Finance and Corporate Services Committee
Agenda

Monday, May 13, 2024, 2:00 p.m. - 3:30 p.m.
Council Chambers - Hybrid
City of Kitchener
200 King Street W, Kitchener, ON N2G 4G7

People interested in participating in this meeting can register online using the delegation registration form at www.kitchener.ca/delegation or via email at delegation@kitchener.ca. Please refer to the delegation section on the agenda below for registration in-person and electronic participation deadlines. Written comments received will be circulated prior to the meeting and will form part of the public record.

The meeting live-stream and archived videos are available at www.kitchener.ca/watchnow.

Accessible formats and communication supports are available upon request. If you require assistance to take part in a city meeting or event, please call 519-741-2345 or TTY 1-866-969-9994.

Chair: Councillor S. Davey
Vice-Chair: Councillor B. Ioannidis

Pages

1. **Commencement**

2. **Disclosure of Pecuniary Interest and the General Nature Thereof**
   Members of Council and members of the City's local boards/committees are required to file a written statement when they have a conflict of interest. If a conflict is declared, please visit www.kitchener.ca/conflict to submit your written form.

3. **Consent**
   The following matters are considered not to require debate and should be approved by one motion in accordance with the recommendation contained in each staff report. A majority vote is required to discuss any report listed as under this section.

3.1 None.

4. Delegations

Pursuant to Council's Procedural By-law, delegations are permitted to address the Committee for a maximum of five (5) minutes. All Delegations where possible are encouraged to register prior to the start of the meeting. For Delegates who are attending in-person, registration is permitted up to the start of the meeting. Delegates who are interested in attending virtually must register by 12:00 p.m. on May 13, 2024, in order to participate electronically.

4.1 None at this time.

5. Discussion Items

5.1	**Asset Management Plans, Non-Core Assets, FIN-2024-208** *(Staff will provide a 5-minute presentation on this matter.)*	30 m	3
5.2	**Reserve Fund Policy Update, FIN-2024-222** *(Staff will provide a 5-minute presentation on this matter.)*	30 m	400

6. Information Items

6.1	**Strategic Plan Update - April 2024 Implementation, CAO-2024-220**	422

7. Adjournment

Dianna Saunderson
Manager of Council/Committee Services & Deputy Clerk

REPORT TO:	**Finance and Corporate Services Committee**
DATE OF MEETING:	**May 13, 2024**
SUBMITTED BY:	**Ryan Hagey, Director of Asset Management & Financial Planning, 519-741-2200 ext. 7353**
PREPARED BY:	**Brad Wakelin, Manager of Infrastructure Asset Planning, 519-741-2200 ext. 4173**
WARD(S) INVOLVED:	**All Wards**
DATE OF REPORT:	**May 1, 2024**
REPORT NO.:	**FIN-2024-208**
SUBJECT:	**Asset Management Plans for Non-Core Assets**

RECOMMENDATION:

That the Asset Management Plans for the City's non-core assets as attached to Financial Services Department report FIN-2024-208 be approved; and,

That Policy GOV-COR-506 Corporate Asset Management as attached to report FIN-2024-208 be approved.

REPORT HIGHLIGHTS:

- The purpose of this report is to approve the asset management plans (AMPs) for non-core City assets, and update the City's Asset Management policy.
- This report supports the delivery of core services.

BACKGROUND:

Asset management is a coordinated set of activities to realize optimal value from the organization's assets throughout their lifecycle. This includes original construction/acquisition, day-to-day operating and maintenance activities, more significant rehabilitation and renewal investments, all the way up to asset retirement and disposal.

In addition to the various treatments applied to physical assets, having appropriate information and a proper framework is key to effective asset management. This report deals with the City's asset management plans, and policy required by legislation.

REPORT:

Asset Management Plans (AMPs)

All municipalities must prepare AMPs to comply with *O.Reg.588/17: Asset Management Planning for Municipal Infrastructure*. The regulation prescribes the content to be included in the AMPs which includes information such as:

- Current levels of service
- Performance of assets
- Statistical information (e.g. replacement cost, age, condition)
- Lifecycle activities needed to maintain the current levels

The regulation also includes specific compliance deadlines, which are highlighted below. The City is on track to meet all legislated deadlines.

- For **core assets,** AMPs with current levels of service were required to be completed by the July 1, 2022. This was achieved by the City prior to the deadline.
- For **non-core assets,** AMPs with current levels of service are required to be completed by July 1, 2024. This will be achieved with the approval this report's recommendations.
- Further, for **all asset types**, proposed levels of service are required to be completed by July 1, 2025.

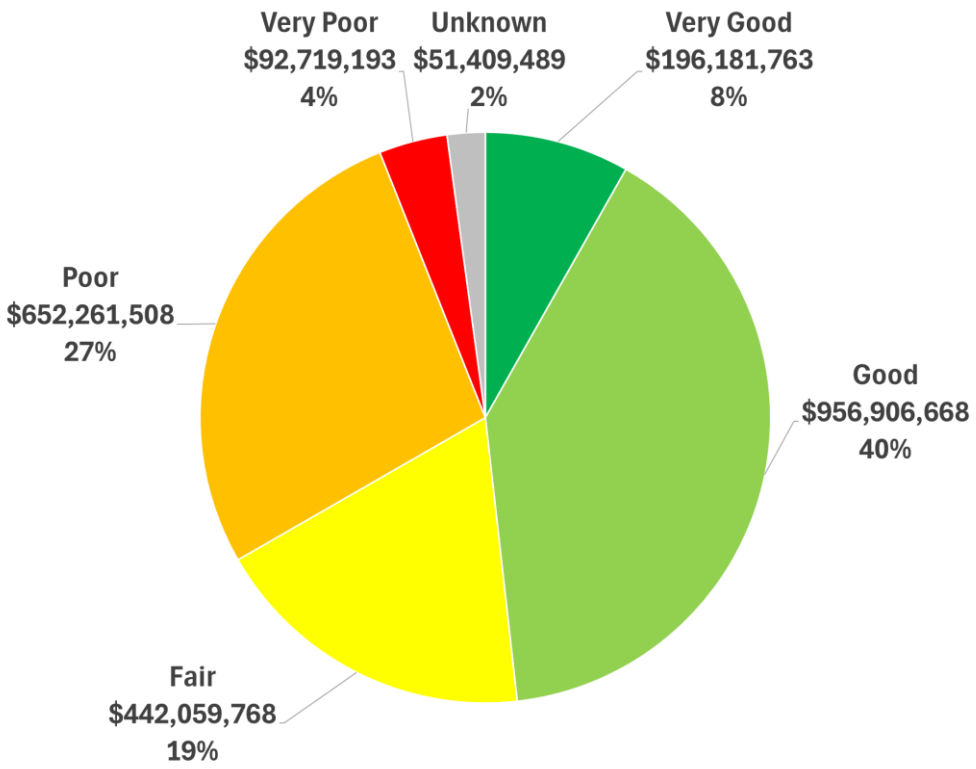
AMPs for the non-core assets are attached to this report and will be posted online once approved by Council. Core and non-core assets are summarized in the table below.

City Assets Included in Asset Management Plans (AMPs)

Core Assets (already approved)	Non-Core Assets (approved with this report)
Water	Facilities
Wastewater	Cemeteries
Stormwater	Parking
Roads	Parks & Trails
Bridges & Culverts	Golf
Gas	Forestry
	Transportation
	Fleet

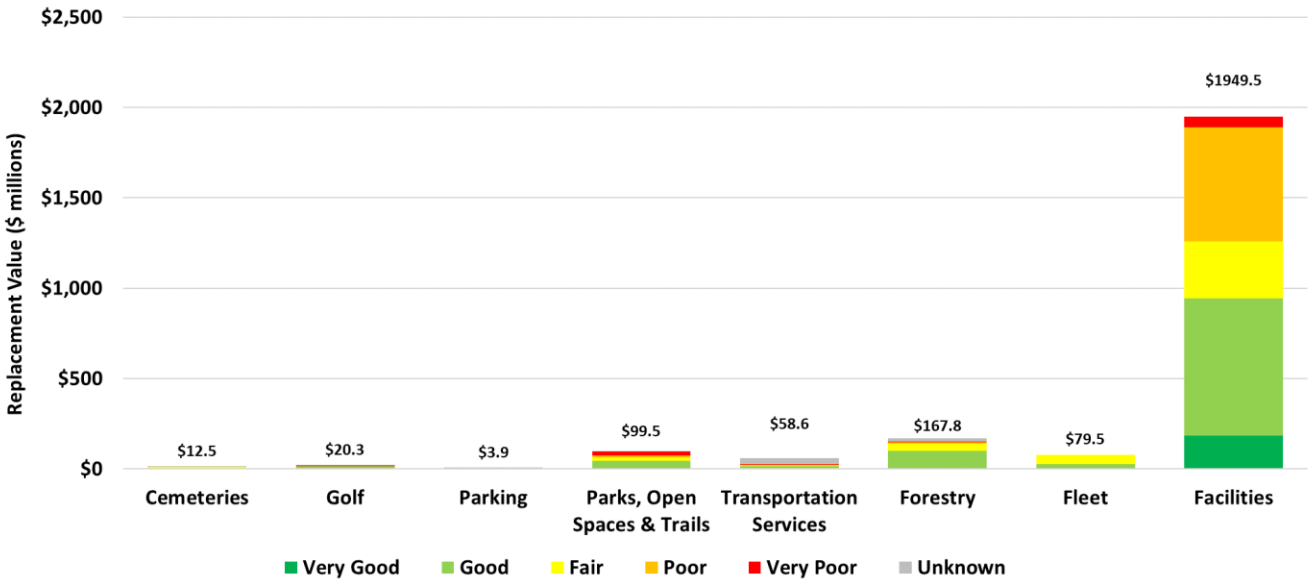
The total value of the City's non-core assets included in the AMPs is $2.4B. Based on current condition data, roughly half of these assets are in good to very good condition, nearly 20% are in fair condition, and about 30% are in poor to very poor condition. The overall condition of non-core assets is shown in the pie graph below.

Overall Condition of Non-Core Assets



Facilities are by far the largest of these asset types ($1.9B) and account for 81% of non-core assets. Condition of non-core asset condition by type is provided in the graph below.

Condition of Non-Core Assets by Type



Developing AMPs for all the non-core assets is a good first step towards better management of these assets. The AMPs provide valuable base knowledge such as the replacement value, age, and condition of these assets which will inform future maintenance and replacement decisions.

The fact that there are some assets in poor or very poor condition means significant investments may be needed to restore these assets or replace them. This is not a surprise, and is an issue facing municipalities across Canada. The Federation of Canadian Municipalities (FCM) which represents more than 2,100 municipalities has continually advocated at the federal and provincial levels for additional funding to address municipal infrastructure needs.

In 2019 as part of the Long-Term Financial Plan staff identified a 10-year facilities infrastructure gap of $227M and recommended actions to increase funding to aid in facility renewal. This included refocusing Federal Gas Tax funding from road resurfacing to facilities, and using available budget room from expiring Economic Development Invest Fund (EDIF) debt payments on facilities. These measures resulted in approximately $70M in additional funding being put towards facility renewal over a 10-year timeframe.

As proposed level of service (LOS) work is prepared in advance of the July 1, 2025 deadline, staff will update the infrastructure gap figure and continue to investigate methods to increase funding for renewal activities. The proposed LOS work includes:

- An explanation of why the proposed LOS are appropriate for the municipality
- Proposed performance targets for each asset category
- A lifecycle management and financial strategy for each asset category, including:
    - An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service
    - An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities
    - An identification of the annual funding projected to be available
    - An explanation of how the municipality will manage the risks associated with not undertaking any of the lifecycle activities

In recent years there have been indications that municipalities who do not comply with asset management legislation will be ineligible for grant funding opportunities from other levels of government, so delaying a decision beyond the July 1, 2024 deadline could result in the City being disqualified from beneficial funding opportunities. Staff believe funding from other levels of government is a crucial component of the infrastructure funding model, so ensuring the City's AMPs are passed ahead of the deadline is imperative for continued success in addressing Kitchener's infrastructure needs.

<u>Asset Management Policy</u>

In addition to AMPs, the City is required to have an asset management policy. The City has had a policy in place since 2012, with a revision occurring in 2018. Since it has been more than 5 years since the last update, some changes to the policy are being recommended to ensure compliance with the Provincial regulation.

Outdated references to a previous Strategic Plan, as well as prior asset management terminology like "Phase 1 & 2 AMP" have been removed. A new section called Guiding Principles has been added to the policy, and updates have been made to the Objectives section,

as well as the Roles & Responsibilities section. Overall, staff believe these updates make the policy more relevant to the current asset management environment and compliant with legislation.

STRATEGIC PLAN ALIGNMENT:
This report supports the delivery of core services.

FINANCIAL IMPLICATIONS:
Asset Management Plans (AMPs)
There are no financial implications at this time. However, the information included in the AMPs and subsequent work related to proposed levels of service will be used to determine funding levels and risks of inadequate funding. This information will be used to inform requests through future budget processes.

Asset Management Policy
There are no financial implications related to the updated policy.

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

PREVIOUS REPORTS/AUTHORITIES:
- INS-18-017 Updated Corporate Asset Management Policy
- 2022 City of Kitchener Consolidated Asset Management Plan Summary

APPROVED BY: Jonathan Lautenbach, Chief Financial Officer

ATTACHMENTS:
- Cemeteries Asset Management Plan
- Forestry Asset Management Plan
- Cemeteries Asset Management Plan
- Golf Asset Management Plan
- Parking Asset Management Plan
- Parks, Open Spaces & Trails Asset Management Plan
- Transportation Asset Management Plan
- Facilities Asset Management Plan
- Fleet Asset Management Plan
- Asset Management Policy

2024

Cemetery Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Cemetery Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide cemetery services. The largest portion of the asset mix are Cemetery Infrastructure – Linear (roadways, parking lots and fencing) assets with a replacement value of $5.6M and Interment Memorials with a replacement value of $5.5M. These two categories of assets account for approximately 89% of the total replacement value of all cemetery assets.

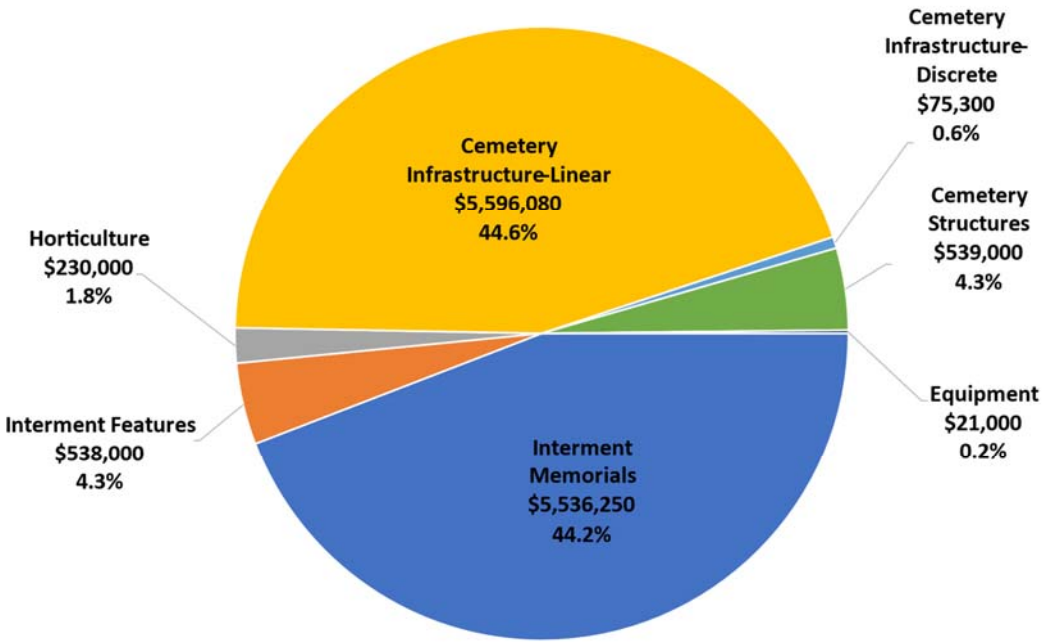
The infrastructure assets covered by this AM Plan are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Cemetery Infrastructure – Discrete	Garbage Cans, Fountains, Gates, Bollards, Benches	$75,300
Cemetery Infrastructure – Linear	Roadways/Parking Lots, Fences	$5,596,080
Cemetery Structures	Wetland Gazebo, Wetland Bridge, Pond Bridge, Dedication Centre Pergola, Serbian Pergola, Trail Entrance Features	$539,000
Equipment	Lowering Units	$21,000
Horticulture	Horticultural Beds	$230,000
Interment Features	Art/Artifacts, Stone Walls, Reflection Stones	$538,000
Interment Memorials	Statues, Memorial Trees, Memorial Benches, Burial Greens, Urn Tables, Columbarium, Ossuary/Scattering Gardens, Memorial Plaques	$5,536,250
TOTAL		**$12,535,630**

The above infrastructure assets have a replacement value estimated at $12.5 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is insufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period.

The main service consequences of the Planned Budget are:

- While performance measure data is not available for capacity and use for prior years, it is estimated that casket and in-ground cremation lots will be sold out in approximately 15-20 years. This may warrant closer attention for investment in growth of assets to ensure the City can provide adequate cemetery services.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are:

- Population growth
- Aging population

These demands will be approached using a combination of lifecycle management and non-asset solutions such as:

- Expansion and addition of cemetery infrastructure to accommodate the increase and aging of the population.
- The promotion of sustainable burial practices such as cremation.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan include operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output

from the AM Plan is the forecast of 10-year total outlays, which for the cemetery services portfolio is estimated to be $25.9 million or $2.59 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10-year period is $25.4 million or $2.54 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 98% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for cemetery services leaves a shortfall of $0.05 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2: Lifecycle Summary

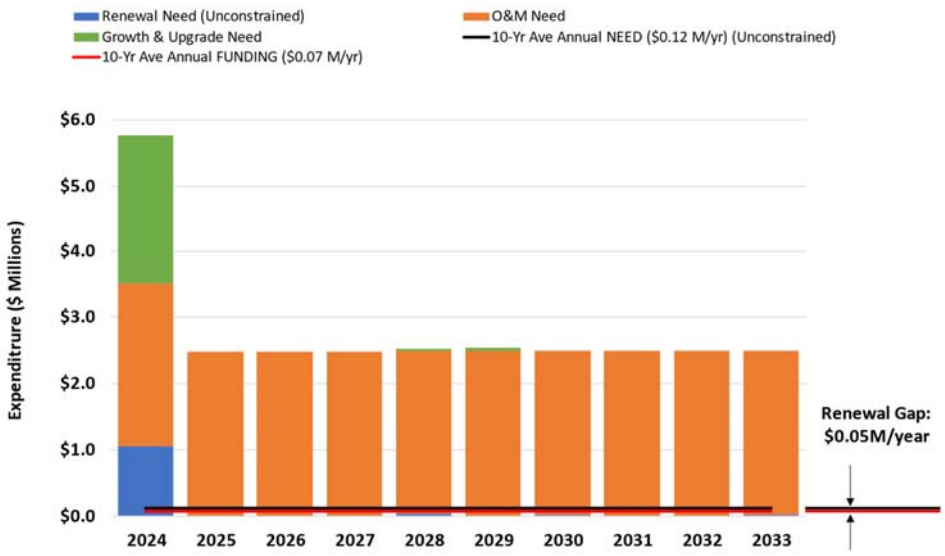


Figure Values are in current year (2023) dollars.

We plan to provide cemetery services for the following:

- Operation, maintenance, renewal and acquisition of cemetery assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10-year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain these services at the current standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.05 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs and deteriorating assets.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to asset lifecycle planning to focus available funding on critical assets.
- Pursue available grants from higher levels of government.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Assumptions were made regarding the estimated service life of certain assets. For example, the estimated service lives for Ossuary/Scattering Gardens, Fences and Bollards were assumed to be 100, 50 and 10 years respectively.

Assets requiring renewal are identified from the asset register.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal.
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a high level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, City to set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).

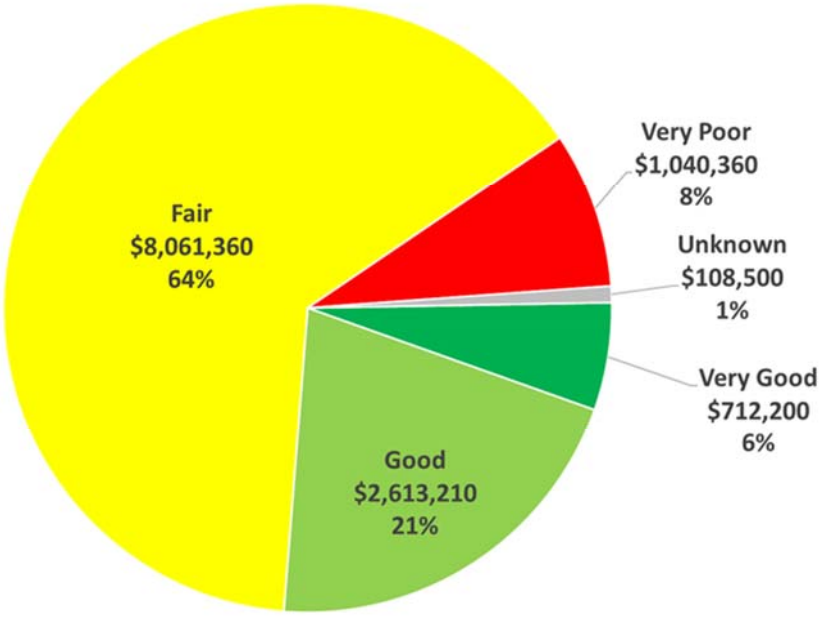
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities cemeteries assets for which the City is responsible for lifecycle management. Any facilities associated with cemetery services have been covered in the Facilities AM Plan. The infrastructure assets included in this plan have a total replacement value of $12.5 million.

Figure 2.1 – City of Kitchener Non-Core Cemeteries Asset Condition and Value

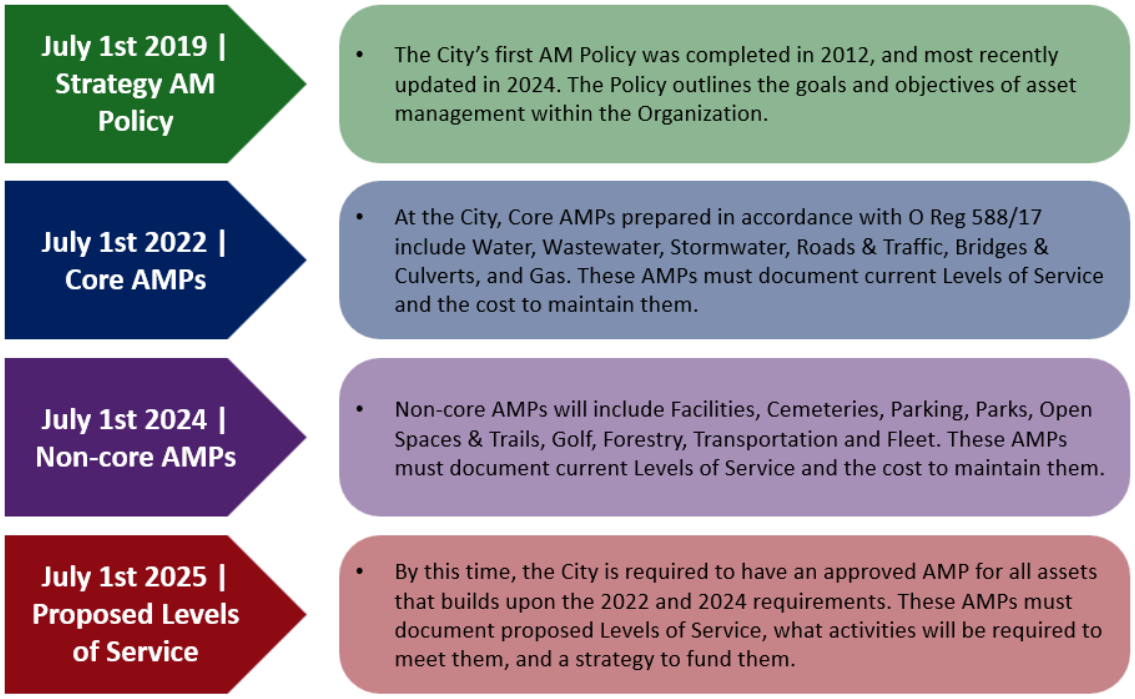


2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

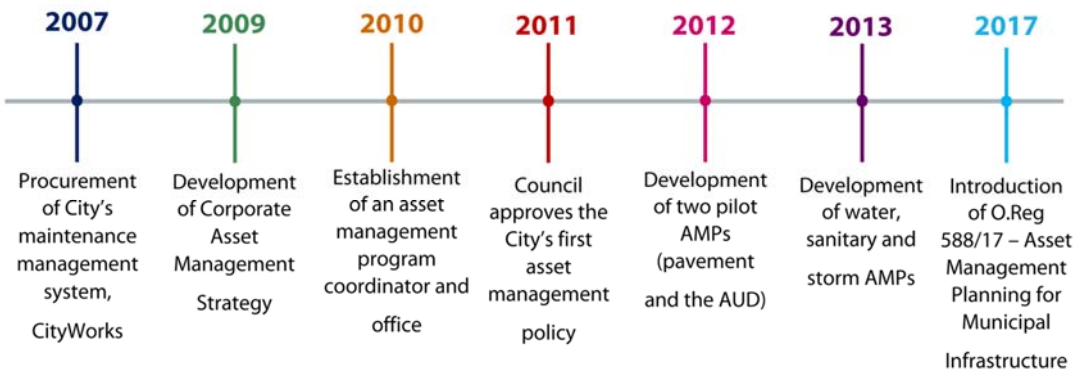


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline



2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AM Plan should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in

Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's cemetery services. The assets covered by this AM Plan are shown in Table 3.1.1. All table and figure values are shown in current year (2023) dollars.

The largest portion of the asset mix are Cemetery Infrastructure – Linear (roadways, parking lots and fencing) assets with a replacement value of $5.6M and Interment Memorials with a replacement value of $5.5M. These two categories of assets account for approximately 89% of the total replacement value of all cemetery assets.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Cemetery Infrastructure – Discrete	Garbage Cans, Fountains, Gates, Bollards, Benches	$75,300
Cemetery Infrastructure – Linear	Roadways/Parking Lots, Fences	$5,596,080
Cemetery Structures	Wetland Gazebo, Wetland Bridge, Pond Bridge, Dedication Centre Pergola, Serbian Pergola, Trail Entrance Features	$539,000
Equipment	Lowering Units	$21,000
Horticulture	Horticultural Beds	$230,000
Interment Features	Art/Artifacts, Stone Walls, Reflection Stones	$538,000
Interment Memorials	Statues, Memorial Trees, Memorial Benches, Burial Greens, Urn Tables, Columbarium, Ossuary/Scattering Gardens, Memorial Plaques	$5,536,250
TOTAL		**$12,535,630**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

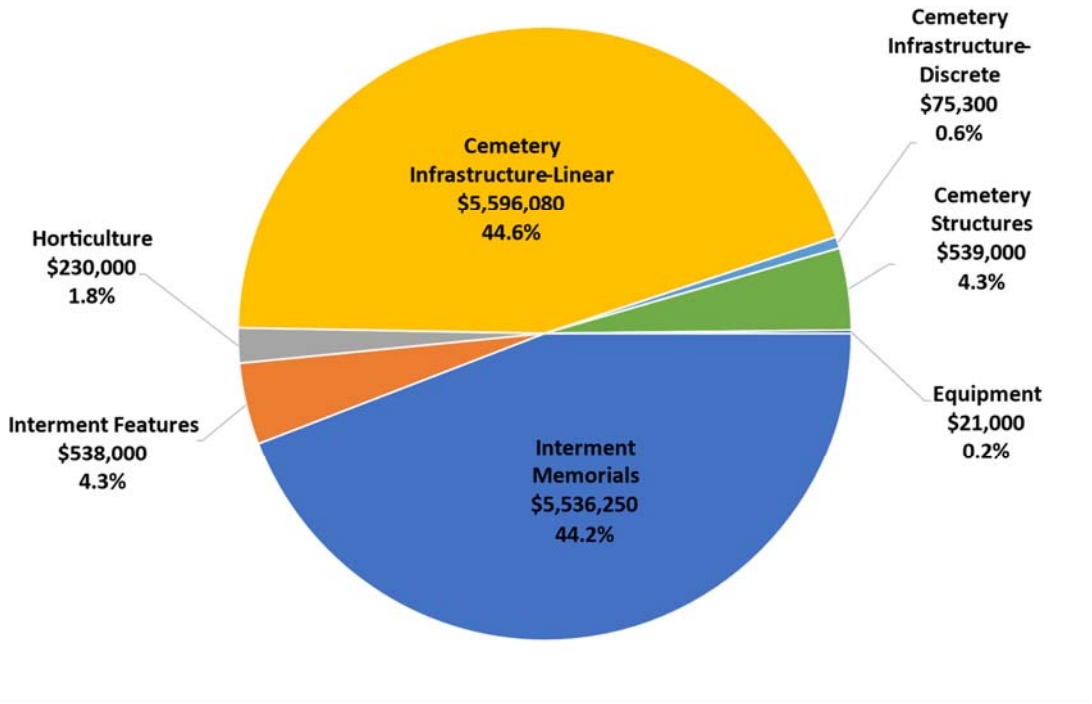
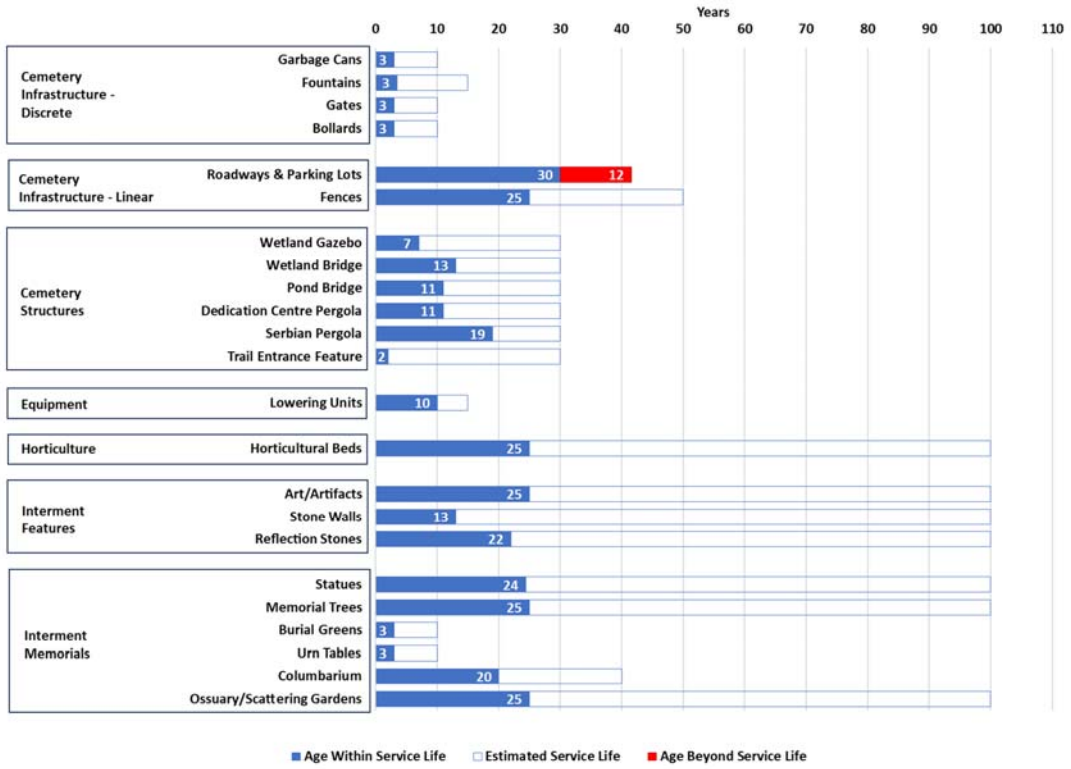


Figure 3.1.2: Asset Age Profile



Notes on the above Asset Age Profile:

- Memorial Benches and Memorial Plaques are not included because they are missing information on age and condition.
- Roadways & Parking lots have the highest age to service life ratio with an average age of 42 years compared to an estimated service life of 30 years.
- Assets categorized as Interment Features and Interment Memorials have a much lower age to service life ratio.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Cemetery Infrastructure & Structures	Maintains the cemetery's infrastructure including roads, walkways, and parking lots. This ensures that the cemetery is accessible and safe for visitors.
Equipment	Ensures that the burial process is conducted in a safe and dignified manner.
Horticulture	Maintains the cemetery's grounds and landscaping. This creates a peaceful environment that is conducive to mourning and reflection.
Interment Features & Memorials	Provides a range of burial options and memorialization services to bereaved families. This ensures that the cemetery provides a dignified and respectful final resting place.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Cemetery Infrastructure – Linear	This category has the highest proportion of assets in very poor condition and has a higher average age. There is a potential for deficiency in this category if left unaddressed.
Interment Memorials	This category of assets has a significant portion of assets with a fair condition rating. This category of assets needs to be monitored closely to maintain quality.
Cycling Trails and Parking	It was identified in the City of Kitchener Cycling and Trails Master Plan 2020 that future development is required in parks and cemeteries for cycling and trail infrastructure to meet community needs.

The above service deficiencies were identified from the Cycling and Trails Master Plan 2020, Places & Spaces – Parks Strategic Plan and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections of City owned assets on an as needed basis. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these condition assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
	No formal condition assessment program	

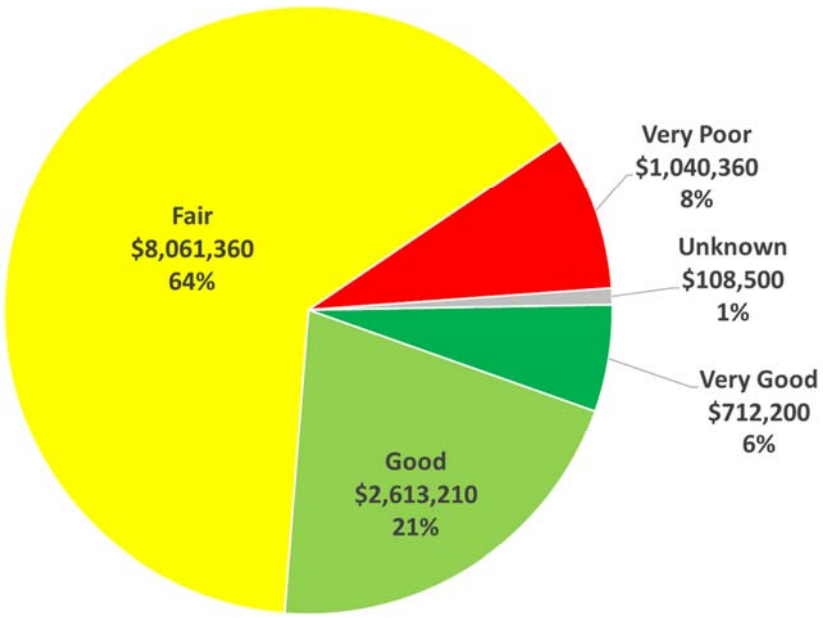
Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the City's cemetery assets provides some perspective on the overall reliability of its infrastructure. Overall, approximately 91% of the City's cemetery assets have a condition rating of fair or better. This highlights the City's commitment to maintaining these services.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries was performed. The purpose of this review was to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide the basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Cemetery Infrastructure – Discrete	Good	Good	Good	Good	Good	Good	Good
Cemetery Infrastructure – Linear	Good	Good	Good	Good	Good	Good	Good
Cemetery Structures	Good	Good	Good	Good	Good	Good	Good
Equipment	Good	Good	Good	Good	Good	Good	Good
Horticulture	Good	Good	Good	Good	Good	Good	Good
Interment Features	Good	Good	Good	Good	Good	Good	Good
Interment Memorials	Good	Good	Good	Good	Good	Good	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan.

Key assumptions related to the asset registries made in this AM Plan are:

- Assumptions were made regarding the estimated service life of certain assets. For example, the estimated service lives for Ossuary/Scattering Gardens, Fences and Bollards were assumed to be 100, 50 and 10 years respectively.

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

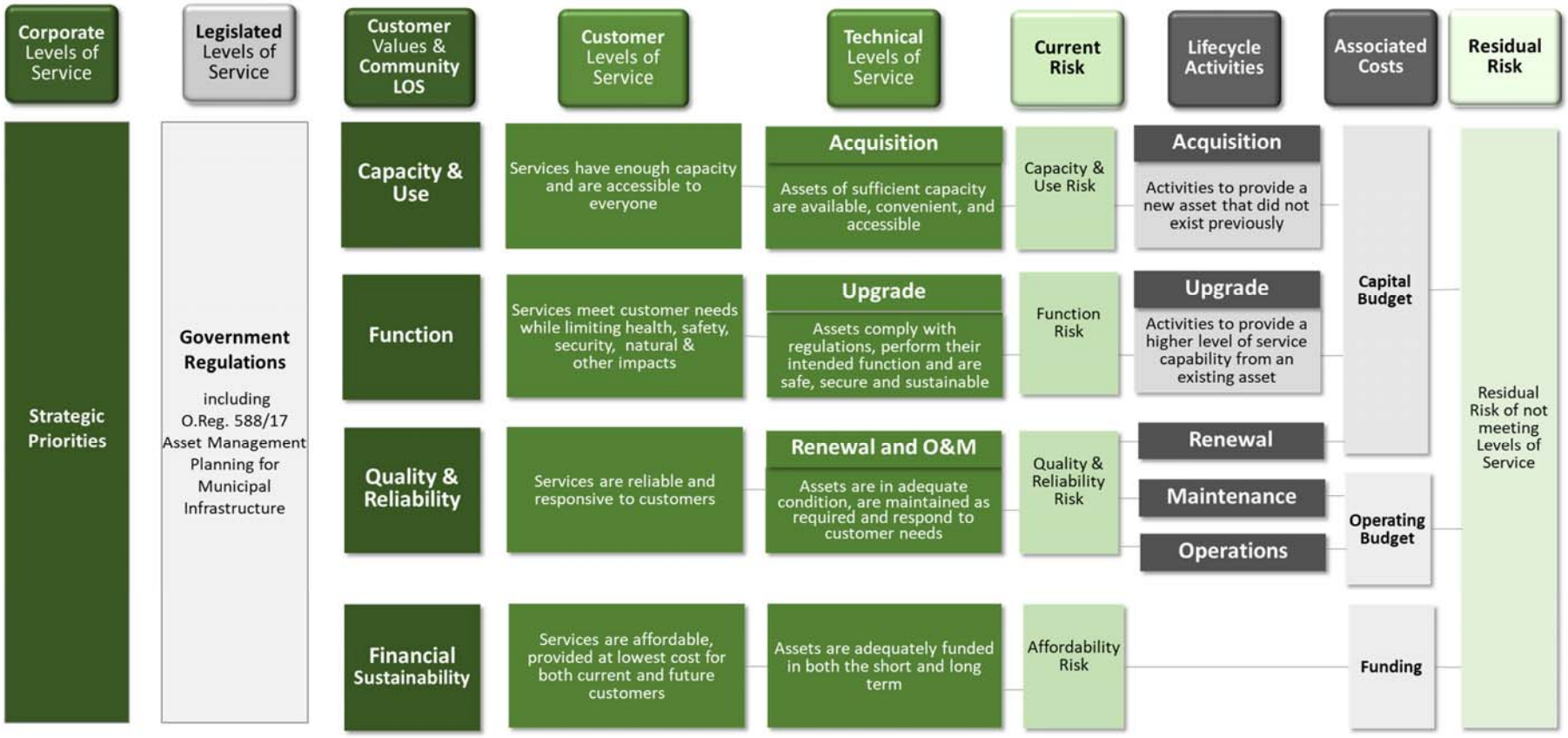
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

Currently, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councillors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Building a Connected City Together	We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes. We get around easily, sustainably and safely to the places and spaces that matter most to us.	By investing in cemetery assets, the City can provide a peaceful and serene environment for residents to visit their loved ones. This can help foster a sense of community and belonging among residents.
Fostering a Caring City Together	We welcome residents of all ages, backgrounds and lived experiences. We work together on the decisions that matter to us and have a meaningful influence in our community. We're healthy and thriving as we easily access the diverse and inclusive programs and services we need to succeed.	Properly investing in and maintaining cemetery assets can help ensure that residents have access to a dignified and respectful final resting place. This can help promote a sense of inclusivity and respect for all residents, regardless of their background or lived experiences.
Stewarding a Better City Together	We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.	By investing in cemetery assets, the City can help preserve its history and heritage. Cemetery assets can serve as a valuable resource to help future generations understand the City's past.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core cemetery assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset.
Funeral, Burial and Cremation Services Act, 2002	The purpose of the Funeral, Burial and Cremation Services Act is to regulate bereavement service providers. The Act provides guidelines for the operation of cemeteries, crematoriums and funeral homes.
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment they include such as elevating devices.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? Do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Not available
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:



Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Capacity & Use	Ensure adequate infrastructure to meet growing population and community needs	Forecast time to deplete inventory of casket and cremation ground lots	Monitor Only	Casket and in-ground cremation lots are estimated to be sold out in 15-20 years	Not available	Not available	Not available
		Forecast time to deplete inventory of columbaria niches	Monitor Only	Columbarium inventory is expected to be sold out in 9-11 years	Not available	Not available	Not available
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets within service life (by replacement value)	Monitor Only	Not available	99.5%	Not available	Not available
		Average pavement condition index (PCI) of cemetery roads	Monitor Only	Future Metric	Not available	Not available	Not available

While performance measure data is not available for capacity and use for prior years, it is estimated that casket and in-ground cremation lots are to be sold out in approximately 15-20 years. This may warrant closer attention for investment in growth of assets to ensure the City is able to provide adequate cemetery services. Other metrics which will continue to be monitored by the City in future iterations of the AM Plan include the percentage of assets within service life and the average pavement condition index for cemetery roads.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such

as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Maintenance	Number of repairs due to damage from weather events or vandalism	Monitor Only	Future Metric	Not available	Not available	Not available
Maintenance	% of maintenance work orders completed on time	Monitor Only	Future Metric	Not available	Not available	Not available
Maintenance	# of maintenance requests	Monitor Only		1064	959	1208
Operations	Annual operating, maintenance, and expenditure costs	Monitor Only		$2,482,767	$2,174,160	$2,132,608

While the number of maintenance requests has seen a downward trend overall, this is seen as having a neutral impact on service delivery. The annual operating, maintenance and expenditure costs have seen an upward trend overall which is seen as having a positive impact on service delivery. This highlights the City's effort to operate and maintain their cemetery services effectively. Other metrics which will continue to be monitored by the City in future iterations of the AM Plan include the number of repairs due to damage from weather or vandalism and the percentage of maintenance work orders completed on time.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There may be a deficiency in the availability of cemetery services.	Expansion and addition of cemetery infrastructure to accommodate the increase and aging of the population.
Aging population	Population 70 years and older (9% in 2021)**	Population 70 years and older (16% projection in 2041)**	There will be an increase in demand for cemetery services.	

*2022 Development Charges Study
**2019 Leisure Facilities Master Plan

5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and

considered in developing forecasts of future operations andmaintenance costs for inclusion in the long-term financial plan (Refer to Section 8).

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accord with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2

Table 5.2 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Land Use	Limited land availability as the City grows	Limited land availability may impact the City's capacity for traditional burial services	The City can promote more sustainable burial practices such as cremation.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Building Asset Resilience to Climate change for any facilities related to cemetery services have been covered in the Facilities AM Plan.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include minor repairs.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

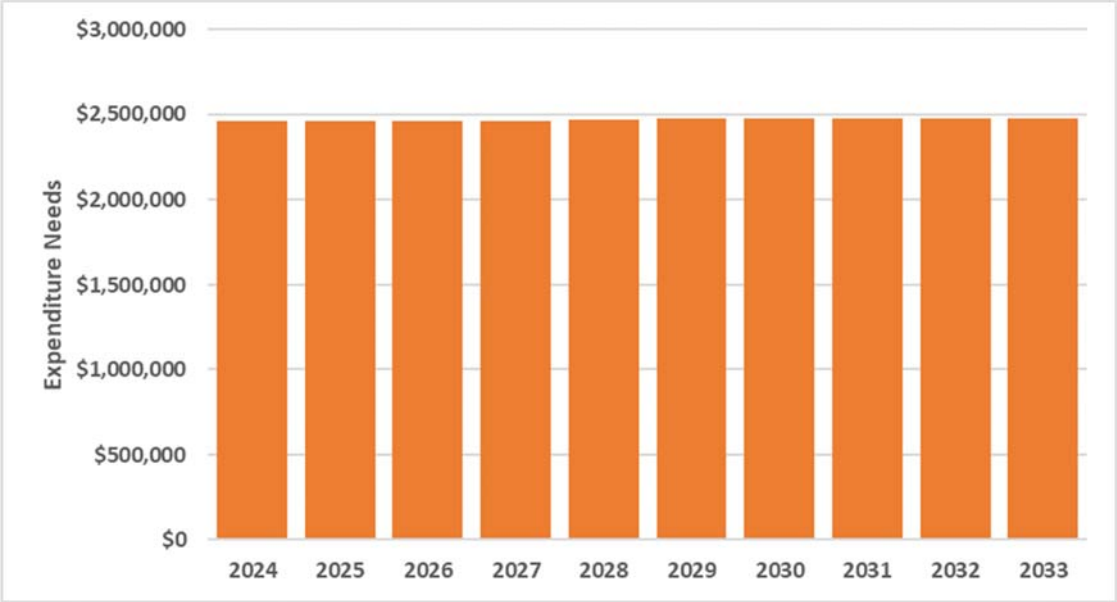
Year	Budget $
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$2,027,568
2022	$2,053,922
2023	$2,090,021
2024	$2,465,300

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$44,633

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.2.2.

Table 6.2.2: Useful Lives of Assets

Asset	Useful life (Years)
Statues	100
Art/Artifacts	100
Stone Walls	100
Reflection Stones	100
Memorial Trees	100
Memorial Benches	15
Burial Greens	10
Urn Tables	10
Columbarium	40
Horticultural Beds	100
Roadways & Parking Lots	30
Garbage Cans	10
Fountains	15
Wetland Gazebo	30
Wetland Bridge	30
Pond Bridge	30
Dedication Centre Pergola	30
Serbian Pergola	30
Trail Entrance Feature	30
Lowering Units	15
Ossuary/Scattering Gardens	100
Memorial Plaques	100
Fences	50
Gates	10
Bollards	10
Benches	15

The estimates for renewals in this AM Plan were based on the asset register data.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,

- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

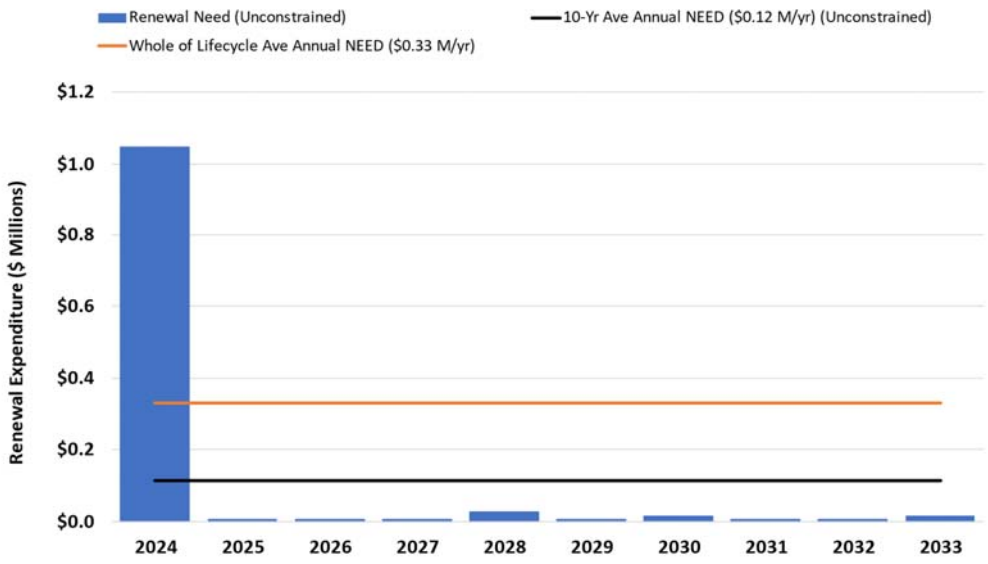
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). However, for the purposes of this analysis, only one renewal forecast scenario (Unconstrained) was considered because it is necessary to maintain the current condition profile of cemetery assets. Additionally, based on feedback provided by the City, certain assets are funded through the operating budget and have been excluded from the renewal forecast.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities

Year	Current Funding	Unconstrained Renewal Forecast
2024	$44,633	$1,047,565
2025	$45,526	$7,205
2026	$46,437	$7,205
2027	$87,366	$7,205
2028	$89,113	$7,205
2029	$90,895	$7,205
2030	$92,713	$15,955
2031	$94,567	$7,205
2032	$53,161	$7,205
2033	$54,223	$17,205
Annual Average	**$69,864**	**$115,216**

Assets with unknown condition (i.e. missing data on install date and staff reported condition) are forecasted using an average annual renewal amount (asset value / service life). For this reason, some of the renewal amounts in the chart above are consistent throughout the analysis period except certain assets which will need replacement at the end of their service life.

6.4 Acquisition Plan

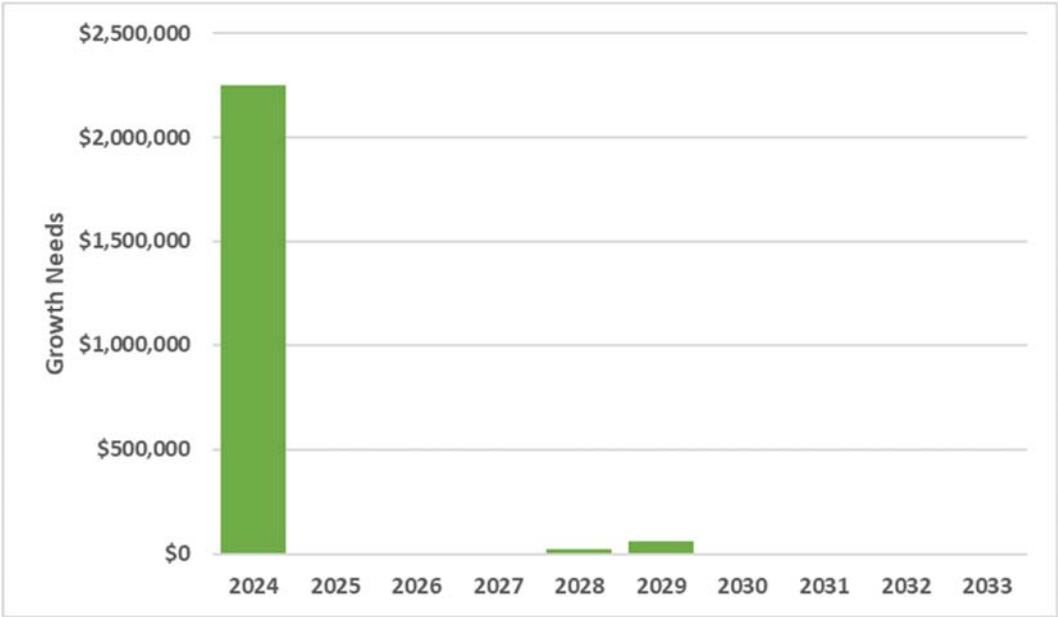
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the City's needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for the acquisition of cemetery assets, however this will be developed in future revision of this AM Plan.

The 2024 – 2033 Capital Plan contains two projects (Outdoor Columbarium and Additional Facilities/Expansion) which has been categorized as acquisition (growth) and will serve as a basis for the City's growth needs. Forecast acquisition asset costs are summarized in Figure 6.4.

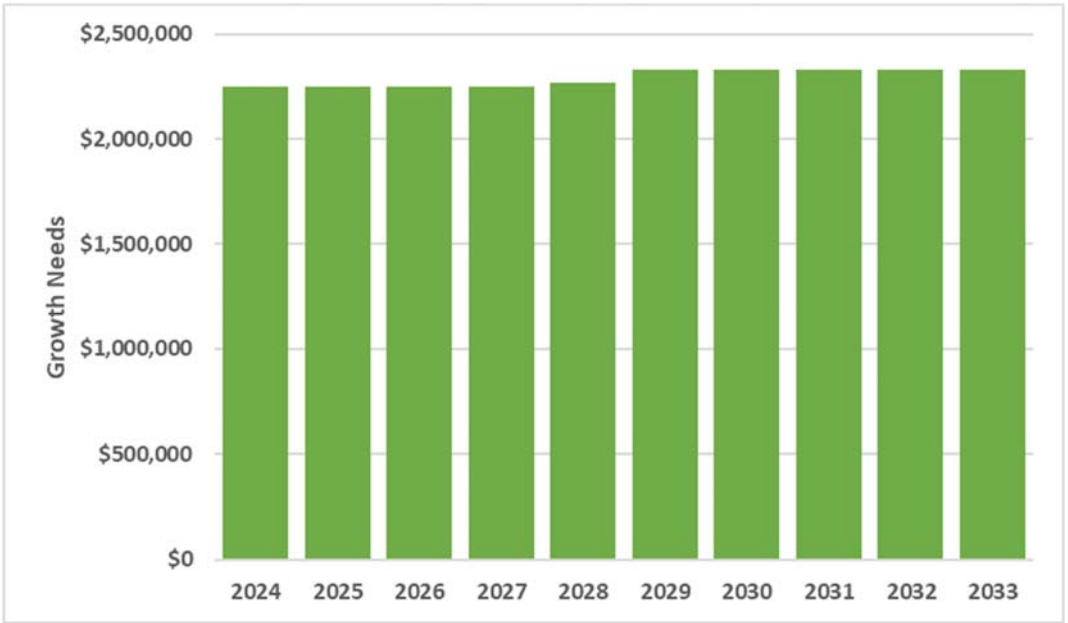
Figure 6.4: Yearly Acquisition Summary



All figure values are shown in current year (2023) dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.5.

Figure 6.5: Cumulative Acquisition Summary



All figure values are shown in current year (2023) dollars.

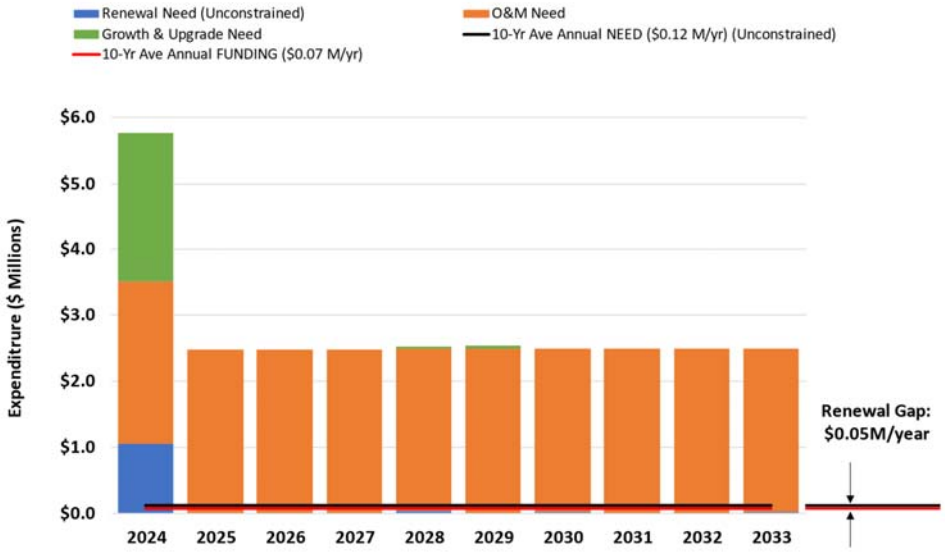
Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding. The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains one project (Cemeteries – MTCE) which has been categorized as renewal and will serve as a basis for the City's renewal budget when calculating the renewal gap.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The Average Renewal Funding (red line) indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.6: Lifecycle Summary



All figure values are shown in current year (2023) dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Though there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $0.05 million for renewal needs.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no cemetery assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates. Currently, the City has no formal non-infrastructure solutions relating to cemetery assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5. Their typical failure mode, and the impact on service delivery, are summarized in Table 7.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Lowering Units	Physical Failure	Interruption to burial services

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted to minimize risks.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following tables:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating		Performance Rating	
Score	*Description*	*Score*	*Description*
1	New / Very Good	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is performing at a lower level than originally intended
4	Poor	4	Asset is performing to a much lower level than originally intended
5	Very Poor	5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. The residual risk and mitigation costs of implementing the selected treatment plan is shown in Table 7.4.

