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## **Approved 2020–2029 capital budget and forecast**

### **A comprehensive capital budget and forecast**

A comprehensive ten-year capital budget and forecast, together with a strategy to ensure complete and sustainable funding, provides Council with the necessary information to make strategic decisions about the City's required infrastructure. The City is focused on making investment decisions that align with corporate objectives included in the Corporate Strategic 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 to be flexible and agile to respond to an environment that is impacted by weather, legislative changes, social and community considerations and requirements from other levels of government. A long range strategy of reserve and reserve fund development and growth is integral in achieving a plan that can be responsive to changing needs. Consistent, reliable sources of funding from the tax and non-tax operating transfers and Federal and Provincial Gas Tax annual transfers are also critical to this plan.

### **One capital budget**

The City's capital budget is a fully integrated capital plan designed to layout the long-term investment needs of all City services. The capital budget is approved separately from the respective operating budget that funds the various capital reserve funds as this is the annual plan for capital expenditure and required funding. The operating budget is the City's estimated annual funding requirements to achieve long-term financial sustainability. The 2020 capital budget of \$151,590,100 and 2021 to 2029 capital forecast of \$1,732,967,110 are built based on a complex funding model of reserve funds and external funding sources that represents the further integration and development of long-term financial planning within the City.

**Table 1, 2020 to 2029 Capital Budget and Forecast, by Program of Work (000's)**

Program	2020	2021	2022	2023	2024	2025-2029	Total
Contaminated Sites	3,750	3,550	3,895	3,645	4,145	11,360	30,345
Corporate Projects	17,188	19,877	11,533	6,943	55,031	28,042	138,614
Emergency Services	5,399	5,675	8,430	6,908	7,275	33,728	67,413
Open Spaces, Recreation, Culture and Library	12,005	145,014	9,602	16,855	15,958	113,421	312,854
Solid Waste Services	2,213	12,863	6,127	4,675	7,409	23,102	56,390
Stormwater Management	7,666	9,424	7,200	6,652	6,293	44,796	82,031
Transportation Systems	29,210	35,807	139,921	48,251	38,683	296,723	588,596
Wastewater Services	24,400	62,769	20,913	13,999	23,755	116,724	262,559
Water Services	49,760	32,132	45,520	30,684	37,280	150,380	345,756
<b>Total Capital PoW</b>	<b>151,590</b>	<b>327,110</b>	<b>253,141</b>	<b>138,611</b>	<b>195,830</b>	<b>818,275</b>	<b>1,884,557</b>

## **Balancing infrastructure renewal with growth and city building**

A common theme that is encountered while developing the capital budget and forecast is the constant challenge to maximize and optimize the 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 to invest in our current infrastructure. This is evidenced by the investment and creation of an Asset Management division and the continued focus on increasing operating transfers to the tax-supported Infrastructure Renewal Reserve Fund and the non-tax capital reserve funds.

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 tax supported funding. As part of the 2020 capital budget, a recommendation for increasing the annual capital transfer to the City Building Reserve fund of \$5,325,000 or 2.19 per cent over two years starting in 2021 was approved in the tax-supported operating budget.

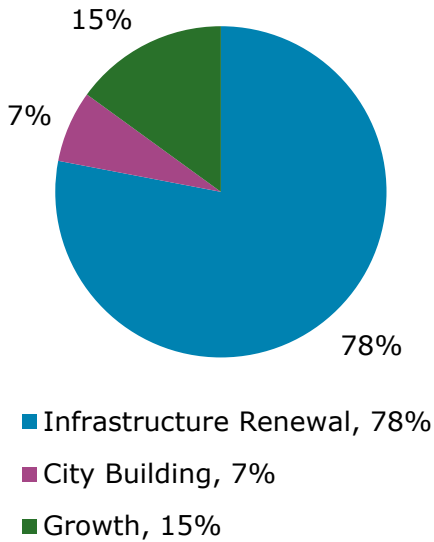
## **Asset management principles guide budget decisions**

As the City continues to mature its asset management practices, improvements to evidence-based investment decisions and changing priorities are incorporated throughout the organization. This is creating the need to be flexible and dynamic as new, iterative data is challenging the old static financial modeling.

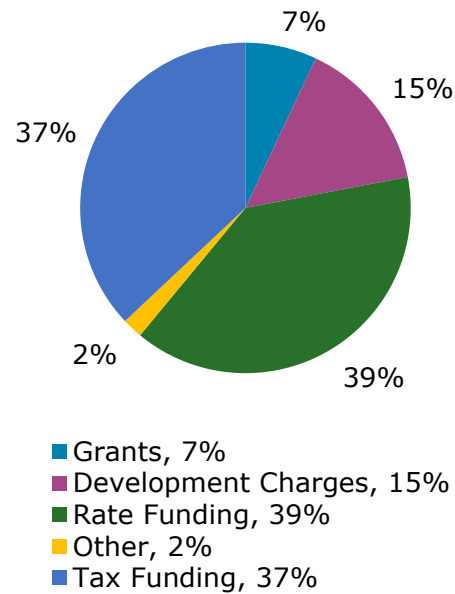
Once again, the current capital budget and forecast is based on asset management principles. Council has appropriately recognized the importance of this function in the organization and this practice is further integrated into budget development.

## Approved capital investment

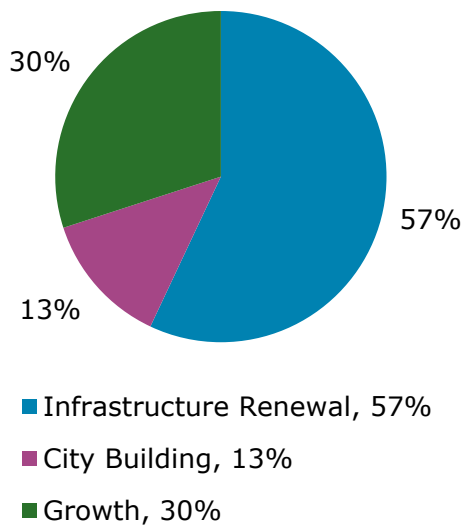
**Figure 1, 2020 capital expenditure type**



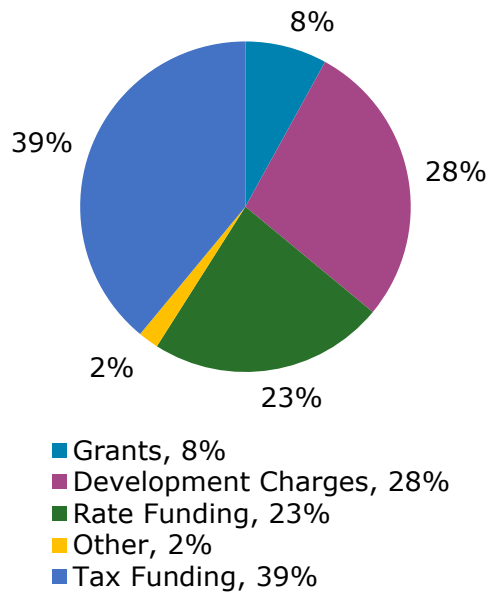
**Figure 2, 2020 capital funding sources**



**Figure 3, 2021-2029 capital expenditure type**



**Figure 4, 2021-2029 capital funding sources**



The approved 2020 capital budget and 2021-2029 forecast represents the administration's response to the challenge of balancing a wide and complex range of short-term and long-term needs within existing funding and resource capacity.

The total 2020 budget, including all sources of funding, is heavily focused on infrastructure renewal, with 78 per cent of the requested budget going towards projects that will replace, renew or reconstruct existing City assets. These projects ensure that the City is able to deliver services while maintaining health and safety standards and meeting legislative requirements. (Figure 1)

The 15 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 seven 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.

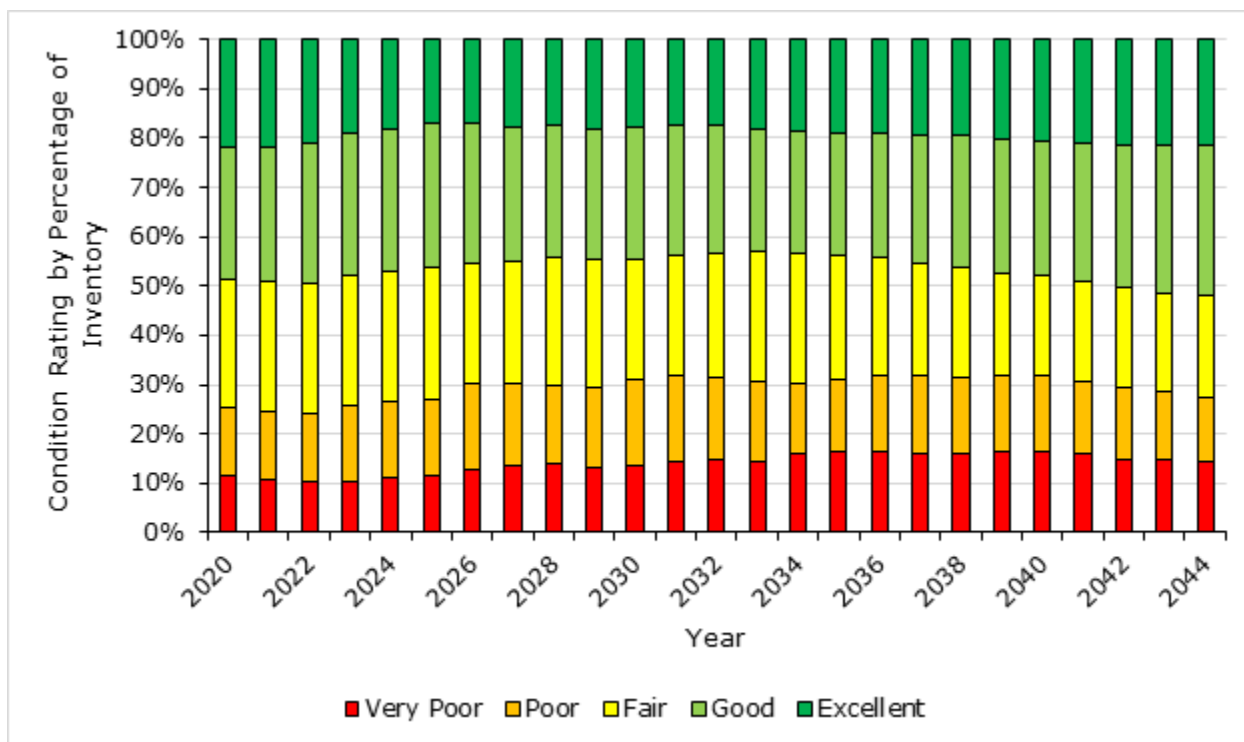
## **Service level impacts**

Progress in the City's asset management program has enabled the city 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 5 provides the forecasted performance based on the current capital investment between 2020 and 2044. The graph shows that based on the current funding strategy, levels of service can be maintained and eventually improved over the long term.

Figure 5 includes all of the City's assets. It shows that between now and 2032 the portion of assets in Very Poor condition increases and those 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 5, 2020 to 2044 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 5. 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 positive 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 based on the following revenue assumptions that build towards sustainable levels of funding for infrastructure renewal, city building and growth related investment:

- The tax supported transfer to the Infrastructure Renewal Reserve Fund increases annually to reflect the impacts of the construction price index, the capital impact of prior year approval of city building and growth expenditures and the need to close the existing infrastructure funding gap.

- The tax supported transfer to the City Building Reserve Fund following the recommendations included in staff report CS-2019-79 Capital Budget and Forecast, as amended by Council on November 13, 2019.
- Water, Wastewater and Stormwater capital transfers increase annually as building towards sustainability continues.
- Federal Gas Tax funding consistent with the announced planned increases.
- Provincial Gas Tax funding remains at current 2019 levels.
- Development charge revenues will be collected at an average rate of 85% of the residential forecast, and 45 per cent of the non-residential forecast.
- New parking revenues in accordance with the Council-approved financial model.
- Investing in Canada Infrastructure Plan: Public Transit Stream applications currently with the Federal Ministry of Infrastructure.
- Development and implementation of a new Community Benefit Charge which provides similar levels of funding to existing DC rates.

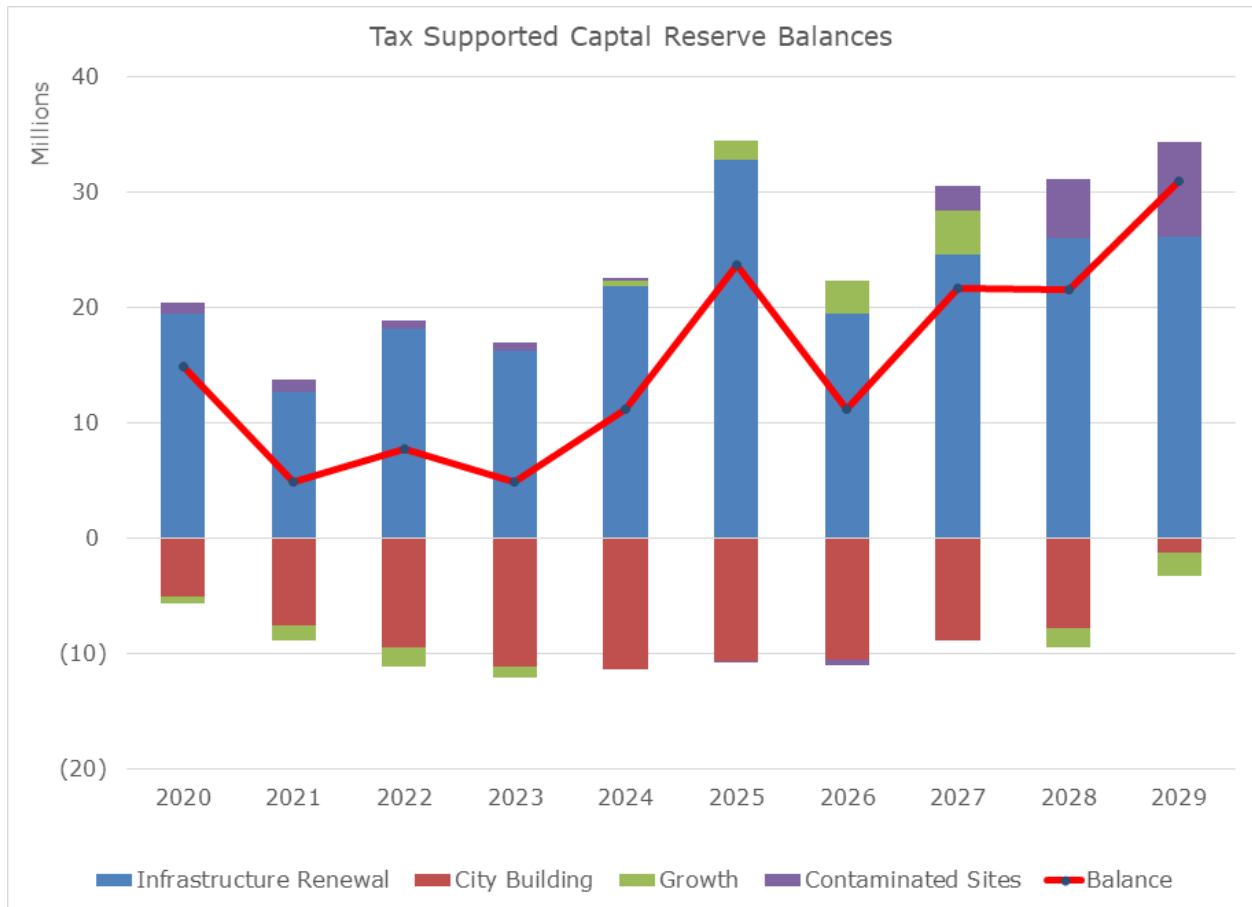
### **Capital Reserve Fund long-range projections**

The following charts 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 6 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. The forecast shows (through the red line in Figure 6) total reserve fund balances growing modestly over the 10 years. Bars below the zero line represented reserve funds in a negative balance, the City manages like reserve funds as a whole through inter-reserve fund borrowing.

