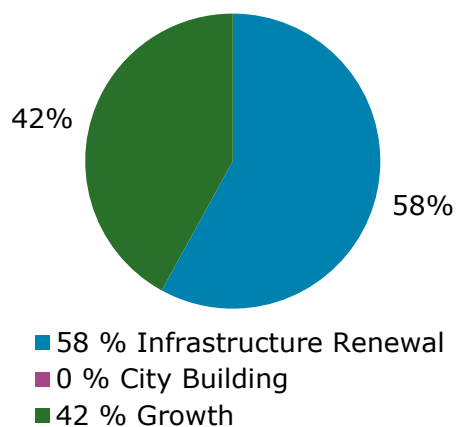


Figure 30, 2020 to 2028 capital expenditure type



Benefits and associated risks

- Investment in this critical infrastructure mitigates the risks of environmental impacts as well as higher costs of unplanned maintenance.
- Proactive investment in wastewater infrastructure renewal and expansion provides long-term reliability of assets and capacity. This capital program of work supports the wastewater facility's Environmental Compliance Approval (ECA) requirement to exercise due diligence in ensuring that works and related equipment used to achieve compliance are properly operated and maintained at all times.
- Benefits of the program include: optimizing existing systems, increasing capacities of existing systems, protecting the natural environment, enhancing asset management practices, and ensuring wastewater can be conveyed in a manner to satisfy capacity requirements for the City's wastewater treatment plant.

2019–2028 project highlight

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget

- Working with the MECP to reach a decision on a re-rating application which would defer a planned 2020 expansion project to a future time period freeing resources for more critical priorities.
- Coordination of linear infrastructure replacement and growth with Transportation Program of Work.
- Sanitary sewer capacity improvements through inflow and infiltration, flow monitoring, reline, and repair work.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$0.

Estimated impacts from 2020–2028 forecasted capital spending will be \$2,500,000 to \$3,500,000 in total.

Wastewater Services detailed budget

Table 47, Plant and Equipment

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0863 Facility Asset Tagging	100,000			100,000						
ST0001 Plant Generators	100,000		15,000	85,000						
ST0003 Biosolids Facility Upgrade	200,000		60,000	140,000						
ST0004 Treatment Plant Phase 2 Growth	300,000		300,000							
ST0006 Plant Supervisory Control and Data Acquisition (SCADA) System Upgrades	750,000		112,500	637,500						
ST0008 Treatment Master plan Update	325,000		325,000							
ST0009 Plant Energy Efficiency Management	1,250,000		187,500	1,062,500						
ST0013 Digester Cleaning Program	500,000		75,000	425,000						
Total budget for Plant and Equipment	3,525,000		1,075,000	2,450,000						

Table 48, Wastewater Collection

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0172 Development Wastewater Servicing Strategy Updates	50,000		28,800	21,200						
PN0177 Sanitary Hydraulic Modelling Update and Risk Analysis	300,000		300,000							
PN0197 Maintenance Hole Condition Assessment Program	200,000		50,000	150,000						
PN0199 Sewer Investigation	550,000		110,000	440,000						

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0200 Pumping Stations and Forcemain Improvements	375,000		75,000	300,000						
PN0203 Siphon Improvements	586,000		293,000	293,000						
PN0204 Inflow and Infiltration Reduction	200,000		100,000	100,000						
PN0210 Sewer Reline and Repair Program	1,000,000		200,000	800,000						
PN0606 Lateral Reline and Repair Program	100,000			100,000						
PN0769 Area Asset Capacity Enhancements	775,000		150,400	624,600						
PN0772 Infrastructure Improvements	775,000		155,000	620,000						
PN0831 Forcemain and Pump Station Draw-Down Testing	100,000			100,000						
PN0852 Sewer Emergency Repairs	300,000			300,000						
PN0866 Gordon Street Sanitary Sewer Oversizing	100,000		100,000							
SC0023 Decommission Gordon Sewage Pumping Station (WWF1)	500,000		250,000	250,000						
SC0030 Trunk Sewer Investigation	500,000		250,000	250,000						
SC0035 Flow Monitoring	200,000		100,000	100,000						
From Transportation Systems	2,683,400		549,500	2,133,900						
From Water Services	285,000			285,000						
Total budget for Wastewater Collection	9,579,400		2,711,700	6,867,700						