Table 7.4: Risks and Mitigation Plans

Asset	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Lowering Units	Poor asset condition resulting in the inability to perform burial services	Very High	Renewal work to perform any necessary repairs on the assets	Low	Approximately $4,500 per year

Note * The residual risk is the risk remaining after the selected risk mitigation plan is implemented.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.05 million per year)

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period is $2.59M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $2.54M on average per year giving a 10 year funding shortfall of $0.05M per year. This indicates that 98% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal (Unconstrained)	Disposal
2024	$2,250,867	$2,465,300	$1,047,565	$0
2025	$0	$2,465,300	$7,205	$0
2026	$0	$2,465,300	$7,205	$0
2027	$0	$2,465,300	$7,205	$0
2028	$19,719	$2,468,588	$7,205	$0
2029	$60,340	$2,478,648	$7,205	$0
2030	$0	$2,478,648	$15,955	$0
2031	$0	$2,478,648	$7,205	$0
2032	$0	$2,478,648	$7,205	$0
2033	$0	$2,478,648	$17,205	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $12.5 million

8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.
- Any assets forecasted using an annuity (asset value / service life) or any assets that are funded through operating are assumed to be maintained in their current condition throughout the analysis period.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	High	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs.
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs, however the forecast does not quantity current shortfalls such as underfunding for planned maintenance.
Renewal Forecast	High	Asset values and estimated service lives are based on the best available data and feedback provided by the City.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The overall estimated confidence level for the reliability of data used for the financial analysis in this AM Plan is considered to be High.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Cemetery Services	None	2024 – 2025
2	City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.	Cemetery Services	None	2024 – 2025
3	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, City to set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.	Cemetery Services	None	2024 – 2025

4	Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments	Cemetery Services	Align with corporate risk management framework	2024-2025
5	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Cemetery Services	None	2024 – 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg. 588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

United Nations, Managing Infrastructure Assets for Sustainable Development

Kitchener Changing for Good, Our Climate Strategy Action Plan

City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure

City of Kitchener Cycling and Trails Master Plan 2020

City of Kitchener Places & Spaces – Parks Strategic Plan

City of Kitchener Development Charges Study 2022

City of Kitchener Leisure Facilities Master Plan 2019

City of Kitchener Strategic Plan 2023-2026

City of Kitchener Official Plan 2014

2024

Forestry Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Forestry Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide forestry services. The asset mix is comprised of Street Trees which have a replacement value of $126.8M and Park, Cemetery, Golf and Other Trees which have a replacement value of $41.1M. These replacement values include the cost to plant a tree (with 2 year warranty and 2 year watering program) as well as the cost to remove the existing tree.

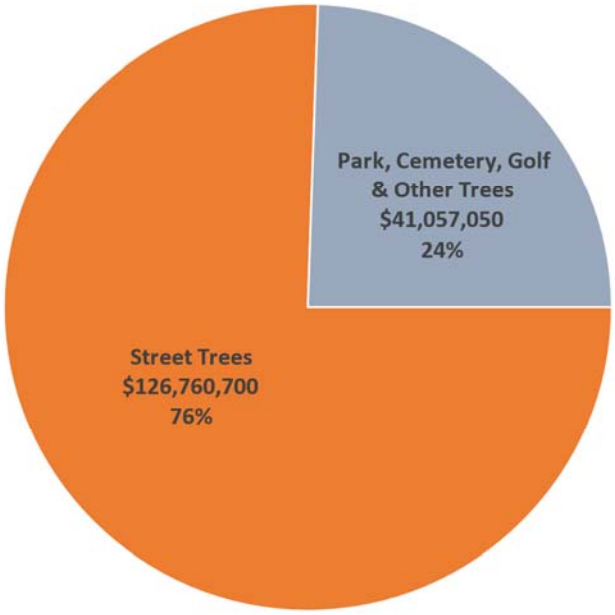
The infrastructure assets covered by this AM Plan are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Street Trees	Trees	$126,760,700
Park, Cemetery, Golf & Other Trees	Trees	$41,057,050
TOTAL		**$167,817,750**

The above infrastructure assets have a replacement value estimated at $167.8 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is sufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period.

The main service consequences of the Planned Budget are:

- The number of work orders (both operations and maintenance) has seen an upward trend since 2021, however, this is seen as having a positive impact on service delivery. This highlights the City's effort to maintain their forestry assets effectively.
- The number of trees removed per year has seen a downward trend since 2021, however this is seen as having a neutral impact on service delivery.
- Various metrics will continue to be monitored by the City in future iterations of the AM Plan.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth

These demands will be managed by planned lifecycle activities related to operations, maintenance, and renewal, as well a continuing to forecast and manage developer provided forestry assets.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan includes operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for the forestry portfolio is estimated as $38.8 million or $3.88 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10 year period is $39.1 million or $3.91 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 101% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for forestry has a surplus of $0.03 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2: Lifecycle Summary

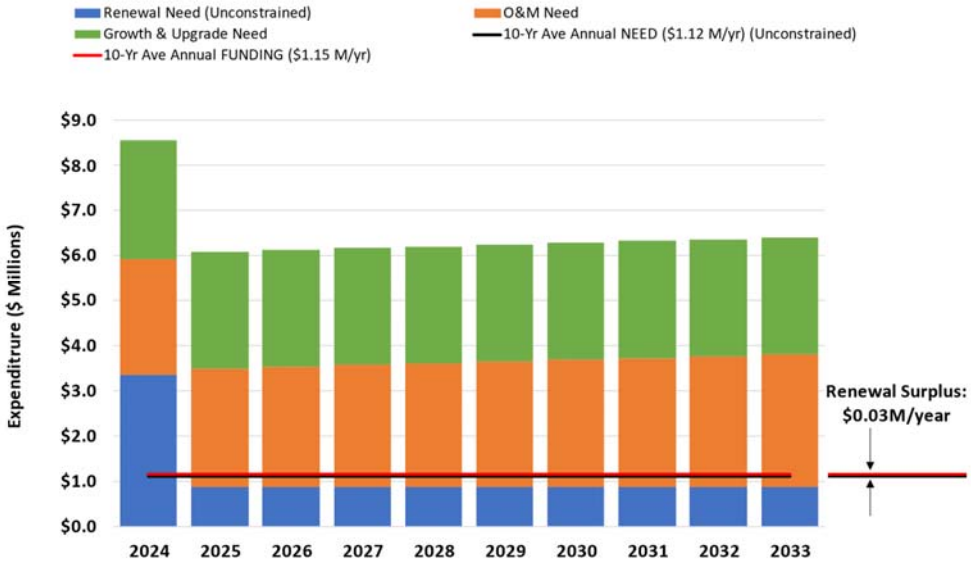


Figure Values are in current year (2023) dollars.

We plan to provide forestry services for the following:

- Operation, maintenance, and renewal of forestry assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10 year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. However, there may be works and services that cannot be provided under present funding levels.

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.

- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects.

1.7 Asset Management Planning Practices

Assets requiring renewal are identified from the asset register method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal; Or
- An estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a high level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).
- The City to confirm the timing of forestry asset inventory during the preparation of the AM planning process. Based on feedback from the City, it is possible that work to replace forestry assets in Very Poor condition has already been completed at the time of writing this AM Plan.

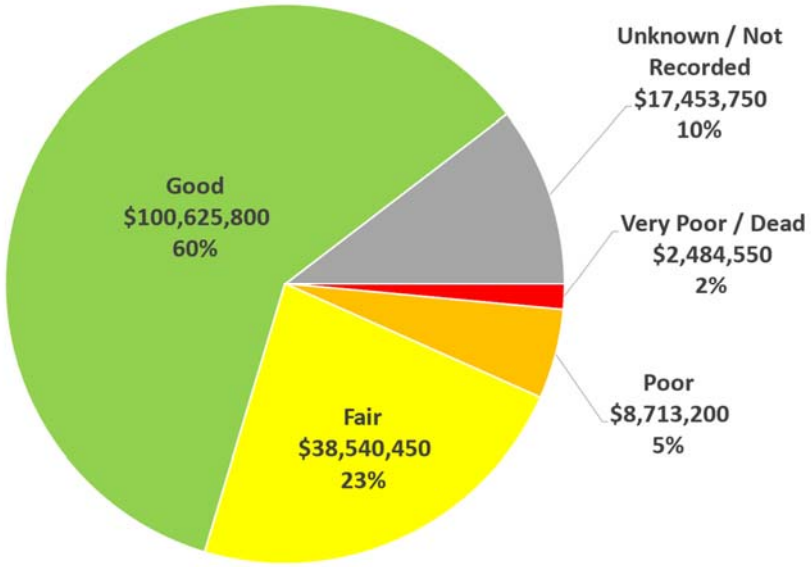
2.0 Introduction

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities forestry assets for which the City is responsible for lifecycle management. Any facilities associated with forestry services have been covered in the Facilities AM Plan. The infrastructure assets included in this plan have a total replacement value of $167.8 million.

Figure 2.1 – City of Kitchener Non-Core Forestry Asset Condition and Value

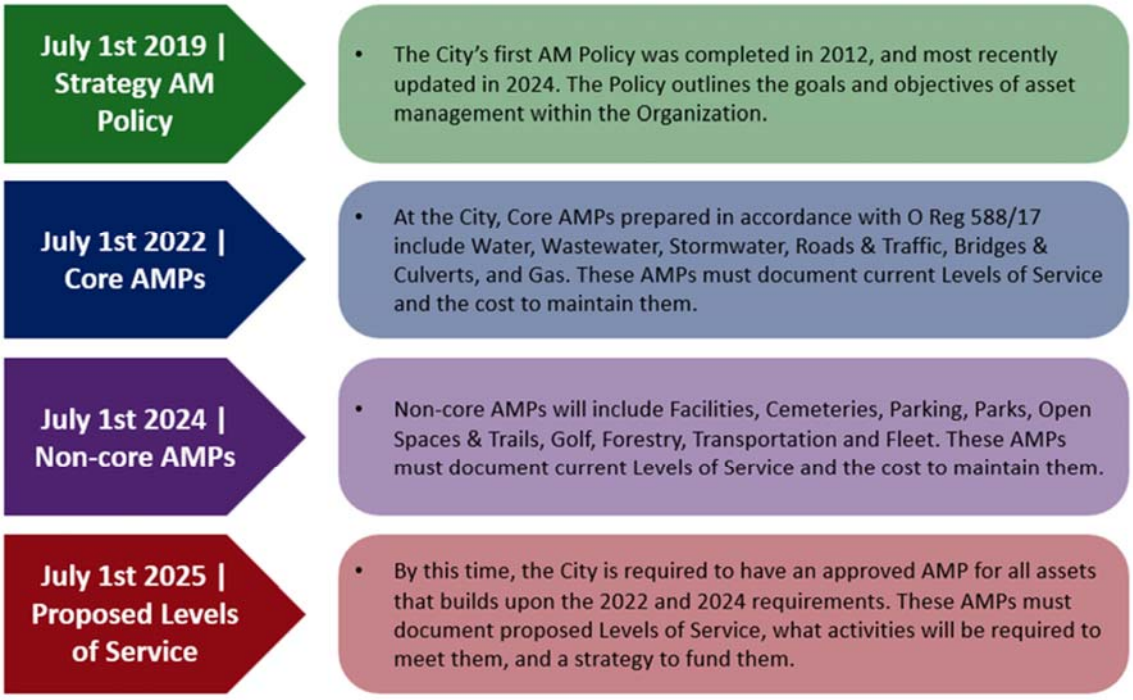


2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

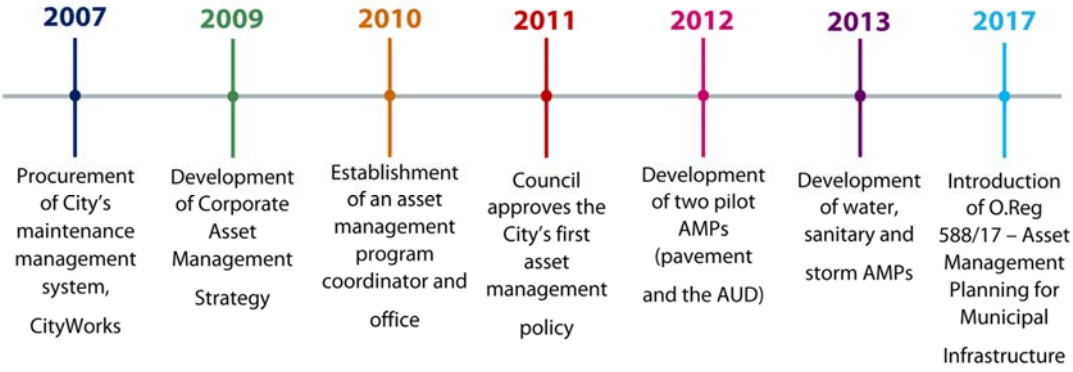


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline

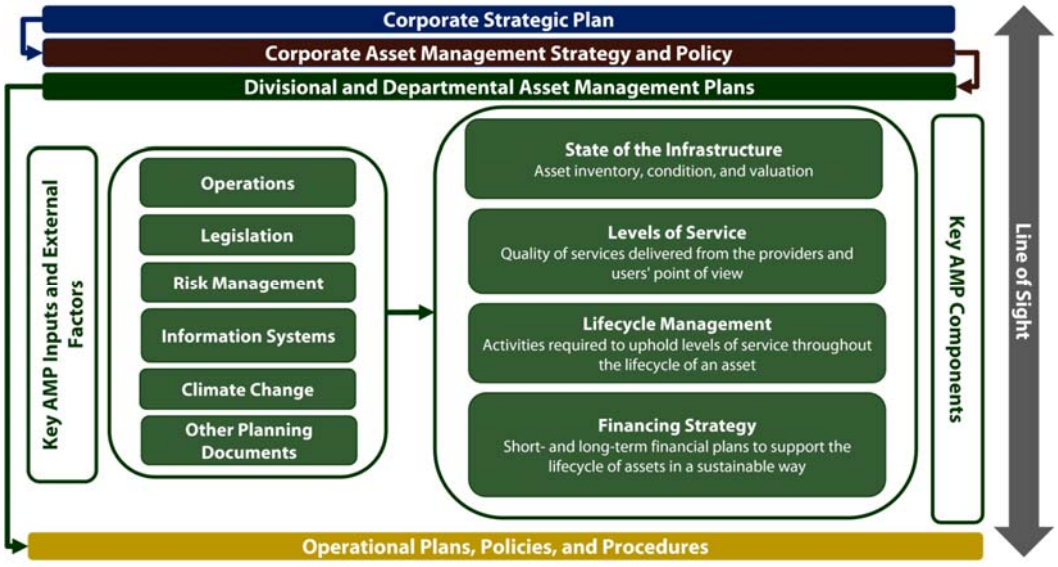


2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AMP should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in

Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's forestry services. The assets covered by this AM Plan are shown in Table 3.1.1. All table and figure values are shown in 2023 dollars. The asset mix is comprised of Street Trees which have a replacement value of $126.8M and Park, Cemetery, Golf and Other Trees which have a replacement value of $41.1M. Please note that these replacement values include the cost to plant a tree (with 2 year warranty and 2 year watering program) as well as the cost to remove the existing tree.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Street Trees	Trees	$126,760,700
Park, Cemetery, Golf & Other Trees	Trees	$41,057,050
TOTAL		**$167,817,750**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

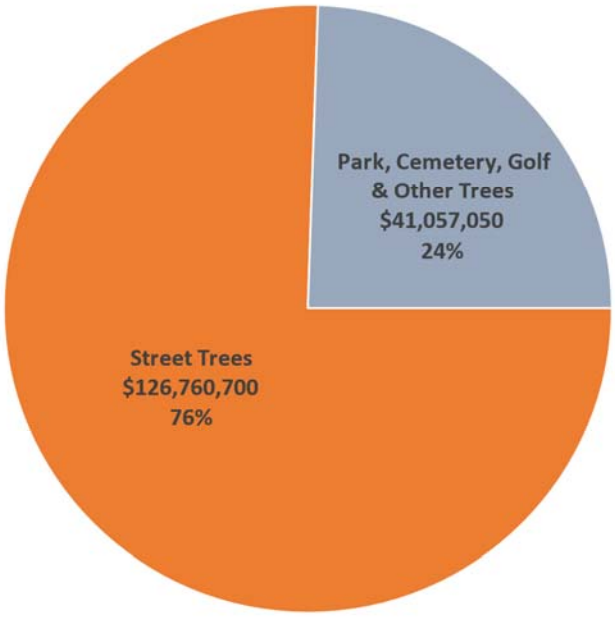
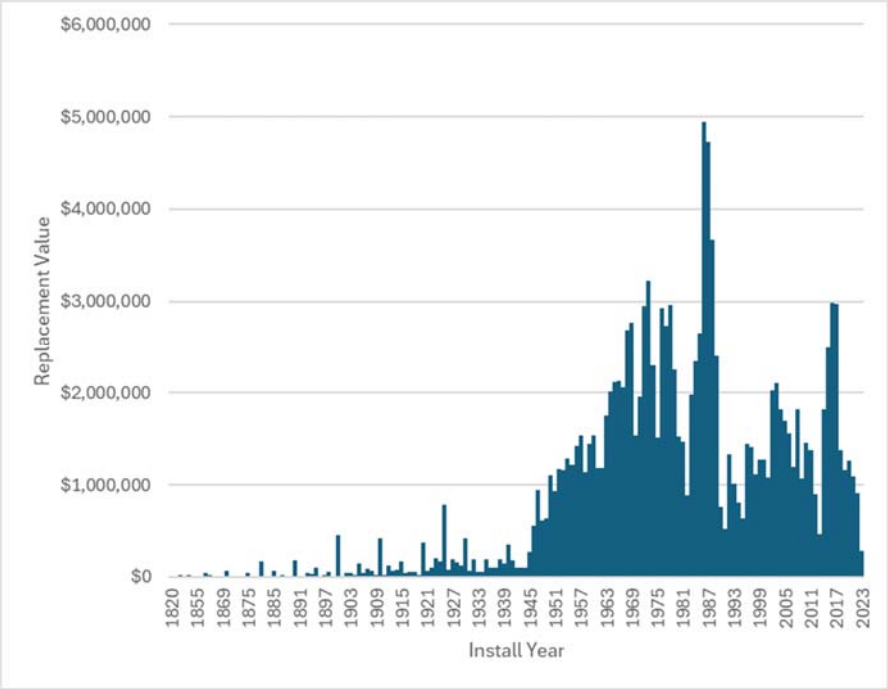


Figure 3.1.2: Asset Age Profile



3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Street Trees	Trees create aesthetically pleasing environments for the residents of the City.
Park, Cemetery, Golf & Other Trees	

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Diseased Trees	Emerald ash borer causing premature death of Ash trees.
Trees encroaching on public transportation	Young trees requiring pruning and raising.

The above service deficiencies were identified from the City of Kitchener Forestry AMP (2021) and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs internal staff to perform inspections of City owned assets. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these condition assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
	No formal condition assessment program	

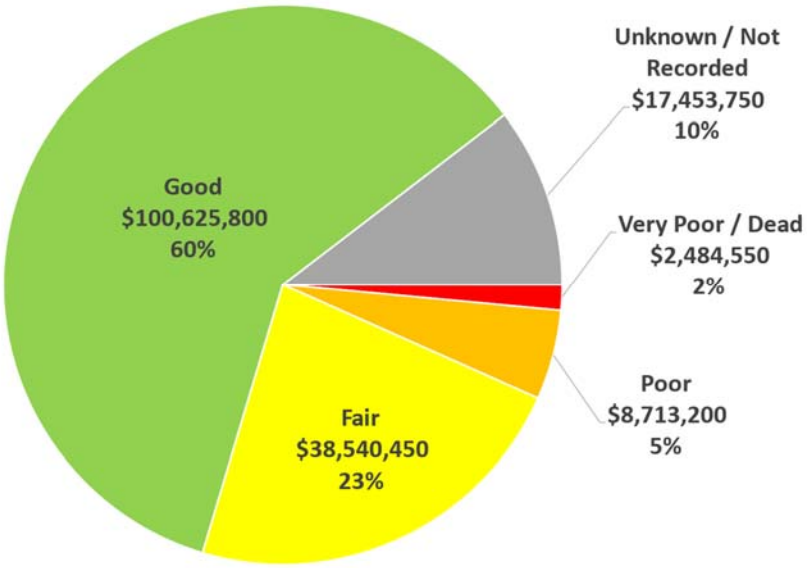
Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level; however, for reporting in the AM Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the City's forestry assets provides some perspective on the overall reliability of its infrastructure. Overall, approximately 83% of the City's forestry assets have a condition rating of fair or better. This highlights the City's commitment to maintaining these services.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries is required. The purpose of this review to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide that basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Street Trees	Good	Good	Good	Good	Good	N/A	Good
Park, Cemetery, Golf & Other Trees	Good	Good	Good	Good	Good	N/A	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan.

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

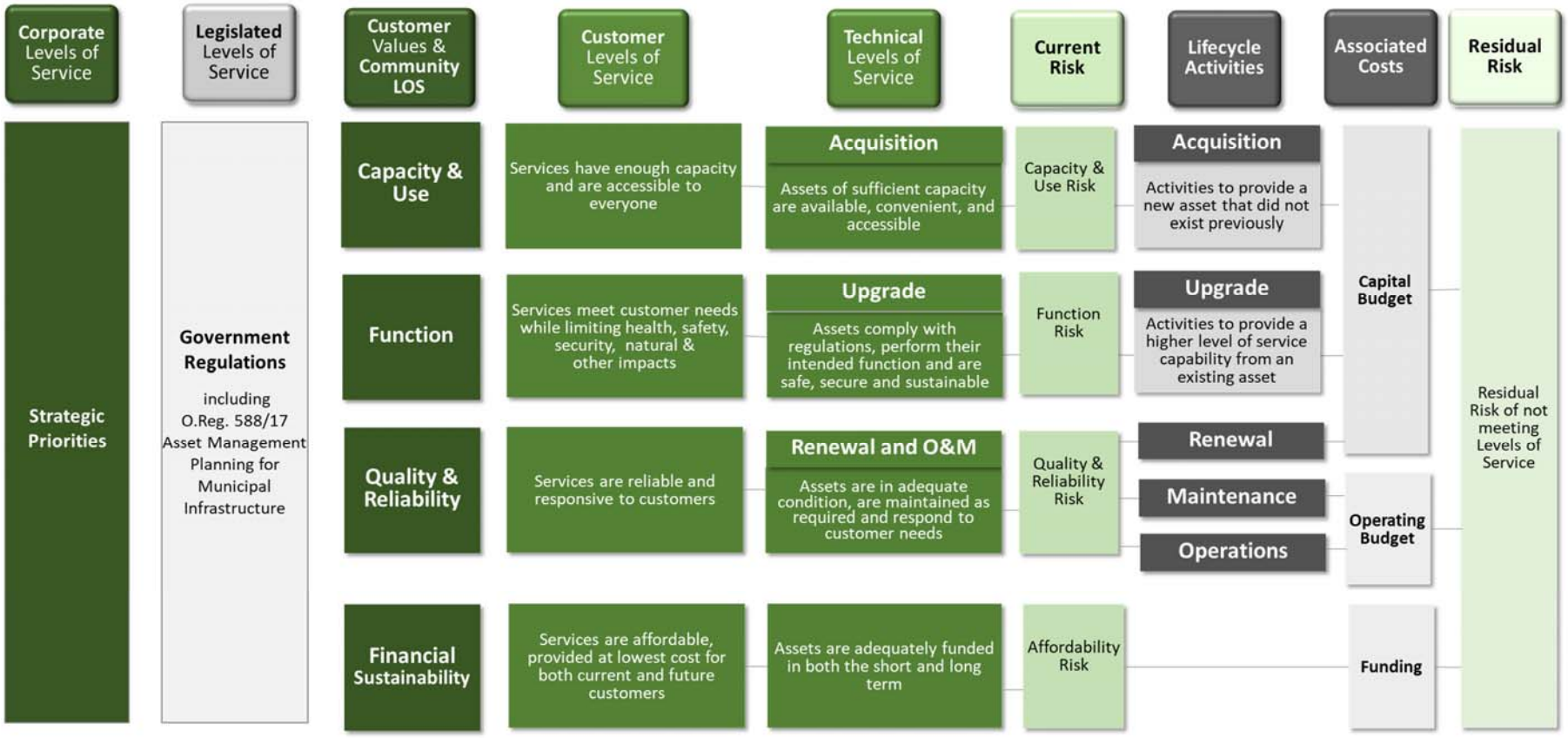
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

At this time, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councillors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Cultivating a Green City Together	We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.	The development and maintenance of the City's Forestry assets is directly tied to cultivating a green city. The presence of greenery and various tree species helps to preserve the natural ecosystem.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core forestry assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset
Ontario Heritage Act, 1990	Objects of Trust 7 (d) to preserve, maintain, reconstruct, restore and manage property of historical, architectural, archaeological, recreational, aesthetic, natural and scenic interest. This act is of specific relevance to the protection of heritage trees.
Professional Foresters Act, 2000	The practice of professional forestry is the provision of services in relation to the development, management, conservation and sustainability of forests and urban forests where those services require knowledge, training and experience equivalent to that required to become a member under this Act.
Conservation Land Act, 1990	2 (c) watershed protection and management. This act defines "areas of natural and scientific interest" and "wetland".
Forestry Act, 1990	The Minister may establish programs to protect, manage or establish woodlands and to encourage forestry that is consistent with good forestry practices. 2002, c. 17, Sched. C, s. 12 (2). 11 (1) The council of a municipality may pass by-laws, (c) for planting and protecting trees on any land acquired for or declared to be required for forestry purposes. 2002, c. 17, Sched. C, s. 12 (3).

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? Do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Protecting forestry assets helps build climate change resiliency and flood protection for local communities
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance – works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:



Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Functional	Provide accessible infrastructure for inclusion and meeting diverse resident needs	# of customer complaints regarding tree safety	Monitor Only	Future Metric	Not available	Not available	Not available
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets in Poor or Very Poor condition	Monitor Only	Not available	7%	Not available	Not available
		Number of trees receiving preventative maintenance	Monitor Only	Future Metric	Not available	Not available	Not available

Due to a lack of currently available data, the above levels of service metrics will be monitored by the City in future iterations of the AM Plan.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Operations	% Tree canopy cover (already reported back every 5 years)	30% by Ward (2050) 33% City-wide (2070)	Not available	Not available	Not available	27% (2019)
Upgrade	# of trees planted per year (or # of net new trees planted)	Monitor Only	Future Metric	Not available	Not available	Not available
Operations / Maintenance	Ratio of scheduled to unscheduled/emergency maintenance work (by hours)	Monitor Only	Future Metric	Not available	Not available	Not available
	# of work orders completed	Monitor Only	↑	Oper: 245 Maint: 679	Oper: 255 Maint: 603	Oper: 93 Maint: 91
	Average time to remove a tree fully (using phased approach - remove canopy, remove stump, grind stump, replace)	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	% of diversity in the tree canopy	Monitor Only	Future Metric	Not available	Not available	Not available
Maintenance	Number or tree inspections completed each year	Monitor Only	Future Metric	Not available	Not available	Not available
	# of trees removed per year	Monitor Only	↓	48	444	1816

The number of work orders (both operations and maintenance) has seen an upward trend since 2021, however, this is seen as having a positive impact on service delivery. This highlights the City's effort to maintain their forestry assets effectively. Additionally, the number of trees removed per year has seen a downward trend since 2021, however this is seen as having a neutral impact on service delivery. Lastly, due to a lack of currently available data, some of the levels of service metrics shown above will be monitored by the City in future iterations of the AM Plan.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	As development in the City grows, new forestry assets will be added to the City's portfolio.	Continue to forecast and manage developer provided forestry assets.

*2022 Development Charge Study

5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 8).

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accord with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2

Table 5.2 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Air Quality / Greenhouse Gas Emissions	Improving tree canopy cover	New forestry assets are needed to reach canopy cover targets.	Continue to forecast and manage both forestry assets provided by developers and those acquired by the City to meet these canopy cover targets.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include trimming and pruning.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

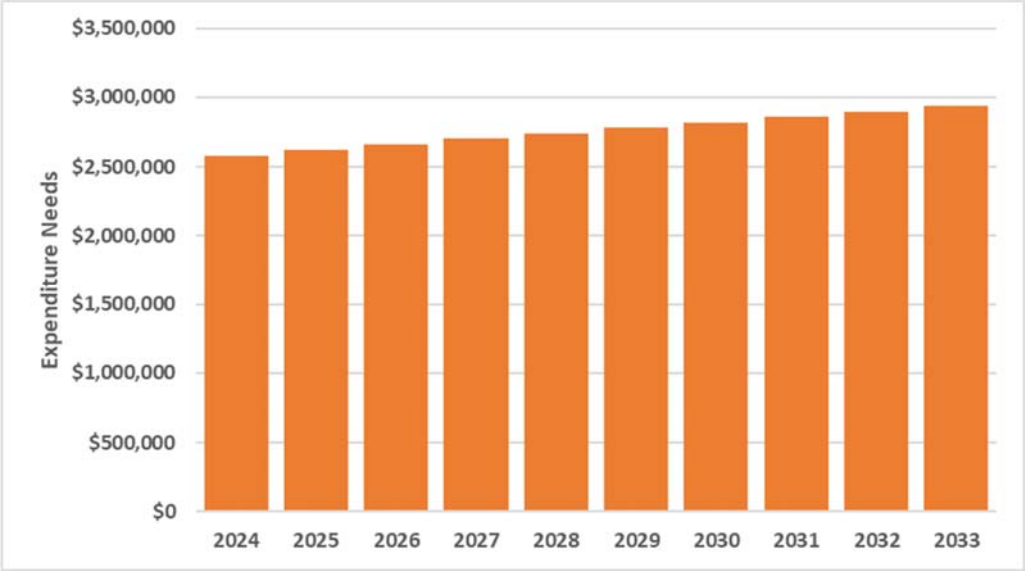
Year	Budget $
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$2,461,790
2022	$2,359,288
2023	$2,542,046
2024	$2,581,430

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$1,418,445

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

Forestry assets are somewhat unique in that they do not have well defined useful lives. As a proxy for useful life, the lifecycle activities have been determined using the reported conditions of the forestry assets provided by the City.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

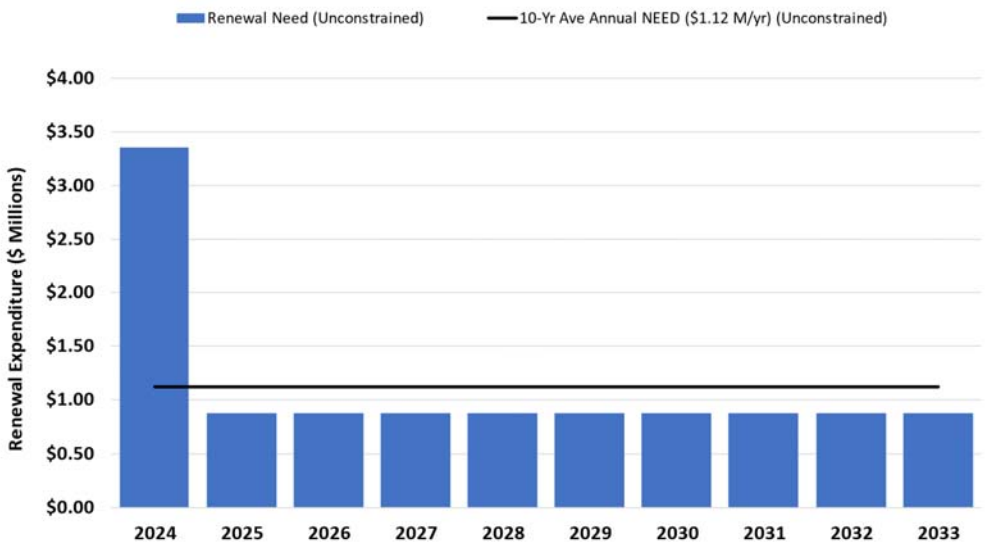
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). However, for the purposes of this analysis, only one renewal forecast scenario (Unconstrained) was considered because it is necessary to maintain the current condition profile of cemetery assets.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities (Unconstrained)

Year	Current Funding	Unconstrained Renewal Forecast
2024	$1,418,445	$3,355,870
2025	$1,327,335	$871,320
2026	$1,307,375	$871,320
2027	$1,225,641	$871,320
2028	$1,042,155	$871,320
2029	$1,144,617	$871,320
2030	$1,045,398	$871,320
2031	$967,501	$871,320
2032	$1,015,469	$871,320
2033	$1,035,779	$871,320
Annual Average	**$1,152,972**	**$1,119,775**

The forecast renewal needs for forestry assets was calculated by replacing all trees in Very Poor / Dead condition in the first year of the analysis period (2024) and replacing all trees in Poor condition over the course of the analysis period (2024-2033).

6.4 Acquisition Plan

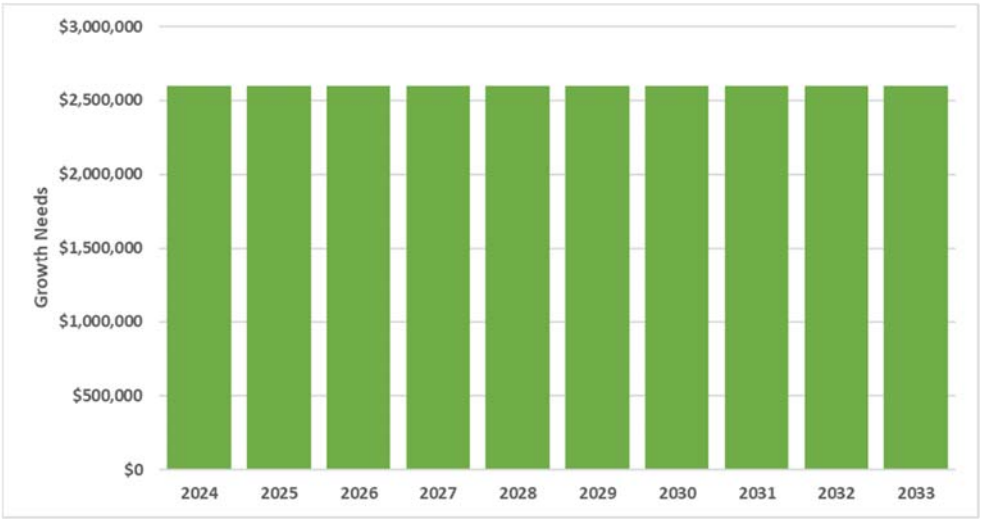
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the City's needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for the acquisition of forestry assets, however this will be developed in future revision of this AM Plan.

Based on feedback provided by the City, forecasted growth of forestry assets is approximately 4,000 trees per year during the analysis period (3,000 trees per year from developer provided trees and 1,000 trees per year from City provided trees). This assumption will serve as a basis for the City's growth needs. Forecast acquisition asset costs are summarized in Figure 6.4.

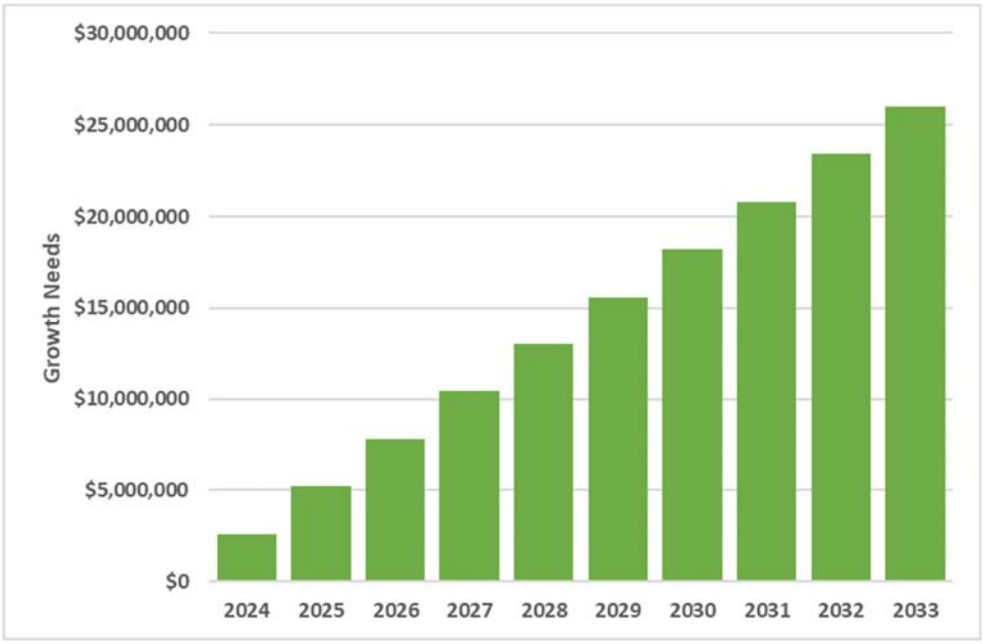
Figure 6.4: Yearly Acquisition Summary



All figure values are shown in current year (2023) dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.5.

Figure 6.5: Cumulative Acquisition Summary



All figure values are shown in current year (2023) dollars.

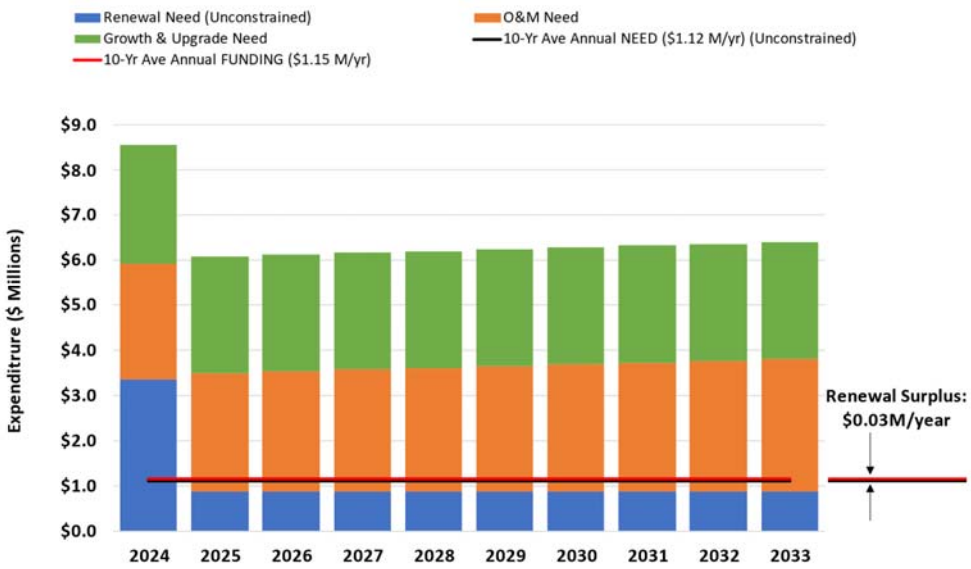
Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding. The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains three projects (Tree Planting, Tree Stumping and Tree & Risk Inspections & Mitigation) which have been categorized as and will serve as a basis for the City's renewal budget when calculating the renewal gap.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The Average Renewal Funding (red line) indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.3: Lifecycle Summary



All figure values are shown in current year (2023) dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. There is no current funding shortfall identified for acquisition needs and there is no average annual estimated gap for renewal needs (renewal is overfunded by $0.03M).

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no forestry assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates. Currently, the City has no formal non-infrastructure solutions relating to forestry assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5. Their typical failure mode, and the impact on service delivery, are summarized in Table 7.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Street and Park Trees	Physical Failure	Interruption to service delivery and potential harm or injury to the public

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted to minimize risks.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following tables:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating		Performance Rating	
Score	*Description*	*Score*	*Description*
1	New / Very Good	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is performing at a lower level than originally intended
4	Poor	4	Asset is performing to a much lower level than originally intended
5	Very Poor	5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. The residual risk and mitigation costs of implementing the selected treatment plan is shown in Table 7.4.

Table 7.4: Risks and Mitigation Plans

Asset	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Forestry assets in Very Poor or Dead Condition	Poor asset condition resulting potential harm or injury to the public	High	Remove existing forestry assets and replace with new assets	Low	Approximately $3,400,000

Note * The residual risk is the risk remaining after the selected risk mitigation plan is implemented.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period is $3.88M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $3.91M on average per year giving a 10 year funding excess of $0.03M per year. This indicates that approximately 101% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal (Unconstrained)	Disposal
2024	$2,600,000	$2,581,430	$3,355,870	$0
2025	$2,600,000	$2,620,814	$871,320	$0
2026	$2,600,000	$2,660,198	$871,320	$0
2027	$2,600,000	$2,699,582	$871,320	$0
2028	$2,600,000	$2,738,966	$871,320	$0
2029	$2,600,000	$2,778,349	$871,320	$0
2030	$2,600,000	$2,817,733	$871,320	$0
2031	$2,600,000	$2,857,117	$871,320	$0
2032	$2,600,000	$2,896,501	$871,320	$0
2033	$2,600,000	$2,935,885	$871,320	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $167.8 million

8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	High	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs.
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs, however the forecast does not quantity current shortfalls such as underfunding for planned maintenance.
Renewal Forecast	High	Asset values and estimated service lives are based on the best available data and feedback provided by the City.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be High.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Forestry Services	None	2024 – 2025
2	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.	Forestry Services	None	2024 – 2025
3	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Forestry Services	None	2024 – 2025

4	The City to confirm the timing of forestry asset inventory during the preparation of the AM planning process. Based on feedback from the City, it is possible that work to replace forestry assets in Very Poor condition has already been completed at the time of writing this AM Plan.	Forestry Services	None	2024 - 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg.588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
- City of Kitchener Forestry AM Plan 2021
- City of Kitchener Development Charges Study 2022
- City of Kitchener Strategic Plan 2023-2026
- City of Kitchener Official Plan 2014

2024

Golf Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Golf Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide golf services. The largest portions of the asset base are Course Features with a replacement value of $15.7M and Course Infrastructure – Linear with a replacement value of $3.6M. These two categories of assets account for approximately 95% of the total replacement value of all golf assets.

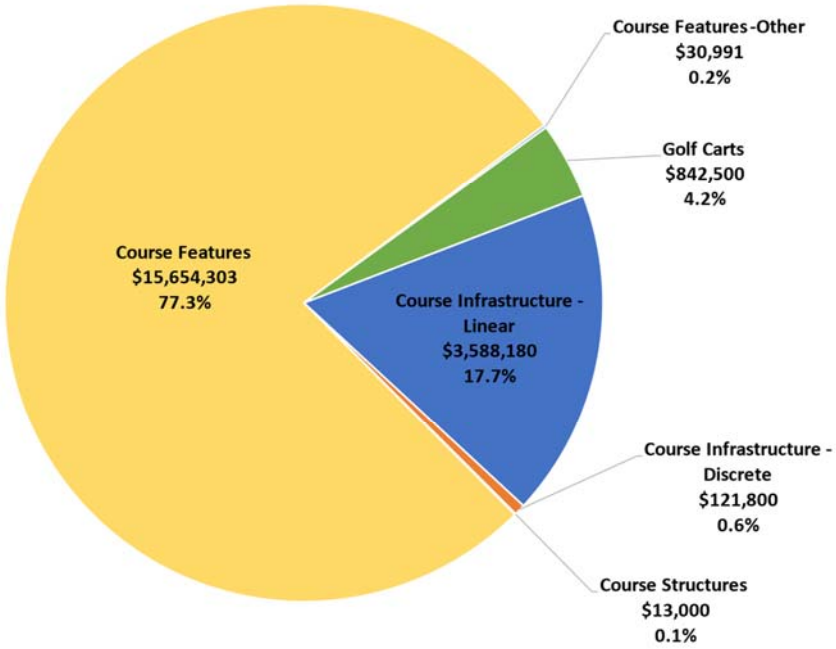
The infrastructure assets covered by this AM are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Course Infrastructure – Discrete	Lighting, Bike Racks, Flag Poles, Benches, Water Fountains, Garbage Cans	$121,800
Course Infrastructure – Linear	Irrigation Systems, Pedestrian Bridges	$3,588,180
Course Structures	Entrance Features	$13,000
Course Features	Bunkers, Fairways, Greens, Rough, Practice Greens, Tee Complexes, Short Course Greens, Short Course Tees (Synthetic), Practice Ranges (Synthetic), Practice Ranges (Natural)	$15,654,303
Course Features - Other	Ball Washers, Yardage Stakes	$30,991
Golf Carts	Golf Carts (Gas), Golf Carts (Electric), Golf Carts (Lithium)	$842,500
TOTAL		**$20,250,775**

The above infrastructure assets have replacement value estimated at $20.3 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is insufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period. However, service levels and associated targets will continue to be formalized and monitored for future iterations of the AM Plan.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand.

- The City can consider the expansion or addition of golf assets to accommodate the increase in population.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan includes operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for the golf services portfolio is estimated as $16.7 million or $1.67 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10 year period is $16.2 million or 1.62 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 97% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for golf leaves a shortfall of $0.05 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2 Lifecycle Summary

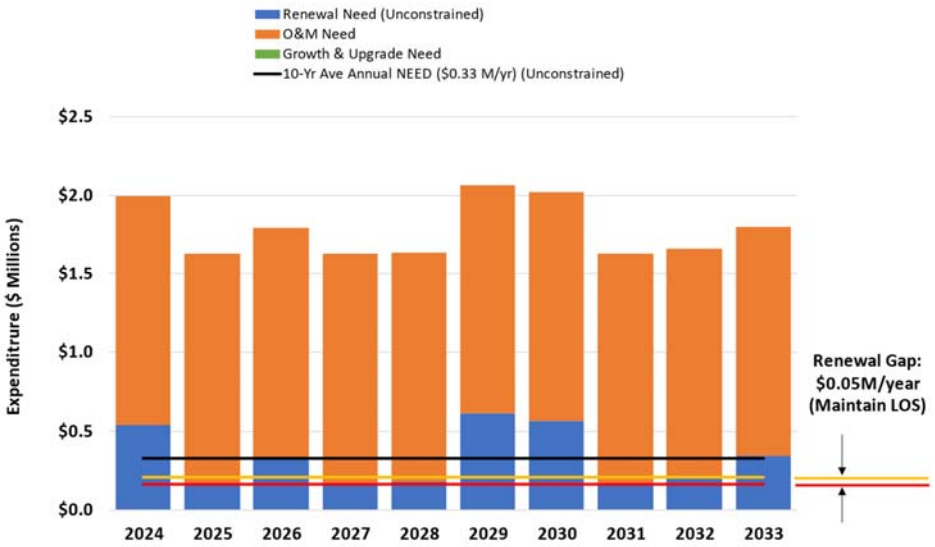


Figure Values are in current year (2023) dollars.

We plan to provide golf services for the following:

- Operation, maintenance, renewal and acquisition of golf assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10 year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.05 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects.

- Pursue available grants from higher levels of government.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Golf Cart Bridges (quantity – 3) have been assumed to have a replacement value of approximately $100,000 each and the current condition has been determined based on the inspection reports provided.
- Based on feedback provided by the City, it has been assumed that approximately one-third of the irrigation system at the Doon course was upgraded in 2010. The remaining irrigation systems at Doon and Rockway are assumed to be original (installed in 1970).

Assets requiring renewal are identified from the asset register.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- An estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a high level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to complete the development of asset inventories with appropriate attributes for any additional assets to be included in future iterations of the AM Plan. For example, provide a breakdown of Irrigation System assets into the electrical/control components and mechanical components (piping and fittings). Based on feedback provided by the City, Irrigation Systems are the largest concern for Golf Services and this additional data will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).

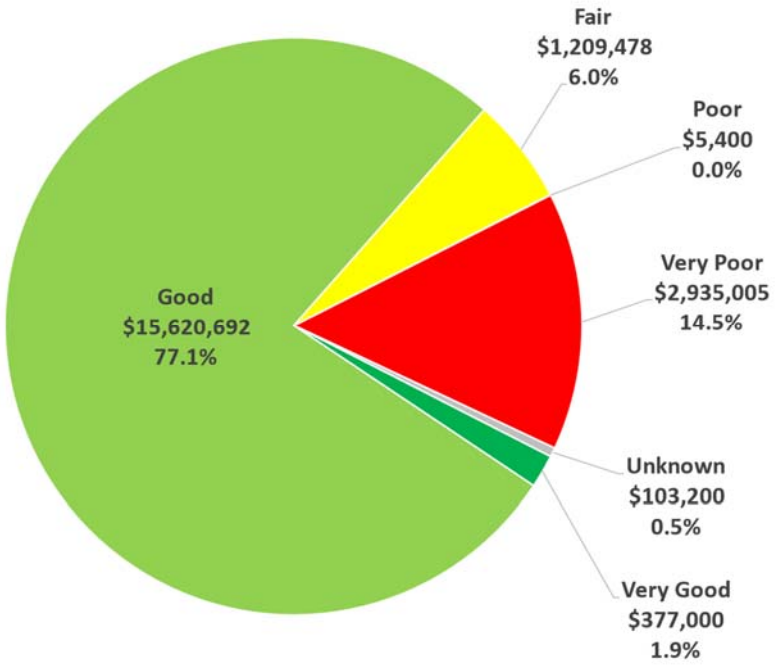
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities golf assets for which the City is responsible for lifecycle management. Any facilities associated with golf services have been covered in the Facilities AM Plan. The infrastructure assets included in this plan have a total replacement value of $20.3 million.

Figure 2.1 – City of Kitchener Golf Assets Condition and Value

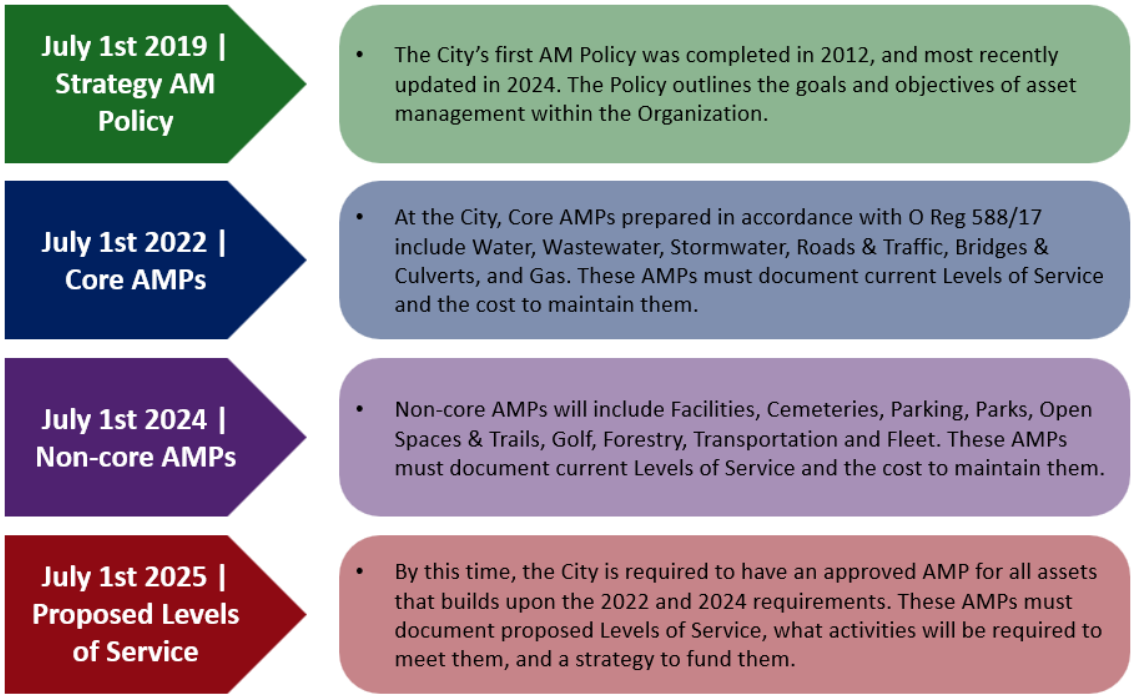


2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

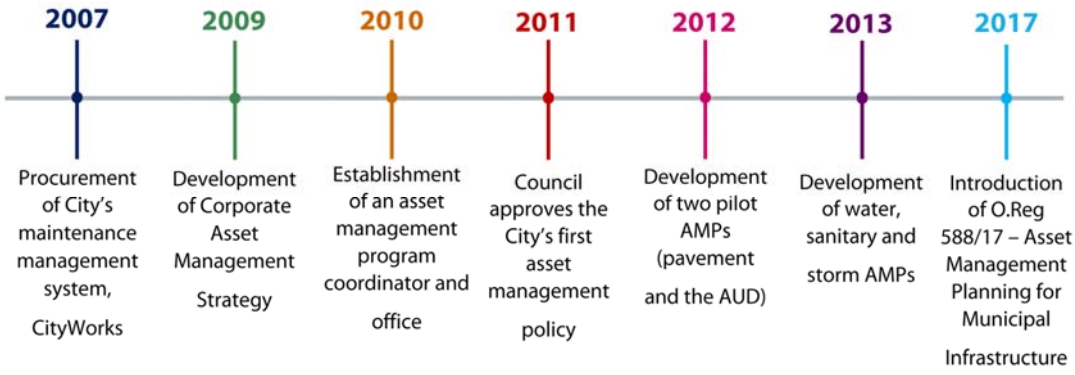


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline

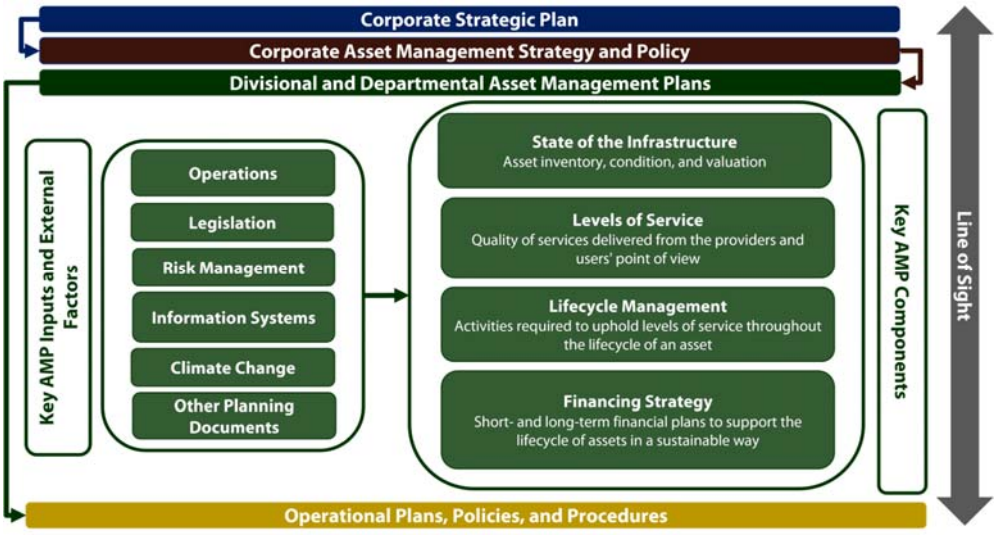


2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AM Plan should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in

Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's golf services. The assets covered by this AM Plan are shown in Table 3.1.1. All table and figure values are shown in current year (2023) dollars.