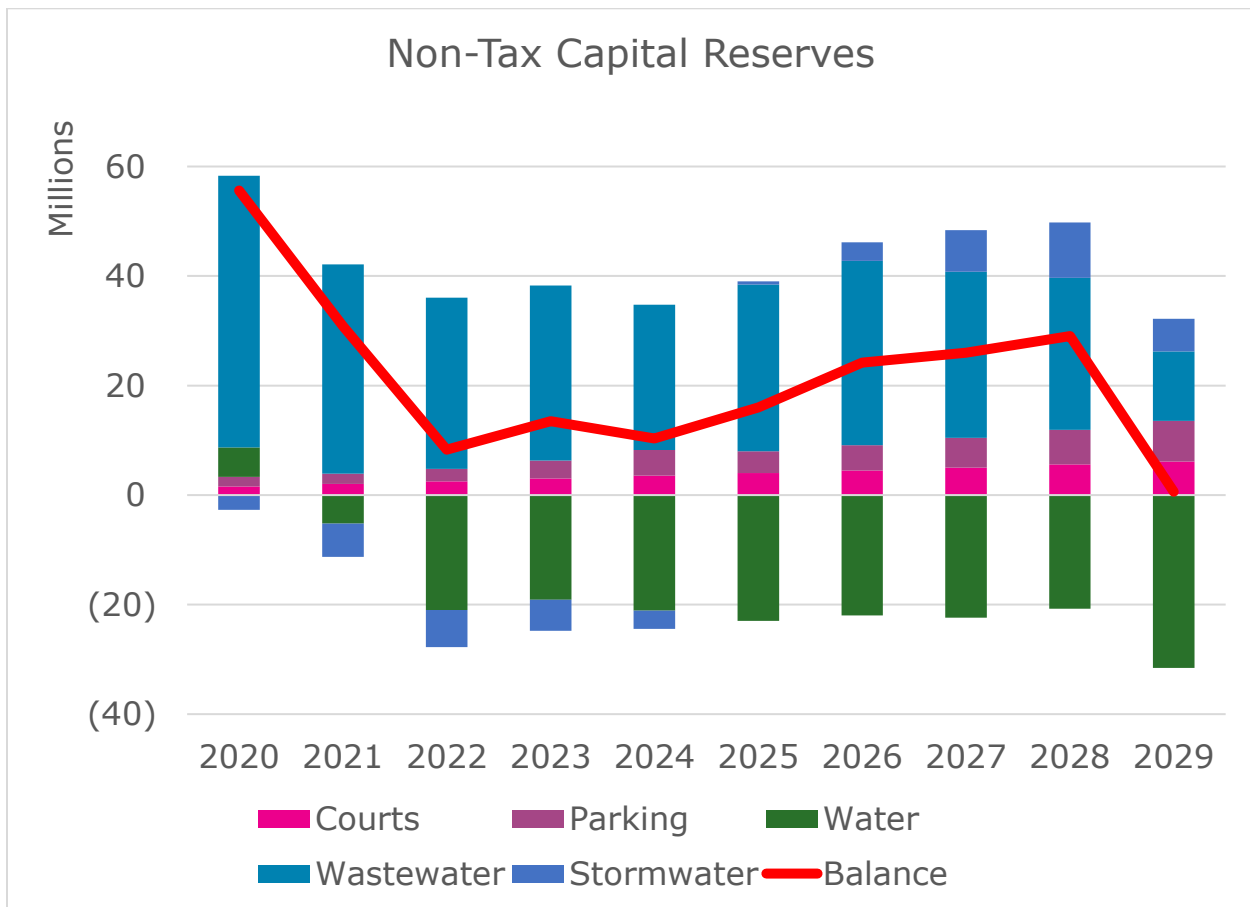
These projections rely on the funding strategies identified in the section above, any change in these strategies will have significant long-term impacts to the sustainability of the City's reserve fund strategy.

**Figure 6, forecasted tax funded Capital Reserve Fund balances**



The non-tax funded capital reserve funds in Figure 7 have the benefit of long-term sustainable funding streams and are sufficiently able to fund the forecasted capital needs. Included in the chart this year is the Parking Capital Reserve Fund based on the transition of Parking Services to a blended non-tax model beginning in 2020. 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 7, 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 approved new DC rates March 2, 2019. DC revenues are paid for all development within the City, either by developers, businesses and home owners or by the City in the case of exempted development, 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 projects to the actual rate of growth in order to keep DC revenues in a liquid position. Current proposed timing of long-term 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. The short-term projects identified within the 10-year forecast are manageable given current expectations.

### **Community Benefit Charge**

As part of the Provincial Government's More Homes, legislation, certain services formerly part of the DC Act will now be covered by a Community Benefit Charge. The methodology and impact of this new funding mechanism is still in development at the time of this budget approval and the impact to capital projects covered is not fully known. It is expected that some changes in the forecast will need to be made once all details are known. Staff will provide a detailed outline of impacts to Council and the public at that time. Impacted services include:

- Parks and Open Spaces
- Recreation Services
- Library Services
- Public Parking Services
- Public Health
- Provincial Offences Court Services

### **Debt strategy**

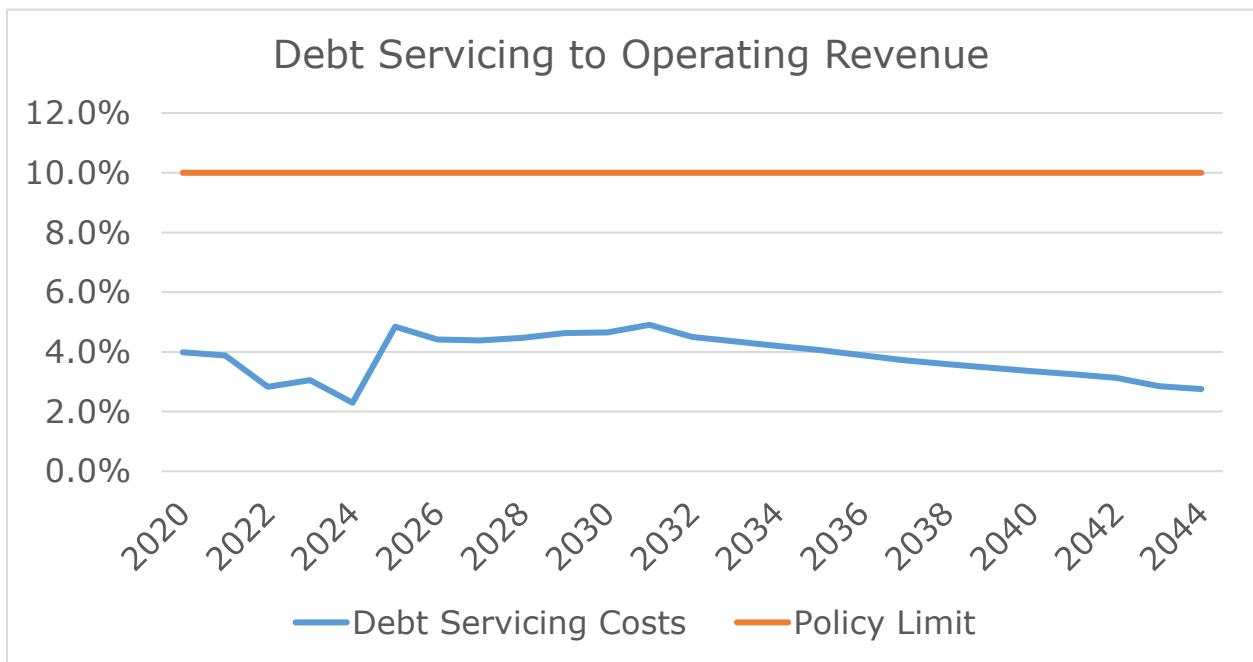
Debt is an important part of the City's strategy for investment in assets that have a long-term useful life. Debt is a way to distribute the cost of construction amongst those who use the service and minimize variation in the tax and non-tax rates for significant projects.

### **Debt Management Policy**

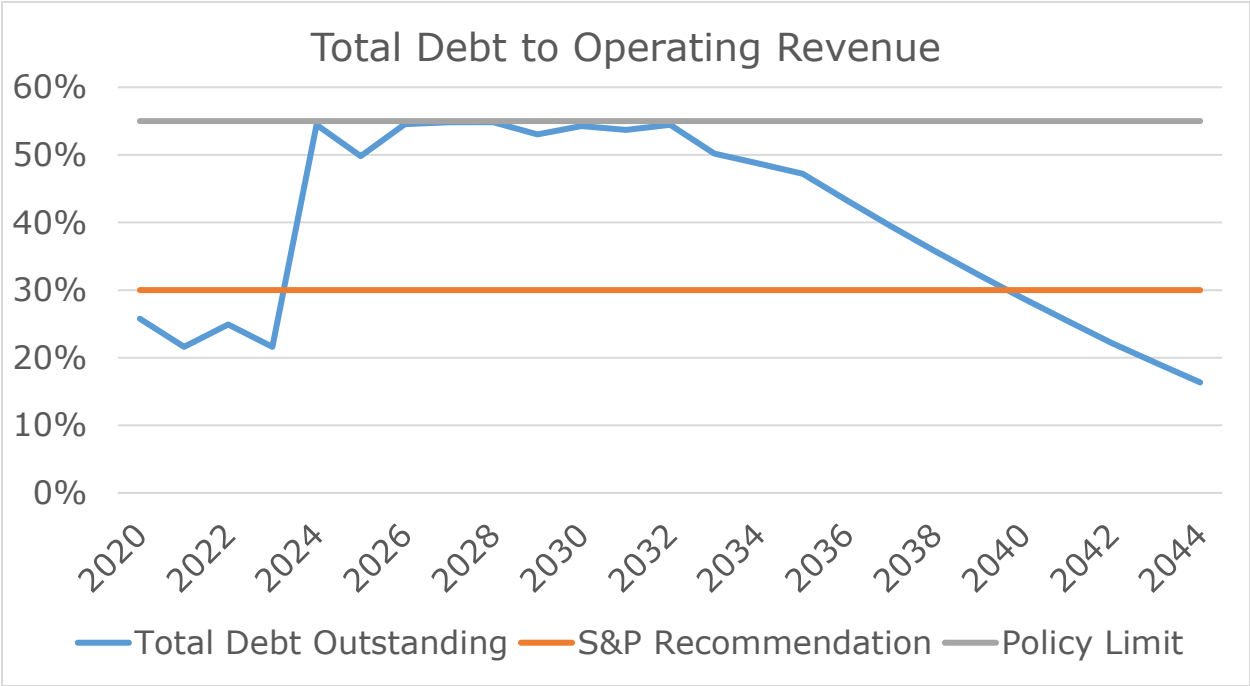
The City's Debt Management Policy dictates when it is appropriate to use debt as a funding strategy and sets the maximum allowable amount of debt obligation that the City prudently manages.

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 8 and 9 show that the City is within its debt affordability limitations but that there is risk that the external credit rating agency Standard Poor’s (S&P) will have concerns where the City’s debt holdings exceed 30 per cent of operating revenues. This risk is offset by the need to replace assets which have exceeded their life expectancy and risk of failing to deliver expected levels of service.

**Figure 8, Debt servicing costs as a percentage of operating revenues**



**Figure 9, Total debt outstanding as a percentage of total operating revenues**



## Current approved and forecasted debt funding ('000s)

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

**Table 2, Current approved debt obligations**

Description	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	63,117,797	14,517,985	36,321,996	113,957,778
Previously approved not issued	34,731,300	5,366,000		40,097,300
Included in 2020 Capital budget	8,319,000	10,634,000		18,953,000
Included in 2021 – 2029 forecast	179,389,000	15,000,000	83,000,000	277,389,000
<b>Total</b>	<b>285,557,097</b>	<b>45,517,985</b>	<b>119,321,996</b>	<b>450,397,078</b>

Projects approved for 2020 that require debt financing are:

- FM Woods Station upgrade \$10,634,000
- Dunlop Street site preparation \$5,500,000
- Transit Operations Facility \$2,819,043

For complete 10 year list of projects requiring debt see Appendix 1

### Operating impacts

City building and growth projects directly impact department operating budgets in order to support or deliver the enhanced or expanded service. Approved 2020 projects that will have a direct impact on future operating budgets have been summarized in Table 3 as well as detailed in their respective Program of Work summaries. These items will be included in the 2021 base operating budget and will not appear as new budget requests before Council.



**Table 3, 2020 to 2022 Capital budget operating impacts**

Program of work	Operating impact from 2020 approved capital budget	Operating impact from 2021 forecasted capital budget	Operating impact from 2022 forecasted capital budget
Contaminated Sites			
Corporate Projects	38,620	173,300	255,100
Emergency Services		1,900	3,000,000
Open Spaces, Recreation, Culture and Library	26,270	6,528,575	10,000
Solid Waste		387,700	100,000
Stormwater Management	13,500		
Transportation Systems	376,320	3,857,700	803,900
Wastewater Services			
Water Services			
<b>Total</b>	<b>454,710</b>	<b>10,946,175</b>	<b>4,169,000</b>

Table 3 highlights upcoming Operating Impacts from Capital, significant projects include the South End Community Centre \$3.0 million, New Main Library \$3.5 million, Transit service expansion/growth and new Fire Services aerial/pumper truck.

**Table 4, Program of work summary and 2021 operating impacts**

Program of work	2020 budget	2021 operating impact	Highlights
Contaminated Sites	3,750,000	0	
Corporate Projects	17,188,400	38,620	Software licencing
Emergency Services	5,398,750	0	
Open Spaces, Recreation, Culture and Library	12,004,500	26,270	Parks Operations – Seasonal staff and O&M
Solid Waste Services	2,213,000	0	
Stormwater Management	7,666,000	13,500	O&M
Transportation Systems	29,209,850	376,320	Operations – O&M Transit – O&M and software servicing
Wastewater Services	24,399,800	0	
Water Services	49,759,800	0	
<b>Total City</b>	<b>151,590,100</b>	<b>454,710</b>	
	<b>Total Tax Supported</b>	<b>441,210</b>	
	<b>Total Non-tax Supported</b>	<b>13,500</b>	

### Programs of Work

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

## Contaminated Sites



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2020 Capital investment: \$3,750,000

Operating budget impact from 2020 projects: \$0

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### Description

This program of work includes 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 \$27 million to maintain, mitigate, or remediate these properties based on current information.
- The focus is to proactively manage the City's contaminated site liabilities from an engineering perspective.

### 2020–2029 project highlights

- Redevelop under-utilized sites in the downtown contributing to revitalization of neighbourhoods, meeting provincial intensification targets, and driving economic development.
- Comply with Ministry of the Environment, Conservation and Parks (MECP) requirements and address environmental risks for city-owned sites.
- Continue to cleanup historical landfill sites.

Please refer to the detailed 2020–2029 capital budget and forecast for more information.

### Operating impacts

There are no operating impacts from this program.

## 10 year budget forecast

**Table 5, Contaminated Sites**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Contaminated Sites</b>							
PN0018 Fountain Street Environmental Investigation	300,000	300,000	1,700,000	2,500,000	3,500,000	7,100,000	15,400,000
PN0019 Historical Landfill Investigation	1,400,000	1,400,000	1,800,000	750,000	250,000	850,000	6,450,000
PN0020 Beverley Street Monitoring and Remediation	750,000	1,500,000	150,000	150,000	150,000	375,000	3,075,000
PN0021 Other Site Monitoring and Remediation	-	-	-	-	-	2,000,000	2,000,000
PN0679 Baker Street Remediation	850,000	50,000	50,000	50,000	50,000	150,000	1,200,000
PN0681 Environmental Data Management	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
PN0682 Snow Disposal Facility Monitoring	25,000	25,000	25,000	25,000	25,000	125,000	250,000
PN0683 Contaminated Site Operations and Management	25,000	25,000	25,000	25,000	25,000	125,000	250,000
PN0685 Municipal Street Fuel Tank Replacement and Monitoring	150,000	50,000	25,000	25,000	25,000	75,000	350,000
<b>PN0867 City Site Environmental Assessment</b>	<b>150,000</b>	<b>100,000</b>	<b>20,000</b>	<b>20,000</b>	<b>20,000</b>	<b>60,000</b>	<b>370,000</b>
<b>Total Contaminated Sites</b>	<b>3,750,000</b>	<b>3,550,000</b>	<b>3,895,000</b>	<b>3,645,000</b>	<b>4,145,000</b>	<b>11,360,000</b>	<b>30,345,000</b>

## Corporate Projects



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2020 Capital investment: \$17,188,400

Operating budget impact from 2020 projects: \$38,620

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### Description

The Corporate Projects program of work focuses on a diverse range of projects that support the City's operating departments and includes 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.