Table 49, Total budget for Wastewater Services

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Wastewater Services	13,104,400		3,786,700	9,317,700						

Wastewater Services 10-year budget forecast

Table 50, Plant and Equipment

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
ST0021 2024 Biosolids Facility Upgrade						13,229,000	13,229,000
ST0015 Building Repairs and Upgrades		1,000,000	500,000	500,000		1,500,000	3,500,000
ST0003 Biosolids Facility Upgrade	200,000	13,500,000		358,000		12,000,000	26,058,000
ST0013 Digester Cleaning Program	500,000		500,000		500,000	1,000,000	2,500,000
ST0014 Digester Structural Repair and Gas Proofing		4,000,000		500,000		1,500,000	6,000,000
ST0018 Equipment Replacement and Upgrades		750,000		750,000		1,500,000	3,000,000
PN0863 Facility Asset Tagging	100,000						100,000
ST0009 Plant Energy Efficiency Management	1,250,000	1,250,000	2,000,000		250,000	500,000	5,250,000
ST0001 Plant Generators	100,000		100,000		100,000	200,000	500,000
ST0006 Plant Supervisory Control and Data Acquisition (SCADA) System Upgrades	750,000	750,000	500,000	500,000		102,000	2,602,000
ST0008 Treatment Master plan Update	325,000				500,000	500,000	1,325,000
ST0019 Treatment Plant Expansion To 85 mega litres per day (mld)						38,000,000	38,000,000
ST0004 Treatment Plant Phase 2 Growth	300,000	29,000,000					29,300,000
ST0005 Treatment Plant Process Upgrades			3,000,000	2,000,000	4,000,000	800,000	9,800,000
ST0002 Treatment Plant Upgrades and Studies			200,000	200,000	200,000	1,000,000	1,600,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
ST0024 Wastewater Facility Inventory and Condition Assessment					250,000	250,000	500,000
FT0004 Wastewater Vehicle and Equipment Replacement		310,000	316,000	323,000	329,000	1,747,000	3,025,000
Total 10-year budget forecast for Plant and Equipment	3,525,000	50,560,000	7,116,000	5,131,000	6,129,000	73,828,000	146,289,000

Table 51, Wastewater Collection

Project number and name	2019	2020	2021	2022	2023	2024-2028	Total
PN0769 Area Asset Capacity Enhancements	775,000	775,000	775,000	775,000	775,000	3,875,000	7,750,000
PN0840 Block Plan Area and Glenholme Drive Area - 15						466,000	466,000
PN0841 Block Plan Area and Glenholme Drive Area - 45						2,461,000	2,461,000
PN0839 Block Plan Area and Glenholme Drive Area - 56						291,000	291,000
PN0842 Block Plan Area and Glenholme Drive Area - 93						483,000	483,000
PN0859 Clair-Maltby Pumping Stations						4,000,000	4,000,000
SC0023 Decommission Gordon Sewage Pumping Station (WWF1)	500,000						500,000
PN0172 Development Wastewater Servicing Strategy Updates	50,000						50,000
SC0029 Development Wastewater Servicing Studies		100,000		100,000		300,000	500,000
PN0825 East Pumping Station						137,000	137,000
SC0035 Flow Monitoring	200,000	200,000	200,000	200,000	200,000	400,000	1,400,000
PN0831 Forcemain and Pump Station Draw-Down Testing	100,000	100,000					200,000
PN0866 Gordon Street Sanitary Sewer Oversizing	100,000		1,143,000				1,243,000
PN0204 Inflow and Infiltration Reduction	200,000	200,000	200,000	200,000	200,000	400,000	1,400,000
PN0772 Infrastructure Improvements	775,000	775,000	775,000	775,000	775,000	3,875,000	7,750,000
PN0854 Initial Condition Assessment of Siphons		100,000	50,000	50,000	50,000	50,000	300,000