The largest portions of the asset mix are Course Features with a replacement value of $15.7M and Course Infrastructure – Linear with a replacement value of $3.6M. These two categories of assets account for approximately 95% of the total replacement value of all golf assets.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Course Infrastructure – Discrete	Lighting, Bike Racks, Flag Poles, Benches, Water Fountains, Garbage Cans	$121,800
Course Infrastructure – Linear	Irrigation Systems, Pedestrian Bridges	$3,588,180
Course Structures	Entrance Features	$13,000
Course Features	Bunkers, Fairways, Greens, Rough, Practice Greens, Tee Complexes, Short Course Greens, Short Course Tees (Synthetic), Practice Ranges (Synthetic), Practice Ranges (Natural)	$15,654,303
Course Features - Other	Ball Washers, Yardage Stakes	$30,991
Golf Carts	Golf Carts (Gas), Golf Carts (Electric), Golf Carts (Lithium)	$842,500
TOTAL		**$20,250,775**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

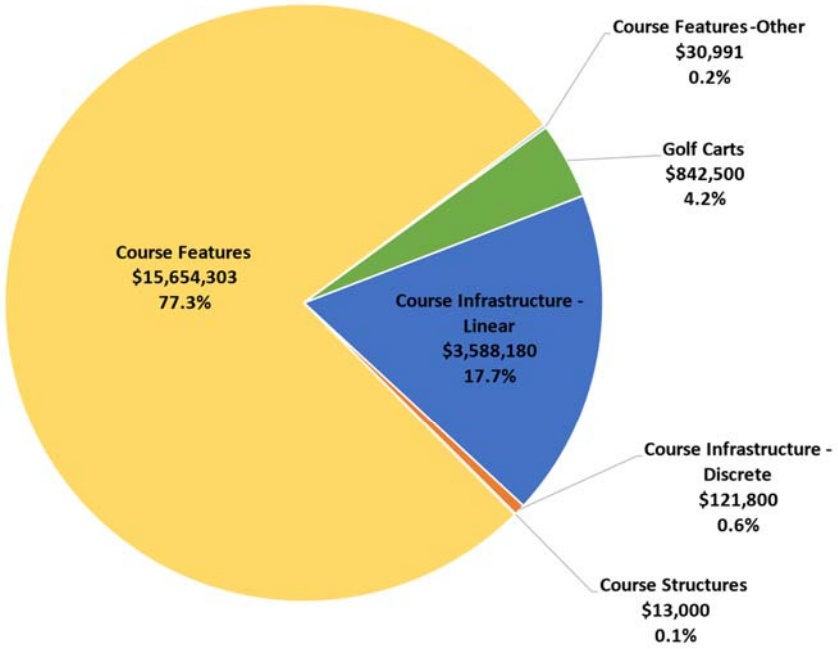
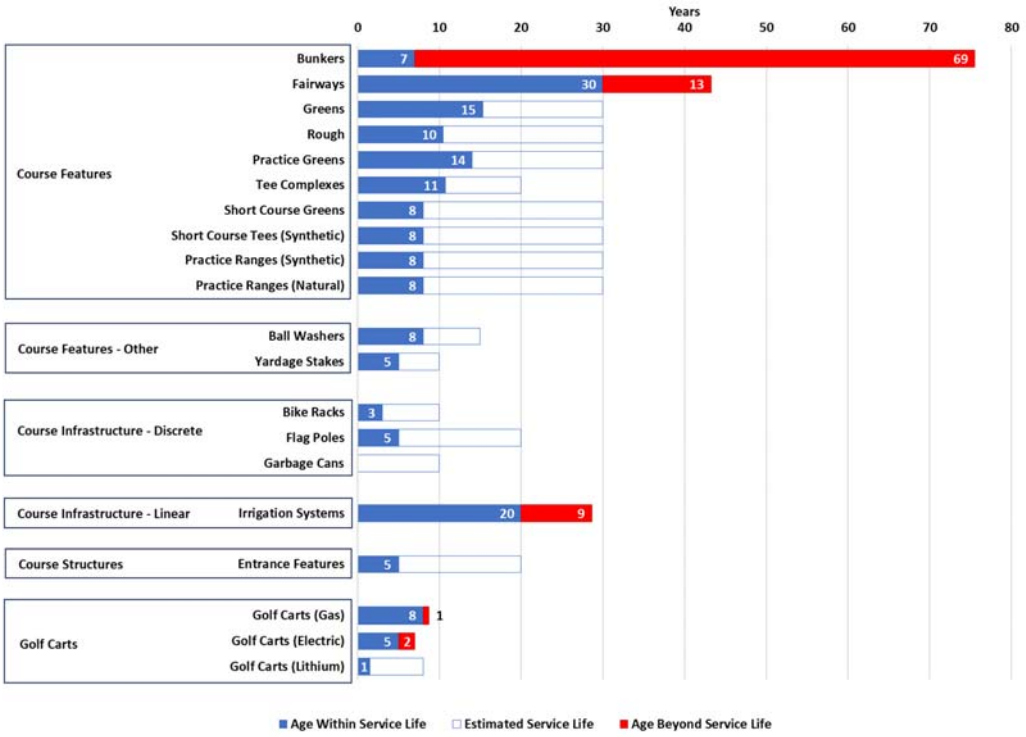


Figure 3.1.2: Asset Age Profile



Notes on the above Asset Age Profile:

- Lighting, Benches and Water Fountains are not included because they are missing information on age and condition.
- Bunkers have the highest age to service life ratio with average age of 76 years compared against an estimated service life of 7 years.
- Fairways, Golf Carts and Irrigation Systems have also surpassed their estimated service lives and may warrant closer attention for investment in maintenance due to their age, depending on criticality.
- Conversely, the remaining assets categorized as Course Features, Course Infrastructure – Discrete and Course Structures have a much lower age to service life ratio.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Course Infrastructure & Structures	Maintains the golf courses' infrastructure including lighting, benches and garbage cans. These assets ensure that the golf courses are accessible and comfortable for visitors and players.
Course Features	Allow the players and visitors to engage in golfing activities. These assets include bunkers, fairways and greens.
Utilities	Aids in maintaining the course infrastructure by supporting maintenance equipment and providing water for irrigation systems.
Golf Carts	Golf carts allow visitors and players a safe and effective means to access the course.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Course Infrastructure - Linear	This category has the highest proportion of assets in very poor condition and their average age has surpassed their estimated service lives. There is a potential for deficiency in this category if left unaddressed.
Golf Carts	This category of assets has surpassed their estimated service lives, however according to the City all lithium and electric golf carts will be replaced by May 2024 (LOS Workshop – October 2, 2023).
Doon Valley Golf Club	It was identified in the City of Kitchener Places & Spaces – Parks Strategic Plan that Doon Valley Golf Club serves as a critical link between Kitchener and Cambridge with trail users and golf patrons sharing a portion of the pathway. It is critical to maintain this area of the pathway to maintain this link between municipalities.

The above service deficiencies were identified from the Places & Spaces – Parks Strategic Plan and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections of City owned assets. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these condition assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
	No formal condition assessment program	

Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system

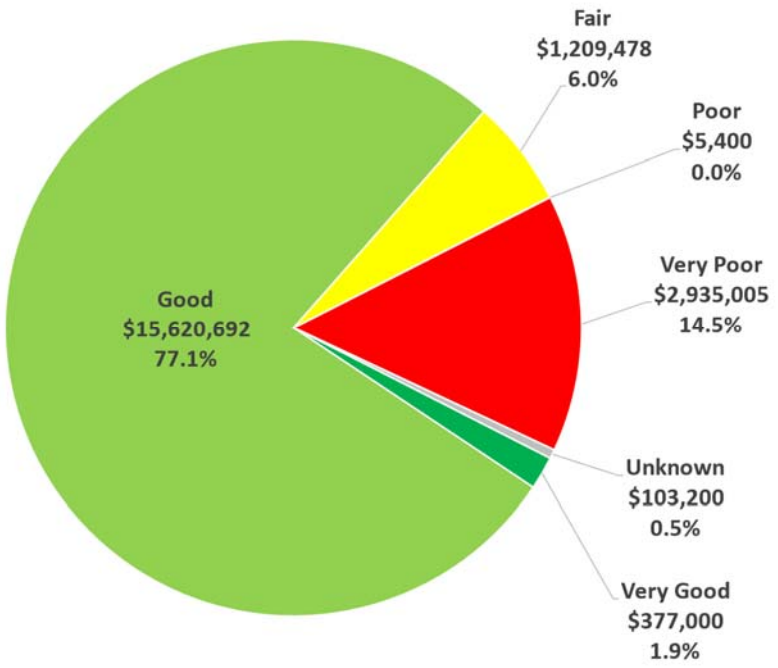
may be used at a more specific level; however, for reporting in the AM Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the City's golf assets provides some perspective on the overall reliability of its infrastructure. Overall, approximately 85% of the City's golf assets have a condition rating of fair or better. This highlights the City's commitment to maintaining these services.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries was performed. The purpose of this review was to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide the basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Course Infrastructure – Discrete	Good	Good	Good	Good	Good	Good	Good
Course Infrastructure – Linear	Good	Good	Good	Good	Good	Good	Good
Course Structures	Poor	Good	Good	Good	Good	Good	Good
Course Features	Good	Good	Good	Good	Good	Good	Good
Course Features - Other	Good	Good	Good	Good	Good	Good	Good
Golf Carts	Good	Good	Good	Good	Good	Good	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan.

- Golf Cart Bridges (quantity – 3) have been assumed to have a replacement value of approximately $100,000 each and the current condition has been determined based on the inspection reports provided.
- Based on feedback provided by the City, it has been assumed that approximately one-third of the irrigation system at the Doon course was upgraded in 2010. The remaining irrigation systems at Doon and Rockway are assumed to be original (installed in 1970).

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

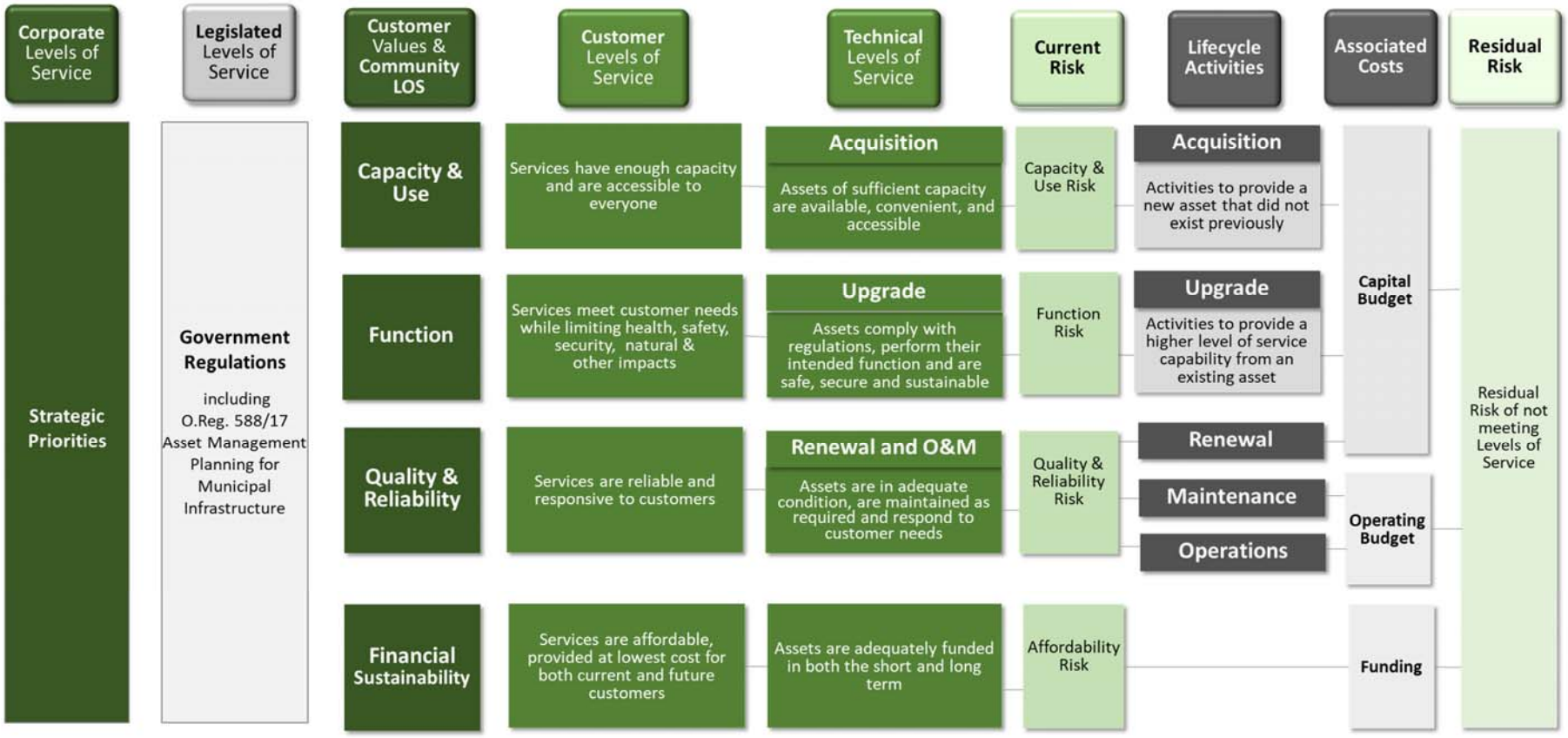
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

At this time, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Building a Connected City Together	We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes. We get around easily, sustainably and safely to the places and spaces that matter most to us.	By investing in golf assets, the City can maintain the infrastructure that residents use to get around the city.
Cultivating a Green City Together	We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.	Properly investing in and maintaining golf assets can provide green spaces that can be used for recreational activities. These spaces also serve to enhance and protect the natural environment of the City.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core golf assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment they include, such as golf carts.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? Do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Not available
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:



Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Capacity & Use	Ensure adequate infrastructure to meet growing population and community needs	# of potential members on waiting list	Monitor Only	Not available	Not available	Not available	Not available
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets within service life (by replacement value)	Monitor Only	Not available	62%	Not available	Not available

Metrics which will continue to be monitored by the City in future iterations of the AM Plan include the number of potential members on waiting lists and the percentage of assets within service life.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Operations	Rounds of golf played	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	Rounds of golf played by demographic group	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	Number of "No Shows"	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	# of annual memberships per category (junior, senior, etc.).	Monitor Only	Future Metric	Not available	Not available	Not available

Metrics which will continue to be monitored by the City in future iterations of the AM Plan include the number of round of golf played per year, rounds of golf play by demographic group per year, the number of “no shows” per year and the number of annual memberships per category.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There may be a deficiency in the availability of golf services.	The City can consider the expansion or addition of golf assets to accommodate the increase in population.

*2022 Development Charges Study

5.2 Asset Programs to meet Demand

As discussed in Section 6, the City has no planned growth or expansion of golf assets during the analysis period.

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accord with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with

action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

Currently, the City does not have any risks or opportunities related to managing the impact of climate change on their golf assets or services.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Building Asset Resilience to Climate change for any facilities related to golf services have been covered in the Facilities AM Plan.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include minor repairs.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

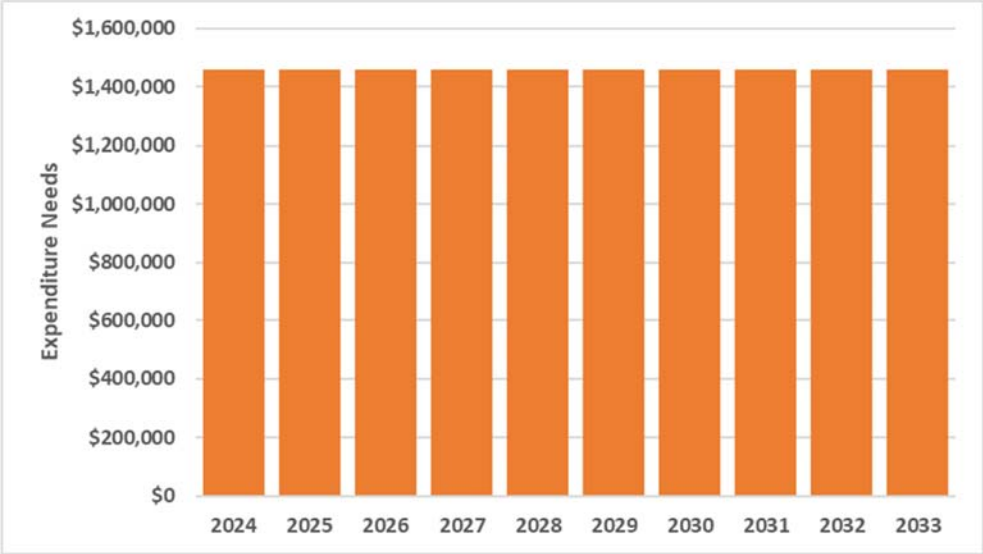
Year	Budget $
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$1,685,308
2022	$1,422,152
2023	$1,459,447
2024	$1,459,447

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to remain constant over the next 10 years in line with the lack of additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$145,333

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.2.2.

Table 6.2.2: Useful Lives of Assets

Asset	Useful life (Years)
Irrigation Systems	20
Lighting	20
Bike Racks	10
Entrance Features	20
Flag Poles	20
Benches	10
Water Fountains	20
Golf Carts (Gas)	8
Golf Carts (Electric)	5
Golf Carts (Lithium)	8
Garbage Cans	10
Bunkers	7
Fairways	30
Greens	30
Rough	30
Practice Greens	30
Tee Complexes	20
Short Course Greens	30
Short Course Tees (Synthetic)	30
Practice Ranges (Synthetic)	30
Practice Ranges (Natural)	30
Ball Washers	15
Yardage Stakes	10

The estimates for renewals in this AM Plan were based on the asset register data.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and

- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

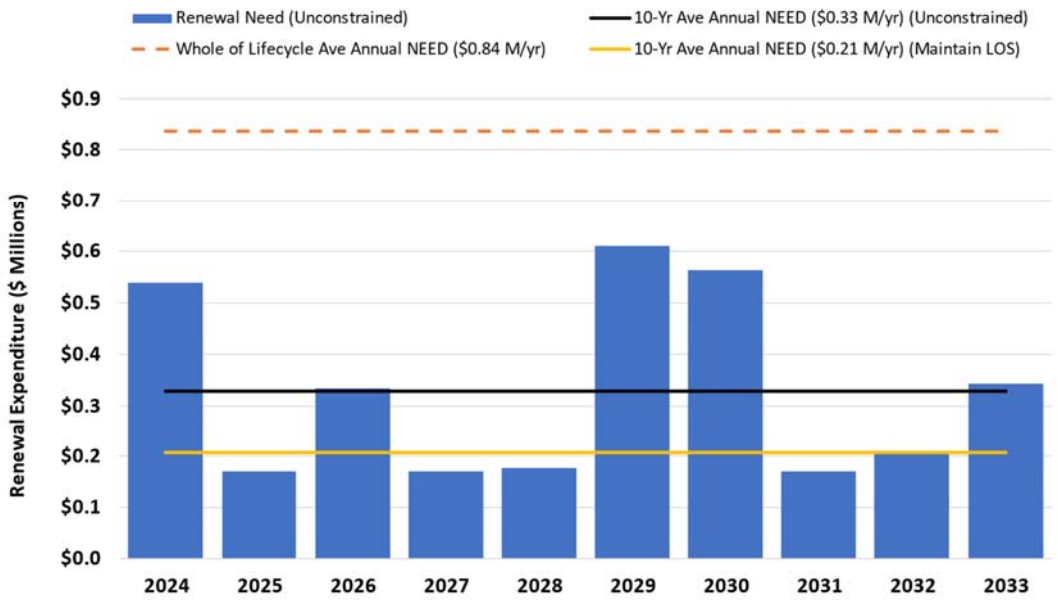
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). Additionally, based on feedback provided by the City, certain assets are funded through the operating budget and have been excluded from the renewal forecast.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities (Unconstrained)

Year	Current Funding	Renewal Forecast Required to Maintain LOS	Unconstrained Renewal Forecast
2024	$145,323	$170,794	$538,840
2025	$153,189	$170,794	$170,794
2026	$155,093	$170,794	$334,460
2027	$157,035	$170,794	$170,794
2028	$163,015	$170,794	$177,544
2029	$168,036	$170,794	$610,194
2030	$173,096	$170,794	$563,635
2031	$175,198	$258,194	$170,794
2032	$176,558	$200,494	$205,894
2033	$177,946	$415,340	$343,460
Annual Average	**$164,449**	**$206,959**	**$328,541**

Based on workshop input from the City, certain asset types are forecasted using an average annual renewal amount (asset value / service life) because they are repaired over the course of their useful life as opposed to being replaced in their entirety at end of life (i.e. Irrigation Systems). Additionally, assets with unknown condition (i.e. missing data on install date and staff reported condition) are forecasted using an average annual renewal amount as well. For this reason, some of the renewal amounts in the chart above are consistent throughout the analysis period except certain assets which will need replacement at the end of their service life.

6.4 Acquisition Plan

Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Based on workshop correspondence, the City has no planned growth or expansion of golf assets during the analysis period. Currently, no criteria has been established for the acquisition of upgraded golf assets; however this will be developed in future revision of this AM Plan.

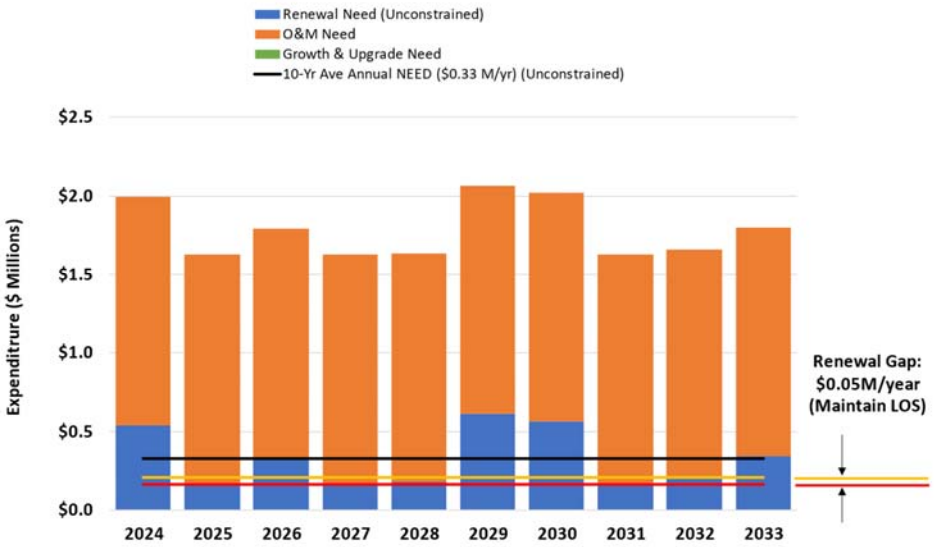
Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.4 These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains two projects (Doon – Course Improvements & Rockway – Course Improvements) which have been categorized as renewal. Additionally, the City funds a capital reserve for the replacement of golf carts and these projects will serve as a basis for the City's renewal budget when calculating the renewal gap.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The Average Renewal Funding (red line) indicates the estimate of

available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.4 Lifecycle Summary



All figure values are shown in current day dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Although there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $0.05 million for renewal needs.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no golf assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates. Currently, the City has no formal non-infrastructure solutions relating to golf assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5. Their typical failure mode, and the impact on service delivery, are summarized in Table 7.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Pedestrian / Golf Cart Bridges	Physical Failure	Access to course will be limited

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted to minimize risks.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following table:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating		Performance Rating	
Score	***Description***	***Score***	***Description***
1	New / Very Good	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is performing at a lower level than originally intended
4	Poor	4	Asset is performing to a much lower level than originally intended
5	Very Poor	5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. The residual risk and mitigation costs of implementing the selected treatment plan is shown in Table 7.4.

Table 7.4: Risks and Mitigation Plans

Asset	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Irrigation System	Poor asset condition resulting in the deterioration of course features due to lack of irrigation	High	Renewal work to perform any necessary repairs on the assets	Moderate	Approximately $125,000 per year

Note * The residual risk is the risk remaining after the selected risk mitigation plan is implemented.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.05 million per year)

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period is $1.67M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $1.62M on average per year giving a 10 year funding shortfall of $0.05M per year. This indicates that approximately 97% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the ‘gap’ by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal (Maintain LOS)	Renewal (Unconstrained)	Disposal
2024	$0	$1,459,447	$170,794	$538,840	$0
2025	$0	$1,459,447	$170,794	$170,794	$0
2026	$0	$1,459,447	$170,794	$334,460	$0
2027	$0	$1,459,447	$170,794	$170,794	$0
2028	$0	$1,459,447	$170,794	$177,544	$0
2029	$0	$1,459,447	$170,794	$610,194	$0
2030	$0	$1,459,447	$170,794	$563,635	$0
2031	$0	$1,459,447	$258,194	$170,794	$0
2032	$0	$1,459,447	$200,494	$205,894	$0
2033	$0	$1,459,447	$415,340	$343,460	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the entity determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $20.3 million

8.3.2 Valuation forecast

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

However, asset values and operations and maintenance needs are forecast to remain constant over the analysis period as the City does not have any planned growth or acquisition of assets.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.
- Any assets forecasted using an annuity (asset value / service life) or any assets that are funded through operating are assumed to be maintained in their current condition throughout the analysis period.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	High	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs.
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs, however the forecast does not quantity current shortfalls such as underfunding for planned maintenance.
Renewal Forecast	High	Asset values and estimated service lives are based on the best available data and feedback provided by the City.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be High.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to complete the development of asset inventories with appropriate attributes for any additional assets to be included in future iterations of the AM Plan. For example, provide a breakdown of Irrigation System assets into the electrical/control components and mechanical components (piping and fittings). Based on feedback provided by the City, Irrigation Systems are the largest concern for Golf Services and this additional data will help to inform more effective lifecycle needs and financial strategies for these assets.	Golf Services	None	2024 - 2025
2	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Golf Services	None	2024 - 2025
3	City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit	Golf Services	None	2024 - 2025

	costs is recommended in future updates of replacement value.			
4	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.	Golf Services	None	2024 - 2025
5	Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments	Golf Services	Align with corporate risk management framework	2024-2025
6	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Golf Services	None	2024 - 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg.588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
- City of Kitchener Places & Spaces – Parks Strategic Plan
- City of Kitchener Development Charges Study 2022
- City of Kitchener Strategic Plan 2023-2026
- City of Kitchener Official Plan 2014

2024

Parking Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Parking Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide parking services. The largest portion of the asset mix is Parking Lots – Above Ground with a replacement value of $3.5M. This category of assets accounts for approximately 88% of the total replacement value of all parking assets. Certain community parking infrastructure such as community center parking, fire hall parking, sports arena parking and parking at other city owned buildings have been included in the Facilities AM Plan and are excluded from this analysis.

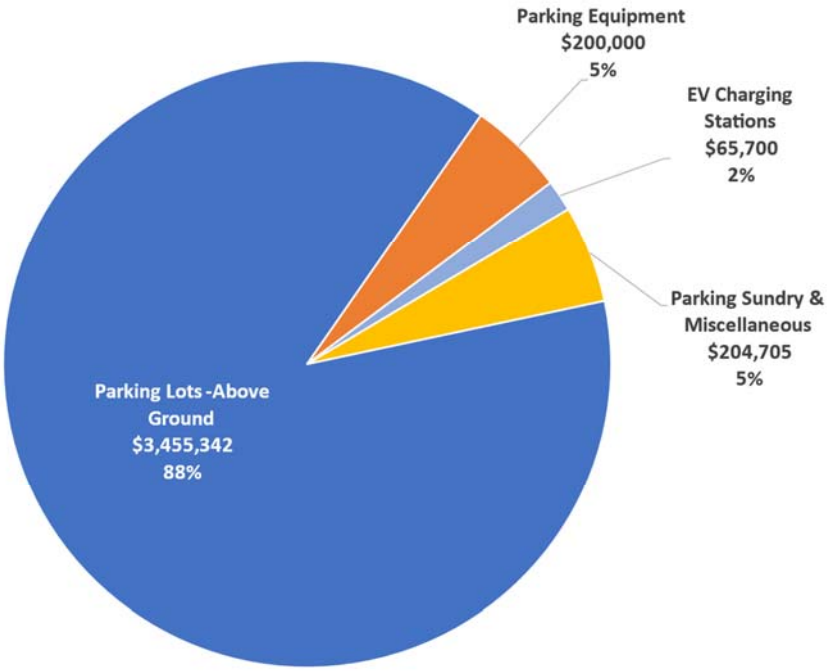
The infrastructure assets covered by this AM Plan are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Parking Lots – Above Ground	Surface Lots	$3,455,342
Parking Equipment	Pay by Plate Units	$200,000
EV Charging Stations	EV Charging Stations	$65,700
Parking Sundry & Miscellaneous	Bike Racks, Light Standards	$204,705
TOTAL		**$3,925,747**

The above infrastructure assets have a replacement value estimated at $3.9 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is in sufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period. However, service levels and associated targets will continue to be formalized and monitored for future iterations of the AM Plan

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- The City can consider the expansion or addition of parking assets to accommodate the increase in population.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan includes operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for the parking services portfolio is estimated as $19.7 million or $1.97 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10 year period is $19.6 million or $1.96 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 99% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for parking leaves a shortfall of $0.01 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2: Lifecycle Summary

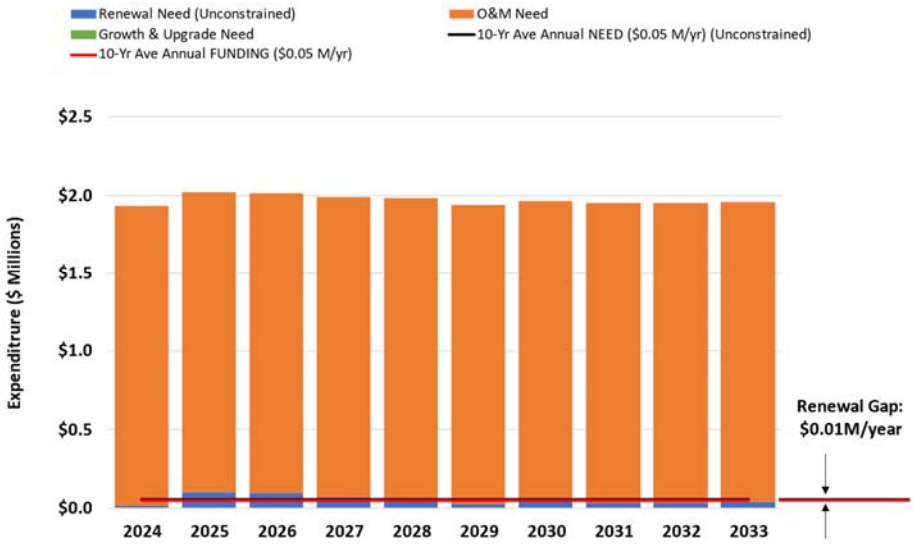


Figure Values are in current year (2023) dollars.

We plan to provide parking services for the following:

- Operation, maintenance, renewal and acquisition of parking assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10 year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. However, there may be works and services that cannot be provided under present funding levels:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work (0.01 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects.
- Pursue available grants from higher levels of government.

1.7 Asset Management Planning Practices

Assets requiring renewal are identified from the asset register method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal; Or
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a high level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).
- Formalize governance between other City divisions for assets such as parking lots and EV charging stations.

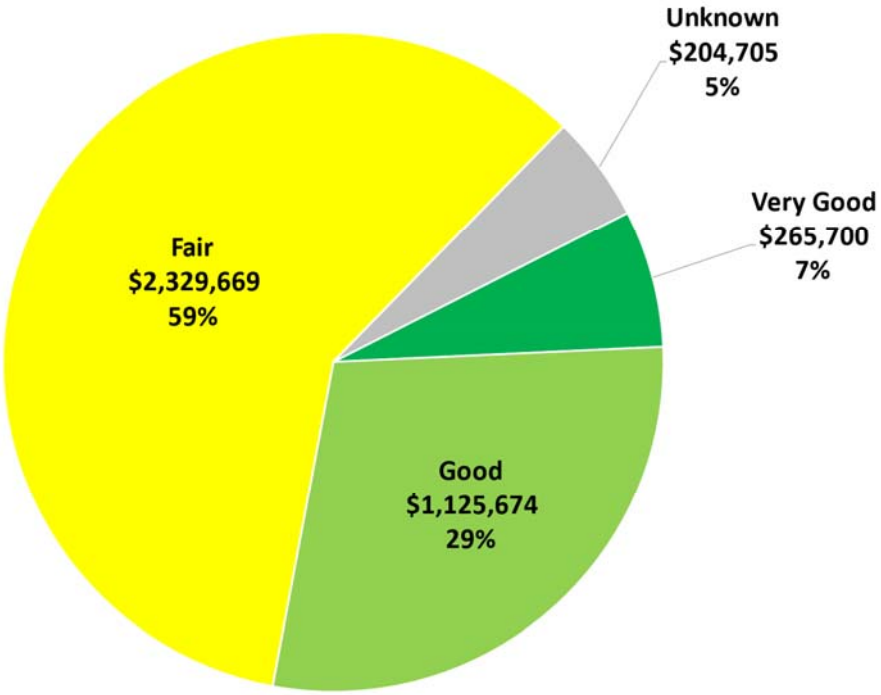
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities parking assets for which the City is responsible for lifecycle management. Most of these assets are owned by the City, but some are owned by another organization. Any facilities associated with parking services have been covered in the Facilities AM Plan. Additionally, facility parking lots that have been assessed through building condition assessments are included in the Facilities AM Plan, but additional work is required to formalize the governance of these assets with other City divisions. The infrastructure assets included in this plan have a total replacement value of $3.9 million.

Figure 2.1 – City of Kitchener Non-Core Parking Asset Condition and Value

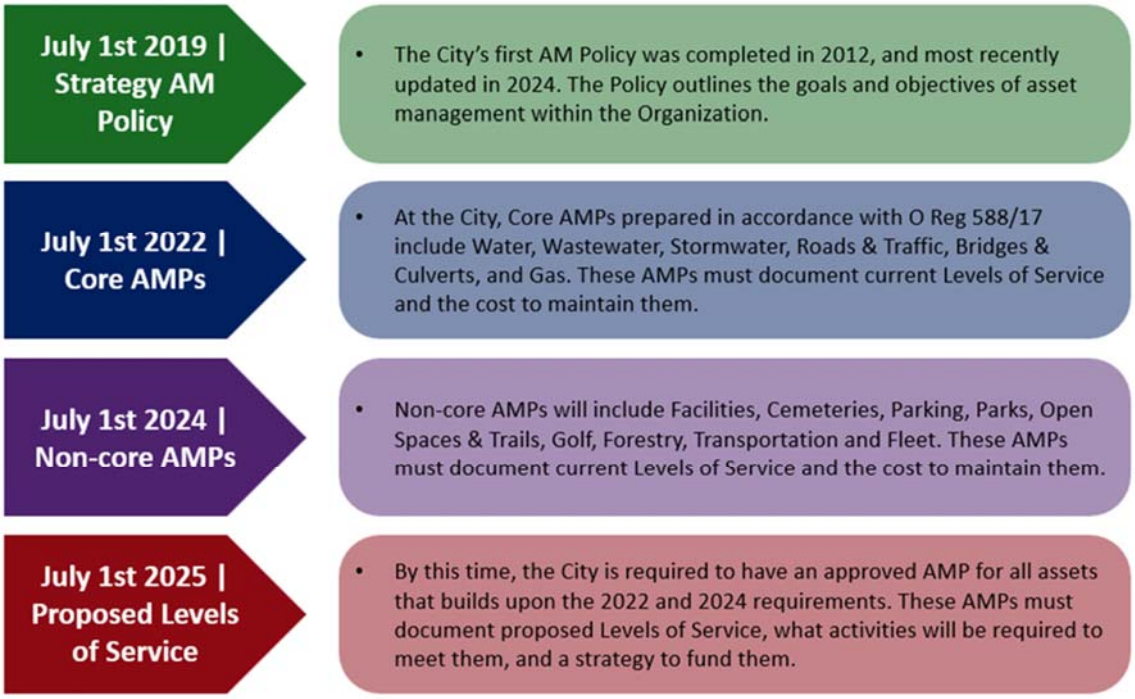


2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

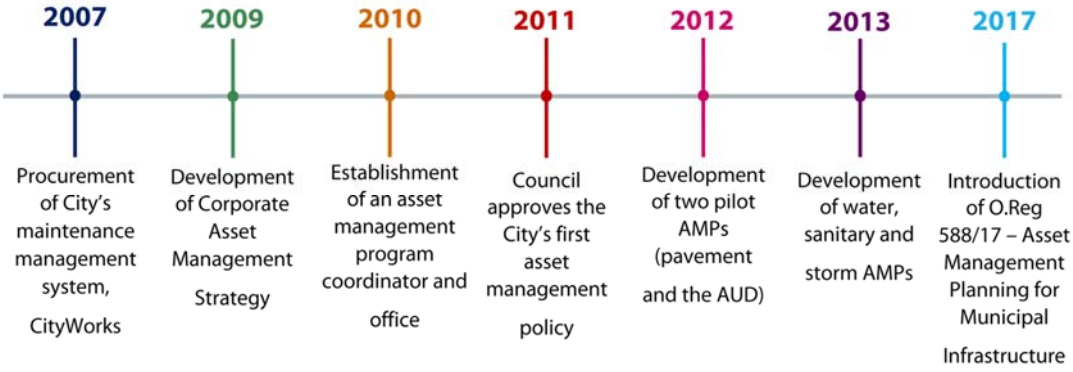


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline

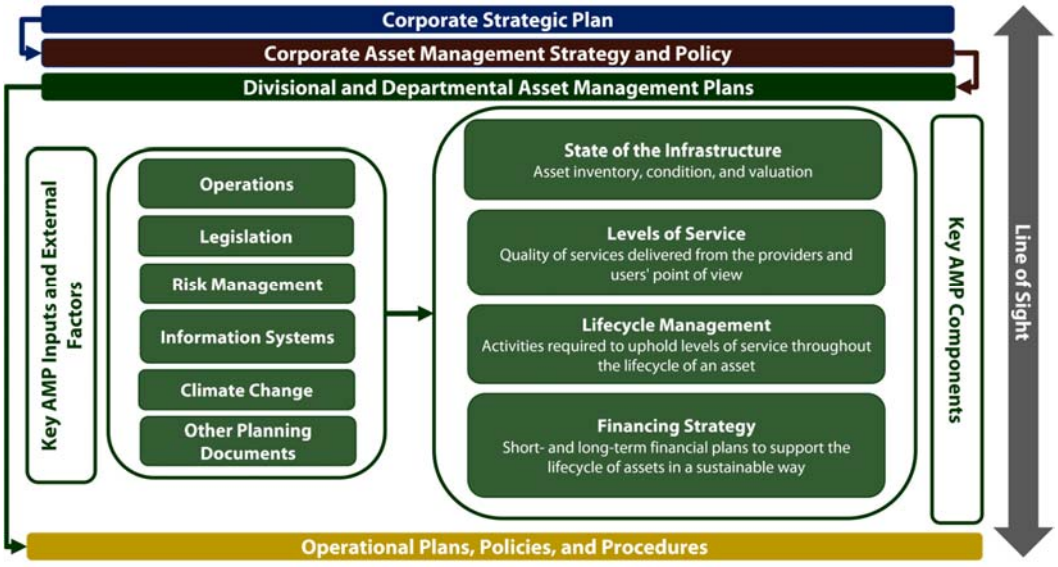


2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AM Plan should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in

Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's parking services. The assets covered by this AM Plan are shown in Table 3.1.1. All table and figure values are shown in current day (2023) dollars.

The largest portion of the asset mix is Parking Lots – Above Ground with a replacement value of $3.5M. This category of assets accounts for approximately 88% of the total replacement value of all parking assets. Please note that certain community parking infrastructure such as community center parking, fire hall parking, sports arena parking and parking at other city owned buildings have been included in the Facilities AM Plan and are excluded from this analysis.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Parking Lots – Above Ground	Surface Lots	$3,455,342
Parking Equipment	Pay by Plate Units	$200,000
EV Charging Stations	EV Charging Stations	$65,700
Parking Sundry & Miscellaneous	Bike Racks, Light Standards	$204,705
TOTAL		**$3,925,747**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

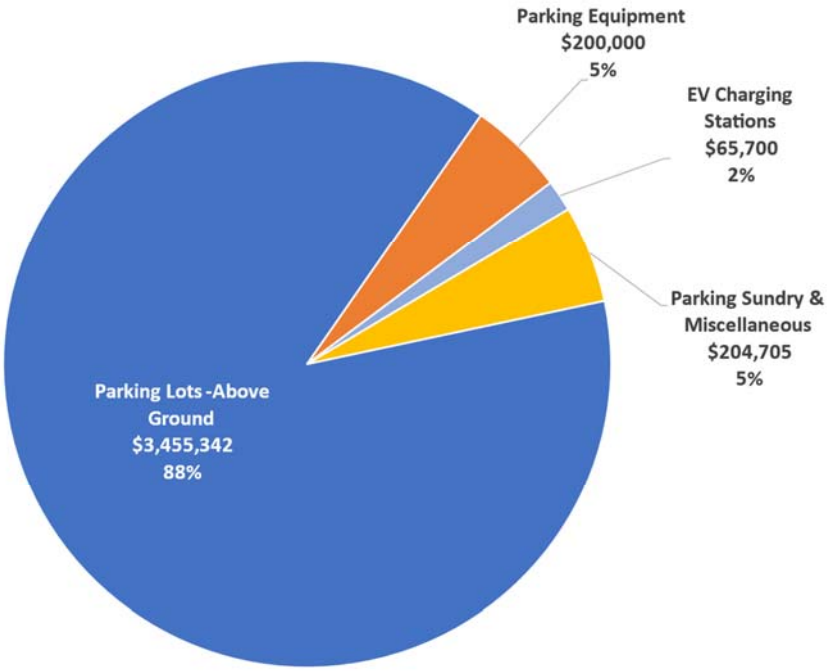
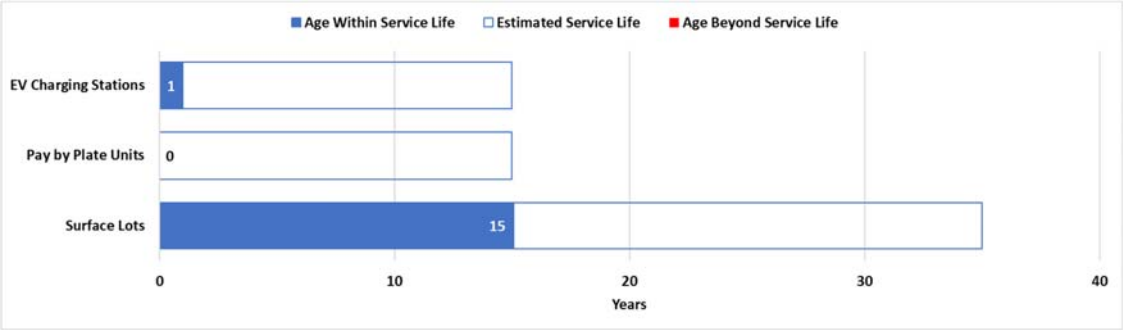


Figure 3.1.2: Asset Age Profile



Notes on the above Asset Age Profile:

- Bike Racks and Light Standards are not included because they are missing information on age and condition.
- EV Charging Stations, Pay by Plate Units and Surface lots have a low age to service life ratio.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Parking Lots	Parking lots provide safe, secure, and efficient parking solutions for residents, commuters, and visitors.
Parking Equipment	Pay by Plate parking systems give residents and visitors convenient access to parking.
Parking Sundry & Miscellaneous	Miscellaneous parking items help parking facilities operate more efficiently and effectively.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Parking Lots	As noted in the Community Climate Adaptation Plan for Waterloo Region (2019), there are suggestions from the community to incorporate green infrastructure into parking lot designs to handle runoff as well as considerations for snow and ice removal to reduce salt use. These items can be considered when parking lot assets need replacement.
	Pay and Display parking systems are becoming obsolete with newer and more convenient parking systems. As noted in the workshop correspondence (LOS Workshop – October 6, 2023), the City will transition all surface lots to a Pay-by-Plate parking system by the 1st quarter of 2024.

The above service deficiencies were identified from the Community Climate Adaptation Plan for Waterloo Region (2019) and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections of City owned assets. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these condition assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
	No formal condition assessment program	

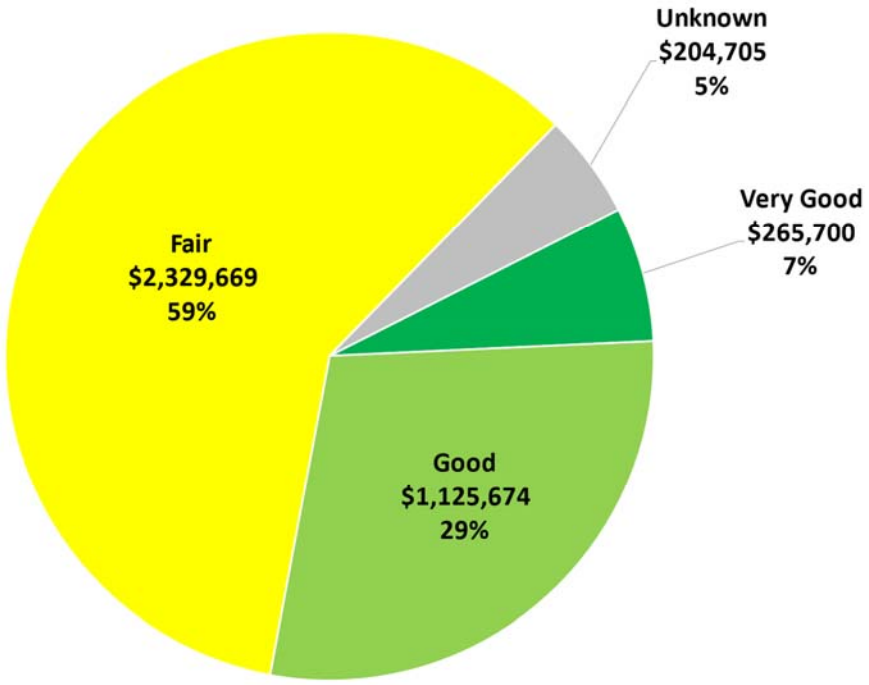
Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level; however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the City's assets provides some perspective on the overall reliability of its infrastructure. Overall, approximately 95% of the City's parking assets have a condition rating of fair or better (the remaining assets are in unknown condition). This highlights the City's commitment to maintaining these services.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries was performed. The purpose of this review was to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide the basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Parking Lots – Above Ground	Good	Good	Good	Good	Good	Good	Good
Parking Equipment	Good	Good	Good	Good	Good	Good	Good
EV Charging Stations	Good	Good	Good	Good	Good	Good	Good
Parking Sundry & Miscellaneous	Fair	Good	Good	Poor	Poor	Good	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan.

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

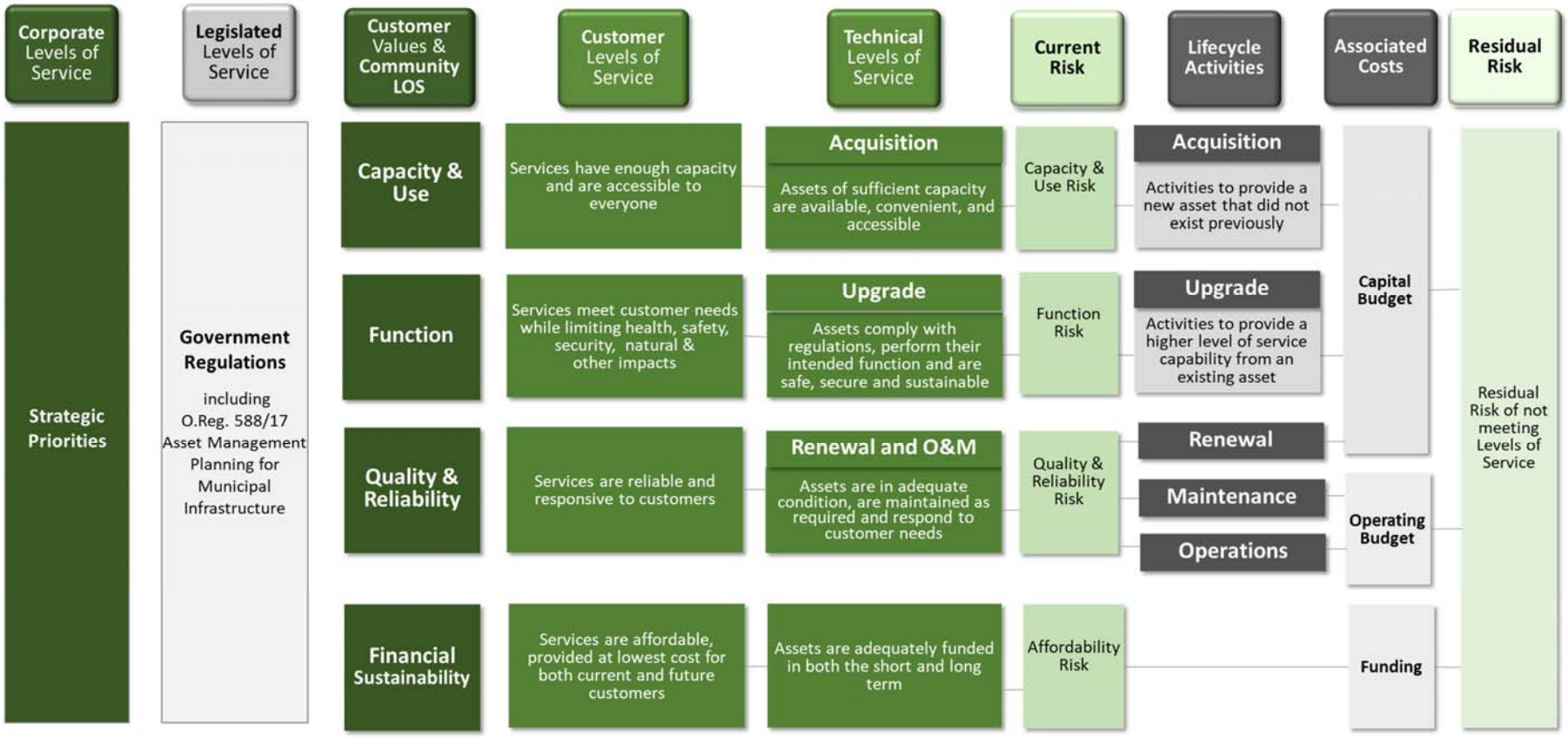
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

At this time, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Building a Connected City Together	We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes. We get around easily, sustainably and safely to the places and spaces that matter most to us.	Parking infrastructure supports the City's commitment to the growth and the viability of key businesses, while also reducing traffic congestion.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core parking assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset.
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment they include, such as charging stations.
Fire Protection and Prevention Act, 1997	Facilities, especially public spaces, must comply with fire safety regulations.
Ontario Building Code	The Ontario Building Code has specific requirements facilities, such as parking garages.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? Do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Provide considerations for handling runoff more effectively and reduce salt use.
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:



Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets within service life (by replacement value)	Monitor Only	Not available	100%*	Not available	Not available

Note that the performance measure of assets within service life is not a comprehensive analysis as some assets are missing age and condition data and have been excluded from this calculation. This metric will continue to be monitored by the City for future iterations of the AM Plan.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Operations	Annual parking transactions (cash, credit, or debit)	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	Peak occupancy % (parking lot utilization)	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	Average revenue per daily transaction	Monitor Only	Future Metric	Not available	Not available	Not available
Operations	Net income generated per parking space	Monitor Only	Future Metric	Not available	Not available	Not available

Based on correspondence with the City of Kitchener, data does not currently exist for the above technical levels of service and therefore these measures will be monitored by the City and investigated for future updates of the AM Plan.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There may be a deficiency in the availability of parking.	The City can consider the expansion or addition of parking assets to accommodate the increase in population.

*2022 Development Charges Study

5.2 Asset Programs to meet Demand

As discussed in Section 6, the City has no planned growth or expansion of parking assets during the analysis period.

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accord with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of

Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2

Table 5.2 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Greenhouse Gas Emissions	Shift towards the use of electric vehicles	There may be limited capacity of EV Charging stations.	City to continue to review the need to expand its EV Charging Station infrastructure to accommodate for this growth.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Building Asset Resilience to Climate change for any facilities or structures related to parking services have been covered in the Facilities AM Plan.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include minor repairs.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

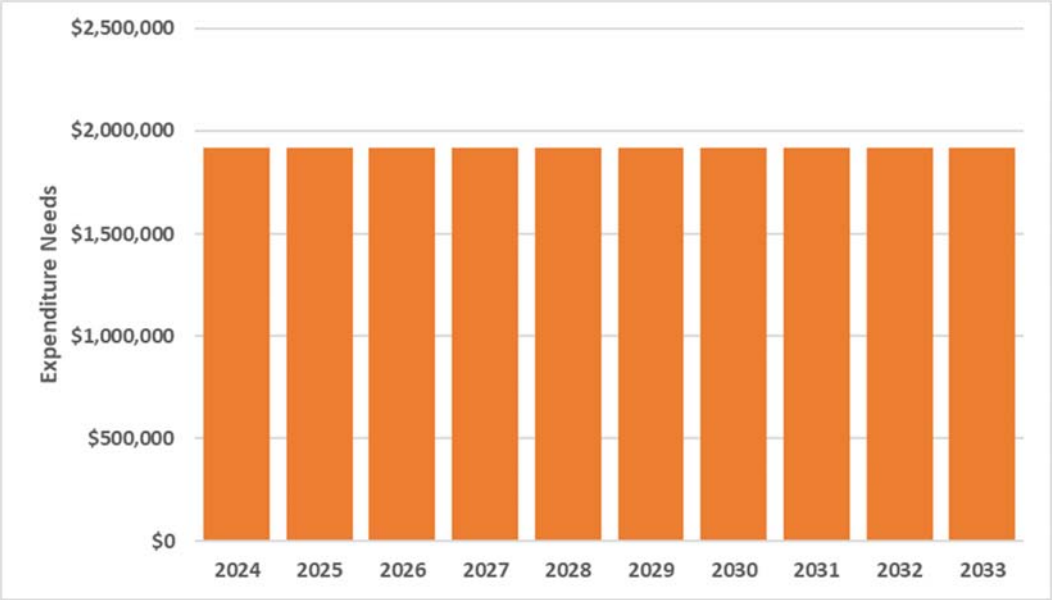
Year	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$1,699,171
2022	$1,817,501
2023	$1,917,568
2024	$1,917,568

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to remain constant over the next 10 years in line with the lack of additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$60,000

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.2.2.