### 2020–2029 project highlights

#### Planning and Strategic Initiatives

- Advance the Baker District land acquisition and related works to have the site ready for development within the timelines with our partner Windmill Development Inc.
- Bring fibre optic cable to all City facilities over five years including traffic control, current and future transportation platforms and next generation technology platforms that will modernize the way the City interacts internally amongst ourselves and externally with the citizens. This initiative promotes innovation through new technologies while reducing operating costs.
- Continue to invest in Asset Management initiatives, including inventory data collection, condition assessment, level of service establishment and development

of operating and maintenance (O&M) best practices to continue to grow asset management practices throughout the corporation.

- Ensure project management competencies and consistency in practice across the organization so that big and small projects are managed appropriately to meet financial, timing and delivery of expected outcomes.

### **Facility Renewal and Expansion**

- Prepare the 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.
- Further work on the new public works facility slated for 2024 as part of the proposed Dunlop public facility campus.

### **Equipment and Vehicle Renewal**

- Modification of the fleet vehicle and equipment lifecycle programs, and the technology lifecycle program to meet current funding constraints. The modifications will lead to using equipment past its useful life, increasing the risk of failure and increased operating costs.
- Make a significant investment in modernizing our Computerized Maintenance Management system to enable a mobile workforce and review our human capital management system to increase efficiency through process automation. The fibre optic cable construction will enable the City to address future data needs while decreasing/eliminating dependency on internet service providers.

Please refer to the detailed 2020–2029 capital budget and forecast for more information.

### **Operating impacts**

Operating impacts from 2020 approved capital spending are \$38,620.

- Annual Information Technology licensing costs: \$27,500 for enhancements to existing systems and new applications.
- Information Technology fleet: \$6,120 for additional costs for replacing two rental vehicles with City-owned vehicles.
- Postage machine replacement: \$5,000 additional cost for annual lease agreement.

# Managing our assets through capital investment

## Performance Observations

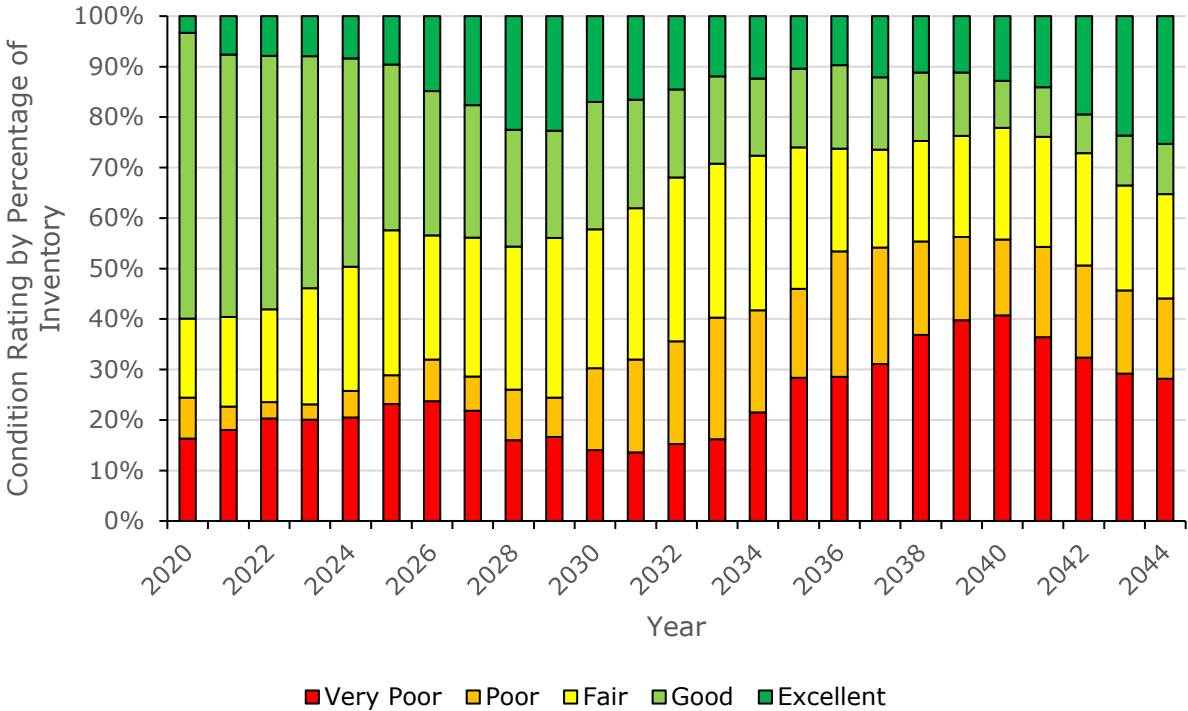
Figure 10 includes assets from Facilities Management, Fleet Services and Information Technology departments that provide the space, vehicle and equipment required for frontline services.

Between 2020 and 2031, a large proportion of the assets move from good to fair or poor performance—approximately \$80 million in replacement value. In 2031, these assets transition into the very poor performance category, at which point they will provide minimum service.

The assets are forecasted to improve in 2038 with \$28 million in assets (in replacement value) moving from very poor to good or very good.

As the condition and service level of these assets decrease, we will see an increase in issues which reduce the availability of City Hall meeting rooms and office spaces, Information Technology systems including both public and internal networks, and the ability to manage the overall operations of the organization.

**Figure 10, Corporate service asset condition forecast 2020-2044**



## 10 year budget forecast

**Table 6, Corporate projects**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Planning and Strategic Initiatives</b>							
GG0239 Development Charge Background Study	-	-	300,000	-	-	300,000	600,000
GG0254 Community Benefit Strategy	200,000	-	-	-	-	200,000	400,000
GG0255 Asset Management Capability Audit and Roadmap Development	100,000	-	-	-	-	100,000	200,000
PL0020 Environmental Initiatives	-	375,000	-	-	300,000	-	675,000
PL0021 Zoning By-Law Review	250,000	-	-	-	-	450,000	700,000
PL0024 Heritage Initiatives	-	-	-	275,000	-	275,000	550,000
PL0054 Official Plan Review 2019	375,000	375,000	375,000	275,000	-	725,000	2,125,000
PL0056 Urban Design Guidelines	-	-	250,000	-	275,000	250,000	775,000
PL0057 Community Improvement Studies	-	-	425,000	-	-	675,000	1,100,000
PL0061 Housing Initiatives	-	-	-	-	175,000	-	175,000
PL0063 Watershed Planning	550,000	-	250,000	-	-	800,000	1,600,000
PL0065 Brownfield Initiatives	-	-	-	50,000	-	-	50,000
PN0168 Geographic Information System (GIS) Data Modelling	200,000	200,000	200,000	200,000	-	-	800,000
PN0565 Maintenance and Enterprise Asset Management (EAM) Software Optimization	200,000	200,000	200,000	-	-	-	600,000
PN0814 Asset Inventories, Risk Assessments and Condition Assessments	250,000	250,000	250,000	250,000	250,000	1,250,000	2,500,000
PN0815 Corporate Asset Management Training Program	50,000	50,000	50,000	50,000	50,000	-	250,000
PN0816 Natural Capital Asset Valuation	-	-	-	-	150,000	150,000	300,000
PN0819 Corporate Project Management Improvement Initiatives	30,000	30,000	30,000	30,000	30,000	-	150,000
PN0820 Corporate Project, Program and Portfolio Management	100,000	-	750,000	-	-	-	850,000
PN0862 Corporate Project Management Support	150,000	150,000	-	-	-	-	300,000
PN2439 CMMS Implementation	2,000,000	-	-	-	-	-	2,000,000
SS0002 Hanlon Creek Business Park	365,000	350,000	350,000	-	-	-	1,065,000
SS0027 Bakers Street Phase 2	-	10,000,000	-	-	-	-	10,000,000
<b>Total Planning and Strategic Initiatives</b>	<b>4,820,000</b>	<b>11,980,000</b>	<b>3,430,000</b>	<b>1,130,000</b>	<b>1,230,000</b>	<b>5,175,000</b>	<b>27,765,000</b>



Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Facility Renewal and Expansion</b>							
CS0004 Court Services Facility Renewal	1,168,000	2,400	-	52,800	34,800	315,600	1,573,600
FM0005 Drill Hall Renewal	800,000	-	-	-	-	-	800,000
FM0006 Energy - Facility Management	-	430,000	100,000	-	-	-	530,000
GG0180 Accessibility Improvements	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
GG0234 Structural Assessments and Renewal	50,000	50,000	50,000	50,000	50,000	250,000	500,000
GG0245 Administration Facilities Renewal	1,201,000	1,247,400	1,841,600	1,324,300	884,800	6,343,600	12,842,700
GG0252 Dunlop Site Preparation	5,500,000	-	-	-	-	-	5,500,000
GG0257 Administration Equipment Replacement	35,000	-	-	-	-	35,000	70,000
OP0001 Public Works Building and Yard Replacement	-	-	2,400,000	-	49,380,000	-	51,780,000
OP0005 Energy - Operations Facilities	40,000	-	-	-	-	-	40,000
<b>Total Facility Renewal and Expansion</b>	<b>8,994,000</b>	<b>1,929,800</b>	<b>4,591,600</b>	<b>1,627,100</b>	<b>50,549,600</b>	<b>7,944,200</b>	<b>75,636,300</b>
<b>Equipment and Vehicle Renewal</b>							
CS0001 Court Services Equipment	38,400	20,000	13,300	52,000	9,000	286,100	418,800
FT0002 Vehicle and Equipment Replacement	327,000	167,700	21,800	159,000	220,800	970,000	1,866,300
FT0006 OBC Fleet Replacement	-	64,000	65,300	66,600	67,900	360,600	624,400
GG0257 Administration Equipment Replacement	-	-	-	-	-	30,000	30,000
IT0043 Mobile Replacement	120,000	71,000	39,000	140,000	75,000	465,000	910,000
IT0044 Desktop Replacement	500,000	1,192,000	385,000	835,000	71,000	2,990,000	5,973,000
IT0045 Network Replacement	282,000	363,000	195,000	222,000	199,000	1,368,000	2,629,000
IT0046 Server Replacement	150,000	150,000	298,000	306,000	332,000	1,966,000	3,202,000
IT0047 Software Replacement	275,000	173,000	301,000	279,000	144,000	2,064,000	3,236,000
IT0048 Printer Replacement	102,000	176,000	49,000	35,000	197,000	411,700	970,700
IT0049 Corporate Voice Replacement	-	398,000	5,000	3,000	78,000	605,000	1,089,000
IT0051 Meeting Room A/V Lifecycle	150,000	6,120	62,000	51,000	-	315,000	584,120
IT0052 Information Technology Enhancements	274,000	2,030,000	875,000	880,000	700,000	1,850,000	6,609,000
IT0061 Fibre Data Connection	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	6,900,000
IT0109 Geographic Information Systems (GIS) Orthophotography	6,000	6,000	7,000	7,000	8,000	46,000	80,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PG0080 Computer Ticket Writers	-	-	45,000	-	-	45,000	90,000
<b>Total Equipment and Vehicle Renewal</b>	<b>3,374,400</b>	<b>5,966,820</b>	<b>3,511,400</b>	<b>4,185,600</b>	<b>3,251,700</b>	<b>14,922,400</b>	<b>35,212,320</b>
<b>Total Corporate Projects</b>	<b>17,188,400</b>	<b>19,876,620</b>	<b>11,533,000</b>	<b>6,942,700</b>	<b>55,031,300</b>	<b>28,041,600</b>	<b>138,613,620</b>

## Emergency Services



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2020 Capital investment: \$5,398,750

Operating budget impact from 2020 projects: \$0

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### Description

This program of work includes projects for Fire, Paramedic and Police services that:

- Ensure our Emergency Service providers have the vehicles, equipment, technology and facilities required for uninterrupted and safe service delivery.
- Facilitate minor upgrades, renovations and expansions to existing facilities.
- Follow industry best practices and service-specific related legislation.

### 2020—2029 project highlights

- Renew and invest in equipment, technology and vehicles for current and growth related service delivery. This is the primary project focus of this program including replacement of fire pumpers in 2020 and 2024, and continuing fleet greening initiative for police patrol vehicles.
- Add new vehicles to fleet across all three services to accommodate growth at a cost of approximately \$4.2 million over the forecast period.
- Plan for new Fire and Paramedic facilities to accommodate growth.

Please refer to the detailed 2020-2029 capital budget and forecast for more information.

### Operating impacts

There are no operating impacts from 2020 approved capital spending.

# Managing our assets through capital investment

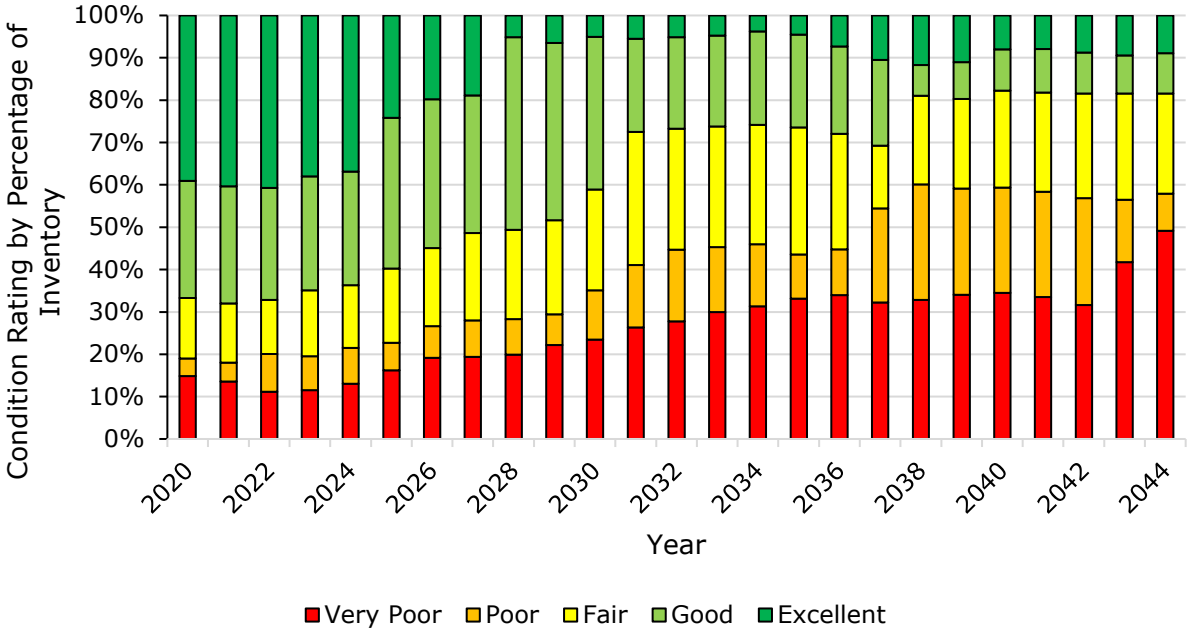
## Performance observations

Figure 11 shows the levels of service expected for emergency service assets. They are forecasted to require additional investment in future years in order to ensure the sustainability of the service over the next 25 years, with some significant increased investment required in 2040 to 2044.

From 2029 to 2040, it is projected that approximately \$20.4 million 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 2020 and 2044 with aging facilities that require replacement over that timeframe being the main driver. These facilities will be included in the phase two Facility Needs Assessment project currently underway.