Project number and name	2019	2020	2021	2022	2023	2024-2028	Total
PN0606 Lateral Reline and Repair Program	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
PN0197 Maintenance Hole Condition Assessment Program	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
SC0021 New Force mains (WWI6)		150,000		150,000		450,000	750,000
SC0020 New Gravity Sewers (WWI5)		250,000		250,000		750,000	1,250,000
PN0107 Parallel Pipe East of Hanlon to Wastewater Treatment Plant (Ww-I-1A)			123,000			250,000	373,000
PN0200 Pumping Stations and Force main Improvements	375,000	375,000	375,000	375,000	375,000	1,875,000	3,750,000
PN0208 Queen Street-Derry Street / Eramosa Road		200,000					200,000
PN0177 Sanitary Hydraulic Modelling Update and Risk Analysis	300,000					300,000	600,000
PN0852 Sewer Emergency Repairs	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
PN0199 Sewer Investigation	550,000	550,000	500,000	200,000	200,000	1,000,000	3,000,000
PN0210 Sewer Reline and Repair Program	1,000,000	1,300,000	1,600,000	1,600,000	1,600,000	8,000,000	15,100,000
PN0203 Siphon Improvements	586,000			586,000	586,000	2,930,000	4,688,000
PN0826 South Pumping Station						38,000	38,000
SC0030 Trunk Sewer Investigation	500,000	500,000	500,000	500,000	500,000	1,000,000	3,500,000
From Transportation Systems	2,683,400	5,826,500	15,744,000	8,836,000	7,162,300	55,441,000	95,693,200
From Water Services	285,000	112,000		3,125,000		759,000	4,281,000
To Stormwater Management			(1,000)			(800)	(1,800)
To Transportation Systems			(42,000)			(41,700)	(83,700)
To Water Services			(28,000)			(28,000)	(56,000)
Total 10-year budget forecast for Wastewater Collection	9,579,400	12,113,500	22,514,000	18,322,000	13,023,300	92,460,500	168,012,700

Table 52, Total 10-year budget forecast for Wastewater Services

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Wastewater Services	13,104,400	62,673,500	29,630,000	23,453,000	19,152,300	166,288,500	314,301,700

Water Services

2019 Capital investment: \$27,445,000

Operating budget impact from 2019 projects: \$334,000

Description

- The primary goal of the capital program is to ensure adequate water supply and treatment for all customers. Ensuring a reliable and safe water system is critical to existing residents and businesses as well as providing opportunities for growth and development. Core areas of the program include: supply, treatment, protection and, water efficiency.
- A focus on maintaining and building infrastructure to facilitate the servicing needs of community growth, renewal of critical supply infrastructure to prevent catastrophic failure, limit staff response time to unplanned maintenance and sustain current service levels for customers.
- The capital program also focuses on optimizing current infrastructure and resources by minimizing water loss through leaks, elimination of inefficient fixtures/systems and demand management in times of drought and water scarcity.
- Engineering and Capital Infrastructure Services is responsible for the planning, as well as, design and construction of the water distribution network.

Performance observations

Figure 31 below includes assets that provide the City's drinking water services including pipes, wells, treatment facilities, and elevated tanks. The current water capital forecast is forecasted to result in an overall improvement of performance between 2019 and 2043. This will likely result in decreased watermain breaks, service disruptions and increased facility reliability.

Significant investment will be required in water facilities between 2032 and 2040, and current funding levels are sufficient.