Table 6.2.2: Useful Lives of Assets

Asset	Useful life
Surface Lots	35
Pay by Plate Units	15
EV Charging Stations	15
Bike Racks	10
Light Standards	30

The estimates for renewals in this AM Plan were based on the asset register data.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

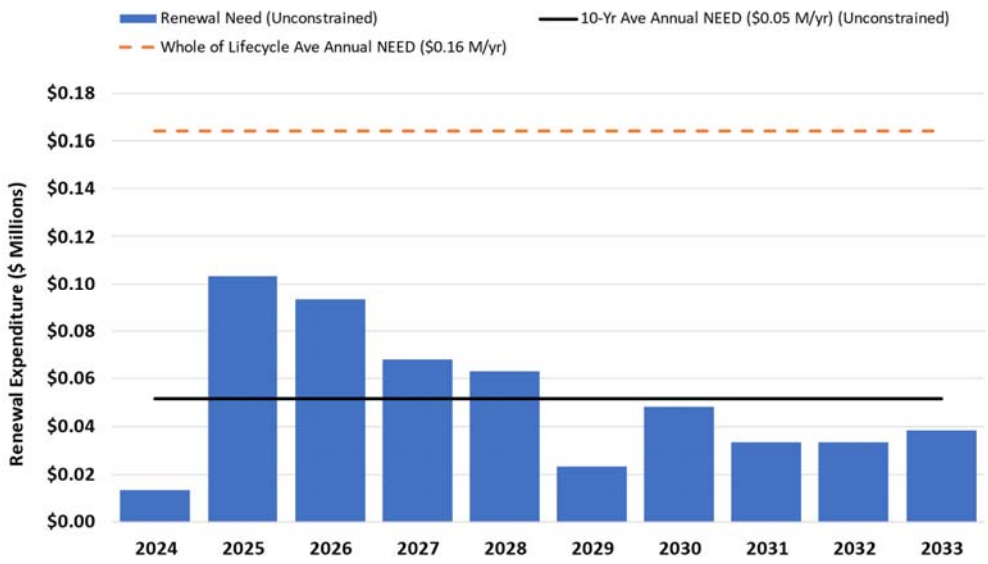
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). However, for the purposes of this analysis, only one renewal forecast scenario (Unconstrained) was considered because it is necessary to maintain the current condition profile of parking assets. Additionally, based on feedback provided by the City, certain assets are funded through the operating budget and have been excluded from the renewal forecast.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities

Year	Current Funding	Unconstrained Renewal Forecast
2024	$60,000	$13,271
2025	$60,000	$103,271
2026	$40,000	$93,271
2027	$40,800	$68,271
2028	$41,618	$63,271
2029	$42,455	$23,271
2030	$43,305	$48,271
2031	$44,171	$33,271
2032	$45,055	$33,271
2033	$45,956	$38,271
Annual Average	**$46,336**	**$51,771**

Assets with unknown condition (i.e. missing data on install date and staff reported condition) are forecasted using an average annual renewal amount (asset value / service life). For this reason, some of the renewal amounts in the chart above are consistent throughout the analysis period with the exception of certain assets with specific renewal needs.

6.4 Acquisition Plan

Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the Entities needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for the acquisition of parking assets, however this will be developed in future revision of this AM Plan. Additionally, based on workshop correspondence, the City has no planned growth or expansion of golf assets during the analysis period.

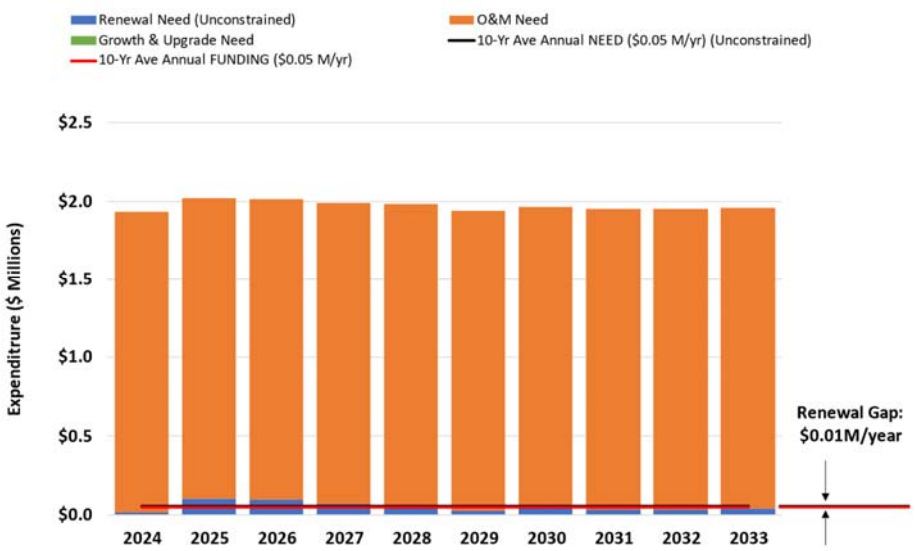
Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains two projects (Parking Lot Resurfacing & Parking Equipment) which has been categorized as renewal and will serve as a basis for the City's renewal budget when calculating the renewal gap.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The Average Renewal Funding (red line) indicates the estimate of

available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.6: Lifecycle Summary



All figure values are shown in current year (2023) dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Though there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $0.01 million for renewal needs.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no parking assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates. Currently, the City has no formal non-infrastructure solutions relating to parking assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5, however the City does not have any parking assets which have been categorised as critical.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.1 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following tables:

Table 7.2 Probability of Failure Rating Scale

Physical Condition Rating	
Score	***Description***
1	New / Very Good
2	Good
3	Fair
4	Poor
5	Very Poor

Performance Rating	
Score	***Description***
1	Asset is functioning as intended with no issues identified
2	Asset is functioning but could use minor maintenance
3	Asset is performing at a lower level than originally intended
4	Asset is performing to a much lower level than originally intended
5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. Currently, the City does not have any parking assets which have a risk rating of High or Very High.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period is $1.97M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $2.05M on average per year giving a 10 year funding excess of $0.08M per year. This indicates that approximately 104% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal	Disposal
2024	$0	$1,917,568	$13,271	$0
2025	$0	$1,917,568	$103,271	$0
2026	$0	$1,917,568	$93,271	$0
2027	$0	$1,917,568	$68,271	$0
2028	$0	$1,917,568	$63,271	$0
2029	$0	$1,917,568	$23,271	$0
2030	$0	$1,917,568	$48,271	$0
2031	$0	$1,917,568	$33,271	$0
2032	$0	$1,917,568	$33,271	$0
2033	$0	$1,917,568	$38,271	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $3.9 million

8.3.2 Valuation forecast

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

However, asset values and operations and maintenance needs are forecast to remain constant over the analysis period as the City does not have any planned growth or acquisition of assets.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.
- Any assets forecasted using an annuity (asset value / service life) or any assets that are funded through operating are assumed to be maintained in their current condition throughout the analysis period.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	High	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs.
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs, however the forecast does not quantity current shortfalls such as underfunding for planned maintenance.
Renewal Forecast	High	Asset values and estimated service lives are based on the best available data and feedback provided by the City.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be High.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Parking Services	None	2024 – 2025
2	City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.	Parking Services	None	2024 – 2025
3	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.	Parking Services	None	2024 – 2025

4	Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments	Parking Services	Align with corporate risk management framework	2024-2025
5	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Parking Services	None	2024 – 2025
6	Formalize governance between other City divisions for assets such as parking lots and EV charging stations	Parking Services and other City Divisions	None	2024 - 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg.588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
- Region of Waterloo Community Climate Adaptation Plan 2019
- City of Kitchener Development Charges Study 2022
- City of Kitchener Strategic Plan 2023-2026
- City of Kitchener Official Plan 2014

2024

Parks, Open Spaces and Trails Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Parks, Open Spaces and Trails Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide parks, open spaces and trails services. The largest portion of the asset mix are the Pedestrian Network with a replacement value of $51.6M and Recreational Fields with a replacement value of $26.9M. These two categories of assets account for approximately 79% of the total replacement value of all Parks, Open Spaces and Trails assets. Note that park assets located at Victoria Park have been included in the Facilities AM Plan.

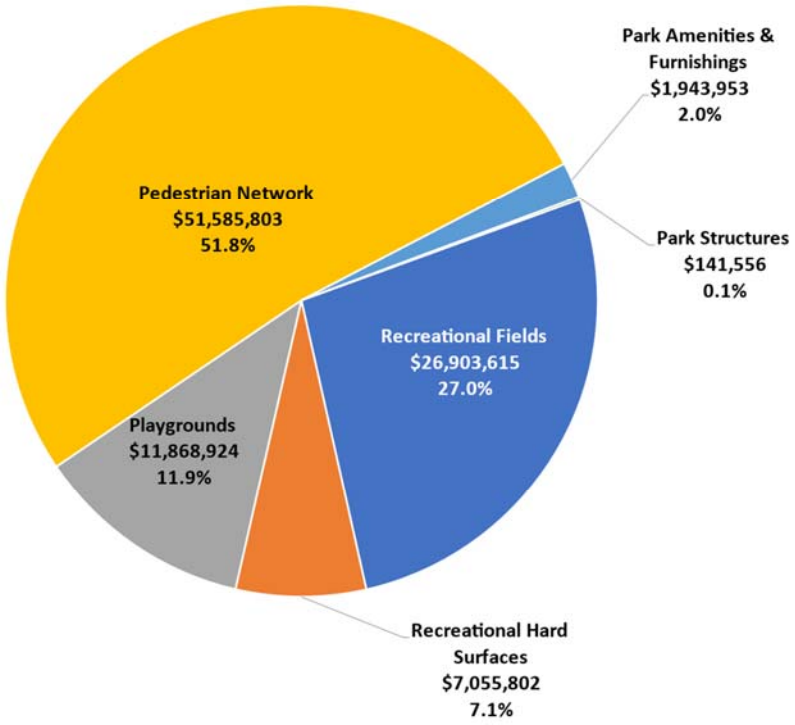
The infrastructure assets covered by this AM Plan are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Recreational Fields	Ball Diamonds, Cricket, Lawn Bowling, Soccer Fields, Disc Fields, Field Hockey Pitch	$26,903,615
Recreational Hard Surfaces	Outdoor Rinks, Tennis Courts, Basketball Courts, Volleyball Courts, Bike Parks, Skateboard Parks, Shuffleboard Court	$7,055,802
Playgrounds	Playgrounds	$11,868,924
Pedestrian Network	Boardwalks, Bridges, Trails	$51,585,803
Park Structures	Huron Natural Area Picnic Shelter	$141,556
Park Amenities & Furnishings	Dog Parks, Bike Racks, Garbage Containers, Picnic Tables, Bollards, Benches	$1,943,953
TOTAL		**$99,499,654**

The above infrastructure assets have replacement value estimated $99.5 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is in sufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period. However, service levels and associated targets will continue to be formalized and monitored for future iterations of the AM Plan.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- The City can continue to consider the expansion and addition of parks, open spaces and trails infrastructure.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan includes operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for the parks, open spaces and trails portfolio is estimated as $175 million or $17.5 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10 year period is $171 million or $17.1 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 93% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for parks, open spaces and trails leaves a shortfall of $0.4 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2: Lifecycle Summary

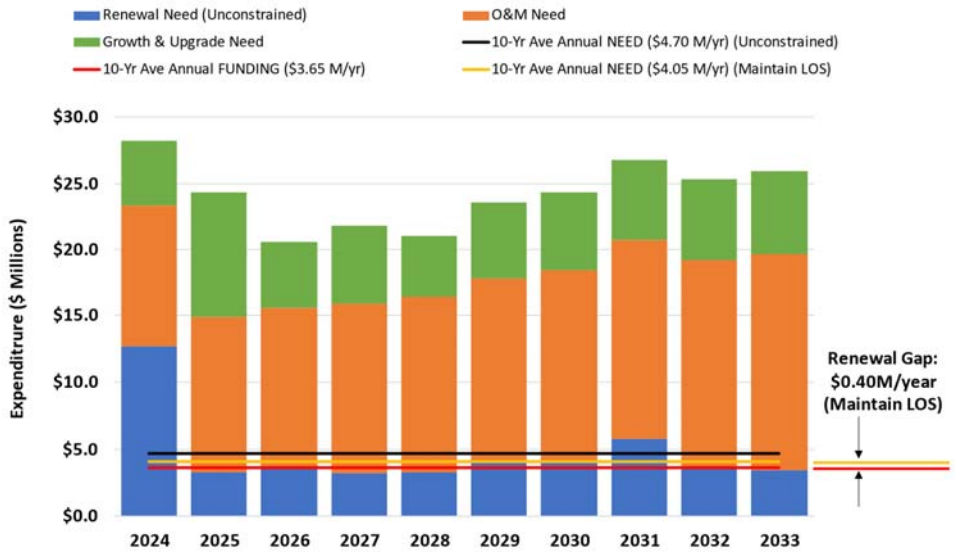


Figure Values are in current year (2023) dollars.

We plan to provide parks, open spaces and trails services for the following:

- Operation, maintenance, renewal and acquisition of parks, open spaces and trails assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10 year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.40 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.

- Higher lifecycle management costs, deteriorating assets, and potential closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects.
- Pursue available grants from higher levels of government.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Assumptions were made regarding the estimated service life of certain assets as follows: Pedestrian Bridges (30 years), Trails (30 years), Shuffleboard Courts (15 years), Disc Fields (20 years), Field Hockey Pitches (20 years), Dog Parks (20 years), Bike Racks (15 years), Garbage Containers (10 years), Huron Natural Area Picnic Shelter (15 years), Picnic Tables (15 years), Bollards (15 years) and Benches (15 years).
- When analyzing the replacement value of trails assets, the following unit costs were used depending on the surface type: Asphalt ($100/m2), Concrete ($150/m2), Stonedust/Gravel/Tar and Chip ($60/m2) and Brick/Cobblestone ($227/m2).
- When analyzing pedestrian bridges, the 2023 Bridge Inspections Report (Aecom) was used to determine condition. This report provides condition based on the Bridge Condition Index (BCI), and the following condition category scale from the Engineering Structures AM Plan was used to convert BCI to condition category from Very Good to Very Poor:

Bridge Condition Index (BCI)	Condition Category
80 - 100	Very Good
60 - 79	Good
40 - 59	Fair
20 - 39	Poor
0 - 19	Very Poor

Assets requiring renewal are identified from the asset register method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal; Or
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a medium level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to complete the development of asset inventories with appropriate attributes for any additional assets to be included in future iterations of the AM Plan. For example, there is currently no inventory in this AM Plan for signage on trails.

- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).

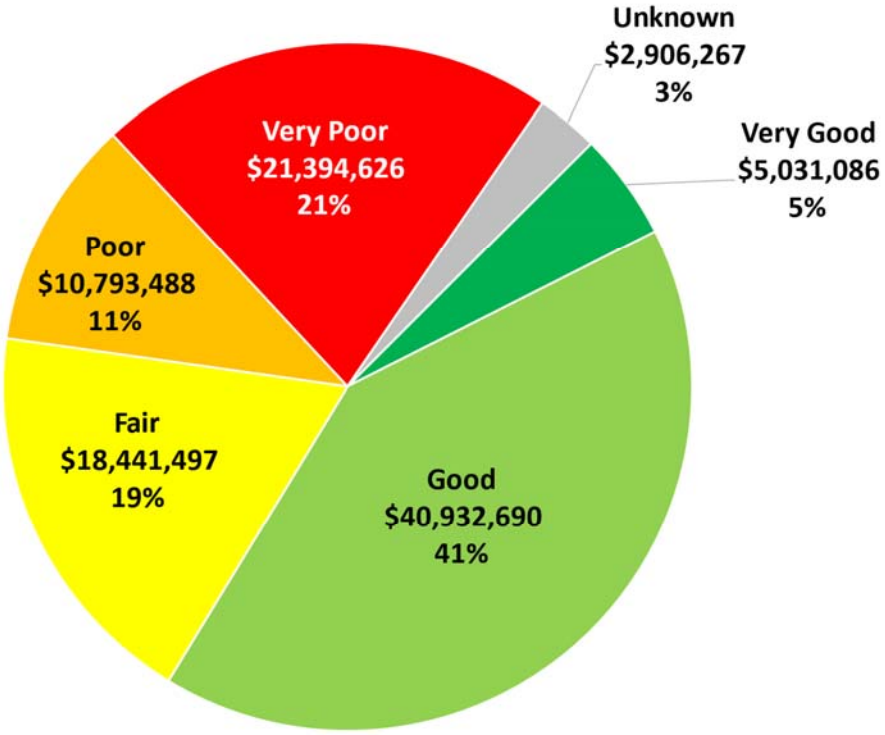
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities parks, open spaces and trails assets for which the City is responsible for lifecycle management. Any facilities associated with parks, open spaces and trails services have been covered in the Facilities AM Plan. The infrastructure assets included in this plan have a total replacement value of $99.5 million.

Figure 2.1 – City of Kitchener Non-Core Parks Asset Condition and Value

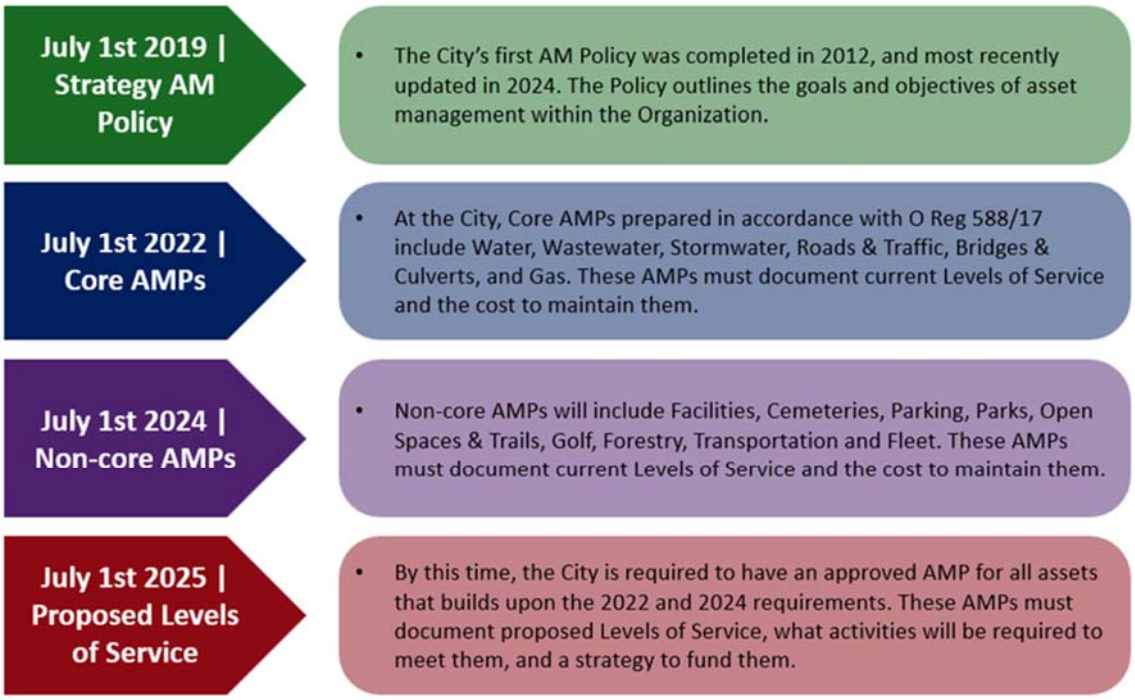


2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

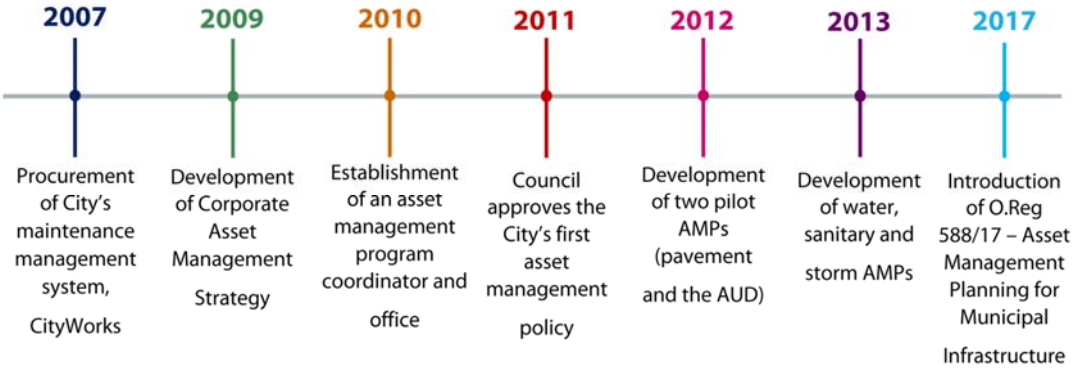


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline



2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AMP should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's Parks, Open Spaces and Trails services. The assets covered by this AM Plan are shown in Table 3.1.1. All table and figure values are shown in current year (2023) dollars.

The largest portion of the asset mix are the Pedestrian Network with a replacement value of $51.6M and Recreational Fields with a replacement value of $26.9M. These two categories of assets account for approximately 79% of the total replacement value of all Parks, Open Spaces and Trails assets. Note that park assets located at Victoria Park have been included in the Facilities AM Plan.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Recreational Fields	Ball Diamonds, Cricket, Lawn Bowling, Soccer Fields, Disc Fields, Field Hockey Pitch	$26,903,615
Recreational Hard Surfaces	Outdoor Rinks, Tennis Courts, Basketball Courts, Volleyball Courts, Bike Parks, Skateboard Parks, Shuffleboard Court	$7,055,802
Playgrounds	Playgrounds	$11,868,924
Pedestrian Network	Boardwalks, Bridges, Trails	$51,585,803
Park Structures	Huron Natural Area Picnic Shelter	$141,556
Park Amenities & Furnishings	Dog Parks, Bike Racks, Garbage Containers, Picnic Tables, Bollards, Benches	$1,943,953
TOTAL		**$99,499,654**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

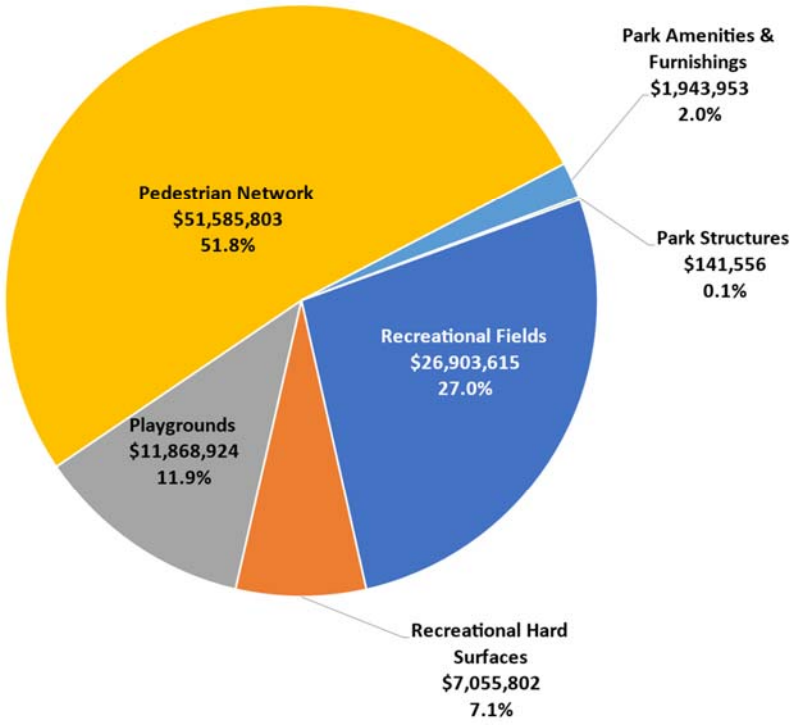
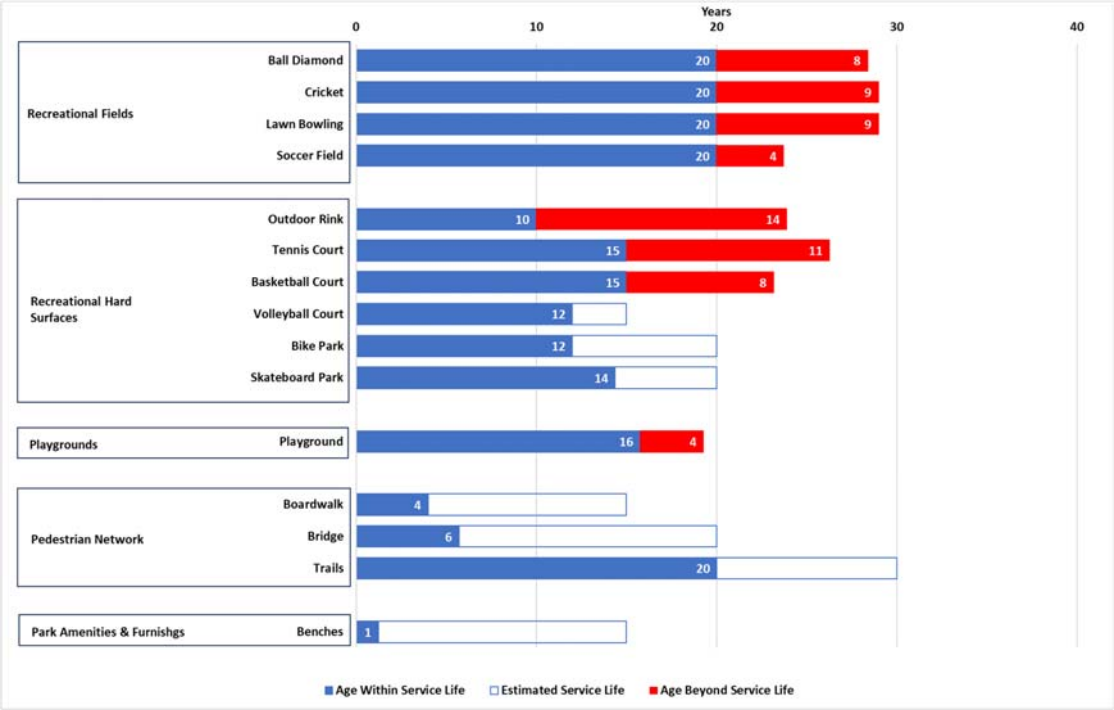


Figure 3.1.2: Asset Age Profile



Notes on the above Asset Age Profile:

- Shuffleboard Courts, Disc Fields, Field Hockey Pitches, Dog Parks, Bike Racks, Garbage Containers, Huron Natural Area Picnic Area, Picnic Tables and Bollards are not included because they are missing information on age and condition**.**
- Lawn Bowling and Cricket Fields are the oldest of the City's parks assets with an average age of 29 years compared to an estimated service life of 20 years.
- Basketball Courts, Tennis Courts, Outdoor Rinks, Soccer Fields, Ball Diamonds and Playgrounds have also surpassed their estimated service lives and may warrant closer attention for investment in maintenance or replacement due to their age, depending on criticality.
- Conversely, the remaining assets have a much lower age to service life ratio.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Recreational Fields and Hard Surfaces	These assets support a wide range of active recreation and allow the residents of the City to enjoy an active lifestyle.
Playgrounds	Playgrounds promote physical and social development in children and provide a space for parents and caregivers to interact.
Pedestrian Network	Establishes a network of pedestrian pathways to connect various parts of the City and promotes walking and cycling as a viable means of transportation.
Park Structure, Park Amenities & Furnishings	These assets provide additional utility to residents and visitors of the City's parks and open spaces.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Critical Needs Areas	As outlined in the Places & Spaces – Parks Strategic Plan, there are several underserved communities in the City of Kitchener. Communities such as Alpine, Bridgeport West, Cherry Hill, Civic Centre and many others have been highlighted as needing improvement regarding parks infrastructure.

The above service deficiencies were identified from the Places & Spaces – Parks Strategic Plan and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections of City owned assets. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these condition assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
	No formal condition assessment program	

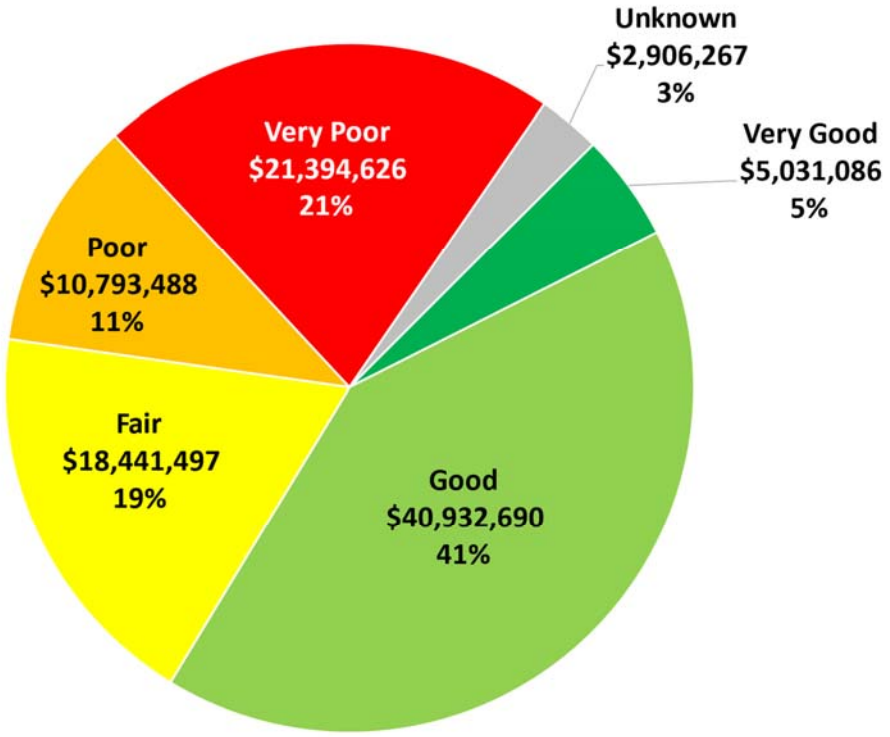
Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level; however, for reporting in the AM Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the municipality's assets provides some perspective on the overall reliability of its infrastructure. Overall, approximately 65% of the City's parks, open spaces and trails assets have a condition rating of fair or better. The moderate proportion of assets in poor and very poor condition (21%) may warrant closer attention for investment in maintenance or replacement due to their overall value.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries was performed. The purpose of this review was to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are

populated with accurate values. These values will provide the basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Recreational Fields	Good	Good	Good	Good	Good	Good	Good
Recreational Hard Surfaces	Good	Good	Good	Good	Good	Good	Good
Playgrounds	Good	Good	Good	Good	Good	Good	Good
Pedestrian Network	Good	Good	Good	Good	Good	Good	Good
Park Structures	Fair	Good	Good	Poor	Poor	Good	Good
Park Amenities & Furnishings	Fair	Good	Good	Poor	Poor	Good	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan.

Key assumptions related to the asset registries made in this AM Plan are:

- Some assumptions were made regarding the estimated service life of certain assets as follows: Pedestrian Bridges (30 years), Trails (30 years), Shuffleboard Courts (15 years), Disc Fields (20 years), Field Hockey Pitches (20 years), Dog Parks (20 years), Bike Racks (15 years), Garbage Containers (10 years), Huron Natural Area Picnic Shelter (15 years), Picnic Tables (15 years), Bollards (15 years) and Benches (15 years).
- When analyzing the replacement value of trails assets, the following unit costs were used depending on the surface type: Asphalt ($100/$m^2$), Concrete ($150/m^2), Stonedust/Gravel/Tar and Chip ($60/$m^2$) and Brick/Cobblestone ($227/$m^2$).

- When analyzing pedestrian bridges, the 2023 Bridge Inspections Report (Aecom) was used to determine condition. This report provides condition based on the Bridge Condition Index (BCI), and the following condition category scale from the Engineering Structures AM Plan was used to convert BCI to condition category from Very Good to Very Poor:

Bridge Condition Index (BCI)	Condition Category
80 - 100	Very Good
60 - 79	Good
40 - 59	Fair
20 - 39	Poor
0 - 19	Very Poor

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

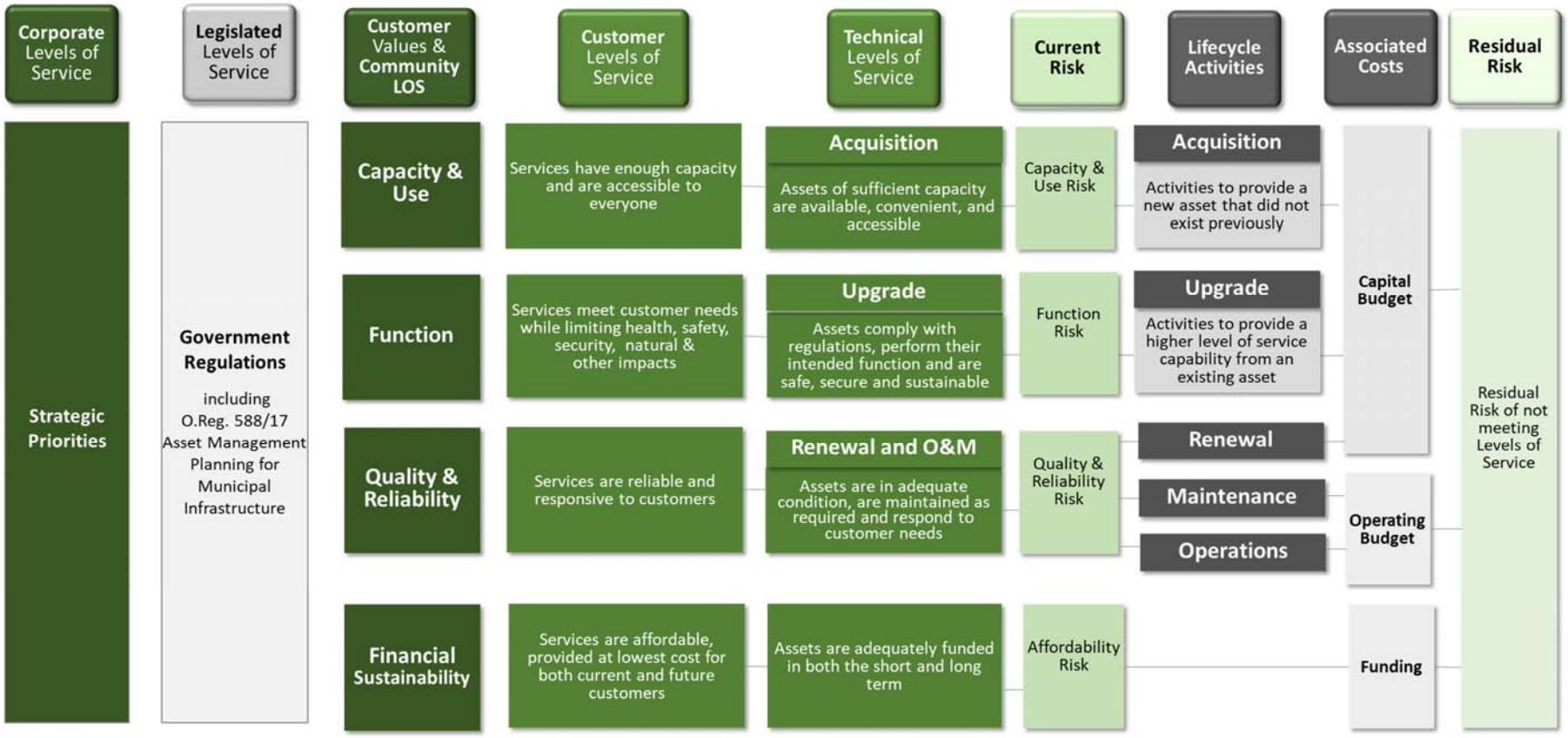
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

At this time, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Building a Connected City Together	We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes. We get around easily, sustainably and safely to the places and spaces that matter most to us.	Through the development and maintenance of parks, open spaces and trails, the City can maintain an interconnected urban landscape for pedestrian movement and social interaction.
Cultivating a Green City Together	We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.	The development and maintenance of parks, open spaces and trails is directly tied to cultivating a green city. The presence of greenery and various plants helps to preserve the natural ecosystem.
Fostering a Caring City Together	We welcome residents of all ages, backgrounds and lived experiences. We work together on the decisions that matter to us and have a meaningful influence in our community. We're healthy and thriving as we easily access the diverse and inclusive programs and services we need to succeed.	Parks, open spaces and trails create spaces for social interaction and community involvement.

Stewarding a Better City Together	We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.	The development and maintenance of parks, open spaces and trails allows for sustainable urban living and promotes the overall well-being of the City's residents.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core Parks, Open Spaces and Trails assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements for facilities is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Protecting green spaces helps build climate change resiliency and flood protection for local communities
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:

Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.

Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.

Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Functional	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	# of accessible playgrounds	100%	Not available	100%	Not available	Not available
		# of playgrounds achieving CSA compliance standards	100%	Not available	100%	Not available	Not available
		Trails AODA Compliance	100%	Not available	Not available	Not available	Not available
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets within service life	Monitor Only	Not available	66.2%	Not available	Not available
		% of playgrounds within service life.	Monitor Only	Not available	44.9%	Not available	Not available
		% of sports fields within service life.	Monitor Only	Not available	13.9%	Not available	Not available
		% of trails in good condition or better. See trail inspections results.	Monitor Only	Not available	Not available	Not available	Not available

Metrics which will continue to be monitored by the City in future iterations of the AM Plan include the number of accessible playgrounds, the number of playgrounds complaint with CSA standard, the percentage of assets within service life, the percentage of playground within service life and the percentage of sportsfields within service life. Additionally, based on correspondence with the City of Kitchener, data does not currently exist for AODA compliance trail condition, therefore these measures will be monitored by the City and investigated for future updates of the AM Plan.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data

availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Operations	Total parkland supply (ha) / 1,000 residents	$10m^2$ of local park per person	Not available	Not available	Not available	Not available
	Population in range of sports fields (average distance to sports field)	Monitor Only	Not available	Not available	Not available	Not available
	Population to Sports field Ratio (Number of sports fields per 1,000 population)	Monitor Only	Not available	Not available	Not available	Not available
	Report on completion of Cycling & Trails Master Plan recommendations.	100%	Not available	Not available	Not available	Not available
	% of turfs being Artificial Turfs	Monitor Only	Not available	Not available	Not available	Not available
Maintenance	For horticultural assets, report on maintenance requirements, inventory, needs, current service levels	Monitor Only	Future Metric	Not available	Not available	Not available
	% grass areas cut within scheduled timeframe	Monitor Only	Future Metric	Not available	Not available	Not available

Based on correspondence with the City of Kitchener, data does not currently exist for the above technical levels of service and therefore these measures will be monitored by the City and investigated for future updates of the AM Plan.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There may be a limited capacity for parks and trails.	Expansion and addition of parks, open spaces, and trails infrastructure.

*2022 Development Charge Study

5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations andmaintenance costs for inclusion in the long-term financial plan (Refer to Section 8).

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accordance with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2.

Table 5.2: Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
More extreme precipitation events	More flooding events	Physical damage to parks assets such as trails and pathways.	City to continue to monitor these risks and apply appropriate adaption strategies.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Building Asset Resilience to Climate change for any facilities related to parks, open spaces and trails services have been covered in the Facilities AM Plan.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include minor repairs.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

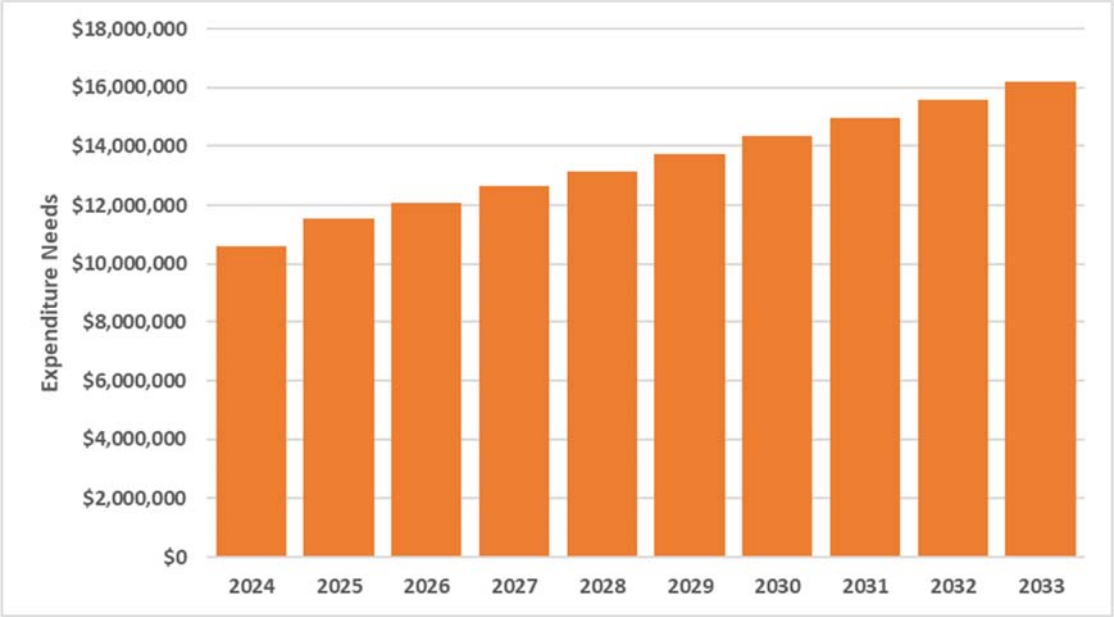
Year	Budget $
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$9,017,758
2022	$9,381,969
2023	$10,104,553
2024	$10,603,443

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$4,406,622

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or

- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.2.2.

Table 6.2.2: Useful Lives of Assets

Asset	Useful life
Ball Diamond	20
Cricket	20
Lawn Bowling	20
Soccer Field	20
Outdoor Rink	10
Tennis Court	15
Basketball Court	15
Volleyball Court	15
Bike Park	20
Skateboard Park	20
Playground	20
Boardwalk	15
Bridge	30
Shuffleboard Court	15
Disc Field	20
Field Hockey Pitch	20
Dog Park	20
Bike Racks	15
Garbage Containers	10
Huron Natural Area Picnic Shelter	15
Picnic Tables	15
Bollards	15
Benches	15
Trails	30

The estimates for renewals in this AM Plan were based on the asset register data.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

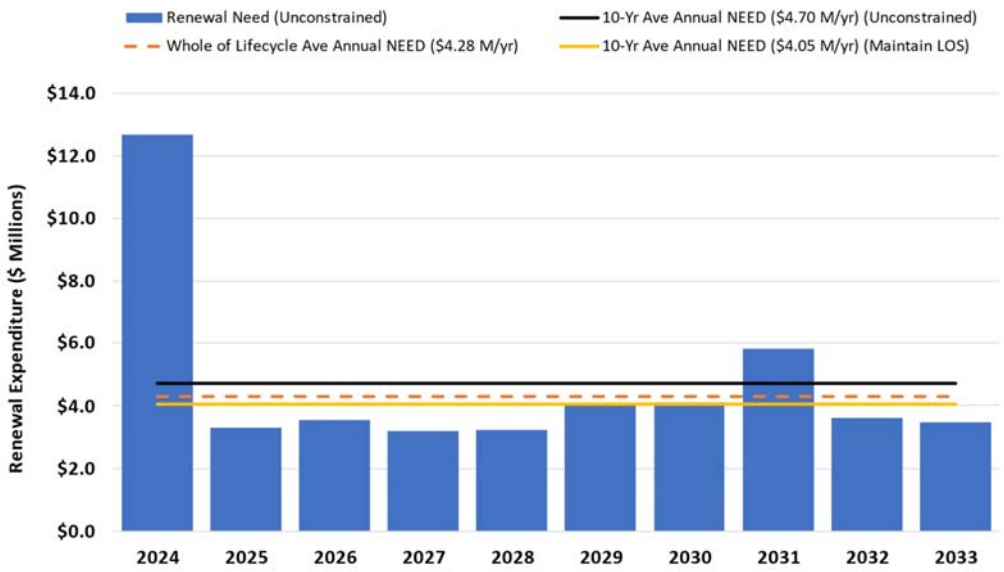
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). Additionally, based on feedback provided by the City, certain assets are funded through the operating budget and have been excluded from the renewal forecast.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities

Year	Current Funding	Renewal Forecast Required to Maintain LOS	Unconstrained Renewal Forecast
2024	$4,406,622	$11,228,624	$12,697,519
2025	$3,666,846	$3,301,630	$3,305,918
2026	$3,354,222	$3,555,371	$3,547,764
2027	$3,037,086	$3,159,864	$3,180,093
2028	$3,049,332	$3,094,046	$3,245,096
2029	$3,646,064	$3,028,109	$4,050,722
2030	$3,677,675	$3,330,645	$4,110,874
2031	$3,801,696	$3,110,530	$5,808,883
2032	$3,877,730	$3,180,093	$3,621,501
2033	$3,955,286	$3,553,561	$3,460,116
Annual Average	**$3,648,256**	**$4,054,247**	**$4,702,849**

Based on workshop input from the City, certain asset types are forecasted using an average annual renewal amount (asset value / service life) because they are repaired over the course of their useful life as opposed to being replaced in their entirety at end of life (i.e. Natural Turf Fields, Trails). Additionally, assets with unknown condition (i.e. missing data on install date and staff reported condition) are forecasted using an average annual renewal amount as well. For these reasons, many of the renewal amounts in the chart above are consistent throughout the analysis period with the exception of certain assets which will need replacement at the end of their service life.

6.4 Acquisition Plan

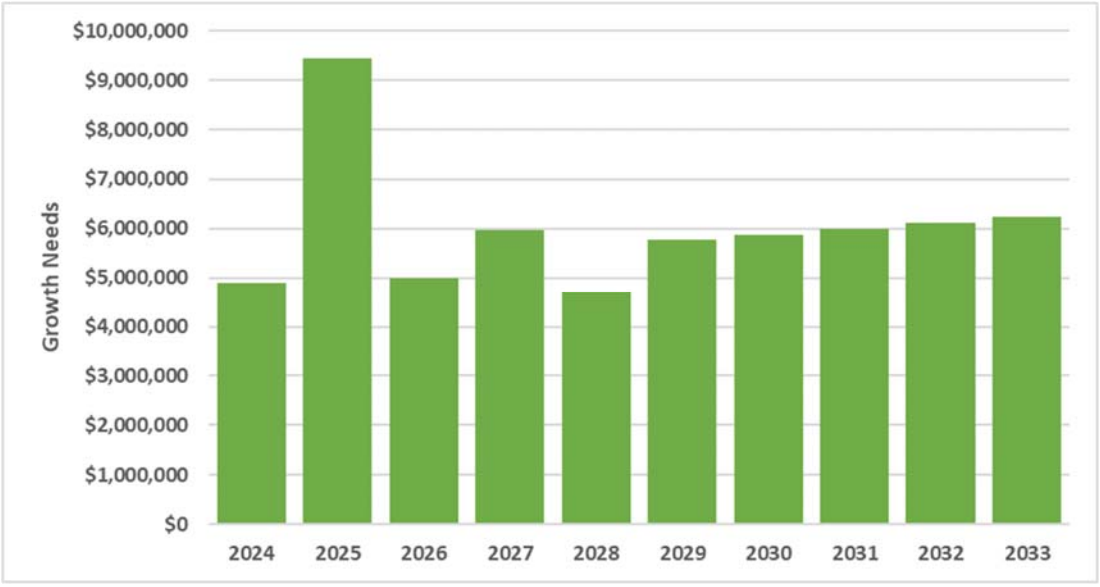
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the Entities needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for the acquisition of parks, open spaces or trails assets, however this will be developed in future revision of this AM Plan.

The 2024 – 2033 Capital Plan contains various projects which has been categorized as acquisition (growth) and will serve as a basis for the City's growth needs (i.e. Neighbourhood Park Rehab, Sportsfield Lighting, New Neighbourhood Parks, etc.). Forecast acquisition asset costs are summarized in Figure 6.4.

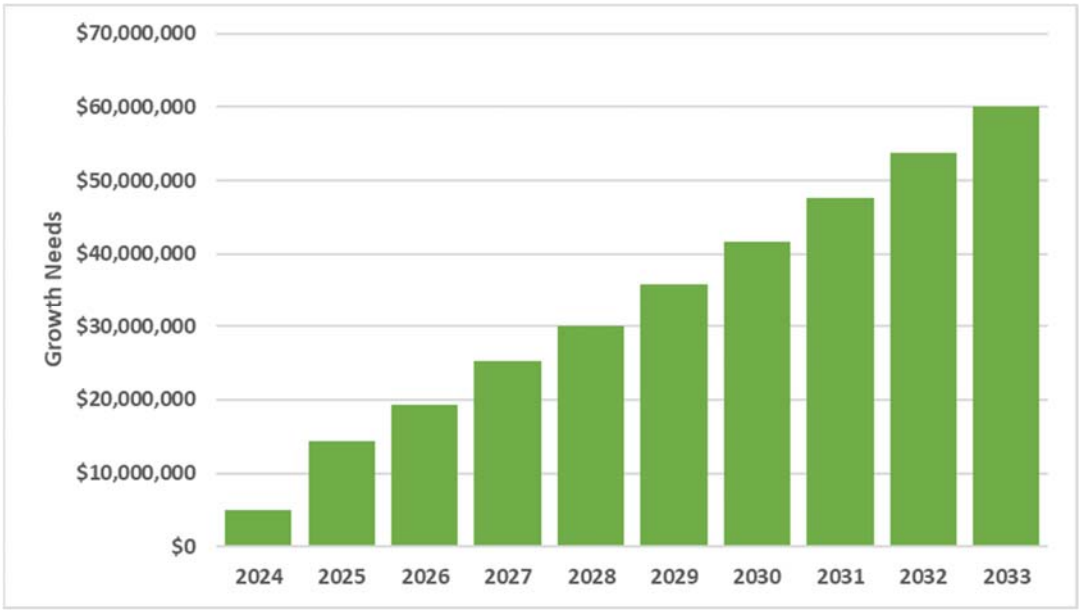
Figure 6.4: Yearly Acquisition Summary



All figure values are shown in current year (2023) dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.5.

Figure 6.5: Cumulative Acquisition Summary



All figure values are shown in current year (2023) dollars.

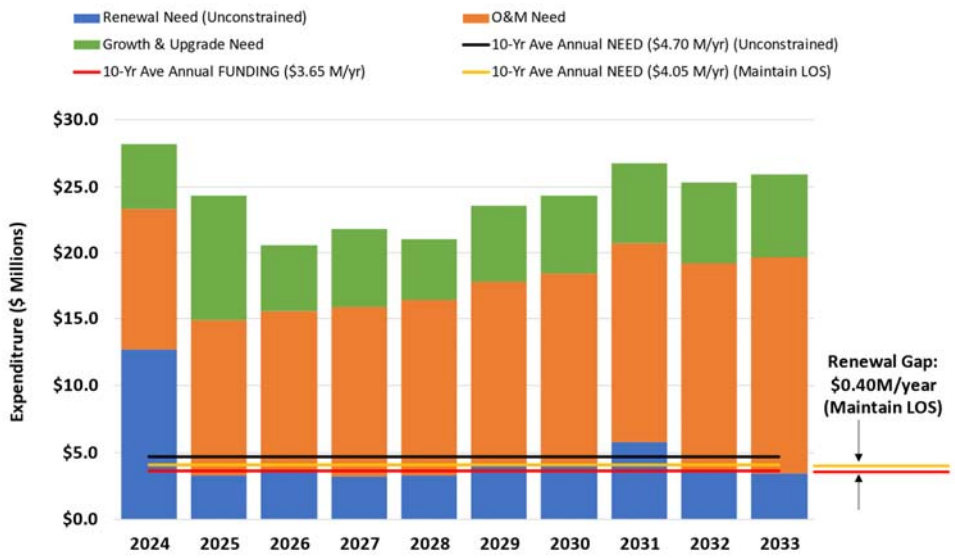
Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding. The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.4.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains various projects which has been categorized as Renewal and will serve as a basis for the City's renewal budget when calculating the renewal gap (i.e. Neighbourhood Park Rehab, Ped Bridges – Inspect & MTCE, Walkway Upgrades, etc.).

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.4.3: Lifecycle Summary



All figure values are shown in current year (2023) dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Although there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $0.40 million for renewal needs.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no parks, open spaces or trails assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates. Currently, the City has no formal non-infrastructure solutions relating to parks, open spaces or trails assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5. Their typical failure mode, and the impact on service delivery, are summarized in Table 7.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Bike Parks	Physical Failure	Interruption to service delivery and potential harm or injury to the public
Skateboard Parks		
Playgrounds		
Victoria Park Commons		
Victoria Park Bandstand		
Huron Natural Area Picnic Shelter		

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted to minimize risks.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following tables:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating		Performance Rating	
Score	*Description*	*Score*	*Description*
1	New / Very Good	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is performing at a lower level than originally intended
4	Poor	4	Asset is performing to a much lower level than originally intended
5	Very Poor	5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. The residual risk and mitigation costs of implementing the selected treatment plan is shown in Table 7.4.

Table 7.4: Risks and Mitigation Plans

Asset	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
K.M.A.C Skateboard Park	Poor asset condition resulting in potential harm or injury to the public	Very High	Renewal work to perform any necessary repairs on the assets	Moderate	Approximately $250,000
Playgrounds (various)	Poor asset condition resulting in potential harm or injury to the public	High and Very High	Renewal work to perform any necessary repairs on the assets	Moderate	Approximately $25,000 - $50,000 per playground

Note * The residual risk is the risk remaining after the selected risk mitigation plan is implemented.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.40 million per year)

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period $17.5M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $17.1M on average per year giving a 10 year funding shortfall of $0.4M per year. This indicates that 93% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal (Maintain LOS)	Renewal (Unconstrained)	Disposal
2024	$4,904,419	$10,603,443	$11,228,624	$13,609,013	$0
2025	$9,442,670	$11,563,977	$3,301,630	$3,028,102	$0
2026	$4,983,501	$12,070,912	$3,555,371	$5,024,140	$0
2027	$5,969,637	$12,678,159	$3,159,864	$3,621,494	$0
2028	$4,686,610	$13,154,893	$3,094,046	$3,478,329	$0
2029	$5,769,236	$13,741,755	$3,028,109	$3,943,211	$0
2030	$5,882,191	$14,340,107	$3,330,645	$4,245,117	$0
2031	$5,997,835	$14,950,223	$3,110,530	$4,507,953	$0
2032	$6,115,791	$15,572,337	$3,180,093	$3,028,102	$0
2033	$6,236,107	$16,206,690	$3,553,561	$3,645,494	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $99.5 million

8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.
- Any assets forecasted using an annuity (asset value / service life) or any assets that are funded through operating are assumed to be maintained in their current condition throughout the analysis period.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	Medium	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs. However, certain capital budget items
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs. However, certain assumptions have been made regarding allocation of capital budget items to renewal versus growth.
Renewal Forecast	High	Asset values and estimated service lives are based on the best available data and feedback provided by the City.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be Medium.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to complete the development of asset inventories with appropriate attributes for any additional assets to be included in future iterations of the AM Plan. For example, there is currently no inventory in this AM Plan for signage on trails.	Parks Services	None	2024 - 2025
2	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Parks Services	None	2024 – 2025
3	City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.	Parks Services	None	2024 – 2025
4	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025,	Parks Services	None	2024 – 2025

	set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.			
5	Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments	Parks Services	Align with corporate risk management framework	2024-2025
6	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Parks Services	None	2024 – 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg.588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
- City of Kitchener Places & Spaces – Parks Strategic Plan
- City of Kitchener Development Charges Study 2022
- City of Kitchener Strategic Plan 2023-2026
- City of Kitchener Official Plan 2014

2024

Transportation Services Asset Management Plan
Current Levels of Service



KITCHENER

Document Control	Asset Management Plan				
Document ID :					
Rev No	**Date**	**Revision Details**	**Author**	**Reviewer**	**Approver**
01	May 1st, 2024	Final Draft Submission	SLBC	BW	BW

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Non-core Transportation Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over a 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the non-core infrastructure assets that provide transportation services. The largest portion of the asset mix are Streetlights & Poles with a replacement value of $35.8M and Road and Pedestrian Islands & Traffic Calming with a replacement value of $14.9M. These two categories of assets account for approximately 87% of the total replacement value of all transportation assets. Note that traffic signals and poles are not included in this AM Plan as they are owned and operated by the Region of Waterloo.