**Figure 11, Emergency Services asset condition forecast 2020–2044**



## 10 year budget forecast

**Table 7, Emergency Services**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Fire Services</b>							
FS0054 Facilities Renewal	444,400	150,400	72,100	230,500	15,000	488,400	1,400,800
FS0070 Equipment Replacement	143,300	1,250,300	1,421,000	867,100	1,538,000	2,157,400	7,377,100
FS0071 Vehicles Growth	-	-	2,300,000	341,200	-	111,800	2,753,000
FS0072 Vehicle Replacement	1,800,000	163,000	-	-	2,300,000	4,975,000	9,238,000
FS0073 Master Plan	-	100,000	-	-	-	-	100,000
FS0074 Planning Study and Needs assessment	-	20,000	-	-	-	20,000	40,000
FS0077 Fire Head Quarters Replacement - New	-	-	2,276,000	-	-	-	2,276,000
FS0088 Energy - Fire Facilities	-	-	180,000	-	-	-	180,000
<b>Total Fire Services</b>	<b>2,387,700</b>	<b>1,683,700</b>	<b>6,249,100</b>	<b>1,438,800</b>	<b>3,853,000</b>	<b>7,752,600</b>	<b>23,364,900</b>
<b>Paramedic Services</b>							
AM0012 Vehicle Replacement	665,000	1,037,000	621,000	892,000	1,557,000	5,783,000	10,555,000
AM0013 Equipment Replacement	67,000	77,000	106,000	43,000	38,000	1,208,000	1,539,000
AM0014 Energy - Land Ambulance	100,000	-	115,000	-	-	-	215,000
PM0001 Facilities Renewal	437,750	1,010,000	10,000	10,000	10,000	50,000	1,527,750
PM0002 Vehicles Growth	-	199,000	-	422,000	-	453,000	1,074,000
PM0003 Equipment Growth	-	-	-	84,000	-	-	84,000
PM0004 Facilities Growth	-	-	-	-	-	4,000,000	4,000,000
PM0005 Planning Study and Needs Assessment	-	106,000	-	-	-	117,000	223,000
<b>Total Paramedic Services</b>	<b>1,269,750</b>	<b>2,429,000</b>	<b>852,000</b>	<b>1,451,000</b>	<b>1,605,000</b>	<b>11,611,000</b>	<b>19,217,750</b>
<b>Guelph Police Services</b>							
PS0044 Information Technology Hardware	495,900	387,700	476,500	654,900	695,000	4,252,500	6,962,500
PS0045 Body Armour	62,000	67,900	34,700	38,400	51,600	324,000	578,600
PS0046 Furniture Replacement	25,100	18,800	19,200	19,600	20,000	107,000	209,700
PS0047 Vehicle Based Equipment	163,600	145,500	114,600	195,700	191,200	948,000	1,758,600

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PS0048 Tactical Equipment	10,800	38,800	83,200	151,500	28,700	263,300	576,300
PS0049 Equipment General	279,600	242,900	72,700	60,100	127,800	1,168,700	1,951,800
PS0057 Vehicle Replacement	454,300	563,000	427,600	683,900	616,200	3,745,300	6,490,300
PS0063 PC Radar	-	13,900	-	-	-	-	13,900
PS0067 Vehicles Growth	-	83,400	-	-	86,400	179,100	348,900
PS0071 Data Information Management System-DIMS	250,000	-	-	-	-	276,000	526,000
PS0072 Headquarter Facilities Upgrades	-	-	-	2,213,800	-	-	2,213,800
PS0074 Deployment Strategy	-	-	100,000	-	-	-	100,000
<b>Total Guelph Police Services</b>	<b>1,741,300</b>	<b>1,561,900</b>	<b>1,328,500</b>	<b>4,017,900</b>	<b>1,816,900</b>	<b>11,263,900</b>	<b>21,730,400</b>
<b>Emergency Services Joint Facility</b>							
ES0001 Emergency Services Joint Training Facility	-	-	-	-	-	3,100,000	3,100,000
<b>Total Emergency Services Joint Facility</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,100,000</b>	<b>3,100,000</b>
<b>Total Emergency Services</b>	<b>5,398,750</b>	<b>5,674,600</b>	<b>8,429,600</b>	<b>6,907,700</b>	<b>7,274,900</b>	<b>33,727,500</b>	<b>67,413,050</b>

## Open Spaces, Recreation, Culture and Library



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2020 Capital investment: \$12,004,500

Operating budget impact from 2020 projects: \$26,270

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### Description

This program of work 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. It also:

- Promotes a connected, vibrant and healthy community by providing safe and accessible public spaces that facilitate gathering, events, programs, recreation and destinations.
- Includes all assets and associated studies and plans required to develop robust asset management plans, master plans and growth strategies.
- Provides enriching life experiences through performing arts, museums, public art, events and entertainment facilities.

### 2020–2029 project highlights

#### Culture

- Relocate Museum artifact Locomotive 6167 to more appropriate and visible City-owned parkland, due to termination of lease on current Metrolinx land.
- Renew River Run Centre equipment to ensure the continued exceptional level of programming.
- Replace Sleeman Centre 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.
- Invest in technology to support the ever-evolving nature of access and use of the library system.

## **Open Spaces and Recreation**

- Plan and design the new South End Community Centre; presentation to Council for approval in early 2020.
- Renew playground equipment, park and recreation facilities and outdoor open spaces including annual playground and tennis court replacements.
- Plan and construct new trails and off-road pedestrian routes to continue the connection of the city via non-vehicle modes. This includes the pedestrian bridge proposed to begin construction in 2020 connecting the Ward to downtown as well as the phased implementation of the downtown Riverwalk.
- Design and construct new parks to provide our community with outdoor recreation opportunities. The timing and scope of these projects will be subject to the results of the ongoing Parks and Recreation Master Plan and the growth and development of the city as lands are conveyed as parkland. This includes new parks such as Dallon Park and design and construction of the Eastview Splash Pad.
- Manage the Emerald Ash Borer (EAB) infestation and its impact on Guelph's urban forest.

Please refer to the detailed 2020-2029 capital budget and forecast for more information.

## **Operating impacts**

Operating impacts from 2020 approved capital spending are \$26,270.

- Parks Operations: Impact from additional work required to repair and maintain the growing number of fields, parks, trails and trees.
  - \$6,280 for additional staff.
  - \$15,990 for additional materials.
- Museum: \$4,000 for additional programming and advertising costs for Locomotive 6167 once moved to new location.



# Managing our assets through capital investment

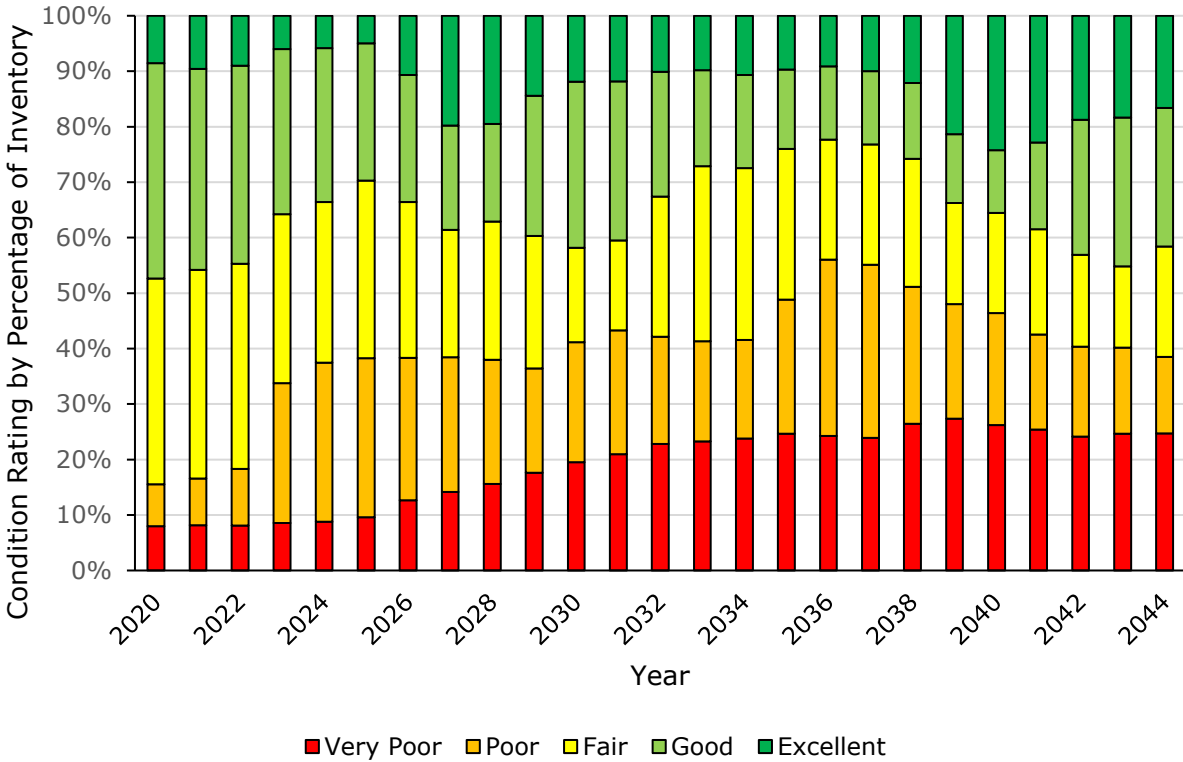
## Performance Observations

The performance projections show that overall program assets will deteriorate from 2020 to 2044, with an increase in value of asset in very poor condition to \$19.8 million.

The overall portfolio is made up of primarily large facilities and park amenities that have long useful lives and large replacement costs. Additional long term planning has focused on the replacement of major facilities reaching end of life and requiring major renewal or replacement.

The overall service levels will continue to decline until sustainable tax funding is reached around 2035; this will impact the availability of facilities and overall service delivery in that some facilities may be temporarily unavailable for use or unable to meet citizens’ needs.

**Figure 12, Open Space, Recreation, Culture and Library asset condition forecast 2020–2044**



## 10 year budget forecast

**Table 8, Open Space, Recreation, Culture and Library**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Culture and Tourism</b>							
CT0002 Culture Facilities Renewal	1,976,400	1,247,100	933,200	1,348,200	231,600	5,163,700	10,900,200
CT0005 Market Square Equipment Upgrade	125,000	-	-	-	-	-	125,000
CT0006 Energy - Culture Facilities	40,000	30,000	205,000	-	-	-	275,000
MU0013 McCrae Coach House Renovations	-	-	-	-	-	100,000	100,000
MU0019 Civic Museum - Gallery Exhibit Replacement	-	-	-	325,000	325,000	150,000	800,000
MU0021 Locomotive	650,000	-	-	-	-	-	650,000
MU0022 McCrae Exhibit Renewal	-	-	-	-	-	100,000	100,000
RF0028 Concession Equipment Replacement	26,000	27,000	28,000	29,000	30,000	160,000	300,000
RF0052 Enhancements	80,000	80,000	80,000	80,000	80,000	400,000	800,000
RF0078 Equipment Replacement	50,000	-	136,000	-	200,000	400,000	786,000
RF0089 Farmers' Market Renewal	15,000	-	15,000	-	15,000	30,000	75,000
RF0090 Culture and Tourism	15,000	15,000	15,000	15,000	15,000	78,000	153,000
RR0103 River Run Technical and Theatre Renewal	136,000	315,000	84,000	100,000	75,000	675,000	1,385,000
RR0104 River Run Front Of House Renewal	-	25,000	25,000	-	300,000	175,000	525,000
RR0107 River Run Centre Upgrade	75,000	75,000	75,000	75,000	75,000	375,000	750,000
<b>Total Culture and Tourism</b>	<b>3,188,400</b>	<b>1,814,100</b>	<b>1,596,200</b>	<b>1,972,200</b>	<b>1,346,600</b>	<b>7,806,700</b>	<b>17,724,200</b>
<b>Guelph Public Library</b>							
LB0018 Radio-Frequency Identification (RFID) Inventory Control System	-	-	100,000	150,000	50,000	150,000	450,000
LB0019 Information Technology System and Network Upgrades	200,000	-	150,000	-	80,000	400,000	830,000
LB0020 Main Branch Upgrades	100,000	-	20,000	50,000	50,000	500,000	720,000
LB0021 Branch Expansion- Bullfrog	-	310,000	-	-	-	50,000	360,000
LB0028 Main Branch New	-	67,100,000	-	-	-	-	67,100,000
LB0033 Branch Upgrades and Sustainability	100,000	-	40,000	-	75,000	470,000	685,000
LB0035 Collection - New Main Branch	-	-	-	2,920,000	-	-	2,920,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
LB0036 Master Plan	-	100,000	-	-	-	50,000	150,000
LB0037 Energy - Library	-	-	35,000	-	-	-	35,000
<b>Total Guelph Public Library</b>	<b>400,000</b>	<b>67,510,000</b>	<b>345,000</b>	<b>3,120,000</b>	<b>255,000</b>	<b>1,620,000</b>	<b>73,250,000</b>
<b>Recreation</b>							
FT0002 Vehicle and Equipment Replacement	101,000	227,300	728,900	1,062,900	1,214,300	7,002,200	10,336,600
RF0080 Facilities Renewal	1,992,700	916,800	634,100	1,374,900	3,451,600	9,486,000	17,856,100
RF0082 Equipment Renewal	175,000	200,000	375,000	200,000	200,000	600,000	1,750,000
RF0091 South End Community Centre Equipment Growth	-	-	587,140	-	-	-	587,140
RF0092 Energy - Recreation Facilities	195,000	120,000	125,000	-	-	-	440,000
RP0290 South End Community Centre New	-	68,000,000	-	-	-	-	68,000,000
<b>Total Recreation</b>	<b>2,463,700</b>	<b>69,464,100</b>	<b>2,450,140</b>	<b>2,637,800</b>	<b>4,865,900</b>	<b>17,088,200</b>	<b>98,969,840</b>
<b>Parks and Open Spaces</b>							
PK0002 New Trail Construction	490,000	970,000	600,000	1,750,000	750,000	3,725,000	8,285,000
PK0005 Sunny Acres Park Wading Pool Replacement	-	-	-	-	-	1,000,000	1,000,000
PK0014 Eastview Community Park New Amenity Construction	-	75,000	750,000	-	-	2,150,000	2,975,000
PK0025 Norm Jary Park Amenity Replacements and Upgrades	-	-	-	-	-	1,100,000	1,100,000
PK0027 Exhibition Park Amenity Replacements and Upgrades	-	-	-	-	-	1,050,000	1,050,000
PK0028 Margaret Greene Park Master Plan	-	-	-	100,000	825,000	-	925,000
PK0034 Kortright East New Park Master Plan/Construction	-	-	110,000	-	600,000	-	710,000
PK0040 Peter Misersky Park Master Plan	-	-	-	-	-	1,000,000	1,000,000
PK0042 Eramosa River at Stone Road Open Space New Amenity	-	-	-	-	-	200,000	200,000
PK0050 Guelph Innovation District New Community Park Master Plan	-	-	-	-	-	2,420,000	2,420,000
PK0052 Royal City Ice Rink New Construction	-	-	-	-	-	150,000	150,000
PK0057 Orin Reid Park New Amenity Construction	-	-	-	-	-	1,700,000	1,700,000
PK0060 Downtown Riverwalk New Amenity Construction	-	100,000	-	-	600,000	-	700,000
PK0064 Naturalization Policy Review	-	-	-	-	-	200,000	200,000
PK0068 Starwood/Watson Roads New Park Master Plan/Construction	-	-	150,000	-	650,000	-	800,000
PK0071 Wellington Park	-	-	-	-	-	13,350,000	13,350,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PK0072 Downtown River Systems New Policy Plan	-	-	300,000	-	-	-	300,000
PK0075 Downtown Pedestrian Bridge New Design and Construction	1,750,000	-	-	-	-	-	1,750,000
PK0076 Dallan New Park Master Plan and Construction	-	800,000	-	-	-	-	800,000
PK0077 Hart's Farm New Park Master Plan/Construction	-	-	-	-	125,000	600,000	725,000
PK0078 Lee Street Park New Amenity Construction	110,000	-	-	-	-	-	110,000
PK0079 Trail Master plan Update	-	-	-	-	300,000	-	300,000
PK0080 Cityview Drive	-	-	-	-	-	865,000	865,000
PK0081 Guelph Innovation District Neighbourhood Park	-	-	-	-	-	1,060,000	1,060,000
PK0086 Wilson Farm Park	-	200,000	-	-	-	-	200,000
PK0087 Pedestrian Bridge and Trail	-	-	-	-	-	200,000	200,000
PK0091 Bicycle Skills Facility	-	-	-	-	-	416,000	416,000
PK0092 Tennis Court Lifecycle	-	600,000	-	-	-	-	600,000
PK0097 Guelph Lake Sports Field	-	300,000	-	-	-	-	300,000
PK0099 Speedvale Avenue Underpass Trail	-	125,000	-	760,000	-	-	885,000
PK0102 Playground Equipment Replacement	800,000	700,000	1,560,000	1,813,000	342,000	3,964,000	9,179,000
PK0105 Paisley-Whitelaw New Park	-	-	-	-	-	875,000	875,000
PK0106 Silvercreek New Park (35-40)	-	-	-	-	-	940,000	940,000
PK0108 Skinner Drive (51)	-	-	-	-	-	422,500	422,500
PK0109 Grangehill	-	-	-	-	-	1,418,200	1,418,200
PK0110 Imico Property Park	-	-	-	-	-	650,000	650,000
PK0111 Kortright Waterfowl Sports Complex	-	-	-	-	-	5,500,000	5,500,000
PK0112 Victoria Road North Community Park	-	-	-	-	-	3,900,000	3,900,000
PK0113 West Hills Park	-	-	-	-	-	1,000,000	1,000,000
PK0114 Windsor Park	-	-	-	-	-	125,000	125,000
PK0115 Woods Subdivision phase 2 Park	-	-	-	-	-	664,000	664,000
PK0117 Brant Ave Park	-	-	-	-	100,000	600,000	700,000
PK0118 Arkell Subdivision Park Master Plan	-	-	-	-	-	750,000	750,000
PK0119 1242 Gordon Street Subdivision Master Plan	-	-	-	-	-	750,000	750,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PK0120 Baker District Open Space	-	-	-	2,600,000	-	-	2,600,000
PO0013 Emerald Ash Borer Plan Implementation	600,000	600,000	500,000	800,000	200,000	100,000	2,800,000
PO0017 Sports Fields / Courts Replacement and Upgrade	128,000	249,000	194,000	194,000	645,000	2,822,000	4,232,000
PO0025 Parks Infrastructure Replacement and Upgrade	326,000	357,000	342,000	342,000	1,099,000	4,980,000	7,446,000
PO0026 Tree Canopy New Plantings	31,000	45,000	42,000	42,000	93,000	510,000	763,000
PO0028 Trail Replacement and Upgrade	133,000	150,000	145,000	145,000	473,000	2,127,000	3,173,000
PO0029 Downtown Tree Canopy and Associated Infrastructure New/Replacement Plantings	-	-	-	-	188,000	850,000	1,038,000
PO0033 Recreation Trails - Active Transportation Network	13,000	15,000	24,000	24,000	67,000	334,000	477,000
PO0034 Parks Operations Facilities	1,388,400	614,900	352,200	359,100	145,200	2,416,600	5,276,400
PO0035 Parks Operations Building and Yard Replacement	-	-	-	-	2,000,000	18,000,000	20,000,000
PO0036 Urban Forest Management Plan	-	200,000	-	-	-	-	200,000
PO0037 Urban Forest Study	-	-	-	75,000	-	250,000	325,000
PO0038 Energy - Parks Facilities	50,000	-	20,000	-	-	-	70,000
PO0039 Parks Equipment Growth	133,000	100,000	50,000	50,000	236,000	100,000	669,000
PO0040 Parks Operation Equipment City Building	-	25,000	71,000	71,000	52,000	1,672,000	1,891,000
<b>Total Parks and Open Spaces</b>	<b>5,952,400</b>	<b>6,225,900</b>	<b>5,210,200</b>	<b>9,125,100</b>	<b>9,490,200</b>	<b>86,906,300</b>	<b>122,910,100</b>
<b>Total Open Spaces, Recreation, Culture and Library</b>	<b>12,004,500</b>	<b>145,014,100</b>	<b>9,601,540</b>	<b>16,855,100</b>	<b>15,957,700</b>	<b>113,421,200</b>	<b>312,854,140</b>