Figure 31, 2019 to 2043 asset performance for Water Services

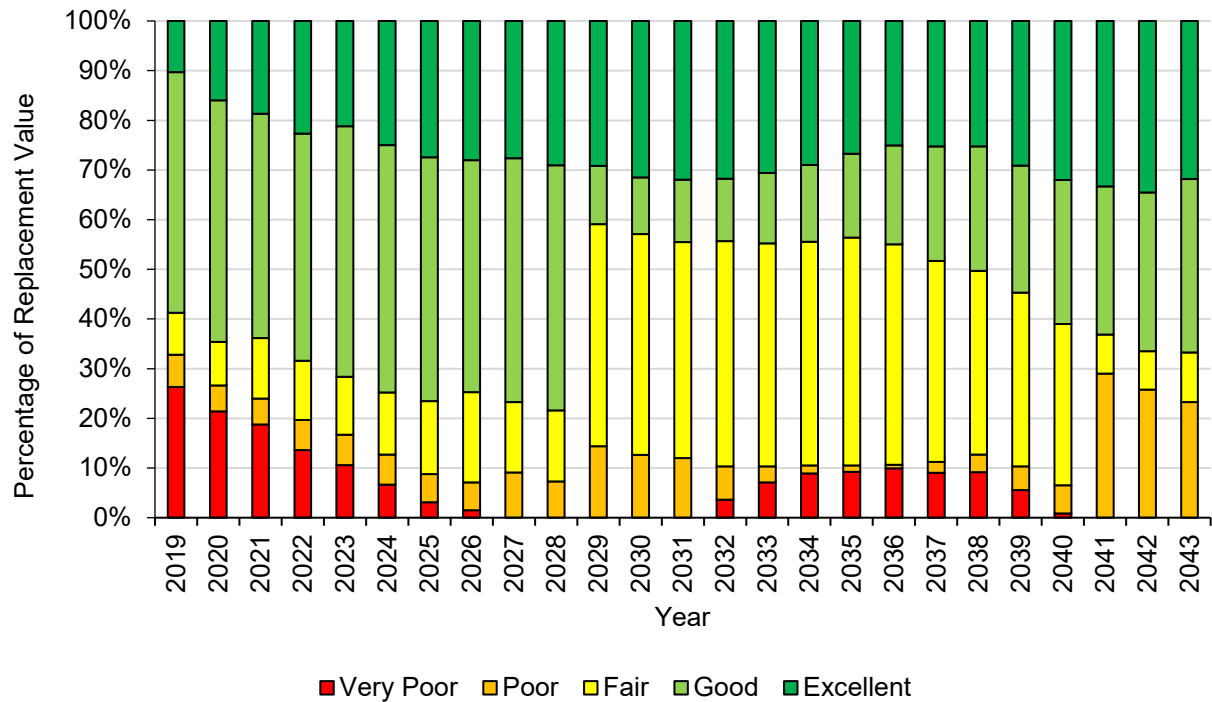


Figure 32, 2019 capital expenditure type

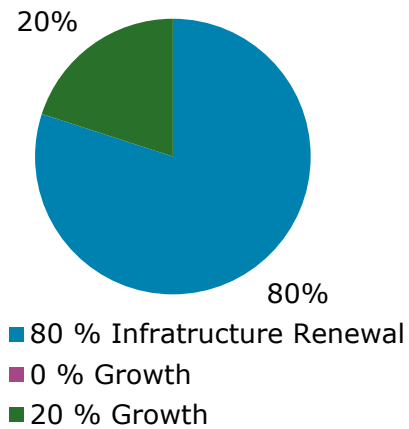
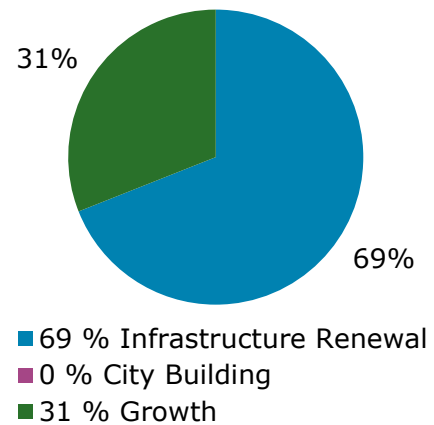


Figure 33, 2020 to 2028 capital expenditure type



Benefits and associated risks

- By being proactive in adding additional supply and renewing our existing systems, Water Services is focused on ensuring a safe and reliable source of water for existing water customers and to meet the demands of growth.
- Failure to address these needs may lead to interruptions in service delivery, reduction in water quality, additional maintenance costs, insufficient servicing capacity to facilitate new community growth and potential regulatory non-compliance with the Safe Drinking Water Act.
- By being proactive in minimizing risks and maintaining levels of service through renewal, capacity enhancements, and improving security of supply to the water distribution network, Engineering and Capital Infrastructure Services is focused on ensuring a safe and reliable source of water for the community to meet present and future demands.
- Failure to address these needs may lead to interruptions in service delivery, reduction in water quality, additional maintenance costs, and potential regulatory non-compliance with the Safe Drinking Water Act.