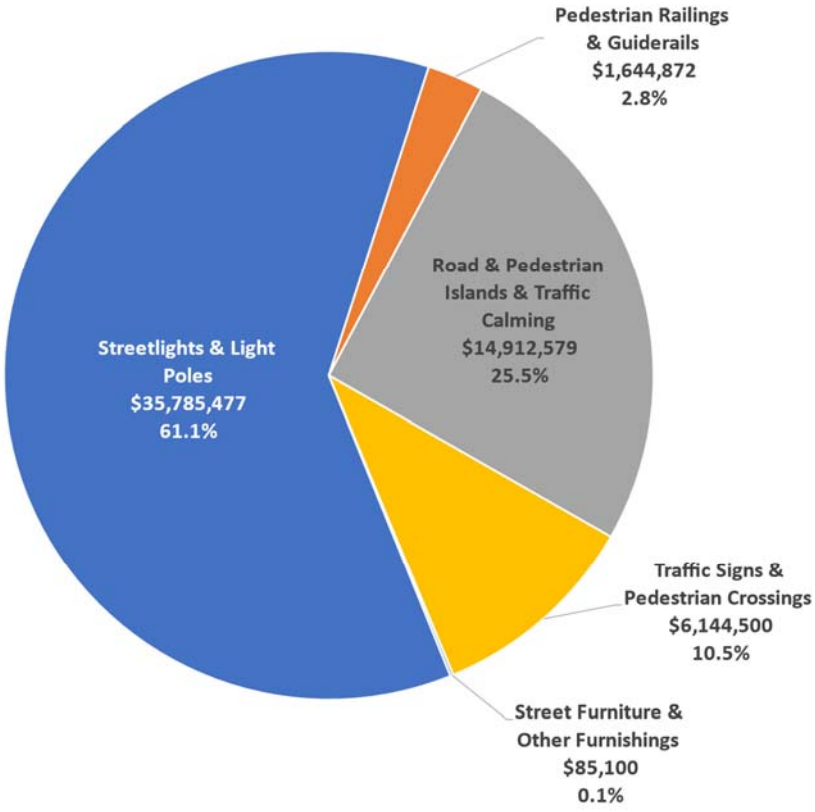
The infrastructure assets covered by this AM Plan are shown in Table 1.1.

Table 1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Streetlights & Poles	Streetlight, Streetlight Pole	$35,785,477
Traffic Signs & Pedestrian Crossings	Traffic Signs, Pedestrian Crossings & Beacons	$6,144,500
Pedestrian Railings & Guiderails	Guiderail, Railing	$1,644,872
Road and Pedestrian Islands & Traffic Calming	Road Islands, Raised Crosswalks, Speed Humps, Pedestrian Pads	$14,912,579
Street Furniture & Other Furnishings	Street Benches, Bollards	$85,100
TOTAL		**$58,572,528**

The above infrastructure assets have replacement value estimated $58.6 million with a breakdown of this value shown in Figure 1.1.

Figure 1.1: Asset Valuation



1.3 Levels of Service

The allocation in the planned budget is insufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period. However, service levels and associated targets will continue to be formalized and monitored for future iterations of the AM Plan.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- City to continue to forecast and manage developer provided non-core transportation assets to support lifecycle management and budgeting.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan includes operation, maintenance and renewal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays, which for the non-core transportation portfolio is estimated as $32.6 million or $3.26 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10 year period is 30.1 million or $3.01 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 92% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for non-core transportation leaves a shortfall of $0.25 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Figure 1.2: Lifecycle Summary

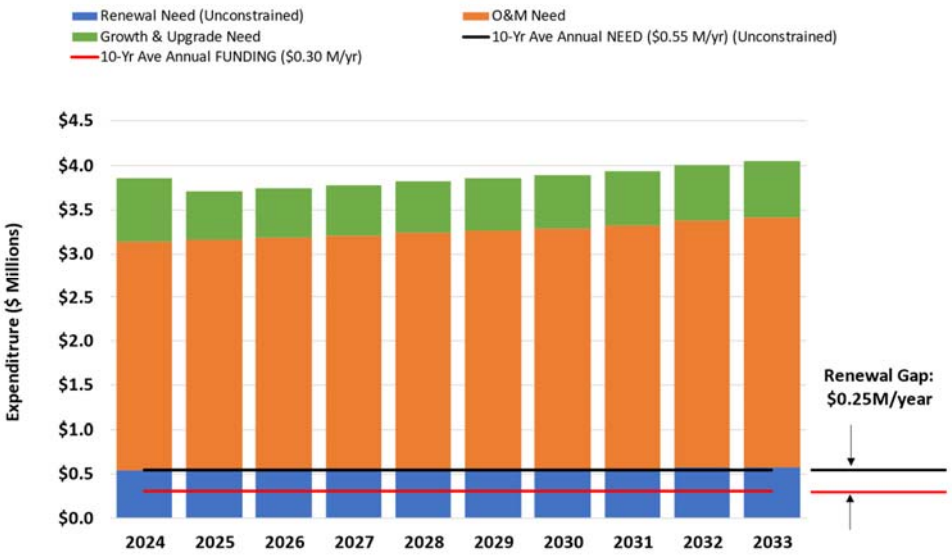


Figure Values are in current year (2023) dollars.

We plan to provide non-core transportation services for the following:

- Operation, maintenance, renewal and acquisition of transportation assets to meet service levels set by the City in annual budgets.
- New and expanded assets are included in the next 10-year planning period based on projects listed in the 2024 – 2033 Capital Plan.

1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.25 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- An increase in unplanned repairs and associated service disruptions.

- Higher lifecycle management costs and deteriorating assets.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

We will endeavor to manage these risks within available funding by:

- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects.
- Pursue available grants from higher levels of government.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Assumptions were made regarding the estimated service life of certain assets. The estimated service lives for Pedestrian Crossings, Street Benches and Bollards were assumed to be 15 years.
- Based on feedback provided by the City, 50% of the streetlight (lighting element) inventory is assumed to be in Very Good condition and the remaining 50% is assumed to be in Good condition due to a recent project undertaken by the City to replace all street light elements.

Assets requiring renewal are identified from the asset register method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal; Or
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition and may be supplemented with, or based on, expert knowledge.

This AM Plan is based on a low level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.
- City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.
- City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.
- Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments.
- City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).

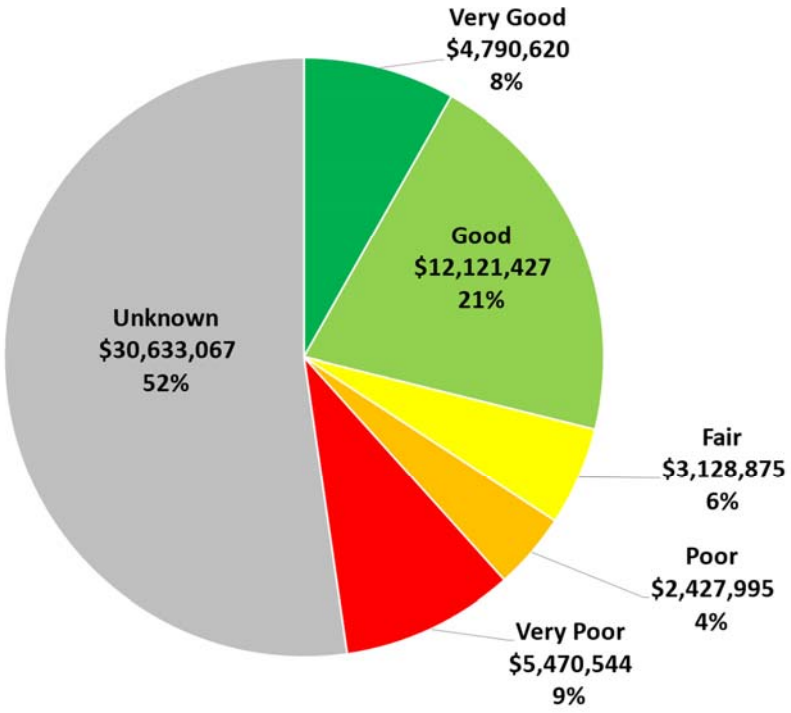
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains assets that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers non-facilities, non-core transportation assets for which the City is responsible for lifecycle management. Any facilities associated with transportation services have been covered in the Facilities AM Plan. Additionally, core transportation assets are included in a separate Roads, Bridges and Culverts AM Plan. The infrastructure assets included in this plan have a total replacement value of $58.6 million.

Figure 2.1 – City of Kitchener Non-Core Transportation Asset Condition and Value



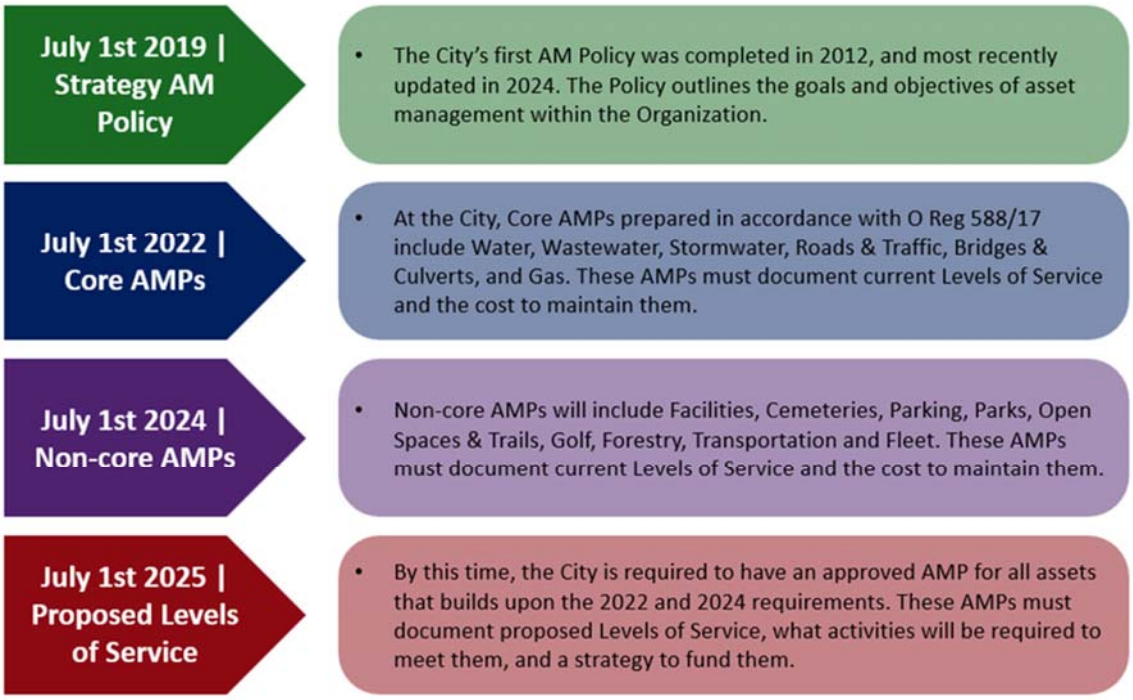
2.2 Provincial Asset Management Requirements

The Province of Ontario requires all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the

development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.

Figure 2.2 - O.Reg 588/17 Milestones

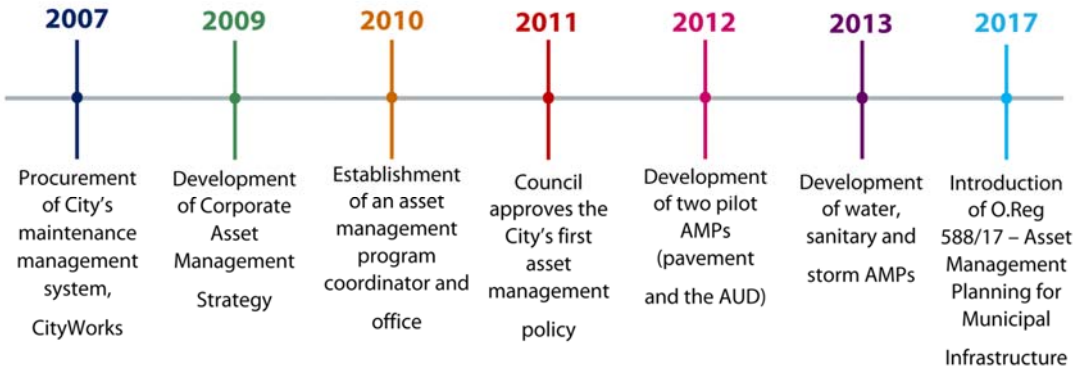


2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

Figure 2.3 - City of Kitchener Asset Management Timeline

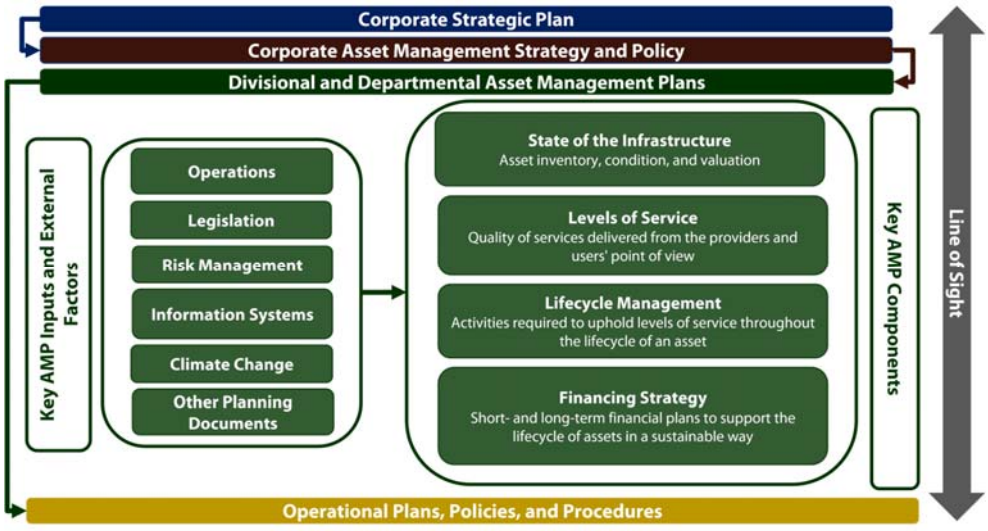


2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2024, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaptation, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

Figure 2.4 - City of Kitchener Asset Management System



In addition to the Asset Management Strategy and Policy, this AMP should be read in conjunction with other planning documents relevant to non-core assets, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
Corporate Asset Management Policy (2024) (currently being updated)	The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

Key stakeholders in the preparation and implementation of this AM Plan are shown in

Table 2.2

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset Management Steering Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset inventory and valuation

A mix of assets support the delivery of the City's transportation services. The non-core transportation assets covered by this AM Plan are shown in Table 3.1.1. Core transportation assets are included in a separate Roads, Bridges and Culverts AM Plan. All table and figure values are shown in current year (2023) dollars.

The largest portion of the asset mix are Streetlights & Poles with a replacement value of $35.8M and Road and Pedestrian Islands & Traffic Calming with a replacement value of $14.9M. These two categories of assets account for approximately 87% of the total replacement value of all transportation assets. Note that traffic signals and poles are not included in this AM Plan as they are owned and operated by the Region of Waterloo.

Table 3.1.1: Assets covered by this Plan

Asset Category	Asset Types	Replacement Value
Streetlights & Poles	Streetlight, Streetlight Pole	$35,785,477
Traffic Signs & Pedestrian Crossings	Traffic Signs, Pedestrian Crossings & Beacons	$6,144,500
Pedestrian Railings & Guiderails	Guiderail, Railing	$1,644,872
Road and Pedestrian Islands & Traffic Calming	Road Islands, Raised Crosswalks, Speed Humps, Pedestrian Pads	$14,912,579
Street Furniture & Other Furnishings	Street Benches, Bollards	$85,100
TOTAL		**$58,572,528**

The asset valuation distribution for this AM Plan is shown in Figure 3.1.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.1.2.

Figure 3.1.1: Asset Valuation

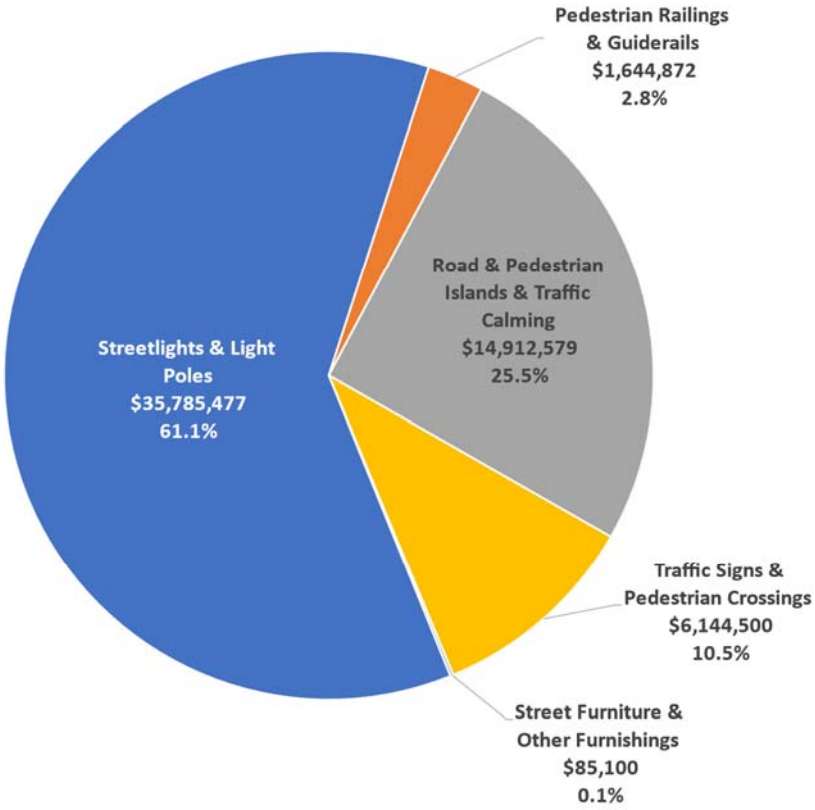
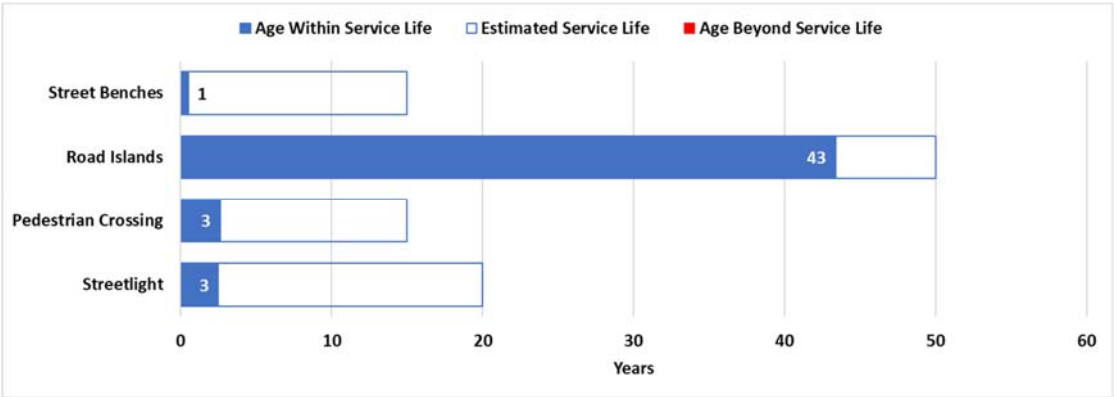


Figure 3.1.2: Asset Age Profile



Notes on the above Asset Age Profile:

- Streetlight Poles, Guiderails, Railings, Raised Crosswalks, Speed Humps, Bollards, Pedestrian Pads and Traffic Signs are not included because they are missing information on age and condition.
- Due to the lack of age and condition data, it is difficult to make a comprehensive assessment of the City's transportation assets. However, the remaining assets are still within their estimated service life.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.1.2.

Table 3.1.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Streetlights & Poles	The primary objective of the City's streetlights and poles are to illuminate the roadways and sidewalks for the safety of drivers and pedestrians.
Traffic Signs & Pedestrian Crossings	The primary objective of the City's traffic signs and pedestrian crossings are to provide accurate information to drivers and pedestrians and direct traffic in a safe and efficient manner.
Pedestrian Railings & Guiderails	Pedestrian railings and guiderails provide safety for pedestrians by guiding pedestrian traffic aiding those with mobility issues.
Road and Pedestrian Islands & Traffic Calming	The primary objective of these assets is to provide effective traffic flow management. It also ensures pedestrian safety by reducing the speed of vehicles in certain residential and commercial areas.
Street Furniture & Other Furnishings	The primary objective of these assets is to enhance the walkability of the City and help to regulate road traffic.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.1.3.

Table 3.1.3: Known Service Performance Deficiencies

Location/Service Area	Service Deficiency
Curbside Management	The Complete Streets Kitchener program (2019) outlined the need to better design and manage curbside areas as they become highly contested as the City grows. It is crucial to provide designated delivery and ridesharing locations as well as managing parking more effectively. There is potential for a service deficiency in the future if left unaddressed.
Collision Analysis	The City of Kitchener Vision Zero Strategy (2021) outlined the City averages one fatality per year on their streets and data shows that vulnerable road users are disproportionately represented in injury of fatal collisions. Implementation of objectives in the Vision Zero Strategy are crucial for the safety of the residents.

The above service deficiencies were identified from the Complete Streets Kitchener program (2019), City of Kitchener Vision Zero Strategy (2021) and workshop correspondence with the City of Kitchener.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections of City owned assets. The results of these inspection programs provide the City with meaningful empirical data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The cost for these assessments can be found in the Operational costs shown in section 6.1 of this AM Plan.

Table 3.1.4: Assessments

Asset Category	Assessment Description	Frequency in Years
Traffic Calming	Formal Traffic Calming Review	Once per year

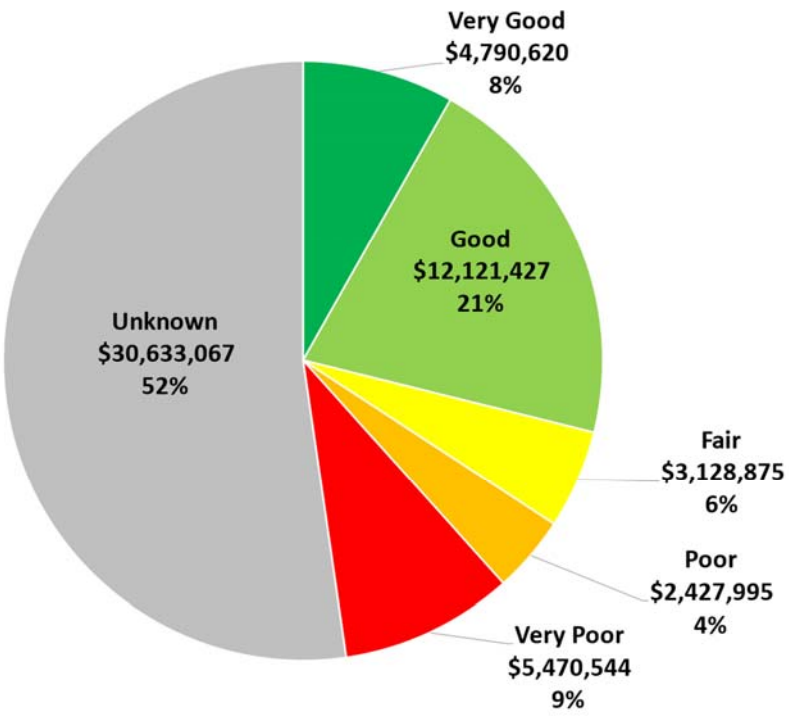
Condition is measured using a 1 – 5 grading system as detailed in Table 3.1.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level; however, for reporting in the AM Plan results are translated to a 1 – 5 grading scale for ease of communication.

Table 3.1.5: Condition Grading System

Condition Grading	Description of Condition
1 – Very Good	free of defects, only planned and/or routine maintenance required
2 – Good	minor defects, increasing maintenance required plus planned maintenance
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service
4 – Poor	significant defects, higher order cost intervention likely
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 3.1.4.

Figure 3.1.4: Asset Condition Profile



All figure values are shown in current year (2023) dollars.

The condition assessment of the City's transportation assets provides some perspective on the overall reliability of its infrastructure. Due to the lack of age and condition data available from Enova regarding

streetlights & light poles (largest asset type by replacement value), it is difficult to provide a comprehensive analysis. The City will reassess needs once more comprehensive age or condition data is available for these assets with unknown condition.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries was performed. The purpose of this review was to identify whether all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide the basis for meaningful asset management planning.

The following categories have been employed to assess the completeness of asset registries:

Table 3.2: Asset Registry Rating Categories

Data Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.3: Asset Registry Assessment

Asset Category	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined LOS	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Streetlights & Poles	Fair	Good	Good	Poor	Poor	Poor	Good
Traffic Signs & Pedestrian Crossings	Fair	Good	Good	Poor	Poor	Poor	Good
Pedestrian Railings & Guiderails	Fair	Good	Good	Poor	Poor	Poor	Good
Road and Pedestrian Islands & Traffic Calming	Fair	Good	Good	Fair	Fair	Fair	Good
Street Furniture & Other Furnishings	Fair	Good	Good	Fair	Fair	Fair	Good

Where asset registries are missing critical data or fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan.

- Assumptions were made regarding the estimated service life of certain assets. The estimated service lives for Pedestrian Crossings, Street Benches and Bollards were assumed to be 15 years.
- Based on feedback provided by the City, 50% of the streetlight (lighting element) inventory is assumed to be in Very Good condition and the remaining 50% is assumed to be in Good condition due to a recent project undertaken by the City to replace all street light elements.

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

Figure 4.1 shows the LOS framework and line of sight from higher-level Corporate priorities to detailed asset-specific Technical LOS. Corporate commitments and legislated LOS guide the development of Community LOS. The Community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can be categorized into one of the following service attributes:

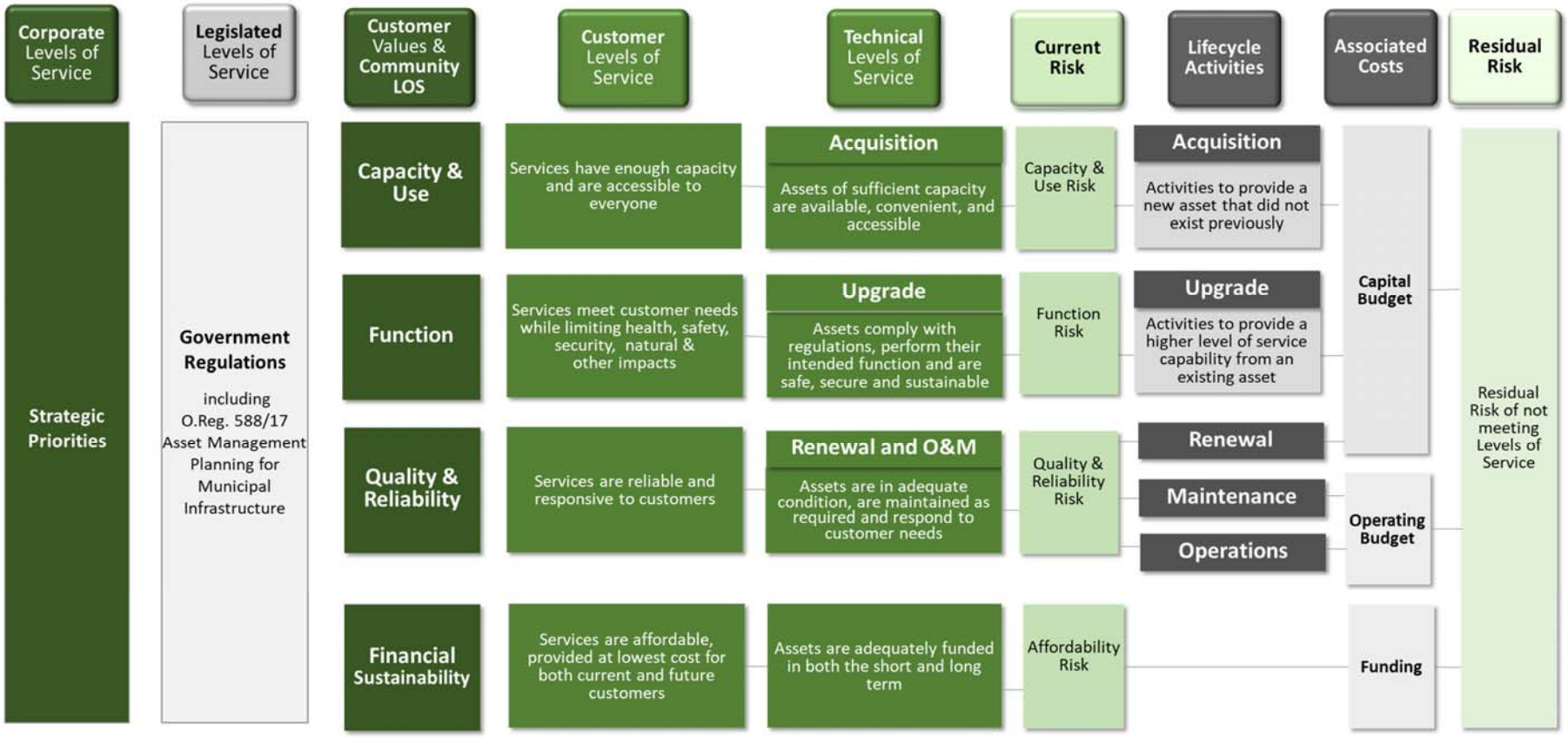
- **Capacity & Use:** Services have enough capacity and are available to customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident/business perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks, as follows:

- Capacity & Use LOS inform **Acquisition** needs
- Function LOS inform **Upgrade** needs
- Quality & Reliability LOS inform **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS inform **Funding** needs

This Line of Sight shows how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

At this time, there is no research on customer expectations. This will be investigated for future updates of the AM Plan.

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the AM Strategy supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's mission is:

"Proudly providing valued services for our community. Our promise to the community is that we'll deliver on the priorities that matter to them: people-friendly transportation, environmental leadership, a vibrant economy, a caring community and great customer service"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Building a Connected City Together	We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes. We get around easily, sustainably and safely to the places and spaces that matter most to us.	Maintaining and enhancing the City's transportation infrastructure plays an important role in building a connected city. This infrastructure supports road networks and pedestrian travel which allows for efficient mobility of residents.
Stewarding a Better City Together	We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.	Investing in infrastructure upgrades and innovations that promote safety and accessibility aligns with the goal of stewarding a better city together.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's non-core transportation assets are outlined in Table 4.3. This AM Plan is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This AM Plan meets the July 1st, 2024, requirements and establishes a framework for meeting the July 1st, 2025, requirements. Please note that this list of legislative requirements is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment they include, such as street lights and traffic signals.
Ontario Regulation 239/02, Minimum Maintenance Standards (MMS)	Establishes minimum standards for road and highway maintenance for all municipalities. MMS regulations pertain to various elements of road repair and maintenance, such as the frequency of road inspections, weather monitoring, ice formation on roadways, snow accumulation, and sidewalk trip ledges.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment.

This AM Plan summarizes the performance on the measures based on the most current data available. The City will determine targets (proposed service levels) per O.Reg.588/17 requirements for Proposed LOS by 2025 and will align service levels with information in other planning documents when determining these targets.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	Capacity/Use	Is the service over or under used? do we need more or less of these assets?	Ensure adequate infrastructure to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible infrastructure for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Upgrade and standardize outdoor lighting to LED technology.
Quality & Reliability	Quality	The standard to which the service is provided	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain infrastructure proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide infrastructure management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

In the following sections for Customer and Technical LOS, under each relevant service value, there is a summary of the performance measure being used, the current and past performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories. The trends that are identified show both the nature of the trend; up, down or on par, while identifying by colour if the trend is positive, neutral, or negative relative to the service that is being delivered. For example:



Indicates an upwards trend that is seen as positive in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as neutral in the delivery of the service relative to the target level of service.



Indicates an upwards trend that is seen as negative in the delivery of the service relative to the target level of service.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service							
Value of Service	**Community LOS**	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Quality & Reliability	Provide infrastructure in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% of assets within service life (by replacement value)	Monitor Only	Not available	91.3*	Not available	Not available

*Note that the performance measure of assets within service life is not a comprehensive analysis as various assets are missing age and condition data and have been excluded from this calculation.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

In most cases, Technical LOS have been measured and reported on over the past three years. By comparing the LOS for the current year against that of previous years, a trend can be identified and qualified. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities and lifestyle trends will change over time. Table 4.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan. Table 4.6 uses the same trend identifiers used in the previous section (4.5).

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**Target**	**Trend**	**2023**	**2022**	**2021**
Operations	# of overall collisions on City-owned roads	Monitor Only	Future Metric	Not available	Not available	Not available
	# of Injury or Death collisions on City-owned roads	Monitor Only	Not available	Not available	101	77
Upgrade	# of permanent road safety improvements installed per year	Monitor Only	Future Metric	Not available	Not available	Not available
	% of street reconstruction projects having a Complete Streets Scorecard completed at the design stage (Complete Streets Guidelines)	100%	Future Metric	Not available	Not available	Not available
	% completion of recommendations from Cycling and Trails Master Plan	100%	Future Metric	Not available	Not available	Not available
	% completion of recommendations from Vision Zero Strategy	100%	Future Metric	Not available	Not available	Not available
Operations	% of regulatory signs passing sign reflectivity testing standards	100%	Future Metric	Not available	Not available	Not available

Sufficient data is currently unavailable for the technical levels of service listed above, however these metrics will continue to be monitored by the City for inclusion in future iterations of the AM Plan.

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section **Error! Reference source not found.** as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	As development in the City grows, new transportation assets will be added to the City's portfolio.	Continue to forecast and manage developer provided non-core transportation assets.

*2022 Development Charge Study

5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 8).

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process, climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accord with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

Currently, the City does not have any risks or opportunities related to managing the impact of climate change on their non-core transportation assets or services.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Building Asset Resilience to Climate change for any facilities related to transportation services have been covered in the Facilities AM Plan.

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets at the agreed levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, asset inspection and supply of power.

Maintenance includes all actions necessary for retaining an asset as near as practicable in an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities include minor repairs.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

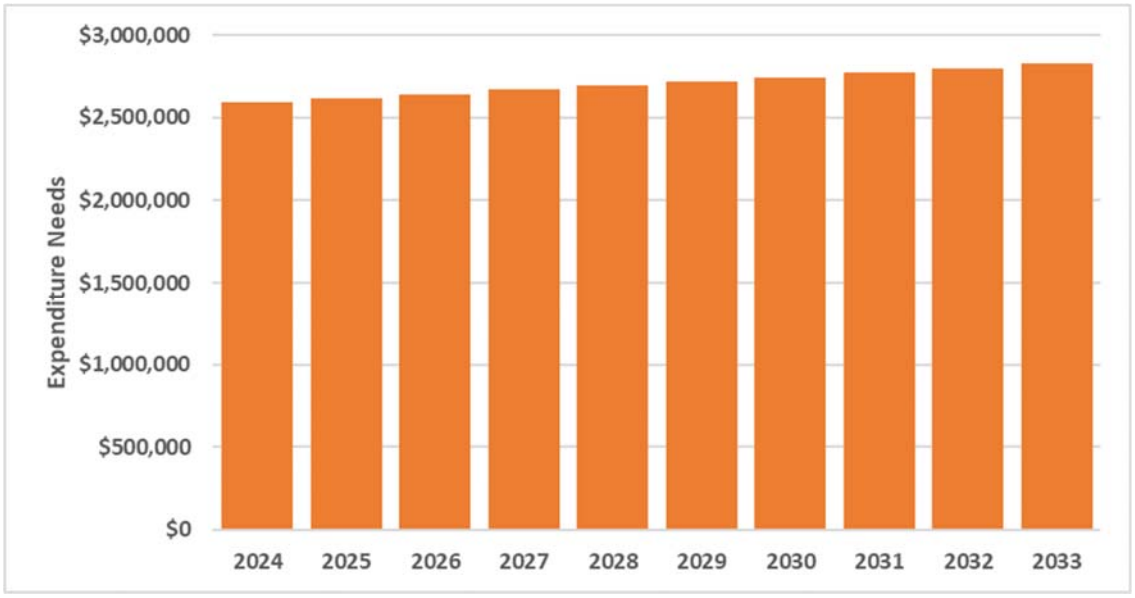
Year	Budget $
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	$2,379,913
2022	$2,496,395
2023	$2,562,731
2024	$2,594,272

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current year (2023) dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded assets planned to be built.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2.1: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$276,152

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing, or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.2.2.

Table 6.2.2: Useful Lives of Assets

Asset	Useful life
Streetlight	20
Streetlight Pole	50
Pedestrian Crossing & Beacon	15
Guiderail	50
Railing	50
Road Islands	50
Raised Crosswalk	50
Speed Hump	50
Bollards	15
Street Benches	15
Pedestrian Pads	50
Traffic Signs	15

The estimates for renewals in this AM Plan were based on the asset register data.

6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.2.1.1.

Table 6.2.1.1: Renewal Priority Ranking Criteria

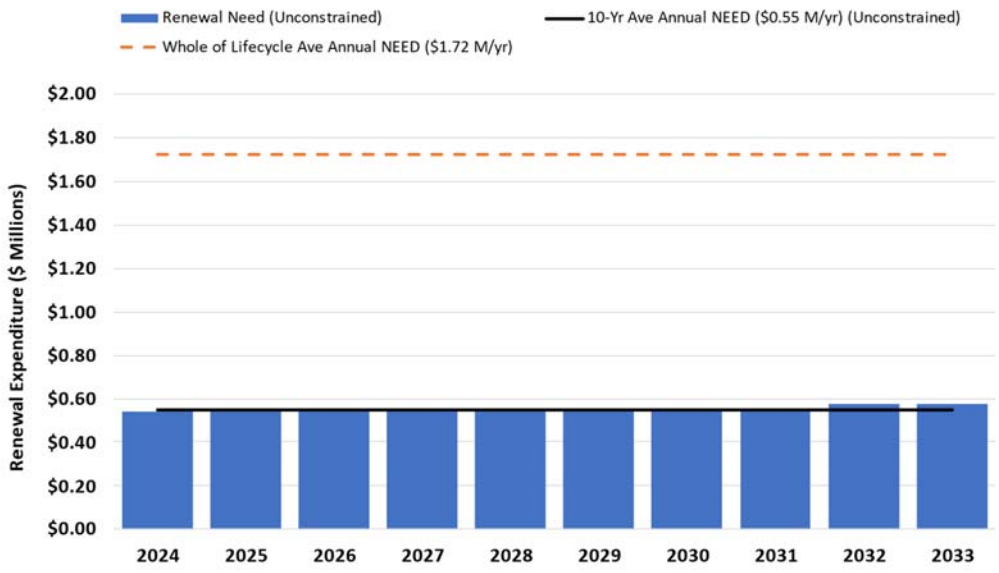
Criteria	Weighting
Consequence of Failure • Financial Impact • Health & Safety Impact • Service Delivery Impact • Environmental Impact	50%
Probability of Failure • Physical Condition Rating • Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast of renewal costs is based on the available inventory data and feedback provided by the City. Note that only Pedestrian Crossings and Streetlights & Poles have been included in the renewal forecast. The remaining assets are be replaced as part of road reconstruction and these renewal amounts are paid for from the capital budget for Engineering Services. This analysis incorporates two separate renewal forecasting scenarios; the Unconstrained renewal forecast scenario (which replaces assets as needed at end of life) and the Maintain LOS renewal forecast scenario (which defers the replacement of certain assets in order to maintain the condition profile of assets over the course of the analysis period). However, for the purposes of this analysis, only one renewal forecast scenario (Unconstrained) was considered because it is necessary to maintain the current condition profile of non-core transportation assets. Additionally, based on feedback provided by the City, certain assets are funded through the operating budget and have been excluded from the renewal forecast.

The forecast costs associated with renewals are shown in Figure 6.3.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current year (2023) dollars.

Table 6.3: Forecast Renewal Activities (Unconstrained)

Year	Current Funding	Unconstrained Renewal Forecast
2024	$276,152	$541,928
2025	$281,674	$541,928
2026	$287,313	$541,928
2027	$293,059	$541,928
2028	$298,920	$541,928
2029	$304,900	$541,928
2030	$311,000	$541,928
2031	$317,000	$541,928
2032	$323,000	$576,928
2033	$329,460	$576,928
Annual Average	**$302,248**	**$548,928**

Assets with unknown condition (i.e. missing data on install date and staff reported condition) are forecasted using an average annual renewal amount (asset value / service life). For this reason, some of the renewal amounts in the chart above are consistent throughout the analysis period with the exception of certain assets which will need replacement at the end of their service life.

6.4 Acquisition Plan

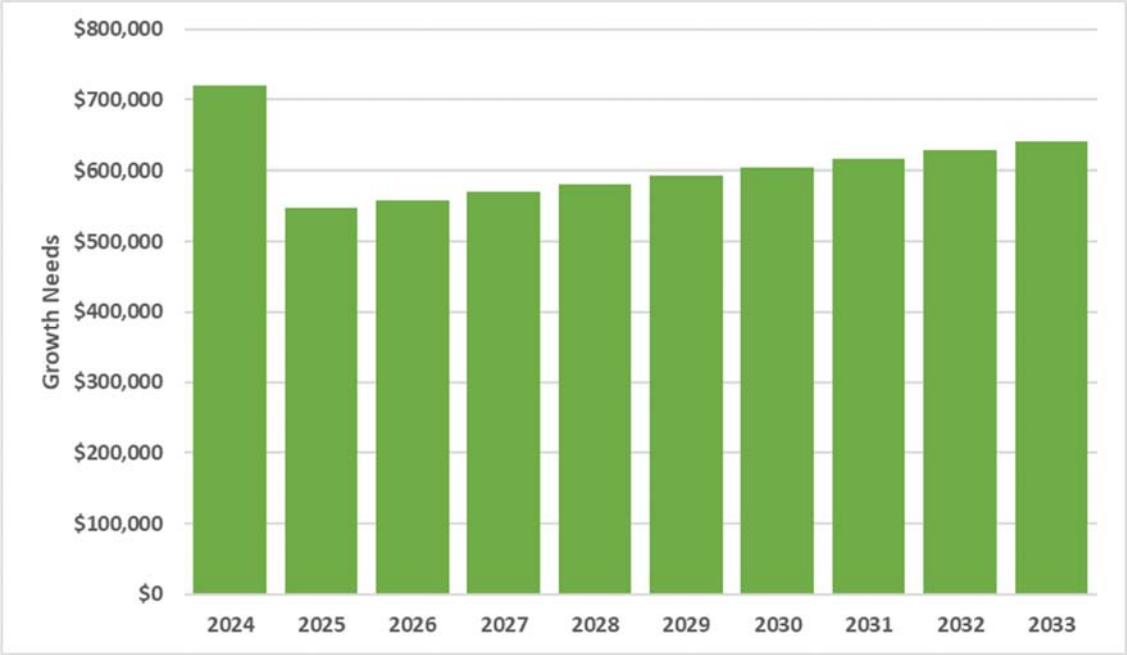
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the City's needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for the acquisition of transportation assets, however this will be developed in future revision of this AM Plan.

The 2024 – 2033 Capital Plan contains three projects (Traffic Calming, Neighbourhood Speed Reduction and LED Lighting Conversion) which has been categorized as acquisition (growth and will serve as a basis for the City's growth needs. Forecast acquisition asset costs are summarized in Figure 6.4 and shown relative to the proposed acquisition budget.

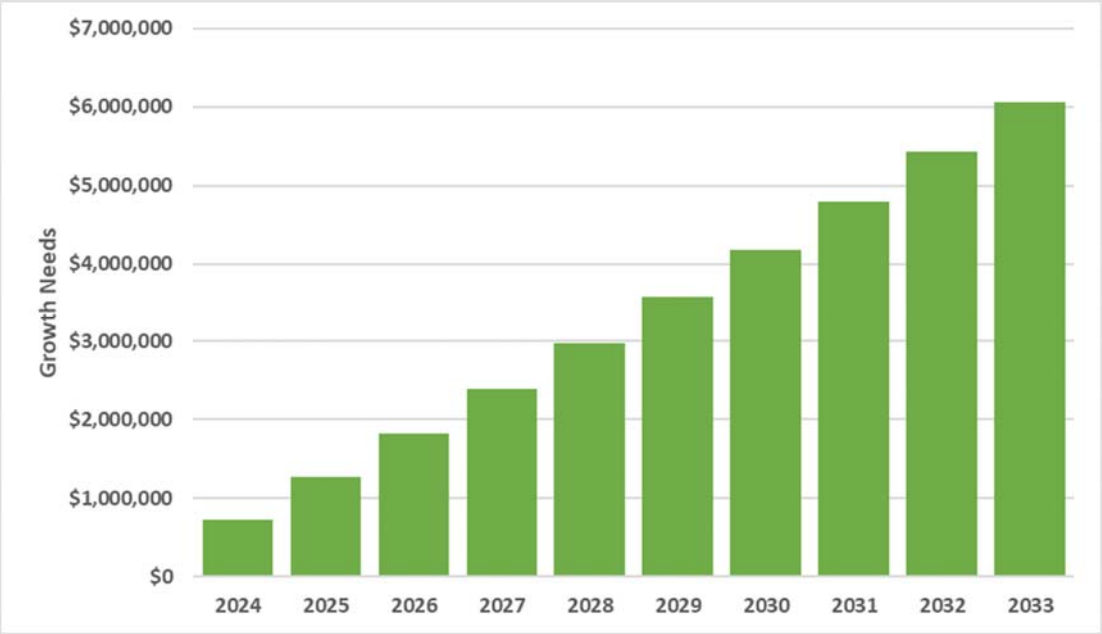
Figure 6.4: Yearly Acquisition Summary



All figure values are shown in current year (2023) dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.4.2.

Figure 6.5: Cumulative Acquisition Summary



All figure values are shown in current year (2023) dollars.

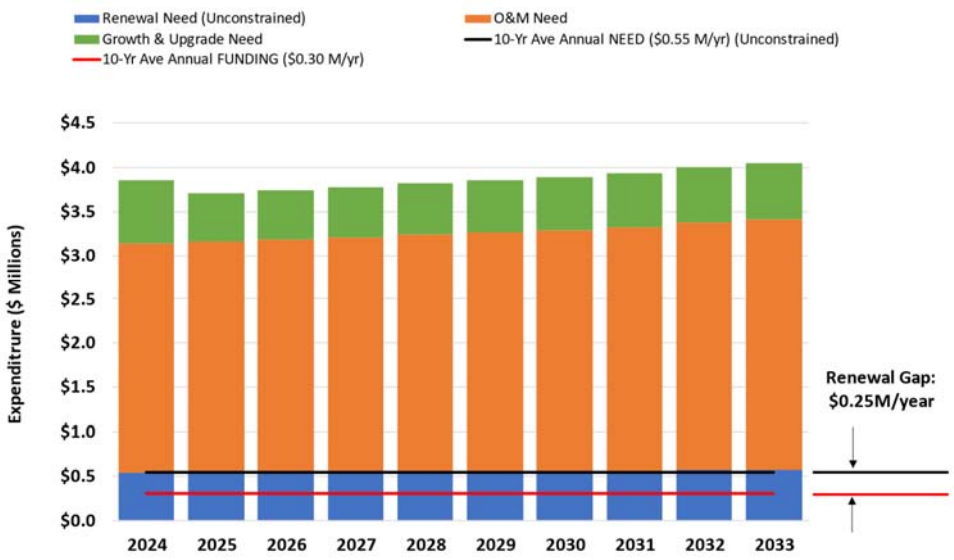
Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding. The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget. The 2024 – 2033 Capital Plan contains one project (Street Light Maintenance) which has been categorized as renewal and will serve as a basis for the City's renewal budget when calculating the renewal gap.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.6: Lifecycle Summary



All figure values are shown in current year (2023) dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Though there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $0.25 million for renewal needs.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no transportation assets which have been formally identified for decommissioning and disposal.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, restocking of maintenance vehicles, and inventory updates.

Table 6.6.: Non-Infrastructure Solutions Associated Project List

PROJECT NAME	TIMING	COST (10-yr Total)	SOURCE BUDGET
TRANS DEM MGMT INITIATIVES	2024 - 2033	$2,591,020	2024 Capital Budget
SMALL SCALE TRAFFIC CALMING	2024 - 2033	$196,129	2024 Capital Budget

It was noted by the City that the above initiatives are soft measures (such as transit passes) and will not be invested in physical assets.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[2].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. Critical assets have been identified as having a consequence of failure rating of 4 or 5. Their typical failure mode, and the impact on service delivery, are summarized in Table 7.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Streetlight Pole	Physical Failure	Interruption to service delivery and potential harm or injury to the public
Pedestrian Crossing & Beacon		

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted to minimize risks.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. All City risk registers will use this terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process that identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, and development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery identifies risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the consequence categories in the following matrix:

[2] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short-term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
%	**Service Delivery**	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of an asset is determined either by the physical condition or the performance ratings per the following tables:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating	
Score	***Description***
1	New / Very Good
2	Good
3	Fair
4	Poor
5	Very Poor

Performance Rating	
Score	***Description***
1	Asset is functioning as intended with no issues identified
2	Asset is functioning but could use minor maintenance
3	Asset is performing at a lower level than originally intended
4	Asset is performing to a much lower level than originally intended
5	Asset is not performing as originally intended

Critical risks are those assessed with a risk rating of High or Very High must have a mitigation plan. Due to the large portion of unknown assets in this AM Plan, the City does not currently have any non-core transportation assets which have a risk rating of High or Very High.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($0.25 million per year)

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions.
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures.

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions.
- Higher lifecycle management costs, deteriorating assets, and potential facility closures.
- Deteriorating assets may be unsafe and expose the City of Kitchener to potential liabilities.

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted operations, maintenance and renewal costs over the 10 year planning period is S3.26M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $3.01M on average per year giving a 10 year funding shortfall of $0.25M per year. This indicates that approximately 92% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the ‘gap’ by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in current year (2023) dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal (Unconstrained)	Disposal
2024	$720,862	$2,594,272	$302,248	$0
2025	$547,599	$2,618,231	$302,248	$0
2026	$558,553	$2,642,670	$302,248	$0
2027	$569,723	$2,667,598	$302,248	$0
2028	$581,118	$2,693,024	$302,248	$0
2029	$592,747	$2,718,959	$302,248	$0
2030	$604,607	$2,745,413	$302,248	$0
2031	$616,699	$2,772,396	$302,248	$0
2032	$629,034	$2,799,919	$302,248	$0
2033	$641,615	$2,827,992	$302,248	$0

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information.

Replacement Cost (Current) $58.6 million

8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

Acquisition Forecast:

- Growth projects are based on projects and associated costs identified in the City's Capital Plan.

Renewal forecast:

- Only Pedestrian Crossings and Streetlights & Poles have been included in the renewal forecast. The remaining assets would be replaced as part of road reconstruction and these renewal amounts would be captured as part of the capital budget for Engineering Services.
- The potential impacts of climate change on state of good repair costs are not included.
- The potential increases in lifecycle costs due to deferred renewal work are not included.
- Any assets forecasted using an annuity (asset value / service life) or any assets that are funded through operating are assumed to be maintained in their current condition throughout the analysis period.

Operations & Maintenance Forecast

- The potential impacts of climate change on maintenance costs are not included.
- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition (growth) forecast.
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan.

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[3] in accordance with Table 8.5.1.

Table 8.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.5.2.

Table 8.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand Drivers	High	Population growth was updated in the City's 2022 Development Charges Study.
Growth Projections & Acquisition Forecast	Medium	Based on input from the City, all acquisition (growth) projects in the Capital Plan have been captured in determining the City's acquisition (growth) needs. However, only growth needs relating to Street Lighting and Pedestrian Crossings have been captured in the forecast.
Operation & Maintenance Forecast	Medium	Based on input from the City, all cost centres in the Operating Budget have captured in determining the City's operating and maintenance needs, however the forecast does not quantity current shortfalls such as underfunding for planned maintenance.
Renewal Forecast	Low	Asset values and estimated service lives are based on the best available data and feedback provided by the City, however a significant portion of asset data is missing age and condition.
Disposal forecast	N/A	Disposal strategy is to be developed in future iterations of the AM Plan.

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be Low.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan utilizes asset management data. The source of the data is:

- Non-Core Master List of Assets
    - List of assets included within each service area.
    - 2023 current replacement values
    - Other asset attributes such as install year/date, asset ID, etc.
- Condition assessments provided by City staff as of the end of 2023.
- City of Kitchener 2024-2033 Capital Plan, including forecast of renewal, upgrade and growth projects

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	City to formalize a condition assessment program to complete condition assessments for any assets currently listed in Unknown condition or assets that use age as a proxy for determining condition. This will help to inform more effective lifecycle needs and financial strategies for these assets.	Transportation Services	None	2024 – 2025
2	City to monitor and update replacement values of assets as they undertake renewal projects. Also, additional review of unit costs is recommended in future updates of replacement value.	Transportation Services	None	2024 – 2025
3	City to formalize levels of service and monitor performance on measures included in the AM Plan, on an annual basis or multi-year schedule. In the next AM Plan, per O.Reg. 588/17 requirements in 2025, set proposed service levels (targets). Additionally, review and update service levels (add or remove measures, and set targets) as required to reflect alignment with other city plans and studies.	Transportation Services	None	2024 – 2025

4	Conduct formal risk assessments to prioritize preventative maintenance activities, as well as renewal / capital investments	Transportation Services	Align with corporate risk management framework	2024-2025
5	City to continue to develop and update 10-year forecast of lifecycle activities based on formalized/update levels of service, formal risk assessments and updated asset information (as applicable).	Transportation Services	None	2024 – 2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated at a maximum of every 5 years to meet the requirements of O.Reg.588/17 and ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure
- City of Kitchener Complete Streets Program 2019
- City of Kitchener Vision Zero Strategy 2021
- City of Kitchener Development Charges Study 2022
- City of Kitchener Strategic Plan 2023-2026
- City of Kitchener Official Plan 2014

2024

Facilities Asset Management Plan



KITCHENER

Document Control	Asset Management Plan

Document ID :

Rev No	Date	Revision Details	Author	Reviewer	Approver
01	December 29, 2023	Federation of Canadian Municipalities Grant Submission	SLBC	MKV	BP
02	May 1, 2024	95% Draft	SLBC	MKV	

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This City of Kitchener Facilities Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to maintain current levels of service in a cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required over the 10-year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10-year planning period.

1.2 Asset Description

This plan covers the facility assets that provide services including administration services for governance, aquatic facilities and arenas for recreational activities, arts & culture venues for artistic expression, and community centres for public events. Additionally, the municipality provides essential services such as fire protection, operational support, and parking facilities, contributing to the overall well-being, recreation, and safety of its residents.

The largest portion of the asset mix is dedicated to arenas, covering 590,303 square feet (sq ft) with a replacement value of $473.5 million. A summary of the facilities by Service area is summarized in Table 1.1.