## Solid Waste Services



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2020 Capital investment: \$2,213,000

Operating budget impact from 2020 projects: \$0

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### Description

This program of work is required to ensure continued effective and efficient service delivery, diversion, and compliance with applicable legislation.

Projects included in the proposed 2020–2029 program of work support services that were part of the 2017–2018 Solid Waste Resources Service Review.

- Maintain and build infrastructure to service the needs of community growth.
- Reduce unplanned maintenance requirements.
- Sustain current service levels for customers.
- Protect the environment and maintain compliance.
- Optimize current infrastructure and resources.

### 2020–2029 project highlights

- Upgrade Organic Waste Processing Facility to ensure efficient and effective processing of organics.
- Upgrade public drop-off to continue excellent customer service.
- Renew Eastview Site Leachate System to protect the integrity of the City’s groundwater supply.

Please refer to the detailed 2020-2029 capital budget and forecast for more information.

### Operating impacts

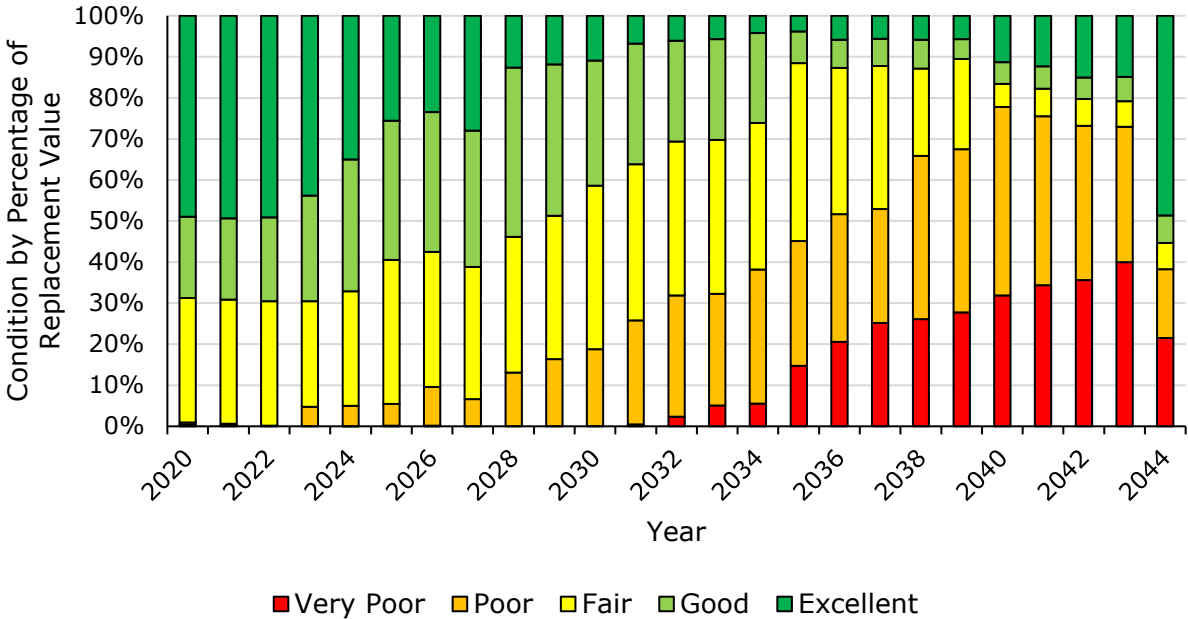
There are no operating impacts from 2020 approved capital spending.

## Managing our assets through capital investment

Figure 13 shows the service level of assets required to deliver solid waste collection, sorting, diversion, organics and recycling. From 2020 to 2028, the assets stay in a stable condition with some improvement towards 2028.

Beginning in 2029, the overall condition level and service delivery begins to decline as major facilities reach their expected end of life and require significant upgrades and/or replacement. Between 2029 and 2043 the value of assets in very poor or poor condition increases from \$11.8 million to \$46.9 million.

**Figure 13, Solid Waste asset condition forecast from 2020–2044**



## 10 year budget forecast

**Table 9, Solid Waste Services**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Solid Waste Services</b>							
FT0002 Vehicle and Equipment Replacement	818,000	1,660,400	776,100	807,200	911,300	7,669,700	12,642,700
WC0002 Transfer Station Upgrades	-	-	2,800,000	700,000	-	-	3,500,000
WC0003 Administration Building Renewal	-	2,100,000	-	-	-	-	2,100,000
WC0015 Inventory and Condition Assessment	-	-	-	300,000	-	300,000	600,000
WC0016 Vehicles Growth	-	400,000	-	-	400,000	400,000	1,200,000
WC0018 Materials Recovery Facility	735,000	445,000	295,000	660,000	885,000	6,360,000	9,380,000
WC0020 Organic Waste Processing Facility	100,000	963,000	1,224,000	1,477,000	288,000	2,662,000	6,714,000
WC0022 Transfer Station	150,000	-	557,000	-	250,000	300,000	1,257,000
WC0023 Site Renewal	70,000	60,000	140,000	205,000	140,000	1,921,000	2,536,000
WC0024 Collection Carts Growth	-	175,000	175,000	175,000	175,000	1,955,000	2,655,000
WC0025 Administration Building	125,000	310,000	10,000	10,000	10,000	50,000	515,000
WC0026 Public Drop Off Upgrades	50,000	50,000	50,000	50,000	50,000	798,000	1,048,000
WC0027 Eastview Site Renewal	30,000	100,000	100,000	125,000	100,000	620,000	1,075,000
WC0029 Bins	-	-	-	66,000	-	66,000	132,000
WC0030 Collection Operations Centre	-	6,600,000	-	-	3,300,000	-	9,900,000
WC0031 Energy - Solid Waste Facilities	35,000	-	-	-	-	-	35,000
WP0007 Security Upgrades	100,000	-	-	-	-	-	100,000
WP0008 Master Plan	-	-	-	50,000	350,000	-	400,000
WR0002 Reuse Centre	-	-	-	50,000	550,000	-	600,000
<b>Total Solid Waste Services</b>	<b>2,213,000</b>	<b>12,863,400</b>	<b>6,127,100</b>	<b>4,675,200</b>	<b>7,409,300</b>	<b>23,101,700</b>	<b>56,389,700</b>



## Stormwater Management



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2020 Capital investment: \$7,666,000

Operating budget impact from 2020 projects: \$13,500

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### Description

This program of work provides funding for the 122 City-owned and operated stormwater Management (SWM) facilities and 139 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.

### 2020–2029 project highlights

- Rehabilitate Stormwater Management facility rehabilitation (ponds).
- Reconstruct linear Stormwater Management infrastructure (pipes).

Please refer to the detailed 2020–2029 capital budget and forecast for more information.

### Operating impacts

Operating impacts from 2020 approved capital spending are \$13,500

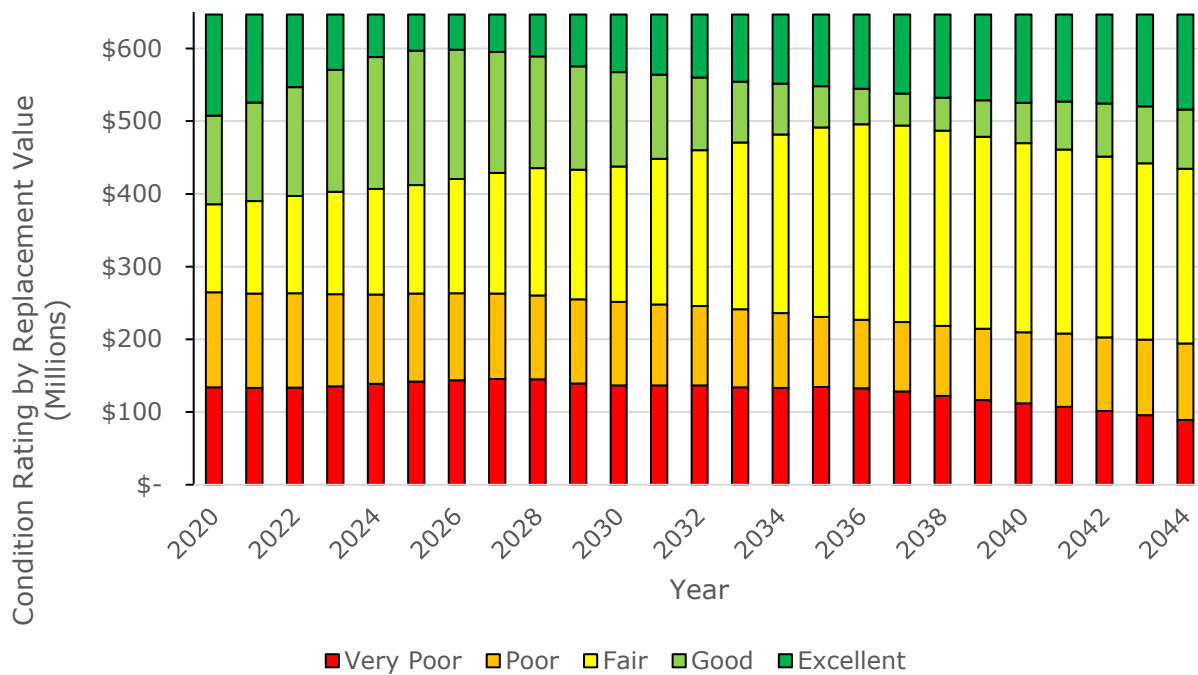
- Equipment: \$13,500 for maintenance and fuel.

## Managing our assets through capital investment

### Performance observations

The stormwater performance forecast indicates that performance will steadily increase over the next 25 years as we reduce the backlog. This was the expected outcome from the implementation of the stormwater service fee.

**Figure 14, Stormwater asset condition forecast from 2020–2044**



## 10 year budget forecast

**Table 10, Stormwater Management**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Stormwater Management</b>							
PN0074 Bull Frog Stormwater - Phase 1- Elizabeth Splitter Installation	500,000	-	-	-	-	-	500,000
PN0075 Bull Frog Stormwater - Phase 2- William Street - Elizabeth / Cassino	100,000	-	2,610,000	-	-	-	2,710,000
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
PN0101 Victoria - Dakota / Woodlawn Road East (W-I-28)	-	-	-	-	-	6,313,000	6,313,000
PN0156 Sewer Investigation	400,000	500,000	500,000	500,000	500,000	1,700,000	4,100,000
PN0158 Benchmarking and Performance Measurement	30,000	30,000	30,000	30,000	30,000	150,000	300,000
PN0159 Drainage Oversizing	150,000	-	150,000	-	150,000	300,000	750,000
PN0559 Oil and Grit Separator Condition Assessment Program	-	-	-	-	100,000	100,000	200,000
PN0560 River Outlet Condition Assessment Program	-	-	-	-	-	400,000	400,000
PN0562 Pond Retrofits	-	500,000	500,000	500,000	500,000	2,500,000	4,500,000
PN0622 Oil and Grit Separator Monitoring and Compliance	10,000	10,000	10,000	10,000	10,000	50,000	100,000
PN0623 North-West Well Channel Naturalization	-	-	-	-	200,000	1,000,000	1,200,000
PN0625 Cost Of Service Study	-	-	-	-	-	25,000	25,000
PN0627 Pond Monitoring	150,000	150,000	50,000	50,000	50,000	250,000	700,000
PN0843 Oil and Grit Separator Repair and Replacement	-	100,000	100,000	100,000	100,000	500,000	900,000
PN0844 River Outlet Repair and Replacement	-	100,000	100,000	100,000	100,000	500,000	900,000
PN0853 Emergency Repairs	150,000	300,000	300,000	300,000	300,000	1,500,000	2,850,000
PN0871 Stormwater Master Plan	-	-	-	-	-	600,000	600,000
SW0051 Pond Rehabilitation	800,000	435,000	715,000	935,000	300,000	1,500,000	4,685,000
SW0062 Sewer Relining and Repair	450,000	500,000	500,000	1,000,000	1,250,000	10,750,000	14,450,000
SW0068 Servicing Studies Development	-	50,000	50,000	50,000	50,000	250,000	450,000
SW0091 Management Ward 1 EA Update	150,000	-	500,000	-	-	-	650,000
SW0092 New Tractor Mower	106,000	-	-	-	-	-	106,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
To Transportation	(12,000)	-	(301,000)	(305,000)	-	(1,252,000)	(1,870,000)
To Wasterwater	(522,000)	-	(565,000)	(530,000)	-	(2,540,000)	(4,157,000)
To Water	(24,000)	-	0	(625,000)	-	(2,287,000)	(3,566,000)
From Transporation	208,000	1,879,000	353,000	555,000	936,000	4,138,000	8,069,000
From Wastewater	4,995,000	4,081,000	2,108,000	1,316,000	709,000	6,051,000	19,260,000
From Water	25,000	789,000	120,000	56,000	1,008,000	10,356,000	12,354,000
<b>Total Stormwater Management</b>	<b>7,666,000</b>	<b>9,424,000</b>	<b>7,200,000</b>	<b>6,652,000</b>	<b>6,293,000</b>	<b>44,796,000</b>	<b>82,031,000</b>

## Transportation Systems



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2020 Capital investment: \$29,209,850

Operating budget impact from 2020 projects: \$376,320

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### Description

This program of work captures the City-wide transportation system assets valued at over \$1.2 billion which is the City's largest asset portfolio. This program of work focuses on restoration, renewal and resurfacing, expansion to accommodate growth and service improvements as supported through the City's master plans and the Official Plan. The City is currently performing an update to the Transportation Master Plan that will guide the future investment in these services and affect the longer-term forecasted projects in terms of timing and scope.