2019–2028 project highlights

Please refer to the detailed 2019 capital budget and 10-year 2019–2028 detailed capital budget and forecast attached for more information.

Project detail and information sheets can be found on guelph.ca/budget

- Update to the 2014 Water Supply Master Plan and 2009 Water Linear Servicing Strategy to identify preferred alternatives in developing new water supply and conveyance infrastructure to support the needs of community growth.
- New Water Supply exploration studies to support growth at Logan and Guelph South test wells.
- Phase 1 and 2 of design and planning for major renewal at FM Woods Site infrastructure, including rehabilitation of historical building to allow for transition of staff working space while critical water supply process upgrades occur.
- Planning for long-term renewal of Aqueduct which is critical to the City's ability to provide drinking water and sustain current service levels.
- Design and planning of the Clythe Well Water Treatment plant to provide high quality water to residents on the East side of the City.
- Completion of critical upgrades to the Paisley and University Well Stations to address risks noted during the DWQMS Risk Assessment.
- Significant linear replacement of critical aged infrastructure, integrated with Transportation projects.
- Water-only linear infrastructure upgrades to enhance local fire flows.
- Downtown projects to provide servicing for redevelopment of Baker District planned for 2021 to 2028.

Operating impacts

Forecasted impacts from 2019 recommended capital spending will be \$334,000

- Clythe Well Water Treatment: \$334,000 for operations and maintenance.

Estimated impacts from 2020–2028 forecasted capital spending will be \$2,000,000 to \$2,500,000 in total.

Water Services detailed budget

Table 53, Plant and Equipment

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0693 FM Woods Station Upgrade	5,366,000			5,366,000						
PN0698 Verney Tower Feedermain and Valve Chamber Replacements	300,000			300,000						
PN0829 Plant Security and Automation	524,000			524,000						
PN0830 Aqueduct Upgrades	180,000			180,000						
PN0864 Water Inventory, Risk Assessment, Levels of Service and Condition Assessment	300,000			300,000						
WT0002 Water New Supply	3,837,000		3,837,000							
WT0007 Facility Upgrades and Studies	6,600,000			6,600,000						
WT0008 Non Revenue Supply	341,000			341,000						
WT0015 Robertson Booster Upgrades	250,000		125,000	125,000						
WT0026 Zone 2E Elevated Tank	250,000		250,000							
WT0032 Quality Upgrades	200,000		130,000	70,000						
WW0106 Conservation and Efficiency	437,000		437,000							
Total budget for Plant and Equipment	18,585,000		4,779,000	13,806,000						

Table 54, Water Distribution

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
PN0179 Hydraulic Modelling Update and Risk Analysis	200,000		200,000							
PN0224 Eramosa Road- Hyland to Speedvale Avenue East	1,418,000			1,418,000						
PN0225 Eramosa Road- Orchard Crescent to Victoria Road North	43,000			19,564		23,436	23,436			
PN0232 Oak Street- Rickson Avenue to Yewholme Drive	1,233,000			1,233,000						
PN0236 Speedvale- Elmira Road to Imperial Road	154,000			63,917		90,083	90,083			
PN0695 Meter Maintenance	1,606,000			1,606,000						
PN0696 Valve Maintenance	200,000			200,000						
PN0697 Watermain Maintenance	485,000			485,000						
PN0748 Eramosa- Metcalfe to Glenhill	730,000			630,000		100,000	100,000			
PN0776 Asset Replacement	300,000		60,000	240,000						
PN0818 Pipe Advanced Condition Assessment	150,000			150,000						
PN0827 Pipe Cathodic Protection Pilot Program	450,000			450,000						
PN0828 Pipe Opportunistic Sampling of Polyvinyl Chloride (PVC) Pipe	30,000			30,000						
From Transportation Systems	2,393,000		465,700	1,927,300						
To Stormwater Management	(33,500)			(33,500)						
To Wastewater Services	(285,000)			(285,000)						
To Transportation Systems	(213,500)						(213,500)			