Table –1.1 – Summary of Facility Inventory by Service Area

Service Area	Dimension (sq ft)	Replacement Value ($ millions)
Administration	227,378	$206.4M
Aquatics	97,636	$119.4M
Arenas	590,303	$473.5M
Arts & Culture	278,740	$241.4M
Cemeteries	34,464	$20.0M
Commercial	101,473	$147.1M
Community Centres	185,076	$155.0M
Fire	62,304	$98.2M
Golf	45,710	$20.3M
Operations	387,725	$215.0M
Parking Garages	518,776	$145.0M
Parks & Open Spaces	75,701	$27.3M
Residential	7,828	$2.2M
Sport	111,432	$78.8M
TOTAL	**2,724,545**	**$1,949.5M**

The above infrastructure assets have replacement value estimated at $1.95 billion with a breakdown of this value shown in Figure 1.1.

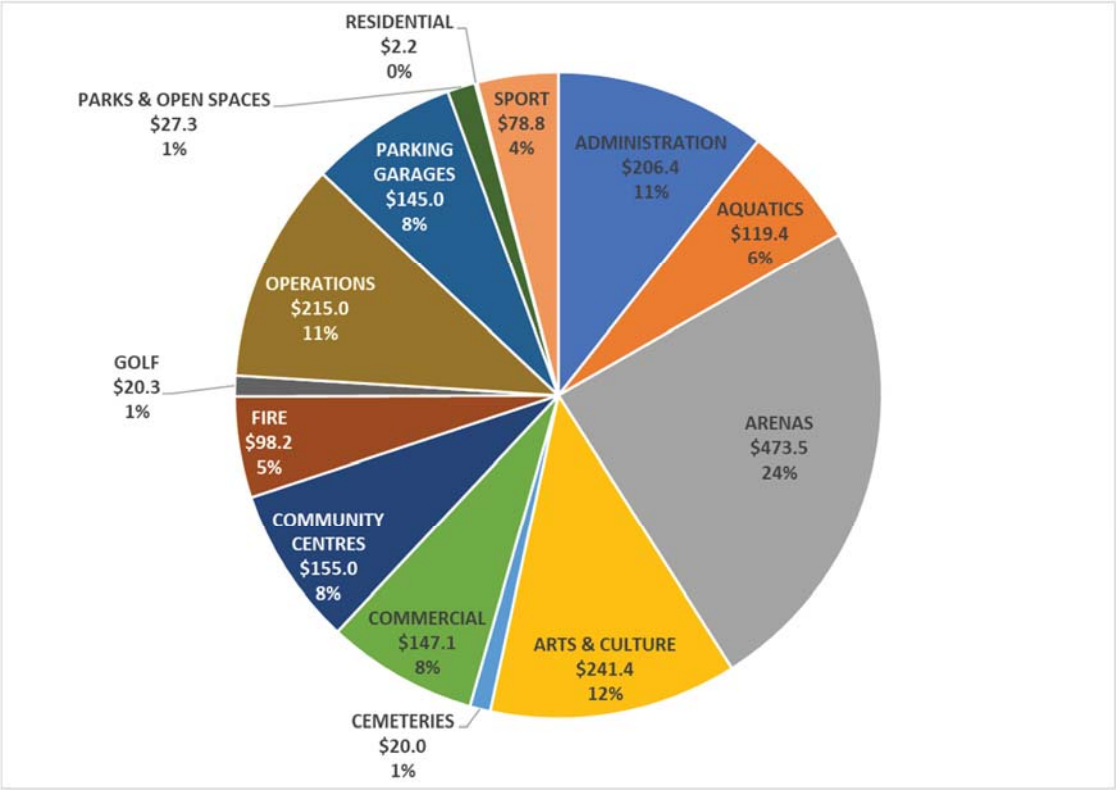


Figure 1.1 – Graph of Facility Inventory by Service Area ($M)

1.3 Levels of Service

The allocation in the planned budget is insufficient to continue to provide the current level of service modelled in this AM Plan, for the planning period.

The main service consequences of the Planned Budget are:

- Facility Condition Index deteriorates from 9.9% to 26.0%, indicating that an increasing portion of facility components fall into the repair backlog
- The average condition of the facility portfolio declines from Fair to Poor condition

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population growth
- Aging population and recreation trends such as moving towards multi-use and multi-generational facilities

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, ensuring against risks and managing failures:

- Additional facilities and expansions of existing facilities
- Consideration of joint-use opportunities with private sector and school boards
- Designing for multi-use and multi-generational facilities

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecasted lifecycle costs which are necessary to provide the services covered by this AM Plan include operation, maintenance, renewal, acquisition, upgrade, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10-year total outlays to maintain current service levels, which for the facility portfolio is estimated as $791 million for the 10-year period or $79.1 million on average per year.

1.6 Financial Summary

1.6.1 Planned Budgets and Forecast Costs

Estimated available funding for the 10-year period is $463 million or $46.3 million on average per year as per the Long-Term Financial plan or Planned Budget. This is 58% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasizing the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for City facilities leaves a shortfall of $32.9 million on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

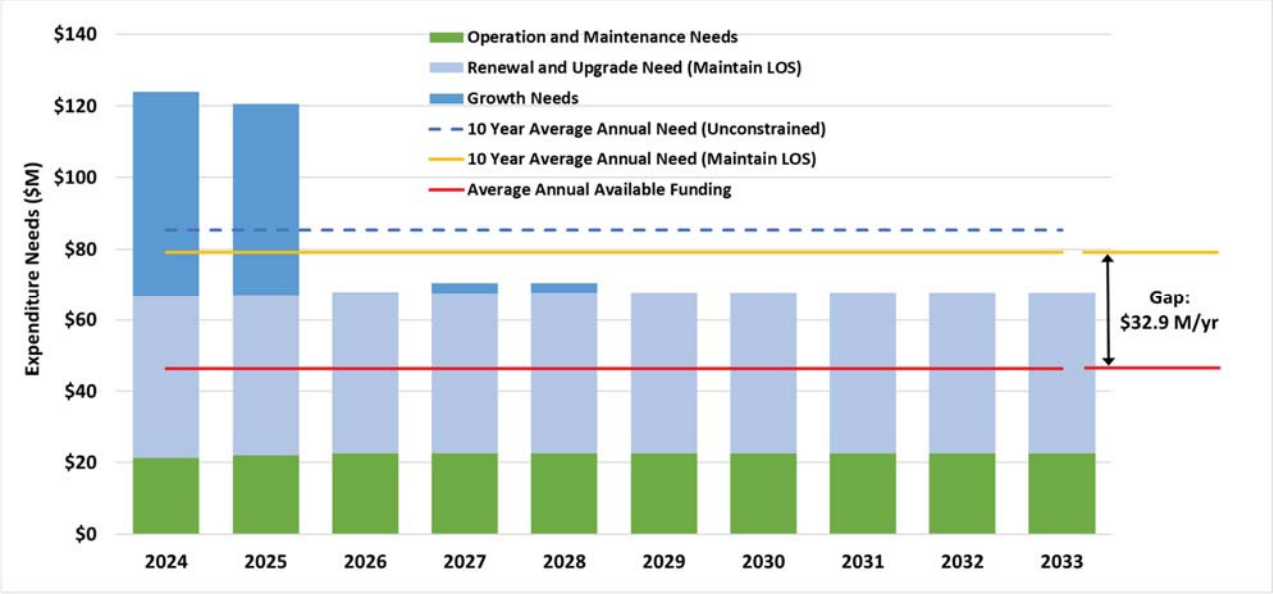


Figure Values are in current dollars.

Figure 1.2 – Forecast Lifecycle Costs and Planned Budgets

We plan to provide facility services for the following:

- Operation, maintenance, renewal and acquisition of all service areas to meet service levels set by City in annual budgets. Service areas include Administration, Aquatics, Arenas, Arts & Culture, Cemeteries, Commercial, Community Centres, Fire, Golf, Operations, Parking Garages, Parks & Open Spaces, Residential and Sport
- Renewals are forecasted using three approaches:

- Simple Facility – generally used for less critical facilities, such as sheds or storage buildings, where the entire facility is treated as one asset and renewed at end-of-life.
- A higher-level facility breakdown - City staff condition estimates are used to forecast renewal for buildings without a building condition assessment.
- Capital Plan with BCA recommendations - facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan .

- New and expanded facilities such as Kitchener Indoor Recreation Complex (KIRC) are included in the next 10 year planning period based on recommendations from the 2019 Leisure Master Plan.

1.6.2 Infrastructure Gap

We currently do **not** allocate enough budget to sustain the current levels of service. Works and services that cannot be provided under present funding levels are:

- Underfunded planned maintenance (preventive maintenance programs)
- Deferred capital renewal work (estimated average gap of $32.9 million per year)

1.6.3 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Higher lifecycle management costs, deteriorating facilities, and potential facility closures
- As the condition of assets deteriorates, they may become unsafe and pose a danger to the community and the City could be at risk of litigation should an accident occur.
- Insufficient upgrades related to accessibility, energy efficiency, and resiliency to climate change

We will endeavor to manage these risks within available funding by:

- Completing building condition assessments and accessibility audits to improve the accuracy of the renewal forecast and gap
- Continue to apply a risk-based approach to capital planning to focus available funding on critical projects
- Create new policies for acquisition and disposal of facilities to optimize limited funding
- Pursue grants from higher levels of government for projects such as those related to reducing GHG emissions and improving accessibility

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- The potential impacts of climate change on state of good repair and operating costs are not included
- The potential increases in lifecycle costs due to deferred renewal work are not included
- The current operating budget is increased over the next 10 years based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

Various methodologies under the Alternate Method were used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on a medium level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- Improve asset database by conducting additional cyclical building condition assessments (BCA) and specialized assessments (roof, skylight, elevators, HVAC, etc.)
- Determine targets for FCI and other levels of service
- Complete accessibility audits and determine accessibility upgrade needs
- Determine funding gap related to planned maintenance and implement formal preventive maintenance activities to reduce risks of unplanned service disruptions
- Develop strategies regarding disposals and acquisitions, temporary facilities, replacement versus rehabilitations of old facilities as part of overall approaches to manage the funding
- Develop asset management framework to improve asset management in the organization

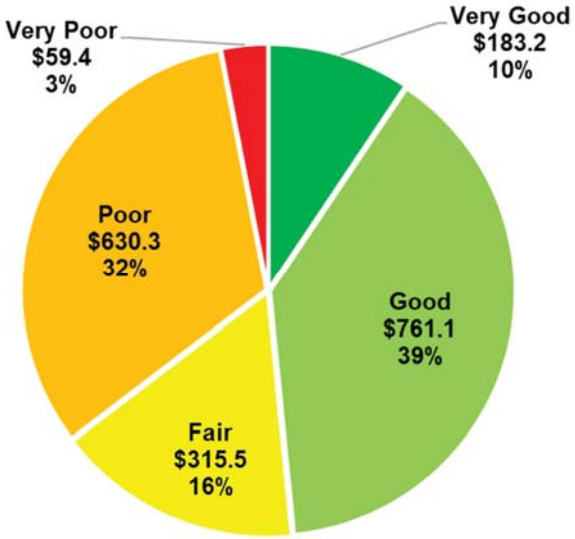
2.0 INTRODUCTION

The City of Kitchener (the City) is in Waterloo Region, in the heart of southwestern Ontario. The City covers an area of 137 square kilometers and has a population of approximately 270,000; making it the largest City in the Region and the Grand River Watershed alike. The City has been designated as a growth area through the Provincial Growth Plan: Places to Grow, and has seen significant population growth that is expected to continue through the next decade. The City owns and maintains facilities that provide a wide range of services between City departments and to its residents. This Asset Management Plan (AM Plan) will communicate the requirements for the sustainable delivery of services through efficient management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period. The Plan has been prepared in accordance with Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure, under the Infrastructure for Jobs and Prosperity Act, 2015. The Regulation lays out the requirements for all AM Plans, as well as deadlines to meet to certain milestones. This iteration of the AM Plan meets requirements for Current Levels of Service.

2.1 Assets Included in this Plan

This AM Plan covers facilities for which the City is responsible for lifecycle management. Most of these facilities are owned by the City, but some are leased by the City or operated by another organization. Some City-owned facilities are not included, such as water and wastewater facilities which are covered in the City's other AM Plans. The facilities included in this AM Plan are listed in Appendix G. The City's corporate facilities are operated and maintained by the Facilities Management division. All components of these facilities will be included in this AMP. Many of the City's other facilities are jointly operated and maintained by the Facilities Management division and other City departments or service partners (including, but not limited to recreation facilities, fire stations, and libraries). In these cases, the Facilities Management division is responsible for the operation, maintenance, renewal, expansion, and upgrade of the facility structural components, building systems, site works, and utility services including main electrical services, distribution, emergency generators, and uninterruptible power supply (UPS) systems; the department or service partner manages the remaining facility components including but not limited to, processes, equipment, and service operation. This AM Plan will only focus on the assets that are operated and maintained by the Facilities Management division. Process/service area assets are excluded. Facility parking lots that have been assessed through building condition assessments are included in the AM Plan but additional work is required to formalize the governance of these assets with other City divisions. The infrastructure assets included in this plan have a total replacement value of $1.95 billion.

Figure 2.1 – City of Kitchener Facility Asset Condition and Value ($M)



2.2 Provincial Asset Management Requirements

The Province of Ontario requires that all municipalities that seek provincial infrastructure funding have an asset management plan, or plans, in place. To encourage a similar approach across municipalities, in 2012 the province introduced Building Together: Guide for Municipal Asset Management Plans, which defined the key components of an effective asset management plan.

More recently in 2017, the province approved O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Regulation mandates the development of an asset management policy, asset management plans, and their content. Additionally, milestones are included for when municipalities must fulfill certain requirements, outlined below in Figure 2.2.



Figure 2.2 - O.Reg 588/17 Milestones

2.3 Asset Management at the City of Kitchener

The City of Kitchener has been practicing sound asset management planning for at least 15 years, starting with the introduction of Public Sector Accounting Board (PSAB) legislation. Since 2007, several efforts have resulted in well-established asset management programs and procedures, as well as the inclusion of a dedicated Asset Management Division in the City's corporate structure. Figure 2.3 below outlines some key milestones in the City's asset management journey. Kitchener City Council adopted the most recent Corporate Asset Management Strategy in 2016. The goals outlined in the strategy are to extend the useful life of all assets, in the most cost-effective way, while managing risk and meeting the agreed upon levels of service.

The AM Plan is a key tactical (medium-term) planning document that relies on input from strategic planning activities and informs shorter-term decision making. The AM Plan provides a framework to validate the City's budgeting processes and assist- in prioritizing work activities, including capital projects, based on risk. It discusses levels of service that also support goals in the 2023 to 2026 Strategic Plan and lifecycle management strategies intended to reduce the overall cost of asset ownership.

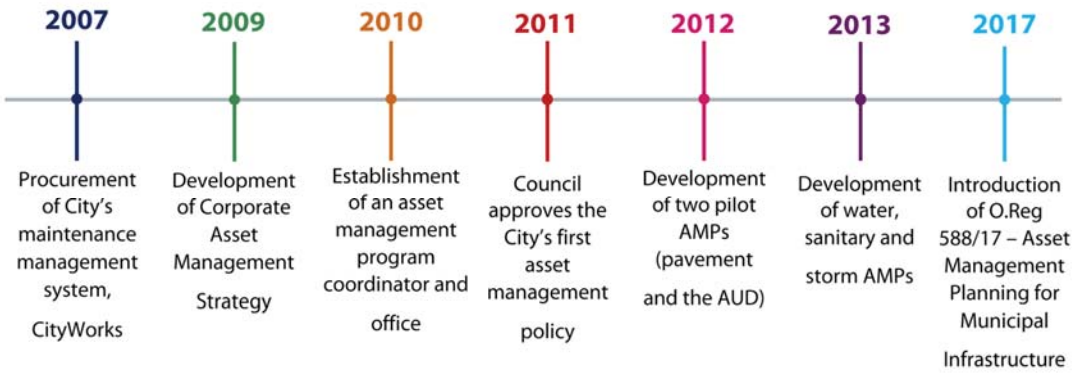


Figure 2.3 - City of Kitchener Asset Management Timeline

2.3.1 Corporate Asset Management System

An asset management system should aim to achieve a line of sight between corporate strategic goals outlined in the strategic plan, and operational plans, policies and procedures, as illustrated in Figure 2.4. Two guiding documents in this system are the Asset Management Strategy and Asset Management Policy, most recently updated in 2016 and 2018, respectively. The Asset Management Policy defines the intent, scope and principles of asset management at the City of Kitchener, and who is responsible for enacting the policy. The 2018 update puts a focus on climate change given the impact that it is expected to have on municipal assets. Section 5.3 – Climate Change Impacts of this AM plan discusses these impacts specific to the City and strategies to build and maintain assets through the lens of resiliency, sustainability, adaption, and mitigation. The Asset Management Strategy defines how the principles of the policy will be put into practice and the three guiding principles of asset management at the City of Kitchener which are to:

1. Balance asset condition and levels of service,
2. Allocate financial resources among priorities and,
3. Shift how we do business – such as introducing programs to support the requirement for high-quality data services.

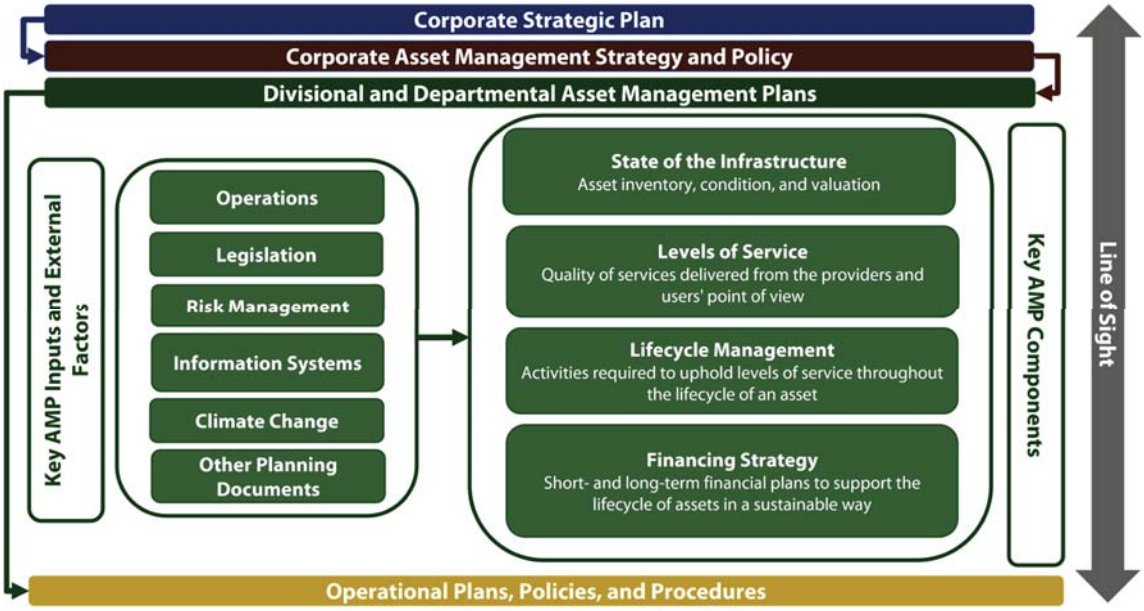


Figure 2.4 - City of Kitchener Asset Management System

In addition to the Asset Management Strategy and Policy, this AMP should be read in conjunction with other planning documents relevant to facilities, outlined in Table 2.1 below.

Table 2.1: Key Planning Documents

Key Planning Document	Document Description
2023-2026 Corporate Strategic Plan	The document outlines the strategic goals that are to be championed by Council and staff across the City.
Official Plan (2014)	The Official Plan is a legal document that contains goals, objectives and policies to manage and direct physical and land use change and their effects on the cultural, social, economic and natural environment within the City. This Plan provides a framework for decision-making and plays several essential roles in the future planning of the City.
Corporate Asset Management Strategy (2016)	The AM strategy outlines the Asset Management program at the City, the three guiding principles of where the program intends to go, and the value gained by forming consistent practices throughout the asset groups.
2019 Leisure Facilities Master Plan (currently being updated)	The 2019 Leisure Facilities Master Plan includes recommendations to support the City's commitment to providing quality recreation facilities, programs and services. The plan focuses on three primary areas: • Aging recreation infrastructure • Partnerships with school boards and public/private community partners • Funding models for recreation facilities and service delivery In addition, the LFMP includes a prioritized list of indoor and outdoor recreation facilities which staff are recommending be funded through development charges.
Kitchener, Changing for Good - Corporate Climate Action Plan (2019)	The City's Corporate Climate Action Plan aims to achieve meaningful and measurable carbon emission reductions throughout its operation, while also adapting to impacts resulting from climate change.
Energy Conservation & Demand Management Plan (2019-2023)	Under Ontario Regulations 25/23, public sector agencies in Ontario must report annual energy consumption and develop a five - year conservation and demand management plan intended to reduce energy consumption and greenhouse gas emissions.
Development Charges Background Study (2022)	The DC Study includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs and attribution to development types (residential and non-residential).

The City's facilities provide important services across many City departments, and therefore this AM Plan has a wide range of key stakeholders. Key stakeholders are summarized in Table 2.2.

Table 2.2 - Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
City of Kitchener Elected Council	City Council are the overall owners of the City's assets. Council approves asset management policies and asset funding allocation through the annual corporate budget process. An overarching expectation of a standard of care is required by Council to ensure commitment to effective asset Management practices.
Corporate Leadership Team	The Leadership Team provides corporate oversight to the program to ensure that the goal and directions of the Corporate Asset Management program are maintained, and the program remains consistent with the overall Strategic Plan.
Asset & Information Management Committee	This committee provides leadership and strategic direction for supporting systems/processes specific to the delivery of asset/work management information for the City of Kitchener. Further, in support of the city-wide asset management strategies, the committee provides leadership and governance to the Asset Management Policy statement through the provision of information necessary for the long-range forecasts of asset investment needs, services levels, risks, costs and other performance measures.
Facilities Management	Facilities Management is a division with Infrastructure Services and is responsible for the renewal and lifecycle planning for maintaining facility assets in a state of good repair.
Community Services	Community Services is a department of the City and is responsible for the operation and maintenance of community centres, swimming pools, arenas, sports facilities, as well as the Kitchener Fire Department stations.
Finance	The Finance division within Financial Services prepares an annual operating budget and 10-year capital forecast for Council's consideration. The annual budget helps identify the spending plans and priorities for the City for the upcoming year and is informed by the City's Strategic Plan, various master plans, and feedback from the community.

2.3.2 Asset Management Plan Methodology

The information presented in the AM Plan is based on O.Reg. 588/17 requirements, the Guide for Municipal Asset Management Plans, originally issued by the Ontario Ministry of Infrastructure, and leading asset management practices. Costs and replacement values in this AM Plan are estimated in 2023 dollars.
The AM Plan was developed by SLBC Inc. in collaboration with City staff through:

- Review of background materials available on the City's web site and provided by the City's project team including asset inventories, planning documents, and budgets
- Workshops with internal stakeholders
- Various interim meetings with the City's project team
- Numerous data and information transfers
- Review of interim outputs by the City's project team and other stakeholders, and incorporation of comments into the final AM Plan

3.0 STATE OF LOCAL INFRASTRUCTURE

3.1 Background Data

3.1.1 Asset Inventory and Valuation

The asset mix for this municipality reflects a diverse range of services supported by its facilities. The largest portion of the asset mix is dedicated to arenas, covering 590,303 sq ft with a replacement value of $473.5 million. The assets covered by this AM Plan are shown in Table 3.1.

Table 3.1: Assets covered by this Plan

Service Area	Dimension (sq ft)	Replacement Value ($ millions)
Administration	227,378	$206.4M
Aquatics	97,636	$119.4M
Arenas	590,303	$473.5M
Arts & Culture	278,740	$241.4M
Cemeteries	34,464	$20.0M
Commercial	101,473	$147.1M
Community Centres	185,076	$155.0M
Fire	62,304	$98.2M
Golf	45,710	$20.3M
Operations	387,725	$215.0M
Parking Garages	518,776	$145.0M
Parks & Open Spaces	75,701	$27.3M
Residential	7,828	$2.2M
Sport	111,432	$78.8M
TOTAL	**2,724,545**	**$1,949.5M**

The asset valuation distribution for this AM Plan is shown in Figure 3.1 and the age profile of the assets included in this AM Plan are shown in Figure 3.2

Figure 3.1: Asset Valuation

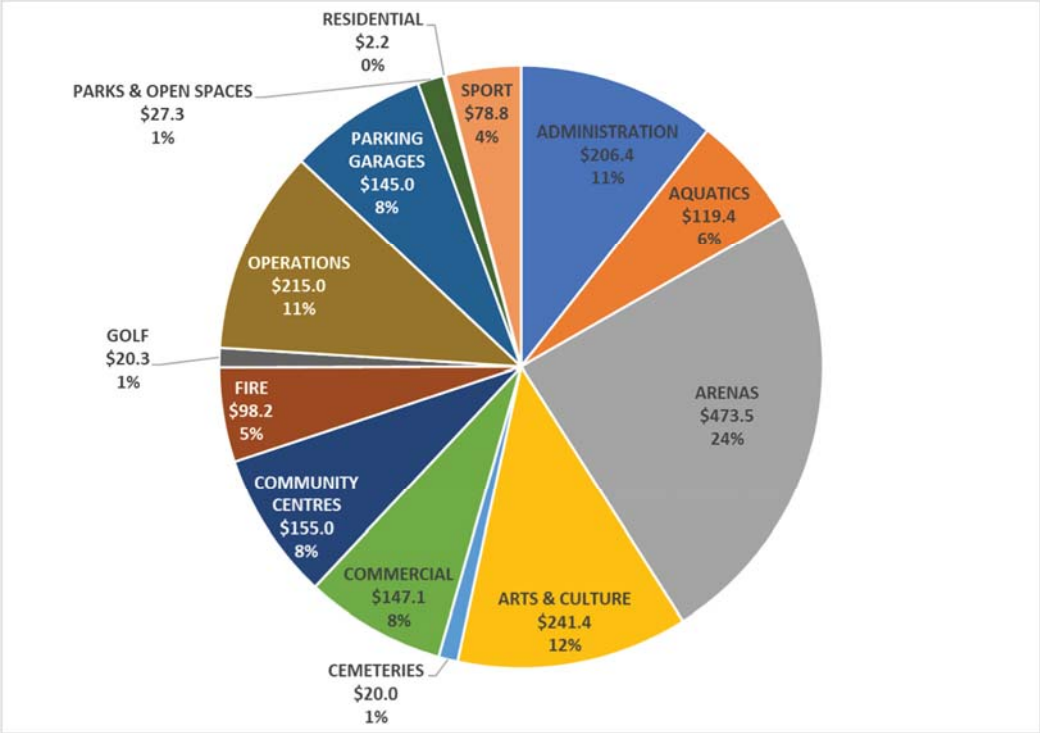
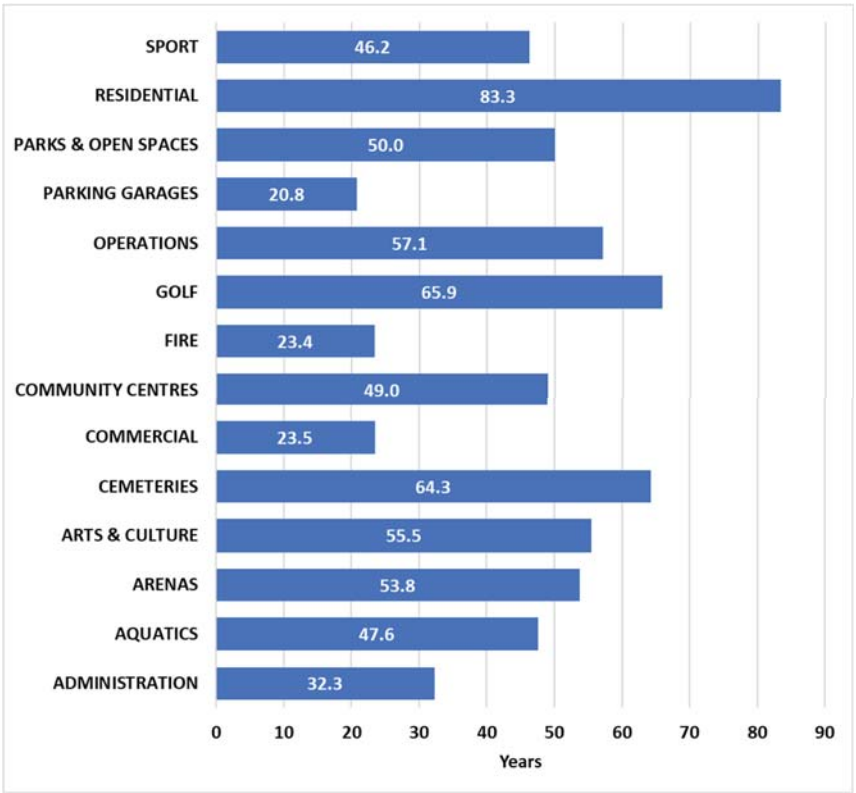


Figure 3.2: Asset Age Profile



Asset Age Profile was calculated using a weighted average age of assets based on current replacement value (CRV). All table and figure values are shown in current day dollars.

Residential assets are the oldest City facilities with an average age of 83.3 years against a useful life expectancy of 80 years. Additionally, Parks & Open Spaces assets have an average age of 50 years compared to a useful life expectancy of 50 years. This suggests that these assets have, on average, met or exceeded their anticipated lifespan, potentially warranting closer attention and investment in maintenance, refurbishment, or disposal to ensure the continued well-being and safety of residents. In contrast, parking garages exhibit a notably lower average age of 20.8 years against a useful life expectancy of 80 years, emphasizing recent investments in this area.

3.1.2 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 3.2.

Table 3.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Administration	Manage and coordinate various municipal functions, including governance, finance, human resources, and communication, ensuring efficient and effective overall operation.
Aquatics	Provide safe and accessible aquatic facilities and programs, promoting water safety, recreation, and fitness within the community.
Arenas	Operate and maintain indoor sports arenas, offering spaces for sports activities, events, and recreational programs for residents.
Arts & Culture	Support and promote artistic and cultural initiatives within the community, fostering creativity, heritage preservation, and community engagement.
Cemeteries	Manage and maintain burial grounds, ensuring respectful and dignified final resting places for community members.
Commercial	Oversee and regulate commercial activities within the municipality, promoting economic development, business growth, and a vibrant local economy.
Community Centres	Provide spaces and programs that foster community engagement, social interaction, and the well-being of residents through recreational and educational programs.
Fire	Ensure the safety and well-being of residents by providing fire protection, emergency response services, and community education on fire safety.
Golf	Manage and maintain golf courses, promoting recreational opportunities, sportsmanship, and a healthy outdoor lifestyle.
Operations	Oversee the day-to-day municipal operations, including public works, infrastructure maintenance, and logistical support to ensure the proper functioning of the City.
Parking Garages	Provide safe and accessible parking facilities, managing parking infrastructure, and implementing policies that address the parking needs of residents and visitors.
Parks & Open Spaces	Create and maintain public parks, green spaces, and recreational areas, enhancing the quality of life for residents and providing opportunities for outdoor activities.
Residential	Originally acquired to support expansion of adjacent city facilities.
Sport	Promote and facilitate sports and physical activities, supporting the development of sports programs, facilities, and events that contribute to the health and well-being of the community.

3.1.3 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 3.3.

Table 3.3: Known Service Performance Deficiencies

Location / Service Area	Service Deficiency
Community Centres	Based upon estimated population growth and public survey results, the City plans to address the deficiency in community and recreation infrastructure through the following projects: Mill Courtland Community Centre Addition, Rosenberg Community Centre, Forest Heights Community Centre Expansion and Kitchener Indoor Recreation Complex (KIRC).
Fire	To ensure adequate emergency response and protection services, the City has identified the need for an 8th fire station in order to respond to the significant growth occurring within the City.
General State of Good Repair backlog	The City currently has a significant renewal backlog across the facility portfolio.

The capacity-related service deficiencies were identified from the City's 2019 Leisure Master Plan and the 2022 Development Charges Study. The backlog is identified from the Facilities Management Capital Plan and the forecasting methods described in the following subsection.

3.1.4 Asset condition

Assets can be inspected and monitored through various means. The City employs both internal staff and contractors to perform inspections on City owned assets. The results of these assessment programs provide the City with meaningful imperial data that can be used to gauge the condition of assets and needs for asset maintenance or renewal. The costs for these condition assessments are funded through the City's Capital Plan.

Table 3.4: Condition Assessments

Asset Category	Condition Assessment Description	Frequency in Years
Facilities with Higher Criticality	Building Condition Assessment	5 years for facilities with SFU of 3, 4 or 5

Condition is measured using a 1 – 5 grading system as detailed in Table 3.5. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication. The Facility Condition Index is calculated based on the following formula:

$$FCI = \frac{\text{Renewal Needs over Next 3 Years}}{\text{Replacement Value}}$$

To determine the FCI for each facility, the renewal needs over the next 3 years including backlog was determined by different forecasting methods depending on the criticality of the facility and the data available:

- Simple Facility – generally used for less critical facilities, such as sheds or storage buildings, where the entire facility is treated as one asset and renewed at end-of-life.
- High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed. The facility is broken down into 27 elements (Uniformat) with estimated costs (based on typical percentage breakdowns) and estimated condition ratings by City staff.

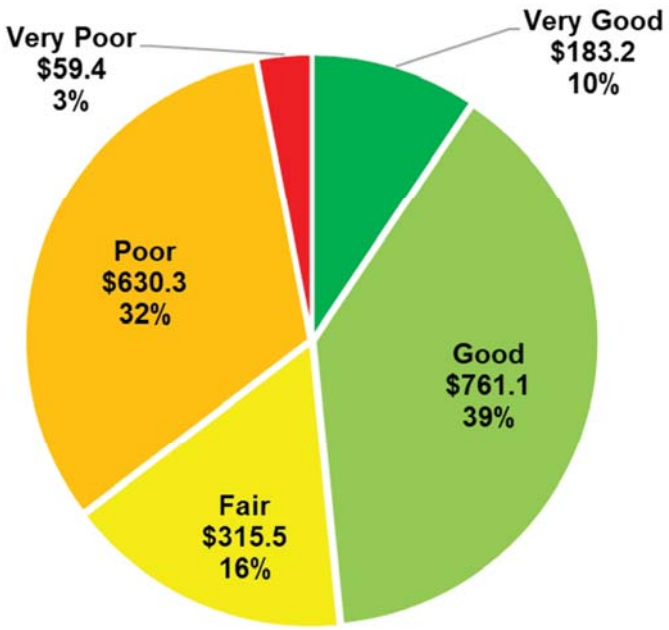
- Capital Plan with BCA recommendations – facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan

Table 3.5: Condition Grading System

Condition Grading	Description of Condition	Facility Condition Index
1 – Very Good	free of defects, only planned and/or routine maintenance required	0 to 2%
2 – Good	minor defects, increasing maintenance required plus planned maintenance	>2 to 5%
3 – Fair	defects requiring regular and/or significant maintenance to reinstate service	>5 to 10%
4 – Poor	significant defects, higher order cost intervention likely	>10 to 30%
5 – Very Poor	physically unsound and/or beyond rehabilitation, immediate action required	Over 30%

The condition profile of our assets is shown in Figure 3.3 and Table 3.6.

Figure 3.3: Asset Condition Profile ($M)



All figure values are shown in current day dollars.

Table 3.6: Asset Condition by Service Area

Service Area	Average Facility Condition Index	Category
Administration	18.2%	**Poor**
Aquatics	22.4%	**Poor**
Arenas	4.8%	**Good**
Arts & Culture	12.8%	**Poor**
Cemeteries	8.2%	**Fair**
Commercial	3.7%	**Good**
Community Centres	13.5%	**Poor**
Fire	8.7%	**Fair**
Golf	6.7%	**Fair**
Operations	6.3%	**Fair**
Parking Garages	9.9%	**Fair**
Parks & Open Spaces	8.1%	**Fair**
Residential	6.0%	**Fair**
Sport	8.6%	**Fair**
Overall Average	**9.9%**	**Fair**

The condition assessment of the municipality's assets provides some perspective on the overall health of its infrastructure. While arenas and commercial assets have an overall good condition (FCI of 4.8% and 3.7%, respectively), a significant portion of the assets, including administration, aquatics, arts & culture, and community centres, are categorized with an average poor condition, with FCIs ranging from 12.8% to 22.4%. Overall, the weighted average condition of the facilities included in this AM Plan falls within the fair category at 9.9%.

3.2 Asset Registry Completeness & Assumptions

In compiling this AM Plan, a thorough review of the asset registries is required. The purpose of this review to identify if all asset categories under the leadership and stewardship of the responsible stakeholders are represented in a singular or combined asset registry. The review also looks to ensure that for those registries that do exist, that fields that are critical to the assets' lifecycle and financial management are populated with accurate values. These values will provide that basis for meaningful asset management planning

The following categories have been employed to assess the completeness of asset registries:

Rating	Description
Good	Data based on sound records, procedures, investigations and analysis, documented properly but may have minor shortcomings. Dataset is complete and estimated to be accurate ± 10%.
Fair	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
Poor	Dataset may not exist or be fully complete, and most data is estimated or extrapolated

Table 3.7: Asset Registry Assessment

Forecasting Approach	Completeness of Asset Registry		Completeness of Existing Asset Registry Fields				
		Defined Level of Service	Initial Construction Costs	Installation Year	Condition	Estimated Service Life	Description
Simple Facility	Good	Fair	Good	Good	Fair	Fair	Good
High-Level Facility Breakdown	Good	Fair	Good	Good	Fair	Fair	Good
Capital Plan with BCA recommendations	Good	Good	Good	Good	Good	Good	Good

Where asset registries are missing or critical data fields are found to be incomplete, there may be assumptions of the data that have to be made to complete this AM Plan. While these assumptions are listed below, they will be put into more context as needed through this AM Plan. The facilities currently based on the high-level facility breakdown are expected to be updated with more accurate forecasts when their building condition assessments are completed and incorporated into the Capital Plan.

Key assumptions related to the asset registries made in this AM Plan are described below for each of the three forecasting approaches:

- Simple Facility approach:
  - Non-residential facilities are replaced as one asset at end-of-life (50 years)
  - Residential facilities are forecasted based on an average 2% annual investment rate
  - 13 facilities were not included due to missing construction year data
- High-level facility breakdown approach:
  - Replacement costs for 27 elements (Uniformat) are estimated based on costing breakdown provided through a facility costing software (RS Means).
  - Each facility is assumed to consist of each of the Uniformat elements
  - For elements not assigned a condition score by City staff, an average annual renewal amount is assumed to be required based on the current replacement value of the element divided by its estimated total service life
- Capital Plan approach:
  - All forecasted values entered into the Capital Plan are assumed to be in current year dollars

4.0 LEVELS OF SERVICE

In the State of Infrastructure Section, the value, age, and condition of the City's infrastructure assets were discussed. The Levels of Service (LOS) chapter builds on the State of Infrastructure by defining the performance the City's assets are intended to deliver over their service lives. For example, the City's recreation facilities are expected to be maintained in a state of good repair such that residents can access suitable facilities and participate in various sports activities.

LOS are statements that describe the outputs and objectives the City intends to deliver to its residents, businesses, and other stakeholders. In general, LOS are guided by a combination of customer expectations, legislative requirements, internal policies and procedures, and affordability. Effective asset management requires that LOS be formalized and supported through a framework of performance measures, performance levels, and timeframes to achieve performance levels, such that the activities and costs to deliver the documented LOS can be determined.

As part of the City's 2023 to 2026 Strategic Plan, a key goal is to ensure accountability and transparency to support 'stewarding a better city together'. Developing, monitoring, and reporting on LOS are all integral parts of an overall performance management program which support efficient provision of services to City stakeholders.

The City's facilities play a role in ensuring the continued delivery of essential services to the community. These facilities provide a wide range of spaces, such as offices for City staff as well as critical operations facilities that oversee environmental services, roads, and parks operations. The City's recreation and culture facilities, including recreation centres, community centres, the museum and theatre, support community participation in physical and social activities to enhance the lives of residents. Finally, libraries and parks facilities, including parks washrooms, contribute to the community's overall quality of life.

Figure 4.1 shows the LOS framework and line of sight from high-level Corporate initiatives to detailed asset-specific Technical LOS. Corporate commitments & legislated LOS guide the development of community LOS. The community LOS outline the services that the assets need to deliver to the City's residents and businesses. Community LOS can typically be categorized to one of the following service attributes:

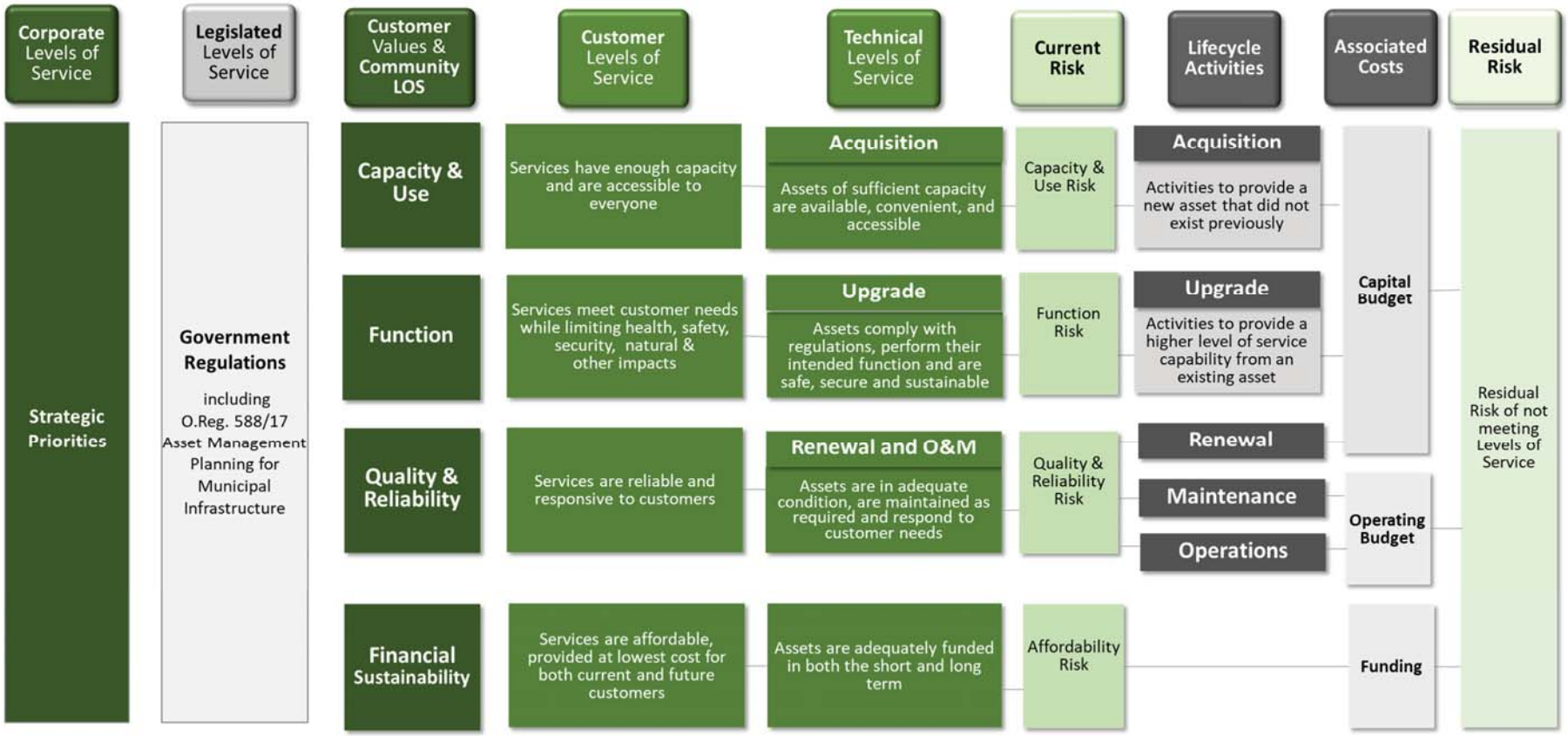
- **Capacity & Use:** Services have enough capacity and are available to the customers
- **Function:** Services meet customer needs while limiting health, safety, security, natural and heritage impacts
- **Quality & Reliability:** Services are reliable and responsive to customers
- **Financial Sustainability:** Services are affordable and provided at the lowest cost

Community LOS are translated into Customer LOS, which measure services from a resident perspective, and Technical LOS that define asset performance levels. These LOS in turn define asset needs and drive the required lifecycle activities and associated funding to mitigate risks. As shown in Figure 4.1.

- Capacity & Use LOS informs **Acquisition** needs
- Function LOS informs **Upgrade** needs
- Quality & Reliability LOS informs **Renewal, Operations and Maintenance** needs
- Financial Sustainability LOS informs **Funding** needs

This Line of Sight establishes the connection of how the day-to-day management of City assets supports the achievement of higher-level strategic priorities.

Figure 4.1: Levels of Service Framework



4.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the City of Kitchener. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist Council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

The City completed a preliminary survey in 2023 with internal staff as a starting point to understanding perspectives from the public. Table 4.1 summarizes the results from our Customer Satisfaction Survey with internal City staff regarding their general experience and understanding of public satisfaction regarding facility cleanliness and condition.

Table 4.1: Customer Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Satisfaction with facility cleanliness		✓			
Satisfaction with facility condition		✓			

4.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Corporate Asset Management Strategy which is in alignment with the City of Kitchener's Strategic Plan (2023 – 2026). The City of Kitchener's Strategic Plan was developed with the consultation of residents, community organizations, businesses and councilors. Further to this, the plan supports the United Nations Sustainability Goals (SDGs) which outline the ways to achieve a better and more sustainable future for all.

The City's vision is:

"Building a city for everyone where, together, we take care of the world around us – and each other"

Strategic goals have been set by the City of Kitchener. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 4.2.

Table 4.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Cultivating a Green City Together	We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.	The City's commitment to monitor and reduce GHG emissions and energy consumption are discussed in this AM Plan.
Fostering a Caring City Together	We welcome residents of all ages, backgrounds and lived experiences. We work together on the decisions that matter to us and have a meaningful influence in our community. We're healthy and thriving as we easily access the diverse and inclusive programs and services we need to succeed.	The AM Plan discusses how the City manages its facilities to meet population growth, changing demographics and recreational trends, accessibility, and state of good repair needs to provide a facility portfolio that enable delivery of diverse and inclusive services.

Goal	Objective	How Goal and Objectives are addressed in the AM Plan
Stewarding a Better City Together	We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.	The AM Plan demonstrates the City's commitment to financial sustainability and how available funds are managed efficiently while providing the required services and managing the associated risks.

These goals set a framework for the required actions that enable the City to provide relevant and high-quality services to the community. The goals are supported by other City planning documents including the following:

2014 Official Plan

- The provision of community infrastructure and facilities is essential for the enhancement of the quality of life for residents in Kitchener. There are a wide range of facilities that are required to meet the physical, social, cultural and recreational needs of its residents. While the City may not be directly involved in the provision of all community and cultural facilities and services, it can help ensure the provision and expansion of some of these facilities and services through facilitation. Objectives include:
    - To provide and maintain a balanced distribution and sufficient supply of accessible and inclusive parks, open space and community facilities for both active and passive recreational uses to satisfy the needs of all residents of Kitchener.
    - To ensure that the city has sufficient community infrastructure and facilities to meet the current and projected needs of all its population.
    - To ensure that community infrastructure uses and facilities are appropriately and conveniently located throughout our city to support a complete community.
    - To provide parks and community facilities in an efficient and sustainable manner that optimizes their use, minimizes environmental impacts, supports intensification and promotes flexibility to adapt to changing needs

Corporate Climate Action Plan (currently being updated)

Through its Climate Change Action Plan, the City focuses on three main approaches to managing GHG emissions in the community, the organization and service delivery:

- energy conservation – use less energy and use it more efficiently
- fuel switching – use lower carbon fuels, "clean fuels"
- generate energy – make renewable "clean energy"

2019 Leisure Facilities Master Plan (currently being updated)

The City's Leisure Facilities and Master Plan furthers objectives related to active living, equity diversity and inclusion, and sustainability:

- Lifelong Participation: Support lifelong participation in physical and social activities
- Access for All: Encourage equitable and safe participation in recreation, regardless of sex, culture, socioeconomic status, race, gender, ability, sexual orientation, Indigenous status or geographic location
- Sustainable Environments, Infrastructure & Partnerships: Re-invest in existing infrastructure and use spaces for multiple purposes to ensure financial and environmental sustainability.

4.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Some of the legislative requirements that impact the delivery of the services provided by the City's facilities are outlined in Table 4.3.

This AMP is prepared in accordance with O.Reg 588/17 – Asset Management Planning for Municipal Infrastructure, which lays out the requirements for Asset Management Plans prepared by municipalities across Ontario and milestones that all municipalities are required to meet. This Plan meets the July 1st 2024 requirements. Please note that this list of legislative requirements for facilities is not exhaustive.

Table 4.3: Legislative Requirements

Legislation	Requirement
Ontario Regulation 588/17	Establishes strategic, long-term, sustainable plans to manage core and non-core capital infrastructure assets by 2024. The Regulation requires: • Municipal governments to adopt AM Plans for all infrastructure assets including identifying levels of service and costs of maintaining services. • Municipal governments to set technical metrics and qualitative descriptions for each asset
Ontario Building Code	Ontario Building Code is a regulation under the Building Code Act. It establishes detailed technical and administrative requirements, as well as minimum standards for building construction. The Ontario Building Code promotes public health and safety, fire protection, resource conservation, environmental integrity, and accessibility.
The Accessibility for Ontarians with Disabilities Act, 2005 (AODA)	The purpose of the AODA is to develop, implement and enforce standards for accessibility related to goods, services, facilities, employment, accommodation and buildings.
Technical Standards and Safety Act, 2000	Facilities must comply with technical standards and safety regulations depending on the industry or equipment, such as elevating devices or generators.
Fire Protection and Prevention Act, 1997	Facilities, especially public spaces, must comply with fire safety regulations.

4.4 Customer Values and Community Levels of Service

The LOS discussed in this AM Plan are focused on measures developed to support achievement of the City's higher level strategic priorities and key areas of investment. The City will be completing key planning documents, such as an update to the Leisure Facilities Master Plan that will discuss additional service levels for input into future updates of this AM Plan.

This AM Plan summarizes the performance on the measures based on the most current data available. As required by O. Reg 588/17, the City will determine proposed service levels by 2025. The proposed service levels will be aligned with the necessary planning documents.

As discussed in Section 4.0, service levels are defined in three ways: community levels of service, customer levels of service and technical levels of service. Community LOS are qualitative statements categorized by service values and attributes.

Service Values and attributes indicate what aspects of the service is important to the customer.

Table 4.4: Service Values and Community LOS

Service Value	Service Attribute	Customer Satisfaction Measure	Community LOS (Customer Satisfaction Measure)
Capacity & Use	**Capacity/Use**	Is the service over or under used? do we need more or less of these assets?	Ensure adequate facilities to meet growing population and community needs
	Available	The service can be used/reached at convenient times	
	Scope	The service is broad enough that it serves the entire population	
Functional	**Function**	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	Provide accessible facilities for inclusion and meeting diverse resident needs
	Safety	The service is provided in a manner that protects users from harm	
	Resilience	Considers future impacts such as climate change that may put stress on the system.	Promote Environmental Sustainability by maximizing facility-level efficiency. Prioritization of three main approaches to reducing GHGs in our community, our organization and service delivery: -energy conservation -fuel switching -generate energy
Quality & Reliability	Quality	The standard to which the service is provided	Provide facilities in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections
	Reliable	Consistently good in quality or performance - works when service users expect it to work	Maintain facilities proactively to minimize unexpected failures
Financial Sustainability	Affordable	How much does the service cost? Is it fair and is the service provided worth this cost?	Provide facilities management services in an efficient and cost-effective manner
	Efficient	Service is provided with maximum productivity and minimal wasted effort	

Service values for Customer LOS and Technical LOS are summarized in section 4.5 and 4.6, respectively. Fore each relevant service value there is a summary of the performance measure being used, the past and current performance, and the expected performance or trend based on the current budget allocation. It is important to note that not all service values are applicable to all asset categories.

4.5 Customer Levels of Service

Customer Levels of Service can be identified as community expectations on certain services as well as how the more technical work activities are impacting customer experiences. The Customer Levels of Service performance measures highlight data that has direct impact on a citizen.

Table 4.5: Customer Level of Service Measures

Customer Focused Levels of Service					
Value of Service	**Community LOS**	**Performance Measure**	**2023**	**2022**	**2021**
Quality & Reliability	Provide facilities in acceptable condition and cleanliness by following and providing proper maintenance standards and inspections	% Fair or Better Condition	**65%**	Not available	Not available
		Average satisfaction level for external customers based on condition and cleanliness service levels (internal staff survey)*	**3.7 (out of 5)**	Not available	Not available

*City Staff were surveyed across the entire portfolio and results from 17 facilities were obtained.

In September of 2023, City staff were surveyed regarding facility condition and cleanliness from a customer perspective. The average rating was a 3.7 out of 5 on satisfaction across 17 facilities. The City would like to increase this level of satisfaction over the next 10 years. However, based on the current backlog, current condition of the facilities and the current available budget, the satisfaction level is expected to decrease.

4.6 Technical Levels of Service

Operational or technical measures of performance are used to demonstrate delivery of customer service values (i.e., the achievement of Customer Levels of Service). These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Acquisition The activities to provide a new service that did not exist previously, or an expansion of an existing service.

Upgrade The activities to provide a higher level of service than previously provided.

Operation The regular activities to provide services.

Maintenance The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life.

Renewal The activities that return the service capability of an asset up to that which it had originally provided.

Acquisition-related LOS refer to Facility assets which ensure that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. Considering the City's growing population, evolving demographics, and recreation trends, the City maintains a suitable number of indoor ice pads, indoor pools, and community centres per resident to ensure that the City's portfolio is aligned with current and future needs.

Upgrade-related measures relate to providing services that meet customer needs while limiting impacts to health, safety, security, and the environment. One of the key initiatives for the City is environmental sustainability. To monitor the City's energy performance, the City measures energy consumption, natural gas consumption, and GHG emissions both in terms of total usage and on a per square meter basis. Natural gas is monitored separately from overall energy to track progress on reducing reliance on this energy source (and promote fuel switching). For each of these measures, the goal is to reduce consumption and emissions over time. The overarching corporate goal is to achieve 80% GHG reduction by 2050, and more specific goals will be documented in future updates to this AM Plan. Generation of energy is currently based on the solar panel system installed at the Operations Centre, with a goal to increase generation in future years as other potential sites are identified for energy generation.

Currently, the City performs accessibility audits to meet legislation requirements. As the City continues to develop its accessibility standards, audits will be conducted against these standards. As of 2023, the City has completed accessibility audits for 31.7% of its 82 facilities with a functional service rating of 3 or higher, which are the City's more critical facilities.

In addition to maintaining accessible and environmentally sustainable facilities, the City strives to provide safe facilities that minimize safety incidents including vandalism. The City plans for facility upgrades as required to address incidents and on-going issues specific to a facility. These solutions range from adding security cameras to installing stainless steel fixtures in park washrooms to curb vandalism incidents. A future improvement initiative for the City is to consider past safety issues and incorporate added safety elements into corporate facility design standards.

The City tracks the ratio of scheduled to unscheduled work as an indication of effective lifecycle management of its facility assets and to minimize unexpected asset failures. In general, a higher planned work ratio indicates that the City has effective preventive maintenance plans in place that reduce unplanned failures resulting in lower lifecycle costs and improved service reliability. From July of 2022 to June of 2023, the City had 28.3% of total maintenance costs spent on planned work. This performance is expected to improve to a higher ratio of planned work in future years. Facilities are currently maintained in fair condition, with an average Facility Condition Index of 9.9% (Fair condition).