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.

### 2020–2029 project highlights

This program of work covers improvements, construction, resurfacing and installation projects of parking infrastructures including parkades, bridges, culverts, retaining walls and stairs, road widening and calming initiatives, active transportation network, traffic control management, and public transit.

#### Parking

- Update the Downtown Parking Master Plan in 2021.
- Funding the City's share of the new Baker District parkade in 2022.

## **Road and Right of Way**

- Replace and reconstruct roads totaling \$47.5 million as part of Water and Wastewater infrastructure replacement projects; Stevenson Trunk Sewer—Eramosa to York roads, York Road—GJR spurline to Stevenson St., Paisley Rd. Feedermain—Silvercreek to the reservoir, rail crossing at Edinburgh Road, Woodlawn Road West, and Manitoba Street, Ontario to Huron street reconstruction.
- Plan and renew bridges and culverts in 2020 totaling \$2.6 million including Norwich Street pedestrian bridge and the 100 Steps stairs.
- Construct cycling and sidewalk facilities costing \$10.4 million over ten years to improve connectivity and implement existing master plans (Active Transportation Network, Cycling Master Plan, and Sidewalk Needs Assessment).
- Replace Public Works facility and yard in 2028 for \$33 million. This is the last phase of the Dunlop site facility campus project.

## **Traffic Control and Planning**

- Rebuild and replace equipment for pedestrian crossings, traffic management initiatives, intersection signals.

## **Transit**

- Plan for an \$86.8 million expanded transit operations facility that will be the first phase of the Dunlop site campus project. This may realize the benefit from the Investing in Canada Infrastructure Transit grant program (ICIP Transit) co-sponsored by the Provincial and Federal governments (application subject to approval).
- Expand routes and improve service at \$47.2 million over 10 years—partially funded by the ICIP Transit grant program (application subject to approval).
- Replace and electrify transit buses at \$76.2 million over 10 years—partially funded by the Dedicated Gas Tax program and ICIP Transit grant (application subject to approval).
- Implement transit customer service kiosks which allow customers to use self-serve machines to purchase transit fare media at various locations throughout the city.

Please refer to the detailed 2020-2029 capital budget and forecast for more information.

## **Operating impacts**

Operating impacts from the 2020 approved capital spending are \$376,320.

- Signals and intersection improvements: \$32,000 for maintenance.

- Red light cameras: \$100,000 for operation.
- Road Growth: \$25,000 for maintenance of the expanded road network.
- New bus shelters: \$6,500 for the maintenance and repair of additional bus shelters.
- Digital transit signs: \$134,820 for electricity, communications and maintenance net of estimated advertising revenues.
- Transit customer service kiosks: \$78,000 for software as a service and warranty.

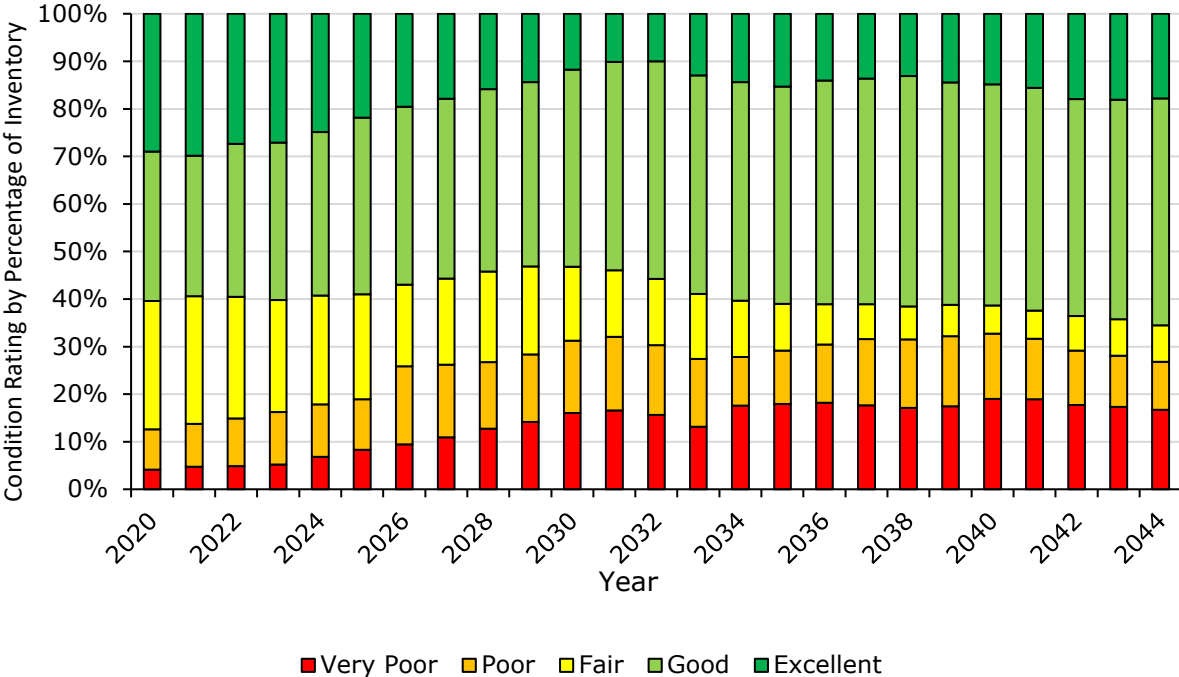
**Managing our assets through capital investment**

**Performance observations**

The overall funding for the transportation network is below the sustainable level until 2031. Up to this point, the overall condition of the system continues to deteriorate. The replacement value of very poor assets projected to increase from \$201 million to \$394 million.

After 2031, the funding reaches a sustainable level, however, the quantity of assets in very poor condition remains constant, indicating that funding needs to increase to achieve higher performance.

**Figure 15, Transportation systems asset condition forecast from 2020-2044**



## 10 year budget forecast

**Table 11, Transportation Systems**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Parking</b>							
PG0059 Parking Equipment Replacement and Renewal	250,000	470,000	-	-	-	1,000,000	1,720,000
PG0066 Parking Facility Renewal	640,000	1,045,000	611,000	985,000	800,000	4,136,000	8,217,000
PG0075 Parking System Study	-	-	-	160,000	-	-	160,000
PG0079 Downtown Parkade 2	-	-	21,000,000	-	-	-	21,000,000
PG0082 Licence Plate Recognition	-	-	95,000	-	30,000	95,000	220,000
PG0092 Downtown Parking Master Plan Update	-	250,000	-	-	-	-	250,000
PN0115 Parkade Inventory and Condition Assessment	-	-	-	-	-	150,000	150,000
<b>Total Parking</b>	<b>890,000</b>	<b>1,765,000</b>	<b>21,706,000</b>	<b>1,145,000</b>	<b>830,000</b>	<b>5,381,000</b>	<b>31,717,000</b>
<b>Road and Right of Way</b>							
FT0002 Vehicle and Equipment Replacement	1,096,900	1,660,400	776,100	807,200	911,300	7,669,700	12,921,600
GG0231 Operations Facility Renewal	-	-	19,300	-	-	2,600	21,900
OP0001 Public Works Building and Yard Replacement	-	-	-	-	-	33,265,000	33,265,000
PN0002 Woodlawn Road West	600,000	3,000,000	-	-	-	-	3,600,000
PN0004 Steps Rehabilitation (110)	750,000	-	-	-	-	-	750,000
PN0011 Norwich Pedestrian Bridge	1,300,000	-	-	-	-	-	1,300,000
PN0048 Quebec Street- Wyndham Street North / Norfolk Street	-	-	-	-	504,000	7,855,000	8,359,000
PN0056 Victoria Road Street-Railroad / Elizabeth Street	-	-	197,000	-	1,785,000	-	1,982,000
PN0060 Wyndham St - Phase 1 - Carden to MacDonell St	-	479,000	-	4,775,000	-	-	5,254,000
PN0061 Wyndham St - Phase 3 - Cork St to Douglas St	-	-	-	-	-	7,325,000	7,325,000
PN0062 Wyndham St - Phase 4 - Douglas St to Woolwich St	-	-	-	-	-	6,475,000	6,475,000
PN0080 Gordon Street - Clair / Maltby (Ww0070)	-	-	-	-	-	501,000	501,000
PN0096 Silvercreek- Waterloo / Paisley including CN Grade (W-I-16)	-	-	-	-	-	16,230,000	16,230,000
PN0126 Road Restoration and Resurfacing Program	2,100,000	2,000,000	3,000,000	3,500,000	4,000,000	29,000,000	43,600,000
PN0127 Eastview- Summit - Watson	30,000	-	-	-	-	-	30,000



Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PN0139 College Avenue East- Victoria Road South To Dundas Lane	-	-	-	-	-	2,052,000	2,052,000
PN0145 Maltby Road East- Gordon Street / Victoria Road South	-	-	-	-	-	4,808,000	4,808,000
PN0147 Victoria- Eramosa River to Stone Road - Phase 1	-	-	-	-	-	4,235,000	4,235,000
PN0149 Watson Parkway South-York Road / Watson	-	-	2,475,000	-	-	-	2,475,000
PN0171 Roadway Condition Assessment	-	-	100,000	-	-	200,000	300,000
PN0176 Transportation Master Plan Update	-	-	980,000	-	-	980,000	1,960,000
PN0207 Delhi Street-Riverview / Marlborough	-	-	-	-	-	547,000	547,000
PN0213 Birch Street- Karen Avenue To Yewholme Drive	-	-	-	-	-	438,000	438,000
PN0222 Edinburgh-Woodlawn / Lonsdale	111,000	-	993,000	-	-	-	1,104,000
PN0225 Eramosa Road- Orchard Crescent to Victoria Road North	-	-	-	-	-	390,000	390,000
PN0236 Speedvale- Elmira Road to Imperial Road	-	1,388,000	-	-	-	-	1,388,000
PN0239 Waverly- Vermont / Speedvale Avenue East	123,000	-	1,100,000	-	-	-	1,223,000
PN0255 Downey Road- Niska To Teal Drive Transportation Improvement Study Implementation	60,000	-	-	-	-	-	60,000
PN0256 Downey Road- Niska To Teal Drive Transportation Improvement Study Implementation	-	-	-	-	-	900,000	900,000
PN0271 York- Stevenson-Victoria	-	4,522,000	-	-	-	-	4,522,000
PN0354 Pre-Design Right-of-Way Construction Projects	500,000	500,000	500,000	500,000	500,000	2,500,000	5,000,000
PN0558 Roadway Preventative Crack Sealing	50,000	75,000	100,000	100,000	100,000	500,000	925,000
PN0605 Bridge and Culvert Preventative and Corrective Maintenance Program	50,000	50,000	100,000	100,000	100,000	500,000	900,000
PN0746 Ontario Structure Inspection Manual (OSIM) Inspection Program	-	60,000	-	60,000	-	180,000	300,000
PN0752 Crawley Road- Clair Road West To Maltby Road West	-	-	-	-	-	159,000	159,000
PN0753 New Railway Crossing Installation	-	-	-	-	-	960,000	960,000
PN0754 Railway Crossings at Edinburgh Road	750,000	750,000	-	-	-	-	1,500,000
PN0758 College Avenue (East Of Edinburgh)	-	-	-	-	-	266,000	266,000
PN0764 Guelph Innovation District (GID) Implementation	-	-	250,000	-	250,000	-	500,000
PN0785 Southgate Extension To Maltby Road	-	-	-	-	-	150,000	150,000
PN0794 MacDonell Street- Norfolk Street To Carden Street (W, Ww)	-	-	502,000	-	-	12,418,000	12,920,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
PN0813 Cycling Master Plan Implementation	480,950	3,668,750	4,487,750	4,189,550	1,400,750	8,007,650	22,235,400
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
PN0832 University Area Conceptual Design	150,000	150,000	-	-	-	-	300,000
PN0850 Wyndham- Carden / Woolwich- phase 2- MacDonell Street to Cork Street	-	-	-	-	4,775,000	-	4,775,000
PN0855 Clair-Maltby Road Reconstruction	-	-	-	-	-	15,000,000	15,000,000
PN0865 Grange and Cityview - new turn lanes	-	-	-	-	-	250,000	250,000
PN0870 Provision for Road Design	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
PN0874 Norfolk St Rail Bridge Rehabilitation	60,000	1,500,000	-	-	-	-	1,560,000
PN0875 Macdonell Bridge Replacement (112)	350,000	260,000	-	3,250,000	-	-	3,860,000
PN0876 Bridge and Structure Renewal Program	840,000	1,250,000	850,000	2,500,000	1,100,000	12,750,000	19,290,000
PN0877 GJR Road and Rail Crossing Improvements	200,000	200,000	150,000	80,000	80,000	400,000	1,110,000
PN0878 Sidewalk Accessibility Improvements	50,000	50,000	50,000	-	-	-	150,000
PN0879 Traffic Signal Communications Upgrades	-	-	-	-	140,000	280,000	420,000
PN0880 Portable Message Signs	-	-	-	-	-	300,000	300,000
RD0283 New Sidewalk Construction	240,000	200,000	240,000	240,000	-	-	920,000
RD0295 Road Infrastructure Sustainability	60,000	60,000	60,000	60,000	60,000	300,000	600,000
RD0321 Active Transportation	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
RD0325 Hanlon Road - Kortright Road	-	-	-	200,000	-	2,520,000	2,720,000
RD0330 Emma / Earl Pedestrian Bridge	-	-	-	3,500,000	-	-	3,500,000
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	-	-	196,000	-	655,000	433,400	1,284,400
SL0004 Guelph Hydro Lighting 2018	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
To Stormwater	(208,000)	(1,879,000)	(353,000)	(555,000)	(936,000)	(4,138,000)	(8,069,000)
To Wasterwater	(238,000)	(1,514,000)	(1,183,000)	(1,657,000)	(1,601,000)	(9,356,000)	(15,549,000)
To Water	(315,000)	(1,847,000)	(1,707,000)	(953,000)	(1,939,000)	(7,034,000)	(13,795,000)