Project number and name	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Water Distribution	8,860,000		725,700	8,134,300		213,500				

Table 55, Total budget for Water Services

	2019	Grants and subsidies	Development charges	Rate funding	Other	Total tax funded	Infrastructure renewal	Growth	City building	Contaminated sites
Total budget for Water Services	27,445,000		5,504,700	21,940,300		213,500				

Water Services 10-year budget forecast

Table 56, Plant and Equipment

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0830 Aqueduct Upgrades	180,000	60,000	240,000	2,400,000	12,000,000	24,600,000	39,480,000
PN0860 Clair-Maltby Elevated Water Tower and Transmission Connection						15,000,000	15,000,000
WW0106 Conservation and Efficiency	437,000	432,000	1,080,000	658,000	432,000	3,010,000	6,049,000
WT0025 East Side Booster Pumping Station (BPS) and Reservoir				500,000	500,000	13,025,000	14,025,000
PN0693 FM Woods Station Upgrade	5,366,000	23,501,000	796,000	161,000	193,000		30,017,000
WT0007 Facility Upgrades and Studies	6,600,000	3,416,000	3,869,000	7,919,000	3,304,000	13,725,000	38,833,000
WT0009 Groundwater Protection		1,040,000	900,000	760,000	680,000	3,500,000	6,880,000
WT0008 Non Revenue Supply	341,000	347,000	352,000	358,000	358,000	1,839,000	3,595,000
PN0829 Plant Security and Automation	524,000	714,000	684,000	718,000	743,000	2,734,000	6,117,000
WT0032 Quality Upgrades	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
WT0015 Robertson Booster Upgrades	250,000			7,150,000			7,400,000
WT0023 Servicing Studies		100,000		100,000		300,000	500,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0698 Verney Tower Feedermain and Valve Chamber Replacements	300,000	300,000					600,000
PN0864 Water Inventory, Risk Assessment, Levels of Service and Condition Assessment	300,000					300,000	600,000
WT0002 Water New Supply	3,837,000	6,610,000	2,041,000	2,523,000	2,523,000	11,687,000	29,221,000
FT0003 Water Vehicle and Equipment Replacement		405,000	413,000	421,000	430,000	2,281,000	3,950,000
WT0026 Zone 2E Elevated Tank	250,000	3,105,000	10,000,000				13,355,000
Total 10-year budget forecast for Plant and Equipment	18,585,000	40,230,000	20,575,000	23,868,000	21,363,000	93,001,000	217,622,000