One of the key indicators of efficiency is monitoring the costs of operating and maintenance activities and energy costs on a per area basis. The City tracks costs for operational and maintenance costs separately from the energy costs. The reduced usage of facilities in 2021 during the pandemic resulted in an increase of energy costs per square metre from 2021 to 2022. Though proposed targets are not set in this AM Plan, the overall goal is to reduce energy costs and operating and maintenance costs on a per area basis over time.

The asset reinvestment rate measures the percentage of capital investment divided by the replacement value of the portfolio. Per industry benchmarks, such as the Canadian Infrastructure Report Card (2016), it is recommended that municipalities invest 1.7% to 2.5% of their facility asset portfolio value into capital renewal each year. Based on the analysis in Section 6 (Lifecycle Strategy), this AM Plan recommends an average annual investment of 2.3% to maintain current service levels. Historically, the City has only been investing approximately 0.4% in capital renewal over the past few years. This shortfall is discussed further in Section 8.0 (Financial Summary).

Technical LOS have been measured and reported on over the past 3 years in some cases. It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on data availability, existing resource provision and work efficiencies.

Table 4.6: Technical Levels of Service

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**2023**	**2022**	**2021**	**2020**	**2019**
Acquisition	Number of residents per facility type	Ice Pads (1 : 27,000) Pools (1 : 67,500) Community Centres (1: 20,770) Gymnastics/Judo centre (1 : 270,000)	Not available	Ice Pads (1 : 25,690) Pools (1 : 64,220) Community Centres (1: 19,760) Gymnastics/Judo centre (1 : 256,885)	Not available	Ice Pads (1 : 24,180) Pools (1 : 60,450) Community Centres (1: 18,600) Gymnastics/Judo centre (1 : 241,800)
Upgrade	Percentage of facilities with accessibility audits completed (facilities with supporting functional use rating 3,4,5)	36.6%	32.9%	26.8%	25.6%	-
Operation	Annual building energy consumption (natural gas and electric combined)	204,198 GJ	214,390 GJ	167,687 GJ	147,230 GJ	181,140 GJ
	Annual building energy consumption (natural gas and electric combined) per sq.m.	1.01 GJ/m^2	1.06 GJ/m^2	0.95 GJ/m^2	0.95 GJ/m^2	1.17 GJ/m^2
	Annual building natural gas consumption	2,722,482 m^3	3,053,873 m^3	2,308,879 m^3	2,100,799 m^3	2,526,062 m^3
	Annual building natural gas consumption per sq.m.	13.45 m^3/m^2	15.08 m^3/m^2	12.75 m^3/m^2	13.32 m^3/m^2	16.27 m^3/m^2

Technical Focused Levels of Service						
Lifecycle Activity	**Performance Measure**	**2023**	**2022**	**2021**	**2020**	**2019**
	GHG emissions for buildings	6133 tCO2e	6685 tCO2e	5123 tCO2e	4548 tCO2e	5571 tCO2e
	GHG emissions for buildings per sq.m.	30.29 kgCO23/m^2	33.02 kgCO23/m^2	26.35 kgCO23/m^2	29.26 kgCO23/m^2	35.88 kgCO23/m^2
	Annual renewable energy generated	615,216	612,098 kWh	632,306 kWh	649,502 kWh	627,903 kWh
Renewal	Facility Condition Index	9.9% (2023)	Not available	Not available	Not available	Not available
Maintenance	Ratio of Planned vs Unplanned Maintenance Work (by COST)	28.3% planned (July 2022 - June 2023)	Not available	Not available	Not available	Not available
Affordable	Facility asset renewal budget as a % of replacement value	Not available	Not available	Not available	Not available	Not available
Efficient	Operating cost to provide services per sq.m.	$17.30/$m^2$ (July 2022 to June 2023)	Not available	Not available	Not available	Not available
	Energy cost per sq.m.	$26.56/ m^2	$27.52/$m^2$	$21.87/$m^2$	Not available	Not available

Notes

- Operating costs to provide services are shown per square meter. This does not include energy costs.
- The energy cost (per square meter) is based on facilities with measurement information available (not all facilities currently measured).

The City's ability to maintain current service levels may be impacted by external trends and factors. Future updates to the AMP will consider such factors as they occur and incorporate them into the reporting and setting of appropriate service levels.

- **Demographic Factors**: Population and employment changes can impact the intensity and frequency of infrastructure use, resulting in the need for additional infrastructure or more frequent asset renewal strategies.
- **Social and Economic Factors**: Increases in environmentally conscious behaviour and attitudes among residents and businesses can lead to infrastructure that lasts longer and is more efficient. From an economic perspective, higher costs due to increases to the cost of materials and energy can reduce the ability to maintain the same level of service. Population and demographic changes, as well as tourism initiatives will also have potential impacts on required service levels.
- **Technological Factors**: Changes in technology or asset construction, operation, or maintenance methods may lead to the replacement of obsolete equipment or materials, helping to achieve higher quality service levels and reduced costs during the asset's lifecycle.
- **Regulatory Factors**: The City is subject to various policies, programs, and legislative decisions issued by other levels of government (i.e., federal, provincial, and regional), and such legislative changes can impact the City's strategic direction and demand for services. Specific asset-related legislation can also impact the required performance levels of assets.
- **Environmental Factors**: Recognizing the increasing urgency of climate action work, on June 24, 2019, City Council declared a climate emergency. Mitigation and adaptation strategies to climate change will continue to be developed and implemented by the City as climate change impacts on service levels are better understood. The City is furthering its commitment to climate change action through its Corporate Climate Action Plan, which focuses on guiding the City in making progress on three goals:
    - to accelerate a corporate and community energy transition
    - to reduce corporate greenhouse gas (GHG) emissions both in corporate demand for and supply of energy
    - to support integrated climate change adaptation efforts across the organization

5.0 FUTURE DEMAND

5.1 Demand Impact and Demand Management Plan

Population growth and its geography can have major impacts on the scale of services delivered by the City and the assets that support service delivery. The City's approaches to accommodate growth needs are described in the Official Plan. The 2014 Official Plan provides policies for guiding and directing growth and development to enable the City's success of achieving the vision to be a complete and healthy community. This section focuses on the capital growth expenditures planned by the City to meet growing demands and manage the risks to the service levels. Growth also results in an increasing asset portfolio over the forecast period with associated impacts on the operating budget, discussed further in Section 6.0 as part of the Lifecycle Strategy.

The population of the City of Kitchener and surrounding areas has been rapidly growing over the past few decades and is expected to continue to grow at a similar pace in the coming years. The City monitors trends in its population to ensure that the associated impacts on service levels are well understood and that strategies are developed to manage risks related to the additional demands due to growth and changes in demographics. The 2014 Official Plan sets out the estimated population and employment forecasts to 2031. Updated forecasts are provided in the City's 2022 Development Charge Study, which forecasts that the City's population will increase from 250,247 in 2021 to 309,120 in 2036 (the current population (2023) is estimated at 270,000). Employment was estimated at 99,662 jobs in 2021, and is expected to reach 123,825 jobs by 2036.

Demand drivers are circumstances that may impact future service delivery and use of assets. These drivers can include things such as population change, climate change, regulations, changes in demographics, seasonal factors, consumer preferences and expectations, technological changes, economic factors, environmental considerations, etc.

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 5.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-infrastructure solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 5.1. Further opportunities will be developed in future revisions of this AM Plan.

Table 5.1: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population Growth	270,000 (2023)	309,120 (2036)*	There will be a deficiency in community and recreation facilities, as well as increased pressures on emergency response times	Expansion and addition of community and recreation facilities, as well as construction of a new fire station. Consideration of joint-use opportunities with private sector and school boards.
Aging population	Population 70 years and older (9% in 2021)**	Population 70 years and older (16% projection in 2041)**	The need for older adult and senior-focused activities, programs, and facilities will continue to increase	Consideration of multi-use and multi-generational facilities as part of a 'community-hub' model (rather than stand-alone seniors' centres).

*2022 Development Charge Study
**2019 Leisure Facilities Master Plan

5.2 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 6.4.

Acquiring new assets will commit the City of Kitchener to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations andmaintenance costs for inclusion in the long-term financial plan (Refer to Section 8).

5.3 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets under management and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a demand driver and a risk.

The City of Kitchener's Corporate Climate Action Plan (CorCAP) is the City's guiding policy document on climate change in accordance with the Region of Waterloo's "A Climate Action Plan for Waterloo Region". The City of Kitchener's mitigation and adaptation strategy for the Corporate Climate Action Plan is to lead by example with action on climate change to reduce corporate greenhouse gas emissions and promote inclusive environmental sustainability and resilience. This supports the City's corporate mission of 'proudly providing valued services for our community, and strategic goals of environmental leadership, by working to ensure we can safeguard the City's assets and stakeholders. [1]

We must consider how to manage our existing assets given potential climate change impacts for our region of Ontario.

Risk and opportunities identified to date are shown in Table 5.2.

Table 5.2: Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
More extreme precipitation events	More flooding events	Physical damage to city facilities as they become increasingly unsuited to the changing climate and more frequent climate hazards, resulting in costly repairs, loss of functionality and reduced lifecycle	Continue to conduct building condition assessments. Consider additional costs to state of good repair needs forecasts as City gains further data on asset deterioration rates.
Gradual increase in average temperature, extreme heat events	Increased demand on cooling systems in city	Buildings used as a refuge by citizens due to more extreme heat events resulting in higher energy use, increased costs and potential energy brown-outs in peak demand periods	Develop HVAC assessment program (already in progress) and complete mechanical studies.

Additionally, the way in which we construct new assets should recognize that there is opportunity to build in resilience and adaptation to climate change impacts. Climate-resilient assets can accommodate or quickly recover from disruptions caused by severe climate events or chronic climate stresses, reducing the likelihood of a damaging or irreversible impact.[2] Building resilience can have the following benefits:

[1] Kitchener Changing for Good, Our Climate Strategy Action Plan, Sec 1.1

[2] United Nations, Managing Infrastructure Assets for Sustainable Development, Sec 6.1, p 206

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

Table 5.3 summarizes some asset climate change resilience opportunities.

Table 5.3: Building Asset Resilience to Climate Change

Driver	Climate Change impact These assets?	Build Resilience in New Works
More extreme precipitation events	Damages to facilities	Consider conducting vulnerability assessments on critical facilities to increase their resiliency to climate change events

6.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of Kitchener plans to manage and operate the assets to maintain current levels of service (Refer to Section 4) while managing life cycle costs.

6.1 Operations and Maintenance Plan

Operations include regular activities to provide services and may not have a direct impact to the overall health of the asset. Examples of typical operational activities include cleaning, street sweeping, and asset inspection.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate condition including regular ongoing day-to-day work necessary to keep assets operating. As well, maintenance activities strive to ensure that the asset's degradation follows the expected lifecycle rather than accelerating towards an earlier disposal or replacement cycle. Examples of typical maintenance activities waterproofing, brick and masonry block repairs, repainting, HVAC component replacements and repairs, generator testing, and walkway repairs.

The City of Kitchener uses Trimble's Cityworks as their asset centric, centralized work management software solution. The software is an important tool for the City's Infrastructure Services divisions to plan and execute work orders and inspections, tracking costs as they relate to labour, material and equipment. A comprehensive list of workorder templates for this asset category can be found in Appendix A.

The trend in operations and maintenance budgets are shown in Table 6.1.

Table 6.1: Operations & Maintenance Budget Trends

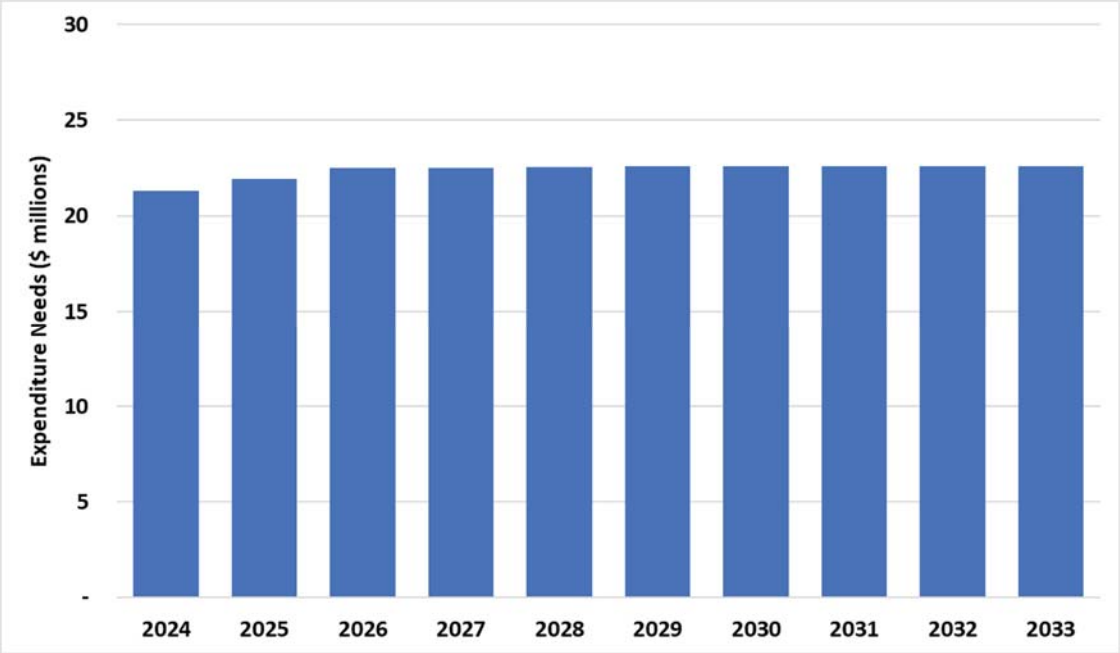
Year	Operations & Maintenance Budget $
2019	$14.5 million
2020	$14.9 million
2021	$15.4 million
2022	$15.9 million
2023	$20.6 million
2024	$21.3 million

Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this AM Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset inventory. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 6.1 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 6.1: Operations and Maintenance Summary



All figure values are shown in current day dollars.

The operations and maintenance costs are forecasted to increase over the next 10 years in line with the additional and expanded facilities planned to be built. The current operations and maintenance budget is insufficient to proactively pursue planned maintenance. Maintenance is generally unplanned as demonstrated by the low planned to unplanned maintenance work ratio shown in Section 4.6. As the City develops maintenance programs and focuses on planned maintenance, it is expected that the need for unplanned repairs will decrease and result in overall lower lifecycle costs.

6.2 Renewal Plan

Renewal is typically carried out through major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. There are instances where renewal is carried out by Infrastructure Services staff on an as needed basis (e.g. replacing a sanitary service or water valve). Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Table 6.2: Renewal Activities

Renewal Activity	Budget
2019	To be provided in future version of AM Plan
2020	To be provided in future version of AM Plan
2021	To be provided in future version of AM Plan
2022	To be provided in future version of AM Plan
2023	To be provided in future version of AM Plan
2024	$15.0

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

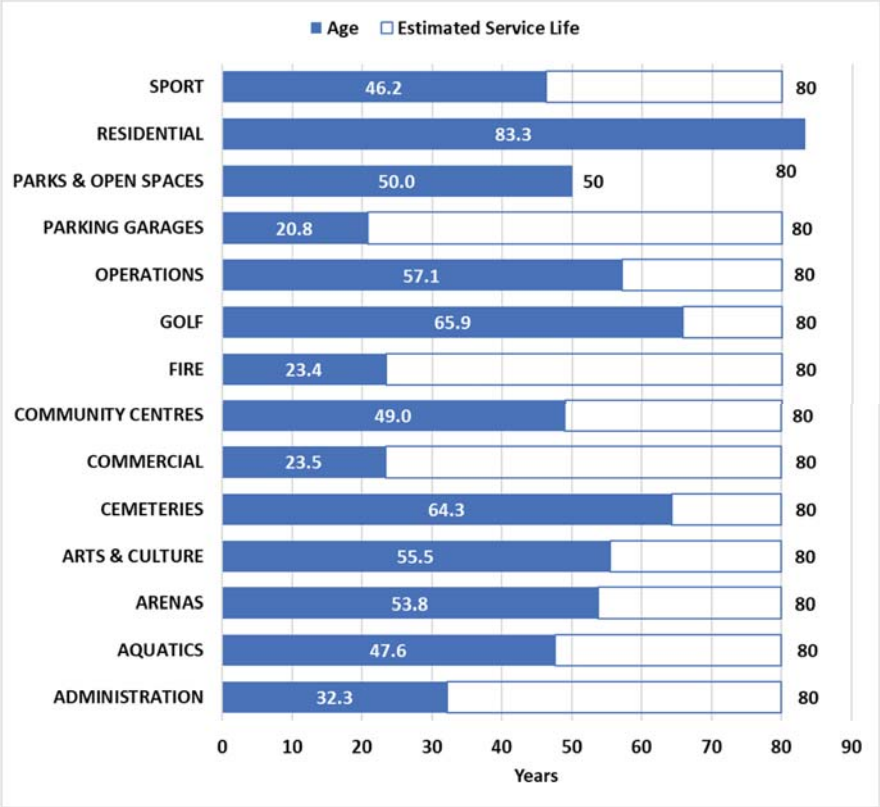
- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

Various methodologies under the Alternate Method were used to forecast the renewal lifecycle costs for this AM Plan, as described in Section 3.1.4:

Table 6.3: Useful Lives of Assets

Asset (Sub)Category	Useful life (Years)
Substructure	40 (Rehabilitation at 5% cost of substructure value)
Floor Construction	40 (Rehabilitation at 5% cost of substructure value)
Roof Construction	40 (Rehabilitation at 5% cost of substructure value)
Exterior Walls	40 (Rehabilitation at 5% cost of substructure value)
Exterior Windows	30
Exterior Doors and Grilles	30
Exterior Horizontal Enclosures	20
Interior Partitions	50
Interior Doors	30
Interior Specialties	10
Stairs	50
Wall Finishes	20
Flooring	20
Ceiling Finishes	20
Stair Finishes	20
Conveying	25
Plumbing	30
HVAC	30
Fire Protection	30
Electrical Service	30
Lighting	30
Other Electrical	30
Communications, Electronic Safety and Security and Integrated Automation	10
Equipment and Furnishings	10
Special Construction	50
Sitework	30

Figure 6.2: Age Distribution of Assets



6.2.1 Renewal ranking criteria

Asset renewals are typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the expected service it was constructed to, or
- To ensure the infrastructure is of sufficient quality to meet the service requirements.

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a condition score that is less than the threshold to provide an expected level of service
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.

The preliminary ranking criteria used to determine priority of identified renewal proposals is detailed in Table 6.4. Risk assessments are performed at both the facility-level and the facility component level (described in Section 7.2).

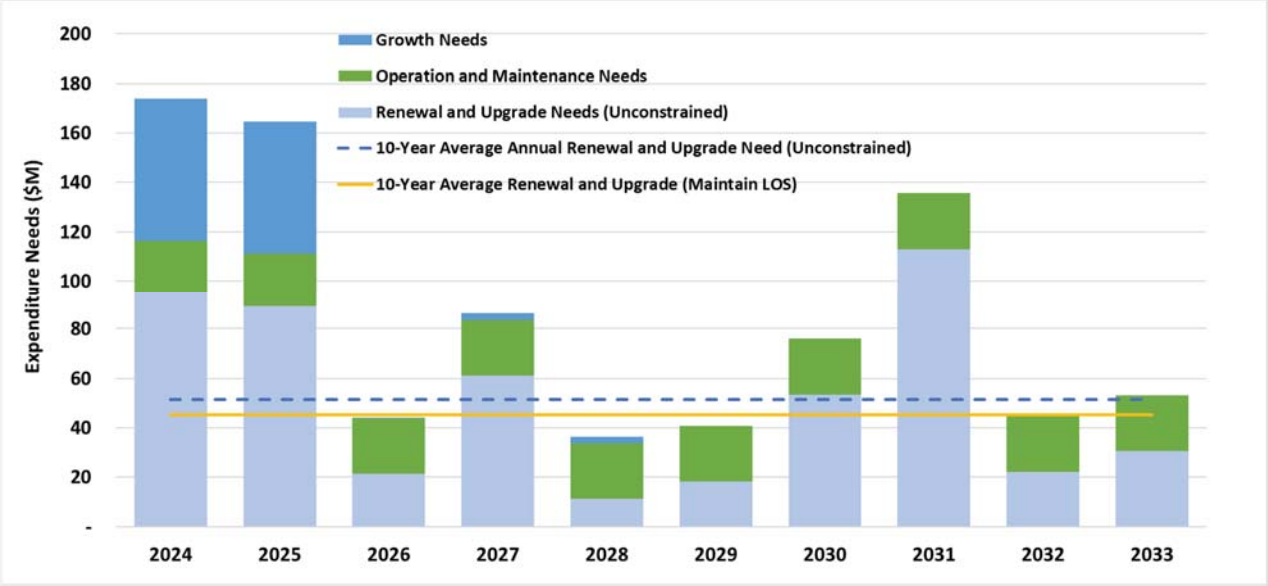
Table 6.4: Renewal Priority Ranking Criteria

Criteria	Weighting
Consequence of failure -Financial Impact -Health & Safety Impact -Service Delivery Impact -Environmental Impact	50%
Probability of Failure -Physical Condition Rating -Performance Rating	50%
Total	**100%**

6.3 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset inventory increases, renewal schedules are delayed and/or budgets are reprioritized. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 6.3. A detailed summary of the forecast renewal costs is shown in Appendix E.

Figure 6.3: Forecast Renewal Costs



All figure values are shown in current day dollars.

Table 6.5: Forecast Renewal Activities

Year	Current Budget*	Renewal Forecast Required to Maintain LOS**	Unconstrained Renewal Forecast
2024	$12.3M	$45.2M	$95.1M
2025	$12.3M	$45.2M	$89.3M
2026	$12.3M	$45.2M	$21.2M
2027	$12.3M	$45.2M	$61.1M
2028	$12.3M	$45.2M	$11.1M
2029	$12.3M	$45.2M	$18.1M
2030	$12.3M	$45.2M	$53.4M
2031	$12.3M	$45.2M	$113.0M
2032	$12.3M	$45.2M	$22.0M
2033	$12.3M	$45.2M	$30.7M

*Funding shown is averaged on an annual basis from the 10-year current budget
**Renewal need shown is averaged on an annual basis for the next 10 years

The unconstrained renewal forecast requires an average of $51.5 million annually. In this scenario, the backlog is eliminated and the FCI improves from 9.9% to 6.7% by the end of 2033. The current budget is equal to an average of $12.3 million annually for renewal and upgrades. With this current budget, the FCI increases from 9.9% to 26.0% as the backlog continues to increase significantly over the 10-year forecast period.

To maintain the service level (FCI ~9.9%), it is estimated that the average annual renewal need is $45.2 million. Table 6.6 shows the FCI forecast with $45.2 million allocated across the Service Areas to maintain similar FCIs by the end of the 10-year forecast.

Table 6.6: Forecast Renewal Activities

Service Area	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
ADMINISTRATION	18.2%	19.9%	18.7%	17.3%	22.7%	22.2%	20.8%	21.1%	19.7%	18.7%	17.3%
AQUATICS	22.4%	21.2%	19.6%	18.1%	20.9%	19.8%	19.5%	18.5%	17.0%	19.6%	18.1%
ARENAS	4.8%	5.4%	3.0%	1.0%	0.0%	5.6%	3.5%	2.7%	0.7%	7.5%	4.9%
ARTS & CULTURE	12.8%	13.2%	11.8%	12.4%	12.3%	13.9%	13.3%	14.2%	12.7%	12.6%	11.7%
CEMETERIES	8.2%	8.7%	7.2%	7.8%	8.8%	9.9%	8.4%	7.0%	6.0%	10.5%	9.2%
COMMERCIAL	3.7%	11.7%	9.8%	7.7%	5.5%	7.6%	5.1%	2.7%	1.7%	3.5%	1.0%
COMMUNITY CENTRES	13.5%	14.4%	14.6%	14.1%	14.8%	14.5%	13.9%	13.3%	12.5%	12.8%	13.1%
FIRE	8.7%	8.2%	8.6%	9.2%	9.4%	8.9%	9.0%	8.2%	8.4%	9.9%	9.2%
GOLF	6.7%	10.9%	7.4%	3.9%	2.1%	1.3%	0.0%	0.0%	0.0%	13.5%	9.9%
OPERATIONS	6.3%	4.1%	1.1%	0.0%	0.4%	15.3%	16.3%	14.9%	11.3%	7.9%	10.0%
PARKING GARAGES	9.9%	12.0%	10.0%	9.8%	9.1%	12.3%	10.4%	10.5%	8.7%	11.6%	9.9%
PARKS & OPEN SPACES	8.1%	8.2%	7.3%	6.2%	6.2%	6.9%	5.8%	5.8%	5.3%	9.3%	8.4%
RESIDENTIAL	6.0%	6.4%	6.8%	7.1%	7.5%	7.9%	8.3%	8.6%	9.0%	9.4%	9.8%
SPORT	8.6%	8.1%	5.8%	2.7%	2.2%	3.9%	2.4%	0.4%	0.0%	11.2%	9.7%
Overall	9.9%	10.8%	9.1%	7.8%	8.2%	11.8%	10.7%	10.0%	8.3%	10.9%	9.7%

The average annual investment of $45.2 million means that some portion of projects are deferred outside the 10-year forecast, which poses a potential risk of higher required lifecycle activities which are difficult to estimate and are not considered in this forecast analysis. The higher risks are managed by using risk-based project prioritization and capital funding allocation, as managing the FCI (condition) and investment across Service Areas can be aligned with facility criticality. For example, Community Centres are generally more critical and may be maintained consistently to a lower FCI (better condition/higher investment) while Parks & Open Spaces may be maintained at a higher FCI (lower condition/less investment). This approach minimizes the risk associated to the backlog of renewal work carried over each year.

6.4 Acquisition Plan

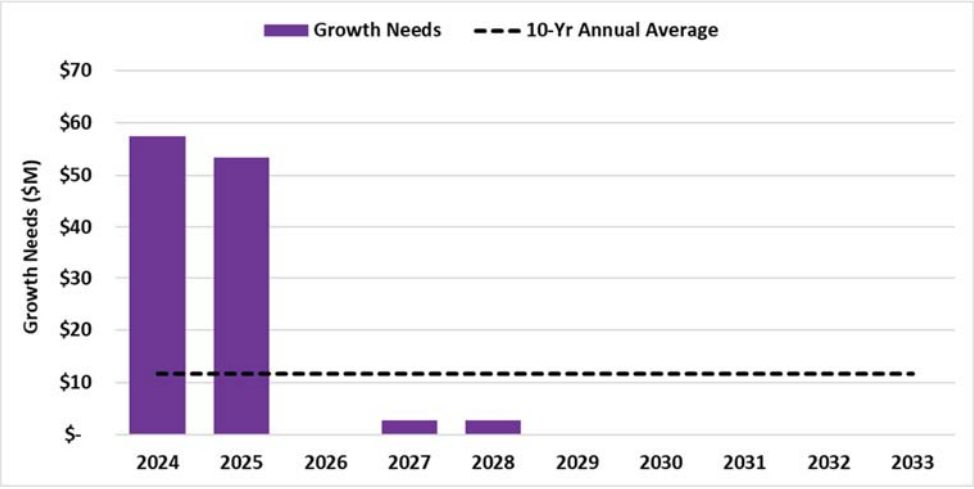
Acquisition reflects new assets that did not previously exist within the inventory. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of Kitchener though various means including subdivision development and expansion of existing services or the inclusion of new services.

6.4.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests; proposals identified by strategic plans or master plans; and partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the City's needs and fits long range planning. Proposed upgrades and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals by asset Leads can then be ranked by priority and available funds and scheduled in future works programs. Currently, no ranking criteria has been established for facility acquisitions, however this will be developed in future revision of this AM Plan.

Forecast acquisition asset costs are summarized in Figure 6.4 and is equal to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix B.

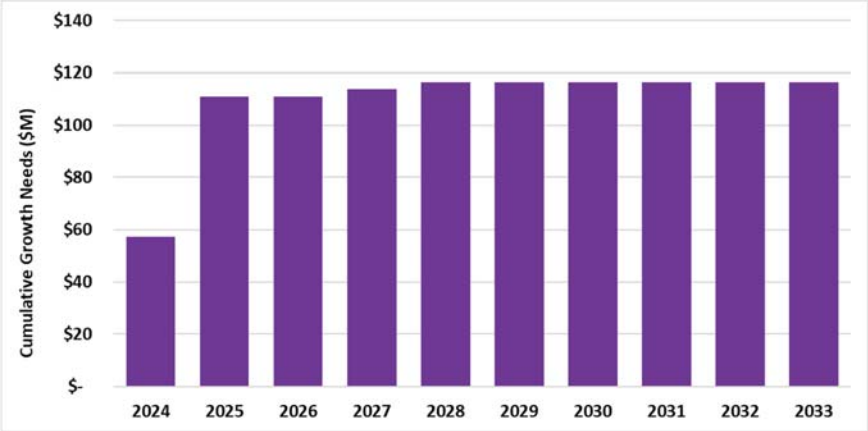
Figure 6.4: Acquisition (Constructed) Summary



All figure values are shown in current day dollars.

When the City introduces new assets, there must be a recognition for the need for future operational funding for service, maintenance and renewal costs. Future depreciation must be accounted for when reviewing long term sustainability, lifecycle and total cost of ownership. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the asset steward. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 6.5.

Figure 6.5: Acquisition Summary



All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

The City plans for growth such that there is sufficient community infrastructure and facilities to meet the current and projected needs of the population. In the City's 2019 Leisure Master Plan, the City recommended growth-related indoor recreation facilities considering factors such as existing/projected usage rates, estimated population growth, existing facility coverage based on geography, and public survey results:

- Mill Courtland Community Centre Addition, year 2024 ($4.0M): Mill-Courtland is on the outer edge of the downtown and serves neighbouring communities like Rockway and Southdale, and therefore serves a wide Williamsburg demographic with varying interests. Mill Courtland will continue to experience programming and facility constraints as the downtown area intensifies.
- Rosenberg Community Centre, year 2024 ($2.8M) – An additional community centre in the City's southwest area is a priority based on significant growth expected over the next 20 years. The current Williamsburg Community Centre is leased and does not provide enough space to meet current programming needs.
- Forest Heights Community Centre Expansion, year 2028 ($6.0M) - Increased pressure from surrounding neighbourhoods in the northwest corner of the city suggest the Forest Heights community centre would benefit from additional space for the City. The expansion also provides an opportunity to integrate age-friendly recreation amenities and programming offered by the City.
- Kitchener Indoor Recreation Complex (KIRC), year 2025 (Aquatic Centre and Indoor Turf $94.1M) – The 2005 and 2013 Leisure Facilities Master Plan recommended an aquatic facility in the southwest area of the City. All of the City's indoor pools are operating at or near maximum capacity, and during public consultation, residents expressed a strong interest in a pool, supporting a location in the southwest end of the City. The City also made a previous public commitment to an indoor turf facility at Kitchener Indoor Recreation Complex (KIRC) through the 2013 Leisure Facilities Master Plan. The new indoor turf supports the continued growth of soccer and indoor training and development for other field sports.
- 91 Moore Avenue, year 2024 ($2.3M)

In addition to the new recreation facilities and library space, the Kitchener Fire Department (KFD) has conducted studies to ensure adequate emergency response and protection services across the City, which have identified the need for an additional 8th fire station in order to respond to the significant growth occurring within the City (increased population, more tall buildings), and to help improve response times to increasing fire rescue and medical calls. The fire station has a budget of $7.3 million over 2024 and 2025 in the Capital Plan.

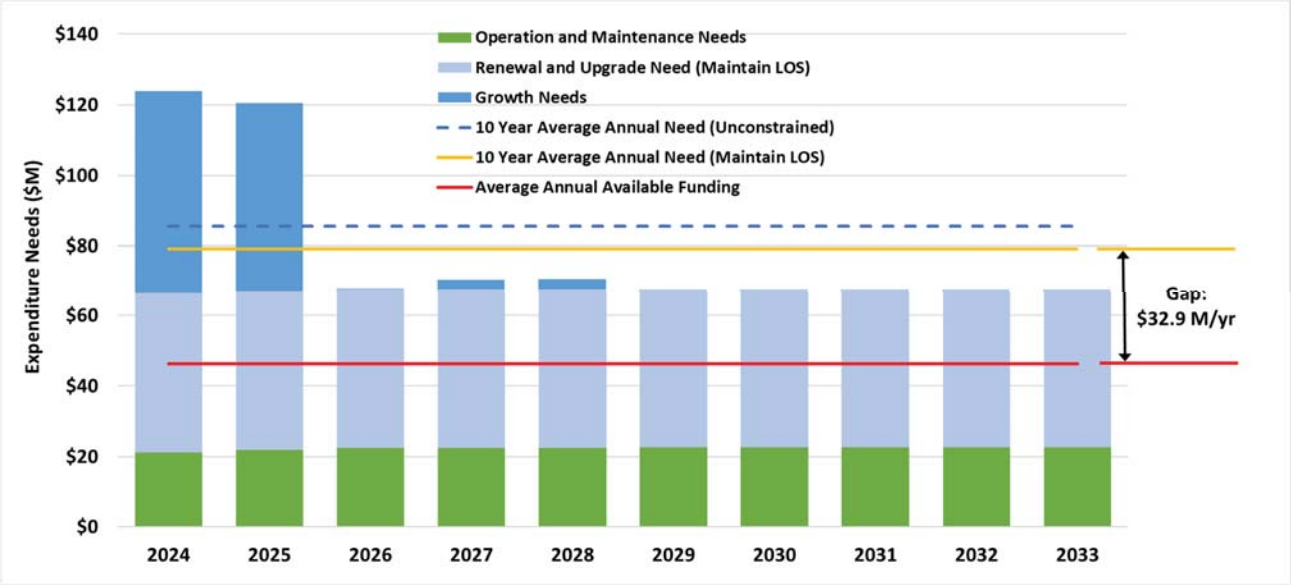
Acquiring these new assets will commit the funding of ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 6.6. These projections include forecast costs for acquisition, operation, maintenance, renewal, and upgrades. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to cost-effectively allocate the life cycle costs associated with the service provision. The proposed budget line (Average Annual Available Funding) indicates the estimate of available funding. The gap between the forecast work (10 Year Average Annual Need (Maintain LOS)) and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 6.6: Lifecycle Summary



All figure values are shown in current day dollars.

The operating and maintenance needs covered by the Operating budget is required to increase annually as new assets are acquired. Though there is no current funding shortfall identified for acquisition needs, there is an average annual estimated gap of $32.9 million for renewal and upgrade needs. The pressures on the operating budget have been qualitatively noted in Section 6.1 but the gap has not been quantified in this AM Plan. The forecasts and estimated gap will be refined as the City incorporates more building condition assessments into the Capital Plan in place of the High Level Facility Breakdown approach.

6.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Currently, the City has no facilities formally identified for decommissioning and disposal, but will be considering these options for certain facilities as part of the strategy to reduce the funding gap.

6.6 Non-Infrastructure Solutions

Non-Infrastructure solutions are infrastructure related costs that may not be associated with any one specific asset in the City's asset registry but are important in the planning and execution of the previous five asset lifecycle categories. Some of the non-infrastructure solutions can include the consultant costs in the creation of a master plan, working with partner organizations, customer surveys, and inventory updates.

Table 6.7: Non-Infrastructure Solutions Associated Project List

PROJECT NAME	TIMING	COST	SOURCE BUDGET
Facilities Designated Substances Survey (DSS) Program	2024-2025	$200,000	Funded
AM Improvement Roadmap Implementation	2024-2027	$1,000,000	Funded
GHG Pathways	2024	$300,000	Funded
Building Condition Assessment program	On-going	$100,000/yr	Partially Funded

The City is conducting multiple studies, assessments and programs to understand specific needs and upgrades required at facilities. Additionally, the City began to address gaps in current asset management processes as well as address the growing deferred maintenance, escalating costs, and growing funding gap. The focus in 2024 is to develop an RFP for consulting services including funding for resource support. Master Plans and other studies related to facilities in individual Service Areas such as Fire and Library that are outside the Facility Management scope of work are not included in Table 6.7.

7.0 RISK MANAGEMENT PLAN

The City of Kitchener is committed to identifying, assessing, and mitigating risks to ensure that corporate objectives are achieved. To this end, the City will maintain a long-term, robust Enterprise Risk Management strategy. Risk management is an integral part of management across the City. It forms part of strategic planning, business planning and project approval procedures. In addition, the policy assists in decision-making processes that will allocate resources to areas of highest risk. Identifying and managing risk is everyone's responsibility and is one component of good corporate governance[3].

7.1 Critical Assets

Critical assets are defined as those assets that provide life safety and public health and well-being to the community at large based on Provincial standards. Assets found in this category may be included for having a high consequence of failure causing significant loss or reduction of service directly impacting services to the community. The City classifies each of its facilities with a Supporting Functional Use (SFU) rating, using the following criteria:

- 5 – Critical – For delivery of life safety, emergency and vital City functions
- 4 – Essential – For infrastructure and service delivery
- 3 – Necessary – For delivery of community programs, services and recreation
- 2 – Important – Supports delivery of community programs, services and recreation
- 1 – Ancillary – Minor structures / Mothballed assets / Non-functional for core services

Critical assets are identified as those facilities with a SFU rating 3 and greater, and are summarized in Table 7.1 along with their typical failure mode and the impact on service delivery. Failure modes may include physical failure, collapse or essential service interruption.

Table 7.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Kitchener City Hall	Physical Failure, Service Delivery	Disruption of critical services
Kitchener Operation Facility	Physical Failure, Service Delivery	Disruption of City-wide and critical services such as snow removal
Fire Stations	Physical Failure, Service Delivery	Disruption of critical emergency services resulting in safety impacts to the community
The AUD	Physical Failure, Service Delivery	Disruption of major services including hockey games and concerts
Control Station (Snow Storage)	Physical Failure, Service Delivery	Environmental impacts when snow cannot be stored resulting in runoff and salt entering waterways
Leisure Facilities – Community Centres, Arenas, Pools	Physical Failure, Service Delivery	Significant localized service disruption related to recreational activities for the community

[3] City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2

By identifying critical assets and failure modes the City can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

7.2 Risk Assessment

The City of Kitchener has adopted an impact criteria and risk category matrix that quantifies the impact and likelihood criteria and assigns a numerical value to the resulting score. Facilities Management division is currently implementing a modified version of the City's enterprise risk framework, and will be working to align with the enterprise framework in the future such that risk registers use the same terminology to ensure consistency in understanding across the City's assets.

The risk registrar is an assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating and evaluation of the risk. The City will develop a risk treatment plan for non-acceptable risks as part of future improvement.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. Consequence of failure is determined based on the average rating across the four consequence categories in the following matrix:

Table 7.2 Consequence of Failure Rating Scale

Consequence Categories (Triple Bottom Line)		C1	C2	C3	C4	C5
		Insignificant	Minor	Moderate	Major	Extreme
Economic	**Financial**	Damages, losses, or fines of under $30,000	Damages, losses, or fines of $30,000-$120,000	Damages, losses, or fines of $120,000-$500,000	Damages, losses, or fines of $500,000-$1,000,000	Damages, losses, or fines of over $1,000,000
Social	**Health & Safety**	No obvious potential for injury or affects to health.	Potential for minor injury or affects to health of an individual.	Potential for serious injury or affects to health of one or more individuals with a possibility of short term disability or hospitalization.	Potential for serious injury or affects to health of one or more individuals with a possibility of loss of a life.	Potential for death or multiple deaths with probable permanent damage.
	Service Delivery	Small number of customers experience disruption or impact and no media exposure is experienced.	Localized service disruption or impact and minor or no media exposure is experienced.	Significant localized disruption or impact or there will likely be moderate local media exposure which may last several days.	Major or Critical service disruption or impact, or there will likely be significant, negative, local or provincial media exposure which may last several days.	City-wide or Critical service disruption or impact, or there will likely be significant, negative, national or international media exposure lasting several days or weeks.
Environmental	**Environment**	Asset degradation/failure has negligible impact on environment, emissions, and pollution.	Asset degradation/failure has minor impact to the environment including potential for increased emissions or pollution.	Asset degradation/failure has significant short-term impact to the environment including a likely increase of emissions or pollution.	Asset degradation/failure poses risk of environmental contamination and/or has significant long-term impact. Likely a substantial increase to emissions or pollution.	Asset degradation/failure poses significant risk to environment including a major long-term impact. Likely to result in contamination. May become of Provincial or Federal importance.

Probability of Failure of a building component is determined by the average of the physical condition and performance ratings per the following tables:

Table 7.3 Probability of Failure Rating Scale

Physical Condition Rating		Performance Rating	
Score	*Description*	*Score*	*Description*
1	Excellent / New	1	Asset is functioning as intended with no issues identified
2	Good	2	Asset is functioning but could use minor maintenance
3	Fair	3	Asset is functioning with difficulty and requires some repairs/maintenance to correct function
4	Poor	4	Asset is barely functioning and will require replacement in the near future
5	Very Poor	5	Asset has failed

The City is currently completing building condition assessments to obtain more complete condition and risk scores at the building component level. This AM Plan estimates a risk score at the higher facility-level based on the SFU rating as a proxy for the Consequence of Failure rating and the FCI condition as the Probability of Failure for the overall facility. The forecasted work required on each facility forms the risk mitigation plan, and prioritization of projects is informed by the risk scores. The residual risk and mitigation costs of implementing the selected treatment plan for facilities in the Very High risk category are shown in Table 7.2.

Table 7.4: Risks and Mitigation Plans

Asset Risk	Risk	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs (Total 10-yr Cost)
Kitchener City Hall	Poor facility condition resulting in facility closure and disruption of critical services	Very High	Renewal work including: Major rehabilitation of Berlin Tower (glass curtain walls), replacement of lighting, elevator modernization, replacement of exterior aluminum wall panels	High	$61.8M
Fire Station 3 and Ambulance Station	Poor facility condition resulting in facility closure and disruption in emergency services	Very High	Renewal work including: Roof replacement, LED lighting	Moderate	$1.2M
Fire Station 1	Poor facility condition resulting in facility closure and disruption in emergency services	Very High	Renewal work including: Roof replacement, HVAC replacements	High	$7.8M

Note * The residual risk is the risk remaining after the selected risk mitigation plan is implemented.

7.3 Infrastructure Resilience Approach

The resilience of our infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership are key components to consistency.

Currently ,the City has identified risks in the Corporate Climate Action Plan, such as increased extreme precipitation events leading to more infrastructure failures and increased freezing rain and winter storm events leading to infrastructure damage. For a comprehensive approach to mitigating climate change and adapting to its impacts, the City is following industry frameworks from the Federation of Canadian Municipalities (FCM) 'Partners for Climate Protection' (PCP) and Local Governments for Sustainability (ICLEI) 'Building Adaptive and Resilient Communities' (BARC) frameworks. Recommended actions over the next few years include:

- Continue to reduce GHG building emissions
- Update and develop emergency management plans and procedures to include extreme weather protocol.
- Complete risk assessment and associated modeling to safeguard critical infrastructure and prevent damage, and achieve structural integrity to withstand high winds, snow loads, etc.
- Explore anti-icing technologies, particularly for public facility entranceways and spaces

7.4 Service and Risk Trade-Offs

The decisions made in balancing the costs and resource requirements for maintaining expected levels of service to addressing risk are based on the objective to achieve the optimum benefits from the available resources.

7.4.1 Potential Gaps

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Planned maintenance (preventive maintenance programs)
- Deferred renewal work ($32.9 million per year)

7.4.2 Service trade-off

If there is forecasted work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- If some of the planned maintenance is not completed, this typically results in more unplanned service disruptions
- Deferred capital renewal work may result in lower facility condition that does not meet user expectations and potential facility closures
- Insufficient upgrades related to accessibility, energy efficiency, and resiliency to climate change

7.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- An increase in unplanned repairs and associated service disruptions
- Higher lifecycle management costs, deteriorating facilities, and potential facility closures
- Deteriorating facilities may be unsafe and expose the City of Kitchener to potential liabilities

The added potential costs due to underfunded planned maintenance and deferral of renewal work is not estimated in the forecasts of this Asset Management Plan.

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall or surpluses.

The forecasted acquisition, operations, maintenance and renewal costs over the 10 year planning period is $79.1M on average per year.

The proposed (budget) operations, maintenance and renewal funding is $46.3 million on average per year giving a 10 year funding shortfall of $32.9 million per year. This indicates that 58% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget.

8.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.1 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

We will manage the 'gap' by developing this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Forecast costs are shown in 2023-dollar values (millions).

Table 8.1: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade (Maintain LOS)	Disposal
2024	$57.5M	$21.3M	$45.2M	-
2025	$53.4M	$21.9M	$45.2M	-
2026	$0.1M	$22.5M	$45.2	-
2027	$2.7M	$22.5M	$45.2M	-
2028	$2.8M	$22.5M	$45.2M	-
2029	-	$22.6M	$45.2M	-
2030	-	$22.6M	$45.2M	-

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade (Maintain LOS)	Disposal
2031	-	$22.6M	$45.2M	-
2032	-	$22.6M	$45.2M	-
2033	-	$22.6M	$45.2M	-

8.2 Funding Strategy

The proposed funding for assets is outlined in the City's budget and Long-Term financial plan.

The financial strategy of the City determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

8.3 Valuation Forecasts

8.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued by various methods based on available information including unit construction costs, insurance valuations, and building condition assessment reports.

Replacement Cost (Current) $1.95 billion

8.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added from service.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

8.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions related to the financial forecasts made in this AM Plan are:

- Acquisition Forecast:
    - Growth projects are based on projects and associated costs identified in the City's Capital Plan. Most of these projects were also identified in the City's 2022 Development Charges Study and 2019 Leisure Master Plan.
- Renewal forecast:
    - The potential impacts of climate change on state of good repair costs are not included
    - The potential increases in lifecycle costs due to deferred renewal work are not included
- Operations & Maintenance Forecast
    - The potential impacts of climate change on maintenance costs are not included
    - The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast

- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

8.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[4] in accordance with Table 8.2.

Table 8.2: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 8.3.

Table 8.3: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	High	Population growth was updated in the City's 2022 Development Charges Study, and demographic drivers are provided in the 2019 Leisure Facilities Master Plan.
Growth projections	High	Refer to demand drivers
Acquisition forecast	High	In addition to the new fire station, new leisure facilities and expansions were recommended in the 2019 Leisure Facilities Master Plan.
Operation forecast	Medium	The operations and maintenance forecast does not quantity current shortfalls such as underfunding for planned maintenance
Maintenance forecast	Medium	Refer to Operation forecast
Renewal forecast - Asset values	Medium	Three approaches as described in more detail in Section 6.2: • Simple Facility – generally used for less critical facilities, such as sheds or storage buildings. • High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed. • Capital Plan with BCA recommendations
- Asset useful lives	Medium	• Simple Facility – assumes 50 years life • High Level Facility Breakdown - typical useful lives summarized in Section 6.2 • Capital Plan with BCA recommendations – remaining life based on the BCA forecast
- Condition modelling	Medium	Condition is based on FCI, which is calculated based on the forecasted renewal needs
Disposal forecast	n/a	Disposal strategy is to be developed

The estimated confidence level for and reliability of data used for the financial analysis in this AM Plan is considered to be medium.

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Status of Asset Management Practices

9.1.1 Accounting and financial data sources

This AM Plan does not include the depreciation valuation and therefore does not utilize the City's accounting data source (Tangible Capital Asset data set).

9.1.2 Asset management data sources

This AM Plan also utilizes asset management data. The source of the data is:

- Facilities Management Master List of Facilities
    - List of facilities included and not included in this AM Plan
    - 2023 current replacement values
    - Other facility parameters such as type of building, number of storeys, square foot area, and building perimeter
- Informal City staff survey conducted in September 2023
- Cityworks
- Facilities Management Capital Plan, including forecast of renewal, upgrade, growth, and studies

9.2 Improvement Plan

It is vital in any AM Plan to recognize areas of future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 9.1.

Table 9.1: Improvement Plan

Task	Task	Responsibility	Prerequisite Task	Timeline
1	Complete building condition assessments for remaining facilities (excluding those identified as less critical 'simple facilities')	Facilities Management	None	2024
2	Incorporate building condition assessments into Capital Plan and renewal forecasts	Facilities Management	Building condition assessments	2024
3	Re-assess FCI and state of infrastructure	Facilities Management	Updated Capital Plan	2024
4	Determine targets for FCI	Facilities Management	Updated Capital Plan	2024
5	The overarching corporate goal is to achieve 80% GHG reduction by 2050. Develop specific goals related to GHG reduction and energy consumption.	Energy Management	Updated Corporate Climate Action Plan	2025
6	Consider past safety issues and incorporate added safety elements into corporate facility design standards	Facilities Management	None	2025

Task	Task	Responsibility	Prerequisite Task	Timeline
7	Complete accessibility audits and determine accessibility upgrade needs	Facilities Management	Updated Capital Plan	2026
8	Determine funding gap related to planned maintenance and implement formal preventive maintenance activities as required to lower unplanned maintenance and risk of unexpected service disruptions	Facilities Management	Develop preventive maintenance program needs	2025
9	Monitor potential impacts on accelerated deterioration of facility elements due to extreme weather events, and account for added costs in renewal forecasts	Facilities Management	Building condition assessments	2026
10	Align AM Plan risk assessment with Enterprise risk framework	Facilities Management	Building condition assessments	2025
11	Develop strategies regarding disposals, acquisitions, temporary facilities, replacement versus rehabilitations of old facilities as part of overall approaches to manage the funding gap	Facilities Management and Finance	None	2025
12	Formalize governance between other City divisions for assets such as parking lots and EV charging stations	Facilities Management and other City Divisions (Parking, Parks)	None	2025

9.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated on at a maximum of every 5 years to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets.

10.0 REFERENCES

- United Nations, Managing Infrastructure Assets for Sustainable Development
- Kitchener Changing for Good, Our Climate Strategy Action Plan
- City of Kitchener, Corporate Risk Management (GOV-COR-016), p 2
- O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure

11.0 APPENDICES

Appendix A Work Order Templates

Table A1 – Work Order Templates

Work Orders for Entire Facility:

Template Name	Asset	Lifecycle Category
Accessibility Audit	Use for: Accessibility Audits	**SERVICE**
Asbestos Inspections	Used for: Asbestos inspections. Attach to appropriate facility.	**SERVICE**
Building Condition Assessment	Use for: Building Condition Assessments, structural inspections, assessments related to condition.	**SERVICE**
Building Renovations / New Construction	Attach to Cityworks projects only. Use for multi-asset renovations and new construction, where costs are not specific to an asset type, e.g. architectural specifications for an area renovation. Group work orders as project work orders. Once project is complete, inventory/update objects in Cityworks.	**BETTERMENT**
Carpenter Shop Maintenance	Use for : Carpenter Shop Maintenance. Cleaning, tool maintenance, stocking, organization.	ROUTINE
Consulting Services & Studies	Use for: Studies and consulting services not related to new construction or BCAs, energy audits or accessibility audits.	**SERVICE**
Corporate Security Activities	Used for: Daily FM Security activities, court dates. For Event support - attach to Events (Security). Miscellaneous support to specific facilities- attach this template to correct facility.	**SERVICE**
Custom Item Fabrication	Use for: Building/modifying/installing items related to another divisions business, not related to a facility or any asset in Cityworks, e.g. working on a fleet truck interior, parade floats, events related items.	**SERVICE**
Energy Audit	Use for: Work related to sustainability & energy audits.	**SERVICE**
Events (FM Custodial)	Use for: Custodial timesheets - Support for events, typically FM staff.	**SERVICE**
Events (FM Trades)	Use for: FM Trade activity that supports a special event. Use for special construction items like parade floats. Use for hanging event flags & banners.	**SERVICE**
Events (Security)	Use for: FM Security activity that specifically supports a special event.	**SERVICE**
Facility Custodial Activities	Use for: Custodial timesheets - Regular cleaning activities and contracted custodial (e.g. Cheema or other contractor).	**SERVICE**
Facility Custodial Supplies	Use for: Cleaning supplies, paper products, custodial chemicals.	**SERVICE**
Facility Outside Maintenance	Use for: Custodial timesheets - Any outside work, e.g. snow removal, splash pad cleaning, litter pick up, etc.	**ROUTINE**
Facility Programming Support	Use for: Custodial timesheets - Set-ups or support for facility programming during normal working hours.	**SERVICE**

Template Name	Asset	Lifecycle Category
Facility Rentals	Use for : Custodial timesheets - All VPP & City Hall & other facility rental set-ups / support are logged here, including any extra hours.	**SERVICE**
FM Asset Inventory Collection	Use for: Time spent collecting FM asset inventory during targeted collection activities, not related to a Service Request or a Work Order. A generic work order has been created for this activity.	**SERVICE**
FM Equipment Reconciliation	Use for: Year-end equipment reconciliation. For use by Administrative staff only.	**SERVICE**
General Services	Use for: General maintenance activities that do not relate specifically to an asset / Uniformat code. Includes providing access to facilities, clean up after a flood, clean up after a tenant move, checking hazardous waste bins, moving items like BBQs from one location to another, delivering sand bags, moving Christmas trees from one location to another, assisting with staff moves, moving boxes. **For graffiti removal or other vandalism repairs, please use the appropriate Uniformat code for the object being worked on.** **When moving items- attach work order to building where request originated - don't use Guelph St Storage for everything!**	**ROUTINE**
Interior Plant Maintenance	Use for: Interior Plant Maintenance- used by Horticulture staff only.	**ROUTINE**
Locks/Keys - Lock Shop Maintenance	Used for: Re-stocking, organizing, etc. lock shop. Does not include the repair of locks or door hardware - see B2050.90 Exterior Door Supplementary Components or C1030.90 Interior Door Supplementary Components. Does not include cutting keys - Facility - Locks/Keys - New/Replace Keys.	**SERVICE**
Locks/Keys - New/Replace Keys	Use for: New and replacement keys only. Does not include the repair of locks or door hardware - see B2050.90 Exterior Door Supplementary Components or C1030.90 Interior Door Supplementary Components .	**SERVICE**
Locks/Keys - Re-Key Building	Use for: Re-keying a building.	**SERVICE**
Pest Control	Use for: Pest Control.	**SERVICE**
Shop/Vehicle Maintenance	Use for : Shop/Vehicle maintenance, cleaning, tool maintenance, stocking, organization.	**ROUTINE**
Snow Removal - Site	Use for: Operations snow removal at facility sites. Does not include roof snow removal- see B30> Service Roof Snow Removal B30.	**SERVICE**
Waste - Hazardous Waste Removal	Use for: Hazardous waste removal.	**SERVICE**
Waste Audit	Use for: Waste Audits - attach to specific facility.	**SERVICE**
Mat Service	Use for: Winter mat service.	**SERVICE**

Object Work Order Descriptions with Uniformat Code

Template Name	Asset	Lifecycle Category
Investigate	**Time spent investigating issue, determining work required, responsibility, quotes, consultations, etc. May include time spent testing objects / components as part of troubleshooting. Includes time spent prior to starting actual work. Attach WO to object where issue has originated, e.g. if a leak investigation involves roof, HVAC equipment and plumbing, and the issue is determined to be plumbing, attach the work order to the correct plumbing object.** E.g. Investigate plumbing leak > WO type: ***Investigate Dom Water Piping D2010.40***	**SERVICE**
Plan/Procure	**Design, consulting, purchase. Typically used for specifications, tender preparation, consulting fees to support capital maintenance projects. Should also be used when designing / planning in-house projects or work.** E.g. Specifications to support roof tender > WO type: ***Plan/Procure Roofing B3010.00*** E.g. Designing custom cabinetry > WO type: ***Plan/Procure Casework E2010.30***	**SERVICE**
Install	**Installation of new equipment or objects, e.g. install new furnace, or construction of custom items for installation. Does not include installing new components on or in an object- this would be considered a Repair(React), Maintain(Plan) or Rehabilitation.** E.g. Installing a new furnace > WO type: ***Install Heat Generation D3020.10*** E.g. Carpenter building custom window frame for operating window (i.e. opens) > WO type: ***Install Opertng Window B2020.10***	**SERVICE**
Repair(React)	**Reactive / unplanned repair to equipment or object. Includes replacing broken components of the object. Use this for unexpected repairs or those resulting from vandalism. Maintains the lifecycle of the object.** E.g. Repair a broken pipe > ***Repair(React) Dom Water Piping D2010.40*** E.g. Replacing a broken component in a cooling tower > ***Repair(React) Central Cooling D3030.10*** E.g. Repair broken glass in an exterior entrance door or window > ***Repair(React) Ext Ent Door B2050.10*** E.g. Repair a broken exterior window > ***Repair(React) Fix Window B2020.20***	**ROUTINE**
Maintain(Plan)	**Planned / preventative maintenance to equipment or object. Use this for preventative maintenance activities only. Maintains the lifecycle of the object.** E.g. Filter replacement in a furnace > WO type: ***Maintain(Plan) Heat Generation D3020.10*** E.g. Replacing a belt in a cooling tower > WO type: ***Maintain(Plan) Central Cooling D3030.10***	**ROUTINE**
Inspect	**Inspection or testing of equipment or object. Relates to mandatory or legislated inspections, typically part of an inspection program. Note- use Investigation when time is spent**	**SERVICE**

Template Name	Asset	Lifecycle Category
	investigating an issue- this may include testing components but would not be considered an Inspection. E.g. Generator testing > WO type: ***Inspect Generators D5010.10*** E.g. Elevator inspections > WO type: ***Inspect Elevator D1010.10*** E.g. Boiler water testing > WO type: ***Inspect Heat Generation D3020.10***	
Rehabilitate	**Rehabilitation / Retrofit. Work that extends lifecycle of equipment or object, and returns the object to its original state (e.g. roof replacement, wall painting as part of cyclical re-painting schedule). This is typically a capital maintenance project but can also include work such as re-painting a room if on a re-painting schedule. Does not include planned preventative maintenance activities - this is Maintain(Plan). Does not include work that is required due to an unexpected issue- this is Repair(React).** E.g. Domestic hot water tank rehabilitation (relined, replaced anodes) > *WO type:* ***Rehabilitate Dom Water Equip D2010.20*** E.g. Roof replacement > WO type: ***Rehabilitate Roofing B3010.00*** E.g. Re-painting a room as part of a cyclical re-painting schedule, e.g. we re-paint every 10 year > WO type: ***Rehabilitate Fix Partition C1010.10***	**BETTERMENT**
Decommission	**Decommission equipment but leave in place.** E.g. Decommission an air-handling unit > WO type: ***Decommission AHU D3050.50***	**ROUTINE**
Commission	**Commissioning HVAC equipment. This workorder template is only available on HVAC equipment.** E.g. Commissioning a cooling tower > WO type: ***Commission Central Cooling D3030.10***	**ROUTINE**
Remove	**Removal of equipment or object.** E.g. Removing a cooling tower prior to installation of new cooling tower > WO type: ***Remove Central Cooling D3030.10***	**ROUTINE**
Service	**A service provided that is not related to repair or planned maintenance or inspection of an object. Typically facilitates the work being done. Does not impact the asset lifecycle or change the value of an asset.** E.g. Towing of lifts, provision of lifts to access objects, duct cleaning, resetting a breaker in an electrical panel, resetting a GFI receptacle, moving furniture, cleaning windows, removing plumbing fixtures to facilitate a tiling job, winterizing / summerizing water piping. E.g. Exterior window cleaning > WO type: ***Service Ext Window Cleaning B2020.00***	**SERVICE**
Supplies	**Bulk supplies purchase for facilities / object / equipment maintenance. Materials for individual jobs / projects should be captured on the job work order, e.g. if parts are required for a reactive repair, the cost of materials can be charged to the Repair (React) work order.**	**ROUTINE**

Template Name	Asset	Lifecycle Category
	E.g. Pool chemicals, softener salt, custodial chemicals, including any labour to deliver or distribute supplies, filters, etc. > WO template type: ***Supplies AHU F3050.50*** Note that in some instances, bulk purchases for all facilities will use a generic WO- please coordinate through Support Services / FM (Beatrice or Michele)	
PM & Fees	**Project management labour, permits, fees, consultants performing project management on behalf of City. Note- Consulting services that support capital projects should use the Plan/Procure work order template type.** E.g. IRC manages a roofing project > WO type: ***PM & Fees Roofing B3010.00***	**SERVICE**

Appendix B Acquisition Forecast

B.1 – Acquisition Forecast Assumptions and Source

Growth projects are based on projects and associated costs identified in the City's Capital Plan. Most of these projects were also identified in the City's 2022 Development Charges Study and 2019 Leisure Facilities Master Plan.