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
From Stormwater	12,000	-	301,000	305,000	-	1,252,000	1,870,000
From Wastewater	5,040,000	4,191,000	6,620,000	5,272,000	3,888,000	9,952,000	34,963,000
From Water	125,000	1,686,000	460,000	-	930,000	9,336,000	12,537,000
<b>Total Road and Right of Way</b>	<b>15,217,850</b>	<b>23,310,150</b>	<b>22,114,150</b>	<b>27,123,750</b>	<b>17,553,050</b>	<b>186,581,350</b>	<b>291,900,300</b>
<b>Traffic Control and Planning</b>							
FT0002 Vehicle and Equipment Replacement	80,000	160,400	133,000	115,900	157,800	1,294,400	1,941,500
PN0174 Transportation Strategy and Demand Management	150,000	150,000	240,000	150,000	150,000	840,000	1,680,000
PN0786 Design Of Left Turn Lanes at Starwood and Keating	-	-	-	-	250,000	-	250,000
PN0869 Signals / Intersection Improvements	375,000	375,000	375,000	375,000	375,000	1,875,000	3,750,000
TF0003 Signal Equipment Replacement	193,000	203,000	213,000	223,000	235,000	1,200,000	2,267,000
TF0004 Intersection Signal Rebuild	551,000	579,000	608,000	638,000	670,000	3,350,000	6,396,000
TF0005 Signal System Upgrade (PTIF GUE-005)	-	-	-	-	-	1,500,000	1,500,000
TF0007 Led Signal Replacement	-	-	-	-	-	400,000	400,000
TF0008 Traffic Management Initiatives	376,000	376,000	376,000	376,000	376,000	1,880,000	3,760,000
TF0009 Accessible Pedestrian Signals	178,000	182,000	185,000	-	-	720,000	1,265,000
TF0016 Traffic Signal Control System Upgrade	-	-	-	-	-	900,000	900,000
TF0017 Pedestrian Crossovers	120,000	120,000	120,000	120,000	120,000	600,000	1,200,000
TF0019 School Zone Signals	10,000	10,000	10,000	10,000	10,000	50,000	100,000
TF0020 Intersection- Speedvale and Silvercreek	-	-	-	2,026,000	-	-	2,026,000
TF0021 Intersection College and Scottsdale	-	-	-	1,801,000	-	-	1,801,000
TF0022 Red Light Cameras	50,000	-	-	-	-	-	50,000
<b>Total Traffic Control and Planning</b>	<b>2,083,000</b>	<b>2,155,400</b>	<b>2,260,000</b>	<b>5,834,900</b>	<b>2,343,800</b>	<b>14,609,400</b>	<b>29,286,500</b>
<b>Guelph Transit Services</b>							
GG0233 Facilities Renewal	482,800	463,500	1,589,400	310,200	105,000	1,495,400	4,446,300
TC0006 Transit Satellite Location Clair and Gordon	-	-	-	-	-	5,000,000	5,000,000
TC0043 Bus Shelter Purchase	100,000	100,000	200,000	200,000	200,000	950,000	1,750,000
TC0058 Bus Replacement	2,628,100	3,423,200	3,154,900	6,014,500	9,842,000	51,160,200	76,222,900
TC0059 Operations Facility	5,730,000	-	81,056,000	-	-	-	86,786,000

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
TC0060 Facilities	710,000	410,000	1,584,000	-	-	-	2,704,000
TC0063 Terminal Upgrades	-	500,000	-	-	-	-	500,000
TC0064 Route Expansions	-	3,630,000	-	6,922,500	7,036,000	29,570,000	47,158,500
TC0067 Energy - Transit	40,000	50,000	-	-	-	-	90,000
TC0068 Transit Non-Bus Vehicles and Equipment	63,100	-	33,900	81,000	142,200	234,300	554,500
TC0071 Terminal Upgrades and Expansion	1,265,000	-	5,995,000	-	-	-	7,260,000
TM0005 Mobility Van - Expansion	-	-	228,000	-	-	498,000	726,000
TM0007 Mobility Replacement	-	-	-	618,900	631,200	1,243,500	2,493,600
<b>Total Guelph Transit Services</b>	<b>11,019,000</b>	<b>8,576,700</b>	<b>93,841,200</b>	<b>14,147,100</b>	<b>17,956,400</b>	<b>90,151,400</b>	<b>235,691,800</b>
<b>Total Transportation Systems</b>	<b>29,209,850</b>	<b>35,807,250</b>	<b>139,921,350</b>	<b>48,250,750</b>	<b>38,683,250</b>	<b>296,723,150</b>	<b>588,595,600</b>

## Wastewater Services



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2020 Capital investment: \$24,399,800

Operating budget impact from 2020 projects: \$0

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### Description

This capital program and forecast is required to ensure continued effective and efficient wastewater service delivery and compliance with applicable legislation.

Project focus:

- Maintain and build infrastructure to service the needs of community growth.
- Renew critical supply infrastructure to prevent failure.
- Reduce unplanned maintenance requirements.
- Sustain current service levels for customers.
- Protect the environment and maintain compliance.
- Optimize current infrastructure and resources.

### 2020–2029 project highlights

- Update wastewater treatment and biosolids management master plans to ensure adequate capacity for growth.
- Continue energy efficiency initiatives to support Council direction on zero carbon.
- Replace wastewater collection system in conjunction with Water and Road reconstruction projects including—Alma Street: Willow to Paisley, Lane Street: Stevenson to Palmer, Metcalfe Street: Speedvale to Eramosa, Water Street: Maple to Gordon and York Road: GJR spurline to Stevenson.
- Start Phase 1 of the Speedvale Transmission Trunk Sewer replacement in 2020 at a cost of \$12 million.

Please refer to the detailed 2020–2029 capital budget and forecast for more information.

**Operating impacts**

There are no operating impacts from 2020 approved capital spending.

**Managing our assets through capital investment**

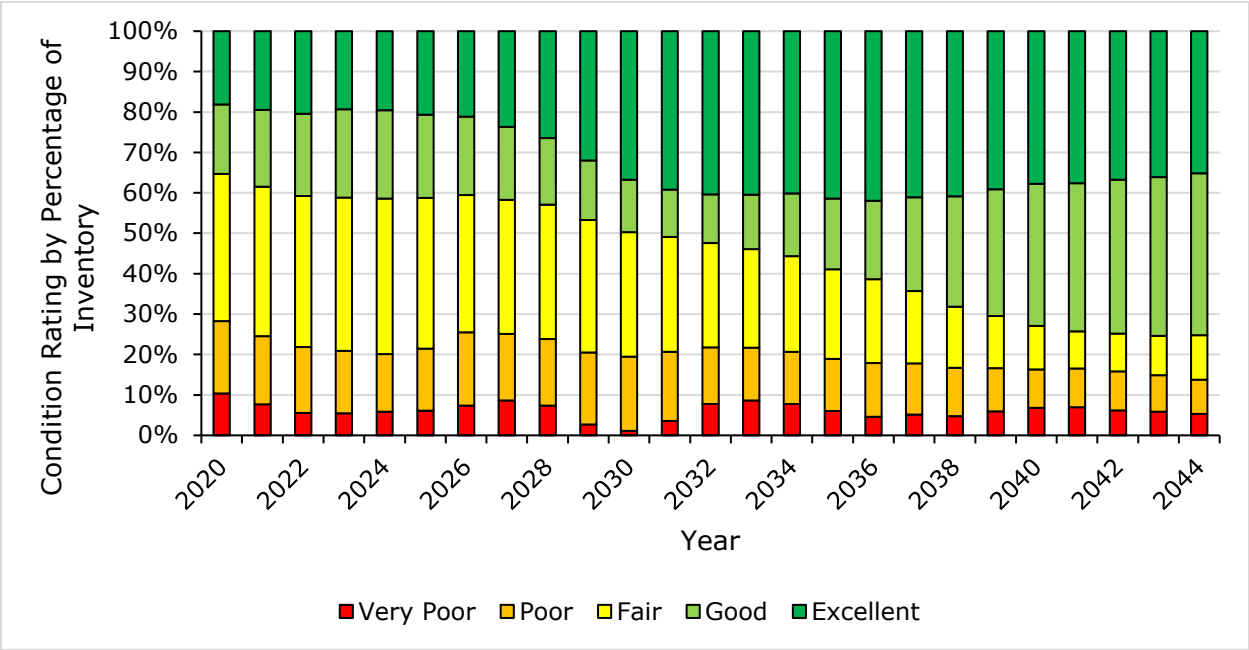
**Performance observations**

Figure 16 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.

Investments in the wastewater collection network are planned to increase between 2020 and 2024 in order to mitigate the risk of service disruption.

**Figure 16, Wastewater services asset condition forecast from 2020-2044**



## 10 year budget forecast

**Table 12, Wastewater Services**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Plant and Equipment</b>							
FT0004 Wastewater Vehicle and Equipment Replacement	427,800	34,800	21,800	81,700	251,400	1,552,900	2,370,400
ST0001 Plant Generators	-	100,000	-	100,000	-	300,000	500,000
ST0002 Treatment Plant Upgrades and Studies	-	20,000	20,000	220,000	220,000	900,000	1,380,000
ST0003 Biosolids Facility Upgrade	4,000,000	-	-	-	9,500,000	12,000,000	25,500,000
ST0004 Treatment Plant Phase 2 Growth	-	29,000,000	-	-	-	-	29,000,000
ST0005 Treatment Plant Process Upgrades	280,000	3,000,000	2,000,000	4,000,000	500,000	300,000	10,080,000
ST0006 Plant Supervisory Control and Data Acquisition (SCADA) System Upgrades	3,390,000	500,000	500,000	-	100,000	200,000	4,690,000
ST0008 Treatment Master plan Update	-	-	-	500,000	-	500,000	1,000,000
ST0009 Plant Energy Efficiency Management	3,500,000	250,000	-	250,000	-	750,000	4,750,000
ST0013 Digester Cleaning Program	-	-	-	500,000	-	1,500,000	2,000,000
ST0014 Digester Structural Repair and Gas Proofing	-	2,300,000	500,000	-	500,000	1,000,000	4,300,000
ST0015 Building Repairs and Upgrades	-	500,000	500,000	-	700,000	1,000,000	2,700,000
ST0018 Equipment Replacement and Upgrades	-	-	-	-	500,000	750,000	1,250,000
ST0021 2024 Biosolids Facility Upgrade	-	-	-	-	-	13,229,000	13,229,000
ST0024 Wastewater Facility Inventory and Condition Assessment	-	-	-	250,000	-	250,000	500,000
ST0025 Energy - Wastewater	75,000	75,000	95,000	-	-	-	245,000
<b>Total Plant and Equipment</b>	<b>11,672,800</b>	<b>35,779,800</b>	<b>3,636,800</b>	<b>5,901,700</b>	<b>12,271,400</b>	<b>34,231,900</b>	<b>103,494,400</b>
<b>Wastewater Collection</b>							
PN0023 Alma Street North- Willow To Paisley	-	9,575,000	-	-	-	-	9,575,000
PN0026 Baker Street- Quebec To Woolwich	-	-	503,000	-	-	7,470,000	7,973,000
PN0031 Edinburgh Road South-Speed River / College Avenue West	-	-	-	-	-	11,472,000	11,472,000
PN0033 Elginfield Drive- Cheltonwood Avenue To Glenburnie Drive	-	-	-	-	-	421,000	421,000
PN0035 Graham Street- Dean Avenue To University Avenue West	-	-	-	-	-	152,000	152,000

PN0039 Lane Street- Stevenson Street North to Palmer Street	-	5,050,000	5,050,000	-	-	-	10,100,000
PN0043 Metcalfe- Speedvale / Eramosa-Phase 2-Terry / Eramosa	100,000	3,510,000	-	-	-	-	3,610,000
PN0049 Regal Road- Woodlawn Road West To End	-	-	-	-	-	403,000	403,000
PN0050 Sackville Street- Alice Street To End	-	-	-	-	-	102,000	102,000
PN0051 Silver creek Parkway- Speedvale/Curtis	-	-	-	-	-	502,000	502,000
PN0054 Talbot Street- Forest Street To University Avenue West	-	-	-	-	-	3,434,000	3,434,000
PN0070 Bristol Street / River Crossing across Wellington Street (Ww-I-10)	-	-	-	-	-	553,000	553,000
PN0073 Bristol Street Trunk Sewer - Phase 3 - Edinburgh Street to St. Arnaud Street	-	1,969,000	-	-	-	-	1,969,000
PN0097 Speedvale Transmission Trunk Sewer - Phase 1 - Speedvale to Woolwich	12,000,000	-	3,800,000	3,850,000	-	-	19,650,000
PN0100 Stevenson Trunk Sewer - Eramosa to York - Phase 2 - Bennett to Eramosa	985,000	-	-	-	-	-	985,000
PN0102 Water- Maple / Gordon (Ww-I-8)	-	4,315,000	-	-	-	-	4,315,000
PN0103 Waterloo Street- Silvercreek / Yorkshire (Ww-I-4)	-	-	-	-	-	3,243,000	3,243,000
PN0107 Parallel Pipe East of Hanlon to Wastewater Treatment Plant (Ww-I-1A)	-	123,000	-	-	-	250,000	373,000
PN0110 York Rd - Victoria Rd S to Watson Pkwy	-	-	4,821,000	4,821,000	4,821,000	-	14,463,000
PN0142 Gordon Street- Lowes Road to Edinburgh Road South	-	3,000,000	-	-	-	-	3,000,000
PN0177 Sanitary Hydraulic Modelling Update and Risk Analysis	-	-	-	-	-	300,000	300,000
PN0197 Maintenance Hole Condition Assessment Program	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
PN0199 Sewer Investigation	550,000	500,000	200,000	200,000	200,000	1,000,000	2,650,000
PN0204 Inflow and Infiltration Reduction	200,000	200,000	200,000	200,000	-	600,000	1,400,000
PN0208 Queen Street-Derry Street / Eramosa Road	200,000	-	-	-	-	-	200,000
PN0209 Victoria Road North-Brunswick Line / Victoria Road North	-	-	-	-	-	1,530,000	1,530,000
PN0210 Sewer Reline and Repair Program	1,300,000	1,600,000	1,600,000	1,600,000	1,600,000	8,000,000	15,700,000
PN0226 Eramosa Road- Stevenson Street North / Meyer Drive	100,000	-	2,015,000	-	-	-	2,115,000
PN0264 York- GJR Spurline -Stevenson	5,670,000	-	-	-	-	-	5,670,000
PN0606 Lateral Reline and Repair Program	100,000	100,000	100,000	100,000	100,000	500,000	1,000,000
PN0750 CCTA Administration and Site Inspection	700,000	700,000	700,000	700,000	700,000	3,500,000	7,000,000
PN0772 Infrastructure Improvements	775,000	775,000	775,000	775,000	775,000	3,875,000	7,750,000



PN0784 Whitelaw Road- Shoemaker Crescent To Paisley Road	-	4,435,000	-	-	-	-	4,435,000
PN0793 Cardigan Street- Woolwich Street To Norfolk Street (W, Ww)	-	-	-	-	-	206,000	206,000
PN0795 Dublin Street- Wellington Street To Waterloo Avenue	-	-	-	-	-	361,000	361,000
PN0796 Waterloo Avenue- Yorkshire Street To Essex Street (W, W)	-	-	-	-	474,000	4,714,000	5,188,000
PN0799 Essex Street- Dublin Street To Waterloo Avenue (W, Ww, S)	-	-	-	153,000	-	1,281,000	1,434,000
PN0800 Nottingham Street- Dublin Street To Gordon Street (W, Ww)	-	-	-	-	-	160,000	160,000
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
PN0811 Woolwich Street- MacDonell To Norfolk Street (Ww, W)	-	-	-	-	-	6,519,000	6,519,000
PN0825 East Pumping Station	-	-	-	-	-	137,000	137,000
PN0826 South Pumping Station	-	-	-	-	-	38,000	38,000
PN0831 Forcemain and Pump Station Draw-Down Testing	100,000	-	-	-	-	-	100,000
PN0833 Erin Avenue- Lane Street To End	-	-	1,325,000	-	-	-	1,325,000
PN0839 Block Plan Area and Glenholme Drive Area - 56	-	-	-	-	-	291,000	291,000
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
PN0842 Block Plan Area and Glenholme Drive Area - 93	-	-	-	-	-	483,000	483,000
PN0846 Edinburgh Road- London To Waterloo	-	-	-	-	-	102,000	102,000
PN0847 Manitoba Street- Ontario Street To Huron Street	2,525,000	-	-	-	-	-	2,525,000
PN0852 Sewer Emergency Repairs	300,000	300,000	300,000	300,000	300,000	1,500,000	3,000,000
PN0854 Initial Condition Assessment of Siphons	100,000	50,000	50,000	50,000	50,000	-	300,000
PN0859 Clair-Maltby Pumping Stations	-	-	-	-	-	4,000,000	4,000,000
PN0866 Gordon Street Sanitary Sewer Oversizing	-	1,143,000	-	-	-	-	1,143,000
PN0872 Water amd Wastewater Servicing Master Plan	-	-	-	-	-	500,000	500,000
SC0020 New Gravity Sewers (WWI5)	250,000	-	250,000	-	250,000	500,000	1,250,000
SC0021 New Forcemains (WWI6)	150,000	-	150,000	-	150,000	300,000	750,000
SC0029 Development Wastewater Servicing Studies	-	-	100,000	-	100,000	200,000	400,000