Table 57, Water Distribution

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0776 Asset Replacement	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
PN0774 Asset Replacement - Allowance (W-I-19)					100,000	500,000	600,000
PN0213 Birch Street- Karen Avenue To Yewholme Drive						438,000	438,000
PN0837 Block Plan Area and Glenholme Drive Area -103						54,000	54,000
PN0214 Borden Street- Dean Avenue To University Avenue West						270,000	270,000
PN0215 Cassino Avenue- Victoria Road North To Palermo Crescent North						384,000	384,000
PN0216 Cedar Street- Water Street To Maple Street						1,138,000	1,138,000
PN0217 Colborn Street- Stone Road East To Monticello Crescent						62,000	62,000
PN0218 College Avenue West- Dovercliffe Road To Janefield Avenue (Pn 67 May Cut Through Road In 2019)						228,000	228,000
PN0219 College Street West-Scott Drive / Edinburgh Road South		814,000					814,000
PN0220 Crawford Street- Dean Avenue To University Avenue West						30,000	30,000
PN0251 Development Oversizing (W-I-25)		100,000		100,000		300,000	500,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0241 East Side Transmission Line (Wi-26)						1,900,000	1,900,000
PN0222 Edinburgh-Woodlawn / Lonsdale		111,000		993,000			1,104,000
PN0223 Elmhurst Crescent- Applewood Crescent To Applewood Crescent						537,000	537,000
PN0224 Eramosa Road- Hyland to Speedvale Avenue East	1,418,000						1,418,000
PN0225 Eramosa Road- Orchard Crescent to Victoria Road North	43,000		390,000				433,000
PN0748 Eramosa- Metcalfe to Glenhill	730,000						730,000
PN0227 Evergreen Drive- Stone Road East To Monticello Crescent						41,000	41,000
PN0228 Hickory Street- Rickson Avenue To Oak Street						77,000	77,000
PN0179 Hydraulic Modelling Update and Risk Analysis	200,000					500,000	700,000
PN0229 Karen Avenue- Oak Street To Yewholme Drive						61,000	61,000
PN0230 Mayfield Avenue- Colborn Street To Monticello Crescent						37,000	37,000
PN0695 Meter Maintenance	1,606,000	1,535,000	1,462,000	1,613,000	375,000	1,500,000	8,091,000
PN0231 Monticello Crescent- Gordon Street To Colborn Street						66,000	66,000
PN0232 Oak Street- Rickson Avenue to Yewholme Drive	1,233,000						1,233,000
PN0735 Old University/Area 8 Watermain Replacement				5,500,000			5,500,000
PN0234 Palermo Crescent- Cassino Avenue To Cassino Avenue						46,000	46,000
PN0233 Pasley Residential Transmission - Phase 2-Hanlon / Paisley		3,600,000					3,600,000
PN0818 Pipe Advanced Condition Assessment	150,000	150,000	150,000	150,000	150,000	750,000	1,500,000
PN0827 Pipe Cathodic Protection Pilot Program	450,000	250,000	450,000				1,150,000
PN0828 Pipe Opportunistic Sampling of Polyvinyl Chloride (PVC) Pipe	30,000	30,000	40,000				100,000
PN0247 Scout Camp Aqueduct Tie-In (W-I-2)						2,500,000	2,500,000
PN0236 Speedvale- Elmira Road to Imperial Road	154,000		1,388,000				1,542,000

Project number and name	2019	2020	2021	2022	2023	2024–2028	Total
PN0238 University Avenue West- College Avenue West To Borden Street		997,000					997,000
PN0696 Valve Maintenance	200,000	200,000	200,000	200,000	130,000	650,000	1,580,000
WD0020 Water Carter Aqueduct (Wi-13)						3,478,000	3,478,000
PN0697 Watermain Maintenance	485,000	485,000	485,000	485,000	495,000	2,434,000	4,869,000
PN0248 Watson- Speedvale / Highway 25 (Wi-15)						4,830,000	4,830,000
PN0239 Waverly- Vermont / Speedvale Avenue East		123,000		1,100,000			1,223,000
PN0252 Zone 1/2 Boundary North Of Speed River (W-I-7)						700,000	700,000
From Wastewater Services			28,000			28,000	56,000
From Transportation Systems	2,393,000	4,902,100	11,530,500	6,307,600	5,879,000	58,581,500	89,593,700
To Stormwater Management	(33,500)	(23,800)	(211,500)	(287,700)		(450,000)	(1,006,500)
To Wastewater Services	(285,000)	(112,000)		(3,125,000)		(759,000)	(4,281,000)
To Transportation Systems	(213,500)	(549,400)	(1,024,500)	(1,484,700)		(2,642,900)	(5,915,000)
Total 10-year budget forecast for Water Distribution	8,860,000	12,911,900	15,187,500	11,851,200	7,429,000	79,768,600	136,008,200

Table 58, Total 10-year budget forecast for Water Services

	2019	2020	2021	2022	2023	2024–2028	Total
Total 10-year budget forecast for Water Services	27,445,000	53,141,900	35,762,500	35,719,200	28,792,000	172,769,600	353,630,200