SC0030 Trunk Sewer Investigation	500,000	500,000	500,000	500,000	200,000	1,000,000	3,200,000
SC0035 Flow Monitoring	200,000	200,000	200,000	200,000	-	600,000	1,400,000
To Stormwater	(4,995,000)	(4,081,000)	(2,108,000)	(1,316,000)	(709,000)	(6,051,000)	(19,260,000)
To Transportation	(5,040,000)	(4,191,000)	(6,620,000)	(5,272,000)	(3,888,000)	(9,952,000)	(34,963,000)
To Water	(5,032,000)	(8,671,000)	(3,834,000)	(1,151,000)	(385,000)	(14,146,000)	(33,219,000)
From Stormwater	522,000	-	565,000	530,000	-	2,540,000	4,157,000
From Transportation	238,000	1,514,000	1,183,000	1,657,000	1,601,000	9,356,000	15,549,000
From Water	29,000	4,173,000	5,251,000	-	4,945,000	21,536,000	35,934,000
<b>Total Wastewater Collection</b>	<b>12,727,000</b>	<b>26,989,000</b>	<b>17,276,000</b>	<b>8,097,000</b>	<b>11,484,000</b>	<b>82,492,000</b>	<b>159,065,000</b>
<b>Total Wastewater Services</b>	<b>24,399,800</b>	<b>62,768,800</b>	<b>20,912,800</b>	<b>13,998,700</b>	<b>23,755,400</b>	<b>116,723,900</b>	<b>262,559,400</b>

## Water Services



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2020 Capital investment: \$49,759,800

Operating budget impact from 2020 projects: \$0

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### Description

The proposed capital program of work is required to ensure effective and efficient water service delivery and compliance with applicable legislation.

Projects included focus on:

- Maintaining and building infrastructure to service the needs of community growth.
- Renewing critical supply infrastructure to prevent failure.
- Reducing unplanned maintenance requirements.
- Sustaining current service levels for customers.
- Protecting the environment and maintain compliance.
- Optimizing of current infrastructure and resources.

### 2020–2029 project highlights

- Start new water supply exploration studies to support growth at Logan and Guelph South test wells.
- Create detailed engineering design and construction of the major capital renewal at FM Woods Site infrastructure to address key risks noted during the Council approved Drinking Water Quality Management System risk assessment.
- Assess condition of the Arkell Aqueduct—critical to the City’s ability to provide drinking water and sustain current service levels.
- Replace water supply system in conjunction with wastewater and road reconstruction projects including Applewood Crescent—Willow Road, Delshi Street—Eramosa to Emma, Whitelaw Road—Shoemaker to Paisley, Erin Avenue—lane to end.

Please refer to the detailed 2020-2029 capital budget and forecast for more information.

## Operating impacts

There are no operating impacts from 2020 approved capital spending.

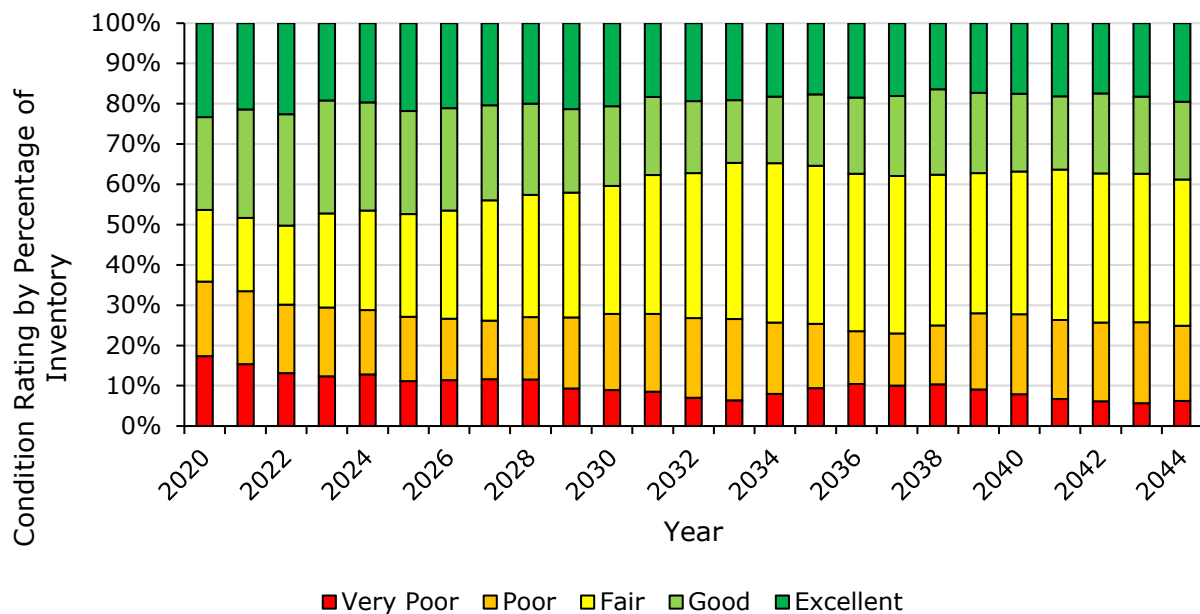
## Managing our assets through capital investment

### Performance Observations

Figure 17 show assets that provide the City’s water services including water pipes, wells and water treatment. The water capital forecast predicts an overall improvement of performance between 2020 and 2044. This will improve overall system reliability by reducing unexpected breakdowns.

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

**Figure 17, Water services asset condition forecast for 2020-2044**



## 10 year budget forecast

**Table 13, Water Services**

Program, Sub-program and Project	2020	2021	2022	2023	2024	2025-2029	Total
<b>Plant and Equipment</b>							
FT0008 Water Services Vehicle and Equipment Replacement	108,800	540,500	124,400	382,000	331,700	2,778,300	4,265,700
PN0693 FM Woods Station Upgrade	26,407,000	796,000	161,000	193,000	-	-	27,557,000
PN0698 Verney Tower Feedermain and Valve Chamber Replacements	-	300,000	-	-	-	-	300,000
PN0829 Plant Security and Automation	714,000	684,000	718,000	743,000	726,000	2,620,000	6,205,000
PN0830 Aqueduct Upgrades	1,000,000	200,000	60,000	12,000,000	3,000,000	600,000	16,860,000
PN0860 Clair-Maltby Elevated Water Tower and Transmission Connection	-	-	-	-	-	15,000,000	15,000,000
PN0864 Water Inventory, Risk Assessment, Levels of Service and Condition Assessment	-	-	-	-	300,000	300,000	600,000
WT0002 Water New Supply	6,610,000	2,041,000	2,523,000	2,523,000	4,647,000	8,800,000	27,144,000
WT0008 Non Revenue Supply	-	352,000	358,000	358,000	363,000	1,476,000	2,907,000
WT0009 Groundwater Protection	1,100,000	940,000	936,000	1,086,000	1,046,000	3,253,000	8,361,000
WT0015 Robertson Booster Upgrades	-	-	7,150,000	-	-	-	7,150,000
WT0023 Servicing Studies	100,000	-	100,000	-	100,000	200,000	500,000
WT0025 East Side Booster Pumping Station (BPS) and Reservoir	-	-	500,000	500,000	7,000,000	6,025,000	14,025,000
WT0032 Quality Upgrades	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
WT0040 Facility Upgrades and Studies	3,416,000	3,869,000	7,919,000	3,304,000	2,235,000	13,467,000	34,210,000
WT0041 Membro Well Facility Upgrades	200,000	-	-	-	-	-	200,000
WW0106 Conservation and Efficiency	432,000	1,080,000	658,000	432,000	405,000	3,164,000	6,171,000
<b>Total Plant and Equipment</b>	<b>40,287,800</b>	<b>11,002,500</b>	<b>21,407,400</b>	<b>21,721,000</b>	<b>20,353,700</b>	<b>58,683,300</b>	<b>173,455,700</b>
<b>Water Distribution</b>							
PN0024 Applewood Cres - Willow Rd to Willow Rd	-	2,500,000	2,500,000	-	-	-	5,000,000
PN0065 Arkell - Wellington Street Transmission Main (W-I-14)	-	-	-	505,000	-	4,632,000	5,137,000
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

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
PN0090 Robinson / Silvercreek Transmission / Trunk - Phase 1-Yorkshire	-	500,000	1,985,000	-	-	-	2,485,000
PN0091 Robinson / Silvercreek Transmission / Trunk - Phase 2A-Yorkshire	-	-	-	-	8,055,000	-	8,055,000
PN0092 Robinson / Silvercreek Transmission / Trunk - Phase 2B-London	-	-	-	-	1,245,000	-	1,245,000
PN0093 Robinson / Silvercreek Transmission / Trunk - Phase 3-York	-	-	-	-	-	6,475,000	6,475,000
PN0094 Robinson / Silvercreek Transmission / Trunk - Phase 4-Kathleen	-	-	-	-	-	6,160,000	6,160,000
PN0095 Robinson / Silvercreek Transmission / Trunk - Phase 5-Exhibition	-	-	-	-	-	8,260,000	8,260,000
PN0104 Woodlawn Watermain / E Transmission - Phase 1- Victoria - East City limit	-	-	-	-	-	8,218,000	8,218,000
PN0105 Woodlawn Watermain / E Transmission - Phase 2- Woolwich / Victoria	-	-	-	-	-	17,107,000	17,107,000
PN0179 Hydraulic Modelling Update and Risk Analysis	-	-	-	-	-	500,000	500,000
PN0238 University Avenue West- College Avenue West To Borden Street	-	997,000	-	-	-	-	997,000
PN0241 East Side Transmission Line (Wi-26)	-	-	-	-	100,000	1,800,000	1,900,000
PN0244 Hanlon- Wellington Street / Clair Street (W-I-3)	400,000	-	6,120,000	4,005,000	4,680,000	8,750,000	23,955,000
PN0247 Scout Camp Aqueduct Tie-In (W-I-2)	-	-	-	-	-	2,500,000	2,500,000
PN0251 Development Oversizing (W-I-25)	100,000	-	100,000	-	100,000	200,000	500,000
PN0252 Zone 1/2 Boundary North Of Speed River (W-I-7)	-	-	-	-	250,000	450,000	700,000
PN0268 Paisley Feedermain-Silver-Res	1,000,000	2,500,000	-	-	-	-	3,500,000
PN0692 Wellington:Edinburg South-Siphon Rehabilitation	-	-	4,000,000	-	-	-	4,000,000
PN0695 Meter Maintenance	1,435,000	1,462,000	1,613,000	375,000	375,000	12,500,000	17,760,000
PN0696 Valve Maintenance	200,000	200,000	200,000	130,000	130,000	653,000	1,513,000
PN0697 Watermain Maintenance	485,000	485,000	485,000	495,000	505,000	2,289,000	4,744,000
PN0735 Old University/Area 8 Watermain Replacement	-	-	5,500,000	-	-	-	5,500,000
PN0775 Water Distribution Piping Replacement and Loop (W-I-20)	300,000	300,000	300,000	300,000	300,000	1,200,000	2,700,000
PN0776 Asset Replacement	300,000	300,000	300,000	300,000	300,000	1,200,000	2,700,000

PN0778 South End - Transmission Mains (Ring S)(W-I-27)	-	-	-	-	-	174,000	174,000
PN0780 Delhi Street - Eramosa To Emma	-	7,395,000	-	-	-	-	7,395,000
PN0809 Gordon Street- Breadbar Plaza Entrance To University	-	-	-	-	-	2,086,000	2,086,000
PN0812 Wyndham Street South: Wellington Street East To Surrey Street East	-	-	-	-	-	1,234,000	1,234,000
PN0818 Pipe Advanced Condition Assessment	-	150,000	150,000	150,000	150,000	600,000	1,200,000
PN0827 Pipe Cathodic Protection Pilot Program	-	250,000	450,000	-	-	-	700,000
PN0828 Pipe Opportunistic Sampling of Polyvinyl Chloride (PVC) Pipe	-	30,000	40,000	-	-	-	70,000
PN0836 Block Plan Area and Glenholme Drive Area - 33	-	-	-	-	-	1,155,000	1,155,000
PN0837 Block Plan Area and Glenholme Drive Area -103	-	-	-	-	-	54,000	54,000
PN0838 Block Plan Area and Glenholme Drive Area - 930	-	-	-	-	-	49,000	49,000
WD0020 Water Carter Aqueduct (Wi-13)	-	-	-	-	3,478,000	-	3,478,000
WT0043 Arkell Carter Management	60,000	30,000	30,000	30,000	30,000	150,000	330,000
To Stormwater	(25,000)	(789,000)	(120,000)	(56,000)	(1,008,000)	(10,356,000)	(12,354,000)
To Transportation	(125,000)	(1,686,000)	(460,000)	-	(930,000)	(9,336,000)	(12,537,000)
To Wasterwater	(29,000)	(4,173,000)	(5,251,000)	-	(4,945,000)	(21,536,000)	(35,934,000)
From Stormwater	24,000	-	630,000	625,000	-	2,287,000	3,566,000
From Transporation	315,000	1,847,000	1,707,000	953,000	1,939,000	7,034,000	13,795,000
From Wastewater	5,032,000	8,671,000	3,834,000	1,151,000	385,000	14,146,000	33,219,000
<b>Total Water Distribution</b>	<b>9,472,000</b>	<b>21,129,000</b>	<b>24,113,000</b>	<b>8,963,000</b>	<b>16,926,000</b>	<b>91,697,000</b>	<b>172,300,000</b>
<b>Total Water Services</b>	<b>49,759,800</b>	<b>32,131,500</b>	<b>45,520,400</b>	<b>30,684,000</b>	<b>37,279,700</b>	<b>150,380,300</b>	<b>345,755,700</b>

**Table 14, 2020 to 2029 forecast debt requirements**

Description	Year of approval	Tax debt	Non-tax debt	Development charges	Total debt to be approved
Water Treatment Facility Upgrade	2019-2024		16,000,000		16,000,000
Operations Campus Preparation	2020	5,500,000			5,500,000
Transit Facility	2020-2022	17,157,000		20,000,000	37,157,000
South End Community Centre	2021	8,773,000		28,000,000	36,773,000
Downtown Library	2021	44,933,500		13,000,000	57,933,500
Collection Operations Centre	2021	7,000,000			7,000,000
Downtown Parkade	2022		13,178,000	7,000,000	20,178,000
Downtown Redevelopment	2014-2021	15,000,000			15,000,000
Water Aqueduct Upgrades	2023-2025		15,000,000		15,000,000
Operations and Fleet Facility	2024-2026	62,000,000		5,000,000	67,000,000
Parks Operations Facility	2028	10,000,000		10,000,000	20,000,000
Corporate Energy (100%RE)	2021-2029	30,000,000			30,000,000
Downtown Streetscape	2024-2029	8,897,800			8,897,800
<b>Total</b>		<b>209,261,300</b>	<b>44,178,000</b>	<b>83,000,000</b>	<b>336,439,300</b>