B.2 – Acquisition Project Summary

The project titles included in the lifecycle forecast are included here.

PROJECT NAME	TIMING & COST
Mill Courtland Community Centre Addition	2023 - $4.0M
Rosenberg Community Centre	2024 - $2.8M
91 Moore Avenue (Structural projects for niches)	2024 - $2.3M
Kitchener Indoor Recreation Complex (KIRC)	2025 - $94.1M
Fire Station 8	2025 - $7.3M
Forest Heights Community Centre Expansion	2028 - $6.0M

B.3 – Acquisition Forecast Summary

Table B3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2024	$57.5M	-	$57.5M
2025	$53.4M	-	$53.4M
2026	$0.1M	-	$0.1M
2027	$2.7M	-	$2.7M
2028	$2.8M	-	$2.8M
2029	-	-	-
2030	-	-	-
2031	-	-	-
2032	-	-	-
2033	-	-	-

Appendix C Operation & Maintenance Forecast

C.1 – Operation & Maintenance Forecast Assumptions and Source

- The current operating budget is increased based on the percentage increase in the asset portfolio (by replacement value) identified in the acquisition forecast
- Potential gaps in the operating budget, such as underfunding in the planned maintenance activities have not been quantified in this AM Plan

C.2 – Operation & Maintenance Forecast Summary

Table C2 – Operation & Maintenance Forecast Summary

Year	Operation & Maintenance Forecast	Additional Operation & Maintenance Forecast	Total Operation & Maintenance Forecast
2024	$21.3M	-	$21.3M
2025	$21.3M	$0.6M	$21.9M
2026	$21.3M	$1.2M	$22.5M
2027	$21.3M	$1.2M	$22.5M
2028	$21.3M	$1.2M	$22.5M
2029	$21.3M	$1.3M	$22.6M
2030	$21.3M	$1.3M	$22.6M
2031	$21.3M	$1.3M	$22.6M
2032	$21.3M	$1.3M	$22.6M
2033	$21.3M	$1.3M	$22.6M

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

- The potential impacts of climate change on state of good repair costs are not included
- The potential increases in lifecycle costs due to deferred renewal work are not included
- The forecast is based on three approaches:
    - Simple Facility – generally used for less critical facilities, such as sheds or storage buildings. Residential facilities are treated as one asset and assumed to require an average annual investment rate of 2% of facility replacement value. Non-residential facilities are also treated as one asset and renewed at end-of-life.
    - High-Level Facility Breakdown – facilities for which a building condition assessment has not yet been completed. The facility is broken down into 27 elements (Uniformat) with estimated costs (based on typical percentage breakdowns provided through the facility costing software RS Means) and estimated condition ratings by City staff. The useful lives of assets used to develop projected asset renewal forecasts are shown in Table 6.3.
    - Capital Plan with BCA recommendations – facilities for which a building condition assessment has been completed and those recommendations have been incorporated into the Facilities Management Capital Plan
- Forecast will improve as additional BCAs are completed and incorporated into Capital Plan, replacing High-Level Facility Breakdown approach
- Renewal forecast also includes upgrades which are typically included as part of state of good repair projects (such as energy efficiency upgrades as part of HVAC and lighting replacements)

D.2 – Renewal Project Summary

Project titles are only available for facilities with BCAs completed. Projects are listed in the Capital Plan developed by Facilities Management.

D.3 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast (Maintain LOS)	Renewal Budget
2024	$45.2M	$12.3M
2025	$45.2M	$12.3M
2026	$45.2	$12.3M
2027	$45.2M	$12.3M
2028	$45.2M M	$12.3M
2029	$45.2M M	$12.3M
2030	$45.2M	$12.3M
2031	$45.2M	$12.3M
2032	$45.2M	$12.3M
2033	$45.2M	$12.3M

D.4 – FCI Forecast (Renewal Budget)

The FCI increases (lowers condition) from 9.9% to 26.0% with the available funding of $12.3M/yr.

Service Area	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
ADMINISTRATION	18.2%	21.0%	20.8%	20.5%	26.9%	27.4%	27.1%	28.4%	28.1%	28.2%	27.8%
AQUATICS	22.4%	22.4%	22.1%	21.7%	25.8%	25.9%	26.7%	26.9%	26.7%	30.5%	30.2%
ARENAS	4.8%	7.3%	7.0%	7.0%	7.7%	15.4%	15.4%	16.5%	16.5%	25.2%	24.7%
ARTS & CULTURE	12.8%	14.5%	14.5%	16.3%	17.5%	20.5%	21.2%	23.4%	23.3%	24.5%	24.9%
CEMETERIES	8.2%	10.0%	9.7%	11.6%	13.9%	16.3%	16.0%	15.8%	16.1%	21.9%	21.9%
COMMERCIAL	3.7%	13.6%	13.5%	13.3%	13.0%	17.0%	16.3%	15.8%	16.6%	20.3%	19.7%
COMMUNITY CENTRES	13.5%	15.1%	16.0%	16.2%	17.6%	18.0%	18.1%	18.2%	18.1%	19.1%	20.0%
FIRE	8.7%	8.9%	10.1%	11.4%	12.4%	12.6%	13.4%	13.3%	14.3%	16.6%	16.6%
GOLF	6.7%	13.5%	12.6%	11.8%	12.5%	14.3%	13.4%	12.7%	11.8%	36.9%	36.0%
OPERATIONS	6.3%	6.7%	6.4%	6.2%	11.0%	28.6%	32.3%	33.5%	32.6%	31.8%	36.6%
PARKING GARAGES	9.9%	13.7%	13.4%	14.8%	15.8%	20.7%	20.5%	22.3%	22.2%	26.8%	26.7%
PARKS & OPEN SPACES	8.1%	9.0%	9.0%	8.9%	9.7%	11.2%	11.1%	11.9%	12.3%	17.2%	17.1%
RESIDENTIAL	6.0%	7.5%	9.1%	10.6%	12.2%	13.7%	15.3%	16.8%	18.4%	19.9%	21.5%
SPORT	8.6%	10.4%	10.4%	9.6%	11.3%	15.3%	16.1%	16.4%	15.8%	31.8%	32.6%
Overall	**9.9%**	**12.4%**	**12.3%**	**12.6%**	**14.7%**	**19.9%**	**20.4%**	**21.4%**	**21.3%**	**25.5%**	**26.0%**

Appendix E Disposal Summary

No disposals identified in this AM Plan. Disposal strategy to be developed.

Appendix F Budget Summary by Lifecycle Activity

The budget for acquisition is equal to the forecast, which is based on the Capital Plan.
The budget for operations and maintenance is based on the current 2024 budget with increases assumed over the next 10 years to align with growth in the asset portfolio.
For renewal, which includes currently planned upgrades related to accessibility and GHG emission reductions, the budget is based on funding specific to renewal and green projects. Renewal for parking garages is also included at an average annual amount of $1.3M.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation & Maintenance	Renewal & Upgrade	Disposal	Total
2024	$57.5M	$21.3M	$15M	-	$93.8M
2025	$53.4M	$21.9M	$14.4M	-	$89.8M
2026	$0.1M	$22.5M	$10.3M	-	$32.9M
2027	$2.7M	$22.5M	$10.7M	-	$36M
2028	$2.8M	$22.5M	$11.1M	-	$36.4M
2029	$0M	$22.6M	$11.5M	-	$34.1M
2030	$0M	$22.6M	$11.6M	-	$34.2M
2031	$0M	$22.6M	$13.9M	-	$36.4M
2032	$0M	$22.6M	$12M	-	$34.6M
2033	$0M	$22.6M	$12.2M	-	$34.8M

Appendix G List of Facilities included in Asset Management Plan

FACILITYID	LOCATION	SERVICE AREA
2049996	181 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2022518	181 PATRICIA AVENUE RESIDENTIAL ACCESSORY	RESIDENTIAL
2023879	187 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2021552	191 PATRICIA AVENUE RESIDENTIAL	RESIDENTIAL
2015251	2 KING ST W	ADMINISTRATION
2006579	20 DAVID STREET RESIDENTIAL	RESIDENTIAL
2019878	285 VICTORIA STREET SOUTH RESIDENTIAL	RESIDENTIAL
2015422	44-50 GAUKEL STREET COMMERCIAL	ARTS & CULTURE
2016224	79 JOSEPH STREET COMMERCIAL	COMMERCIAL
2008287	91 MOORE AVE	CEMETERIES
2084489	ACTIVA SPORTSPLEX	ARENAS
2053780	ADMIRAL PARK RINK SHACK	PARKS & OPEN SPACES
2151054	BATTLER YARD - SSDF DISCHARGE CONTROL STATION	OPERATIONS
2145214	BATTLER YARD WASHROOM BUILDING	OPERATIONS
2053781	BELMONT PARK RINK SHACK	PARKS & OPEN SPACES
2011452	BRAMM STREET SAND/SALT BUILDING	OPERATIONS
2015841	BRAMM STREET STORAGE SHED	OPERATIONS
2085696	BRAMM STREET TRAFFIC SHOP	OPERATIONS
2014762	BRAMM STREET VEHICLE WASH BUILDING	OPERATIONS
2004558	BREITHAUPT CENTRE POOL	AQUATICS
2005702	BREITHAUPT PARK COMFORT STATION	PARKS & OPEN SPACES
2004567	BREITHAUPT PARK GARAGE	PARKS & OPEN SPACES
2004130	BREITHAUPT PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132011	BREITHAUPT PARK RINK SHACK	PARKS & OPEN SPACES
2085202	BREITHAUPT PARK SPLASH PAD AND PUMP HOUSE	PARKS & OPEN SPACES
2007156	BRIDGEPORT CHILD CARE CENTRE	COMMERCIAL
2007374	BRIDGEPORT COMMUNITY CENTRE	COMMUNITY CENTRES
2085701	BRIDGEPORT COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2007418	BRIDGEPORT MEMORIAL CEMETERY CHURCH	CEMETERIES
2053072	BUDD PARK SPORTS FACILITY	SPORT
2086072	BUDD PARK UTILITY BUNKER	PARKS & OPEN SPACES
2019323	CAMERON HEIGHTS COLLEGIATE INSTITUTE & POOL	AQUATICS
2011031	CENTRE IN THE SQUARE	ARTS & CULTURE
2033722	CENTREVILLE CHICOPEE COMMUNITY CENTRE	COMMUNITY CENTRES
2132012	CENTREVILLE CHICOPEE COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2158414	CENTREVILLE CHICOPEE COMMUNITY CENTRE SPLASH PAD SHACK	COMMUNITY CENTRES
2038759	CHANDLER MOWAT COMMUNITY CENTRE	COMMUNITY CENTRES
2153154	CHANDLER MOWAT COMMUNITY CENTRE GARDEN SHED	COMMUNITY CENTRES

FACILITYID	LOCATION	SERVICE AREA
2132014	CHANDLER MOWAT COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2088369	CHARLES AND BENTON PARKING GARAGE	PARKING GARAGES
2149074	CHERRY PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132015	CHERRY PARK RINK SHACK	PARKS & OPEN SPACES
2132315	CIVIC DISTRICT PARKING GARAGE	PARKING GARAGES
2016639	CLOCK TOWER	PARKS & OPEN SPACES
2015113	CONRAD CENTRE FOR THE PERFORMING ARTS	ARTS & CULTURE
2017132	CONWAY PARK RINK SHACK	PARKS & OPEN SPACES
2132016	COUNTRY CLAIR PARK RINK SHACK	PARKS & OPEN SPACES
2046092	COUNTRY HILLS COMMUNITY CENTRE	COMMUNITY CENTRES
2132017	COUNTRY HILLS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2025660	COURTLAND AVENUE STORAGE BUILDING (HYDRO SUBSTATION)	PARKS & OPEN SPACES
2012733	CROSBY PARK FIELD HOUSE	PARKS & OPEN SPACES
2009868	DON MCLAREN ARENA	ARENAS
2050466	DOON PIONEER PARK COMMUNITY CENTRE AND LIBRARY	COMMUNITY CENTRES
2137858	DOON PIONEER PARK COMMUNITY GARDEN SHED	COMMUNITY CENTRES
2133434	DOON VALLEY GOLF CART STORAGE	GOLF
2050427	DOON VALLEY GOLF CLUB HOUSE	GOLF
2085568	DOON VALLEY GOLF COMFORT STATION	GOLF
2133431	DOON VALLEY GOLF COMFORT STATION 4TH HOLE	GOLF
2053787	DOON VALLEY GOLF CONCESSION BUILDING	GOLF
2050702	DOON VALLEY GOLF MAINTENANCE BUILDING	GOLF
2050145	DOON VALLEY GOLF PUMP HOUSE	GOLF
2053769	DOON VALLEY GOLF RAIN SHELTER 1	GOLF
2085569	DOON VALLEY GOLF RAIN SHELTER 2	GOLF
2085570	DOON VALLEY GOLF RAIN SHELTER 3	GOLF
2140872	DOON VALLEY GOLF RAIN SHELTER 4	GOLF
2140873	DOON VALLEY GOLF RAIN SHELTER 5	GOLF
2141037	DOON VALLEY GOLF RAIN SHELTER 6	GOLF
2133436	DOON VALLEY GOLF STARTER SHED 1	GOLF
2140852	DOON VALLEY GOLF STARTER SHED 2	GOLF
2053785	DOON VALLEY GOLF STORAGE BUILDING	GOLF
2053786	DOON VALLEY GOLF STORAGE SHED	GOLF
2011368	DOWNTOWN COMMUNITY CENTRE	COMMUNITY CENTRES
2014592	DUKE AND ONTARIO STREET PARKING GARAGE	PARKING GARAGES
2053788	EBY PARK FIELD HOUSE	PARKS & OPEN SPACES
2014036	EBY PARK PICNIC SHELTER	PARKS & OPEN SPACES
2149151	EDEN OAK PARK RINK SHACK	PARKS & OPEN SPACES
2037557	FIRE STATION 1	FIRE
2158538	FIRE STATION 1 - DIRECT DETECT OFFICE	FIRE
2158540	FIRE STATION 1 - EQUIPMENT/TRACTOR SHED	FIRE

FACILITYID	LOCATION	SERVICE AREA
2158536	FIRE STATION 1 - STORAGE SHED	FIRE
2005513	FIRE STATION 2	FIRE
2054504	FIRE STATION 3 AND AMBULANCE STATION	FIRE
2033616	FIRE STATION 4	FIRE
2035460	FIRE STATION 5 FOREST HEIGHTS COMMUNITY CENTRE	FIRE
2050710	FIRE STATION 6	FIRE
2084490	FIRE STATION 7	FIRE
2156714	FOREST HEIGHTS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2036689	FOREST HEIGHTS POOL AND LIBRARY	SPORT
2007821	GEORGE LIPPERT PARK RINK SHACK	PARKS & OPEN SPACES
2053790	GLENDALE PARK RINK SHACK	PARKS & OPEN SPACES
2008927	GRAND RIVER ARENA	ARENAS
2009494	GRAND RIVER RECREATION COMPLEX	AQUATICS
2087188	GRAND RIVER TRANSIT FOUNTAIN BUNKER	PARKS & OPEN SPACES
2132018	GUELPH STREET PARK RINK SHACK	PARKS & OPEN SPACES
2085694	GUELPH STREET STORAGE	OPERATIONS
2026087	GYMNASTICS/JUDO CENTRE	SPORT
2022815	HARRY CLASS POOL	AQUATICS
2023427	HARRY CLASS POOL PUMPHOUSE	AQUATICS
2149311	HIBNER PARK FOUNTAIN VAULT	PARKS & OPEN SPACES
2024389	HIGHLAND COURTS PARK LAWN BOWLING OFFICE	SPORT
2024295	HIGHLAND COURTS PARK TENNIS COURT CLUB HOUSE	SPORT
2050353	HOMER WATSON HOUSE AND GALLERY	ARTS & CULTURE
2050345	HOMER WATSON HOUSE AND GALLERY CLASSROOM/STORAGE BUILDING	ARTS & CULTURE
2050213	HOMER WATSON HOUSE AND GALLERY COACH HOUSE (ARTIST STUDIO)	ARTS & CULTURE
2085576	HOMER WATSON HOUSE AND GALLERY COTTAGE 1	ARTS & CULTURE
2085575	HOMER WATSON HOUSE AND GALLERY COTTAGE 2	ARTS & CULTURE
2085574	HOMER WATSON HOUSE AND GALLERY COTTAGE 3	ARTS & CULTURE
2154451	HURON COMMUNITY CENTRE	COMMUNITY CENTRES
2082128	HURON NATURAL AREA COMFORT STATION	PARKS & OPEN SPACES
2024568	IDLEWOOD POOL	AQUATICS
2053795	KAUFMAN PARK FIELD HOUSE 1	PARKS & OPEN SPACES
2033076	KINGSDALE COMMUNITY CENTRE	COMMUNITY CENTRES
2013795	KITCHENER CITY HALL	ADMINISTRATION
2059159	KITCHENER MARKET	COMMERCIAL
2011198	KITCHENER MOUNT HOPE CEMETERY OFFICE AND GARAGE	CEMETERIES
2153814	KIWANIS PARK ADMISSIONS BOOTH	PARKS & OPEN SPACES
2000002	KIWANIS PARK CHANGE ROOMS/FIRST AID	AQUATICS
2000004	KIWANIS PARK CONCESSION BUILDING	AQUATICS
2000008	KIWANIS PARK GATE HOUSE	PARKS & OPEN SPACES

FACILITYID	LOCATION	SERVICE AREA
2000003	KIWANIS PARK PICNIC SHELTER 1	PARKS & OPEN SPACES
2136634	KIWANIS PARK PICNIC SHELTER 2	PARKS & OPEN SPACES
2000000	KIWANIS PARK PICNIC SHELTER TIM HORTONS	PARKS & OPEN SPACES
2000001	KIWANIS PARK PUMP HOUSE	AQUATICS
2132019	KIWANIS PARK RINK SHACK	PARKS & OPEN SPACES
2000005	KIWANIS PARK STORAGE BUILDING	PARKS & OPEN SPACES
2148631	KIWANIS PARK WATER DISTRIBUTION BUNKER	AQUATICS
2149051	KIWANIS WINTERIZATION BUNKER	AQUATICS
2085197	KMAC ARENA STORAGE SHED	ARENAS
2138155	KMAC ARENA STORAGE SHED 2	ARENAS
2140737	KMAC HYDRO BUNKER	ARENAS
2171310	KMAC JACK COUCH SHED	PARKS & OPEN SPACES
2017627	KMAC JACK COUCH SUPPORT BUILDING	PARKS & OPEN SPACES
2171309	KMAC WATER DISTRIBUTION BUNKER	PARKS & OPEN SPACES
2140698	KNOLLWOOD PARK SHADE PAVILLION	PARKS & OPEN SPACES
2138709	KOF - DEWATERING CANOPY	OPERATIONS
2133892	KOF - DEWATERING SHED	OPERATIONS
2087704	KOF - GREENHOUSE	OPERATIONS
2146733	KOF - GREYWATER CONTROL SHED	OPERATIONS
2043761	KOF - KITCHENER OPERATIONS FACILITY	OPERATIONS
2102586	KOF - SALT HOPPER	OPERATIONS
2102585	KOF - SALT STORAGE	OPERATIONS
2138707	KOF - STORAGE CANOPY	OPERATIONS
2053796	LAKESIDE PARK RINK SHACK	PARKS & OPEN SPACES
2044564	LIONS ARENA	ARENAS
2141391	LUDOLPH PARK RINK SHACK	PARKS & OPEN SPACES
2132024	MAX BECKER COMMONS RINK SHACK	PARKS & OPEN SPACES
2128575	MCLENNAN PARK COMFORT STATION	PARKS & OPEN SPACES
2167401	MCLENNAN PARK GAZEBO	PARKS & OPEN SPACES
2150811	MCLENNAN PARK SHADE PAVILLION	PARKS & OPEN SPACES
2033385	MEINZINGER PARK STORAGE	PARKS & OPEN SPACES
2025281	MILL COURTLAND COMMUNITY CENTRE	COMMUNITY CENTRES
2087574	MILL COURTLAND COMMUNITY CENTRE PORTABLE	COMMUNITY CENTRES
2053797	MILL COURTLAND COMMUNITY CENTRE RINK SHACK 1	PARKS & OPEN SPACES
2132191	MILL COURTLAND COMMUNITY CENTRE SHED 1	COMMUNITY CENTRES
2140391	MILL COURTLAND COMMUNITY CENTRE SHED 2	COMMUNITY CENTRES
2140851	MILL COURTLAND COMMUNITY CENTRE SHED 3	COMMUNITY CENTRES
2143921	MILL COURTLAND COMMUNITY CENTRE SHED 4	COMMUNITY CENTRES
2132020	MORRISON PARK RINK SHACK	PARKS & OPEN SPACES
2150671	OKTOBERFEST PLATZ FOUNTAIN BUNKER	PARKS & OPEN SPACES
2132431	PARKING LOT 19 SHED 1	PARKING GARAGES
2132432	PARKING LOT 19 SHED 2	PARKING GARAGES

FACILITYID	LOCATION	SERVICE AREA
2085698	PETER HALLMAN BALL YARD ELECTRICAL BUILDING	PARKS & OPEN SPACES
2085697	PETER HALLMAN BALL YARD MAINTENANCE BUILDING	PARKS & OPEN SPACES
2085699	PETER HALLMAN BALL YARD TOURNAMENT BUILDING	PARKS & OPEN SPACES
2156674	PIONEER GROVE PARKETTE SHED	PARKS & OPEN SPACES
2053791	PIONEER PARK RINK SHACK	PARKS & OPEN SPACES
2139211	QUEENSMOUNT PARK GARAGE	PARKS & OPEN SPACES
2029799	QUEENSMOUNT SPORTS BUILDING	SPORT
2160095	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - BUNKER	PARKS & OPEN SPACES
2052291	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - HERITAGE WASHROOM BUILDING	PARKS & OPEN SPACES
2153654	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - MAINTENANCE BUILDING	PARKS & OPEN SPACES
2159538	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - UTILITY BUILDING 1	PARKS & OPEN SPACES
2159537	KITCHENER INDOOR RECREATION COMPLEX (KIRC) - UTILITY BUILDING 2	PARKS & OPEN SPACES
2024390	ROCKWAY CENTRE	COMMUNITY CENTRES
2021955	ROCKWAY CENTRE POTTERY SHED	COMMUNITY CENTRES
2024530	ROCKWAY CENTRE STORAGE BUILDING (HYDRO SUBSTATION)	COMMUNITY CENTRES
2026294	ROCKWAY GOLF CART STORAGE	GOLF
2086003	ROCKWAY GOLF CHEMICAL STORAGE BUILDING	GOLF
2025685	ROCKWAY GOLF CLUB HOUSE	GOLF
2053768	ROCKWAY GOLF COMFORT STATION	GOLF
2053773	ROCKWAY GOLF CONCESSION BUILDING	GOLF
2030050	ROCKWAY GOLF EQUIPMENT STORAGE SHED	GOLF
2086004	ROCKWAY GOLF GASOLINE STORAGE BUILDING	GOLF
2030152	ROCKWAY GOLF MAINTENANCE/STORAGE BUILDING	GOLF
2053800	ROCKWAY GOLF PUMP HOUSE	GOLF
2085567	ROCKWAY GOLF RAIN SHELTER 1	GOLF
2053801	ROCKWAY GOLF RAIN SHELTER 2	GOLF
2085566	ROCKWAY GOLF RAIN SHELTER 3	GOLF
2085565	ROCKWAY GOLF STARTER SHED	GOLF
2053802	ROSENBERG PARK FIELD HOUSE	PARKS & OPEN SPACES
2009229	ROSENBERG PARK HERITAGE GREENS COMFORT STATION	SPORT
2084844	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 1	SPORT
2084853	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 10	SPORT
2084854	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 11	SPORT
2084855	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 12	SPORT
2140699	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 13	SPORT
2140700	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 14	SPORT
2140701	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 15	SPORT
2140702	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 16	SPORT

FACILITYID	LOCATION	SERVICE AREA
2084845	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 2	SPORT
2084846	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 3	SPORT
2084849	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 4	SPORT
2084848	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 5	SPORT
2084847	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 6	SPORT
2084850	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 7	SPORT
2084851	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 8	SPORT
2084852	ROSENBERG PARK HERITAGE GREENS RAIN SHELTER 9	SPORT
2084843	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 1	SPORT
2086254	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 2	SPORT
2086253	ROSENBERG PARK HERITAGE GREENS STORAGE SHED 3	SPORT
2132021	SALVATION ARMY CHURCH RINK SHACK	PARKS & OPEN SPACES
2059181	SPORTSWORLD ARENA	ARENAS
2053776	ST ALOYSIUS PUBLIC SCHOOL RINK SHACK	PARKS & OPEN SPACES
2085497	ST PETER'S LUTHERAN CEMETERY MAINTENANCE BUILDING	CEMETERIES
2016307	STANLEY PARK COMMUNITY CENTRE	COMMUNITY CENTRES
2134594	STANLEY PARK COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2053777	STANLEY PARK PUBLIC SCHOOL RINK SHACK	PARKS & OPEN SPACES
2016930	THE AUD	ARENAS
2017655	THE BOATHOUSE	COMMERCIAL
2013884	THE REGISTRY THEATRE	ARTS & CULTURE
2015184	THEMUSEUM	ARTS & CULTURE
2053772	TIMBERLANE PARK RINK SHACK	PARKS & OPEN SPACES
2158535	UNIROYAL -GOODRICH PARK GARDEN SHED	PARKS & OPEN SPACES
2158434	UNIROYAL -GOODRICH PARK PICNIC SHELTER	PARKS & OPEN SPACES
2050419	UPPER CANADA PARK SPORTSFIELD CLUBHOUSE	PARKS & OPEN SPACES
2050382	UPPER CANADA PARK SPORTSFIELD PICNIC SHELTER	PARKS & OPEN SPACES
2050351	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 1	PARKS & OPEN SPACES
2156134	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 2	PARKS & OPEN SPACES
2085338	UPPER CANADA PARK SPORTSFIELD STORAGE SHED 3	PARKS & OPEN SPACES
2053771	VANIER PARK RINK SHACK	PARKS & OPEN SPACES
2020403	VICTORIA HILLS COMMUNITY CENTRE	COMMUNITY CENTRES
2058940	VICTORIA HILLS COMMUNITY CENTRE GARDEN STORAGE SHED 1	COMMUNITY CENTRES
2058941	VICTORIA HILLS COMMUNITY CENTRE GARDEN STORAGE SHED 2	COMMUNITY CENTRES
2132022	VICTORIA HILLS COMMUNITY CENTRE RINK SHACK	PARKS & OPEN SPACES
2017888	VICTORIA PARK BANDSTAND	PARKS & OPEN SPACES
2131631	VICTORIA PARK COMFORT STATION JUBILEE	PARKS & OPEN SPACES
2019376	VICTORIA PARK COMFORT STATION SEASONAL	PARKS & OPEN SPACES
2016906	VICTORIA PARK FRONT GARAGE	PARKS & OPEN SPACES
2020042	VICTORIA PARK MACHINE SHOP	PARKS & OPEN SPACES

FACILITYID	LOCATION	SERVICE AREA
2018874	VICTORIA PARK PAVILION	COMMERCIAL
2011535	VICTORIA PARK PERGOLA 1 BY BOATHOUSE	PARKS & OPEN SPACES
2085157	VICTORIA PARK PERGOLA 2 JUBILEE	PARKS & OPEN SPACES
2019818	VICTORIA PARK PICNIC SHELTER	PARKS & OPEN SPACES
2132023	VICTORIA PARK RINK SHACK	PARKS & OPEN SPACES
2166761	VICTORIA PARK SHED	PARKS & OPEN SPACES
2019870	VICTORIA PARK SUMMER KITCHEN	PARKS & OPEN SPACES
2166762	VICTORIA PARK UTILITY SHED PARK ST	PARKS & OPEN SPACES
2008244	WEBER PARK RINK SHACK	PARKS & OPEN SPACES
2053778	WEST AVENUE STORAGE FACILITY	PARKS & OPEN SPACES
2051543	WILLIAMSBURG CEMETERY DEDICATION CENTRE AND CREMATORIUM	CEMETERIES
2051584	WILLIAMSBURG CEMETERY OFFICE AND MAINTENANCE	CEMETERIES
2085760	WILLIAMSBURG COMMUNITY CENTRE	COMMUNITY CENTRES
2087659	WILSON PARK CONCESSION BUILDING	PARKS & OPEN SPACES
2121720	WILSON PARK STORAGE SHED	PARKS & OPEN SPACES
2033597	WILSON POOL	AQUATICS
2026261	WOODLAND CEMETERY CATHOLIC MAUSOLEUM	CEMETERIES
2053770	WOODLAND CEMETERY OFFICE	CEMETERIES
2026922	WOODLAND CEMETERY PROTESTANT MAUSOLEUM	CEMETERIES
2172282	WOODLAND STORAGE SHED	CEMETERIES
2023702	WOODSIDE PARK FIELD HOUSE	PARKS & OPEN SPACES

Asset Management Plan
Infrastructure Services - Fleet Division

May 2024

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Fleet Introduction

Asset management planning is a comprehensive process to ensure delivery of services from Infrastructure is provided in a financially sustainable manner.

This plan details information about the City of Kitchener, Fleet Division assets including actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services over a 20-year planning period.

The Fleet Division manages approximately 1,900 vehicles and equipment for the City of Kitchener. The primary function of the Division is to ensure City vehicles and equipment are properly maintained, repaired, fueled, as agreed to in the service agreement.

Fleet Division's primary objective is to ensure fleet users are capable of delivering their services to the public in a safe and efficient manner. In addition, the Fleet Division is also responsible for managing all fleet controls, policies and procedures across the City; including safe operation of the vehicle/equipment, meeting legislative requirements, fueling procedures, procurement practices to mitigate climate change, etc.

Ultimately, Fleet Division must ensure that all fleet users are provided with a prescribed level of quality and service defined within the service agreement, and vehicles/equipment operate and function as expected and as intended.

Operational services provided by Fleet Division related to asset management for City vehicles and equipment includes:

- Procurement
- Storage and identification
- Monitoring and evaluation
- Repair and maintenance
- Fuel management
- Commercial vehicle operator registration compliance monitoring and evaluation
- Fleet user policy and procedural compliance monitoring and evaluation
- Life cycle evaluations/risk management
- Fleet user training and development

Additional administrative and operational areas within Fleet Division, relevant to providing and maintaining the service agreement to fleet users:

Fleet Planning:
Fleet Division tracks and monitors vehicle and equipment usage, prepares life cycle costing and targets, reviews and evaluates vehicles and equipment annually and manages the Fleet Capital Replacement program and net new additional requests.

Fleet Mechanical:
Fleet Division performs all required repairs, preventive maintenance and the scheduling of safety inspections to comply with legislative safety requirements with the goal of reducing vehicle and equipment breakdowns.

Additionally, Fleet Division ensures vehicles and equipment are operating efficiently to reduce unnecessary GHG emissions and to optimize the financial return on the sale of surplus when an asset is decommissioned.

Fuel Distribution and Management:
Fleet Division monitors and maintains fuel distribution sites on a daily basis. Fleet also maintains records of fuel consumption and performs Technical Standards and Safety Act inspections as required.

Fleet Safety and Compliance:
The City of Kitchener has adopted an internal permitting system for all city vehicles and self-propelled equipment to ensure operators have received adequate training and skill development. Fleet Division provides an assortment of online training, in class training, practical training and assessments related to the different classes of vehicles, and types of equipment. Fleet Division also conducts safety and compliance audits in the field to ensure all operators comply with City, safety, and regulatory requirements and legislation.

Commercial Vehicle Operators Registration (CVOR) Compliance:
Commercial vehicle operator registration is a legal function of fleet management at the City of Kitchener, and governs all vehicles that fall within the scope of provincial regulations under the Highway Traffic Act.

The regulatory affairs and compliance of the CVOR is closely monitored and addressed by the Safety and Compliance Department within Fleet Division.

Fleet's Alignment with Strategic and Corporate Goals

This asset management plan is prepared under the direction of the City of Kitchener's vision, mission, goals and objectives.

Our Vision is:

> *Building a city for everyone where, together, we take care of the world around us – and each other."*
> *This vision guides our 2023-2026 strategic plan, strategic goals and actions*.

Our mission is:

- Building a connected city together
- Cultivating a green city together
- Creating an economically-thriving city together
- Fostering a caring city together
- Stewarding a better city together

Relevant actions and objectives, and how these are addressed within Fleet Division's asset management plan are:

Goal	Objective	How Goal and Objectives are addressed in AM Plan
Cultivating a green city together	Continued implementation of the action items within the CorCap 2.0 to achieve 50% GHG reduction by 2030 and Net Zero by 2050	Ensuring that we continue to consider environmental impacts fleet vehicles and work towards the goal reducing GHGs.
Cultivating a green city together	Supporting the clean energy transition.	Continue to support transitioning fleet vehicles and equipment to electric alternatives as well as exploring the implementation of alternative fuels where electric is not an option.
Stewarding a better city together	Procurement innovation	Consider different emerging procurement strategies and innovations within the field to create efficiencies and ensure we are accountable public servants.

Fleet Asset Management Goals and Objectives

Fleet's primary objective is to ensure fleet users are capable of delivering their services to the public in a safe and efficient manner. In addition, the Fleet Division is also responsible for managing all fleet controls, policies and procedures across the City; including safe operation of the vehicle/equipment, meeting legislative requirements, fueling procedures, and procurement practices that mitigate climate change.

Our goal in managing Fleet Division assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future customers. The key elements of fleet asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology

Core and Advanced Asset Management

This asset management plan has been created under the direction of **Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure**, beginning in clause 5 of the regulation, under the title *Asset Management Plans.*

This asset management plan is prepared as a 'non-core' asset management plan over a 20-year planning period in accordance with the International Infrastructure Management Manual[3]. Core asset management is a 'top down' approach where analysis is applied at the system or network level. An 'advanced' asset management approach uses a 'bottom up' approach for gathering detailed asset information for individual assets.

Note:
For the purposes of this asset management plan, there is a value threshold of $5,000.00 that eliminates the need for a Service Agreement and as a result, the need to monitor and provide preventive maintenance and repair. For small equipment under the threshold, Fleet Division repairs and services the asset as deemed necessary. Such assets are replaced once the repair costs exceed their current value.

Fleet Asset Categories and Type

Fleet Division assets are broken out into 6 categories as defined below:

1. **Arena Equipment**
2. **Dump/Fire Truck**
3. **Lawn/Turf Equipment**
4. **Licensed Equipment**
5. **Misc./Small Equipment**
6. **Off Road Equipment**

Each category is then broken out into asset type. The current asset category average age of asset has been included as calculated within out Flint Fleet Software program.

[3] IPWEA, 2015, IIMM.

Asset Types by Category

Asset Category:	Asset Type:	Average Age of Asset Category
Arena Equipment	Ice Edger Ice Re-surfacer	8 years

Asset Category:	Asset Type:	Average Age of Asset Category
Dump/Fire Truck	Ariel Truck Catch Basin Cleaner Tandem Dump Truck Single Dump Truck Single Chipper Body Dump Truck Single Water Dump Truck Tandem Dump Truck Tandem w/Crane Dump Truck Tri Axle Dump Truck Tri Axle Hook Lift Fire Aerial Ladder Fire Haz-Mat Unit Fire Pumper Fire Rescue Garbage Packer Jet Rodder Vactor Tridem Pavement Marker Rescue Truck	8 years

Asset Category:	Asset Type:		Average Age of Asset Category
Licensed Equipment	Aerial Truck Burial Cart Car Car Electric Cargo Van Cargo Van High Roof Electric Cargo Van High Roof XL Hybrid Crew Cab Crew Cab 4x4 Crew Cab Pickup Crew Cab Dump Crew Cab Dump 4x4 Crew Cab Pickup 4x4 Crew Cab Utility Cube Truck Fire Command Unit Generator Maintenance Trailer Motorcycle Electric	Trailer 10 Ton Deck Over Float Trailer 30 Ton Deck Over Float Trailer Box/Landscape Trailer Cargo Trailer Drop Deck Trailer Dump Trailer Dump 5 Ton Trailer Enclosed Trailer Fire Education Trailer Flatbed Trailer Gas Pipe Hauler 22 ft. Trailer Gas Pipe Reel Trailer Kut Kwik Trailer Landscape Trailer Mount Tank Sprayer Trailer Pipe Trailer Pressure Washer Trailer Skateboard Trailer Water Main	9 years

	Pickup Pickup 4x4 Pickup Compact Pickup Compact Crew Cab Pickup Compact Ext Cab Pickup Compact Ext Cab 4x4 Pickup Crew Cab 4x4 Pickup Dump Pickup Dump 4x4 Pickup Dump 4x4 (SRW) Pickup Dump Plow 4x4 Pickup Ext Cab Pickup Ext Cab 4x4 Pickup Flatbed Welder Pickup Plow 4x4 Pickup Utility Body Pump Trash 6' Trailer	Trailer Water Pump Van Van Cargo Van Cargo Compact Van Cargo Ext Van Cargo High Roof Van Cargo Medium Roof Van Cube Van Mini Passenger Van Mini Van Mini Cargo Van Passenger Salter Sander Screener SUV SUV Hybrid	

Asset Category:	Asset Type:		Average Age of Asset Category
Lawn/Turf Equipment	Aerator Aerator Tractor Mount 60" Bedknife Grinder Blower Debris Blower Ride On Blower Tow Behind Core Harvester Flail Boom Golf Cart Golf Cart 4-Seater Groomer Infield Hydro Seeder Lawn Mower Fairway Line Painer Ride On Loader Dingo Mower 16' Winged Mower Gang Rotary Mower Fairway Mower Greens Mower Greens Walk Behind Mower Rotary Mower Rotary Out-front Mower Seven Plex Mower Sidewinder	Mower Triplex Mower Turn Electric Mower Zero Turn Mower Zero Turn Bagger Mower Zero Turns with Tracks Municipal Tractor Large Over Seeder Rake Sand Reel Grinder Seeder Split Sprayer Turf Spreader Fertilizer Sweepster Brush Tank Water Top Dresser Tractor Flail Mower Tractor Mower Turf Tractor Turf Tractor Loader Turf Tractor Mower Utility Vehicle Utility Vehicle Electric	9 years

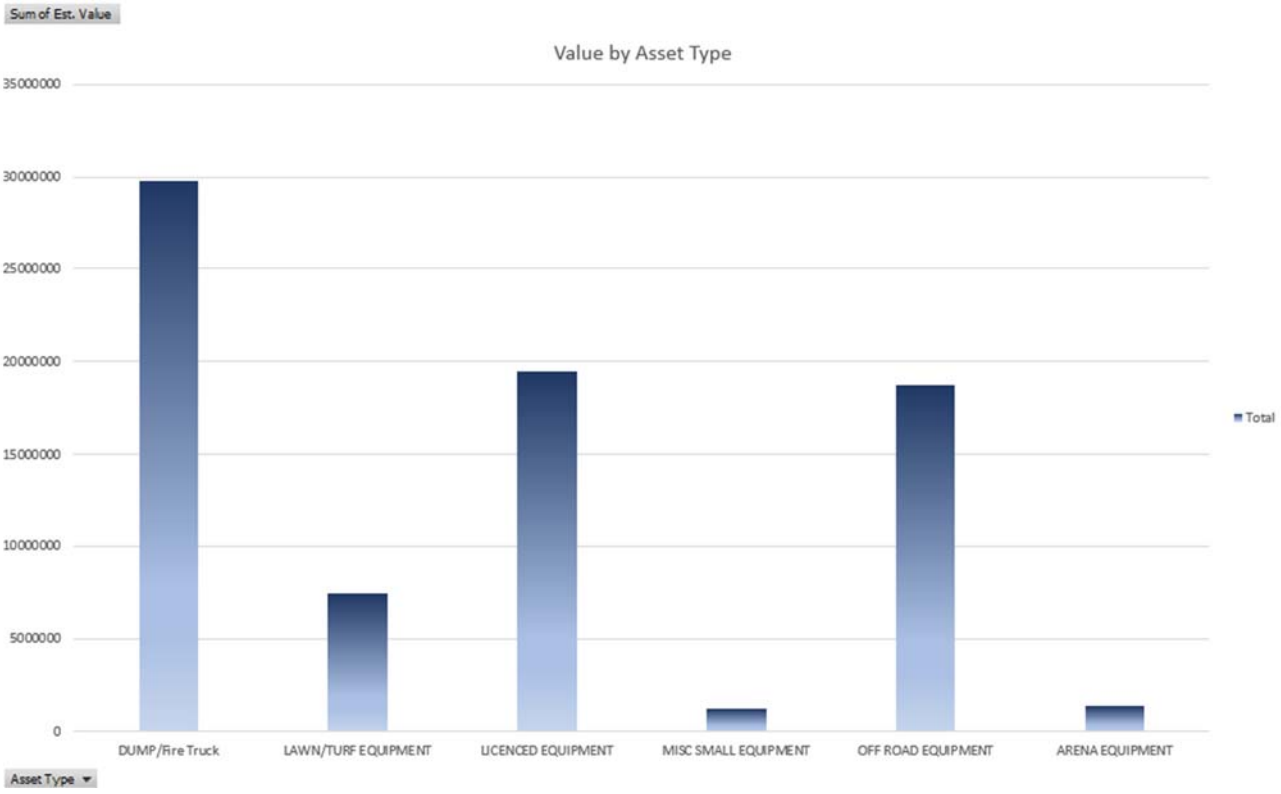
Asset Category:	Asset Type:		Average Age of Asset Category
Misc/Small Equipment	All In One Booster Angle Blade Auger Back Drag	Line Eraser Line Painter Over Seeder Pallet Truck	

	Boom Lift Electric Compactor Compressor Portable Concrete Mixer Diamond Wheel Guillotine Floor Scrubber Groomer Groomer Greens Groomer Infield Groomer Trail Hydraulic Breaker Hydraulic Hammer Hydraulic Packer Hydraulic Power Pack Leaf Blower Leaf Vacuum Line Driver	Pressure Washer Pump Trash Rake Landscape Rock Drill Salter Slide In Scissor Lift Sewer Cleaner Snow Blower Walk Behind Snow Pusher Sod Cutter Spreader Grader Vactor Small Valve Turner Front Mount Water Pump Tank and Reel Winch Hydraulic	9 years

Asset Category:	Asset Type:		Average Age of Asset Category
Off Road Equipment	Asphalt Paver Backhoe Brush Chipper Brush Chipper Attachment Compactor Attachment Crack Router Excavator Excavator Rubber Tire Fork Lift Generator Steam Grader Hotbox Line Painter Pusher Loader Loader Compactor Loader Dingo Municipal Tractor Pipe Thawer	Pump Trash 4” Roll Off Bin Roller Roller Vibratory Salter Epoke Sidewalk Lifter Skid Steer Snow Blower Large Sprayer Asphalt Stump Cutter Stump Cutter Track Drive Sweeper Sweeper Small Sweeper Sidewalk Tar Kettle Tractor Loader Turf Tractor Utility Vehicle	9 years

Asset Value by Category

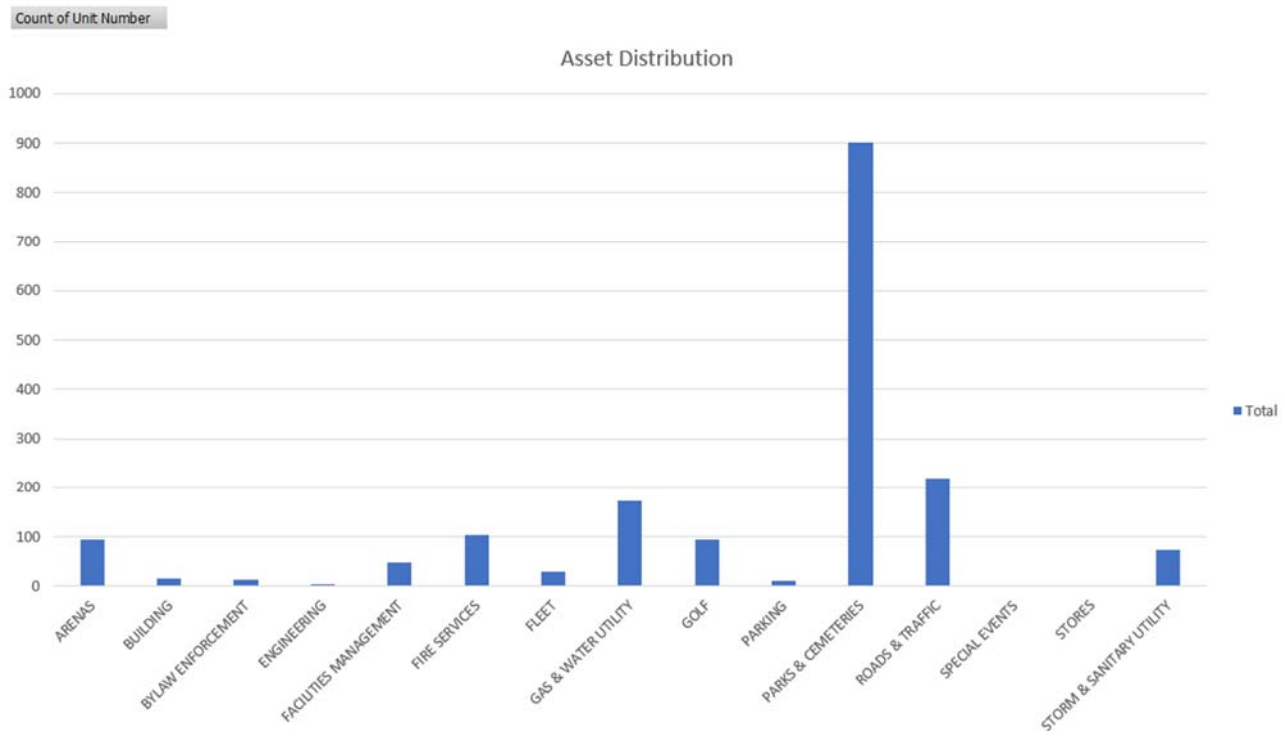
Asset Category	Asset Value
Dump/Fire Truck	$29,799,815.49
Lawn/Turf Equipment	$7,466,128.656
Licensed Equipment	$19,490,353.71
Misc/Small Equipment	$1,286,586.508
Off Road Equipment	$18,729,999.23
Arena Equipment	$1,364,465.98
Total	**$78,137,349.58**



Fleet Asset Distribution and Replacement Values

Fleet Division assets covered by this asset management plan are used to provide a range of services including road maintenance, parks maintenance, facility maintenance, gas and water services, as well as many other municipal services, as shown below (includes assets valued above 5K):

Department	Division	Number	Replacement Value $
Infrastructure Services	Roads and Traffic	220	25.5M
Infrastructure Services	Parks and Cemeteries	902	18M
Infrastructure Services	Facility Maintenance	49	2M
Infrastructure Services	Gas and Water Utility	174	6.8M
Infrastructure Services	Storm and Sanitary Utility	74	5.4M
Infrastructure Services	Fleet	30	600K
Community Services	Fire	104	15M
Community Services	Golf	94	2.5M
Community Services	Arenas	95	2M
Development Services	Building	17	600K
Community Services	By law Enforcement	14	600K
Development Services	Parking	11	300K
Development Services	Engineering	4	150K
Community Services	Special Events	3	50K
Financial Services	Stores	3	60K
Total		**1794**	



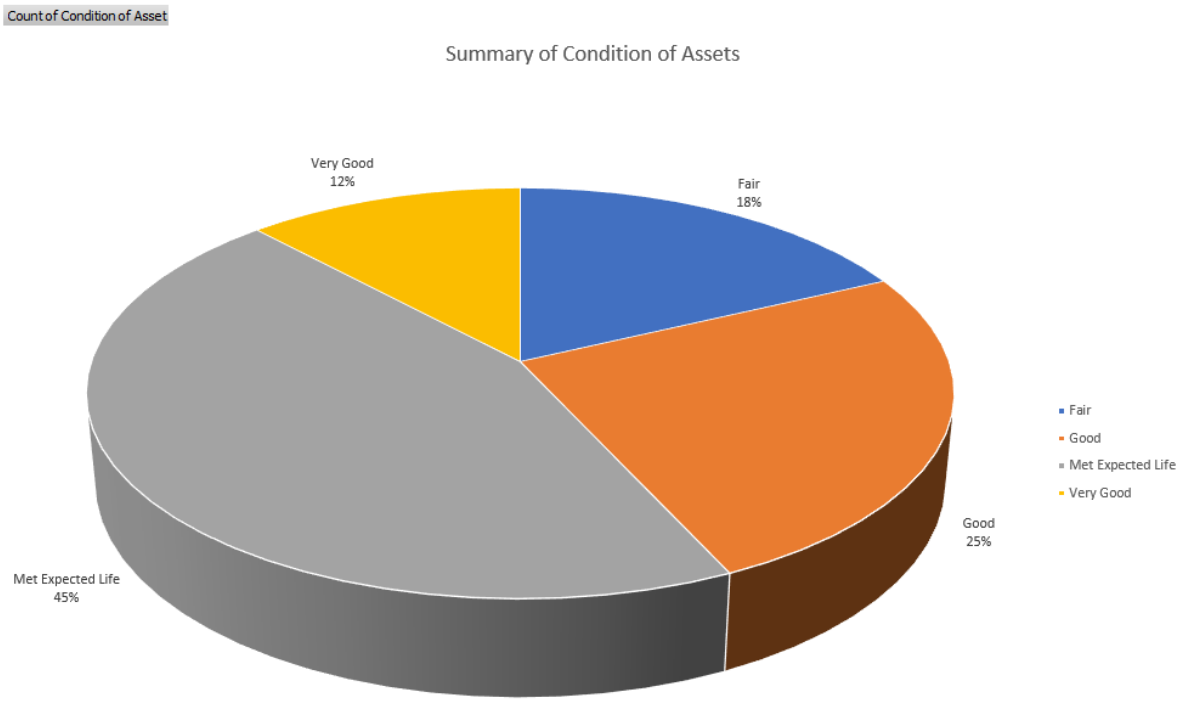
Overall Condition of Assets

Due to the number of assets, condition is not currently monitored formally for all fleet assets. Therefore, the age of the asset used to provide a simplified way of illustrating condition. However, all licensed vehicles and equipment require annual safety inspections and preventive maintenance inspections. Therefore, assets are inspected regularly; they are not provided condition assessment at this time. During a safety inspection, if a vehicle is deemed unsafe, it will be removed from service. Typically, this occurs when an asset is kept well beyond its expected life or has been severely damaged due to an accident.

Percentage of Expected Life Used	Condition Based on Age
0% - 20%	Very Good
21% - 65%	Good
66% - 99%	Fair
100%	Met Expected Life - Fair

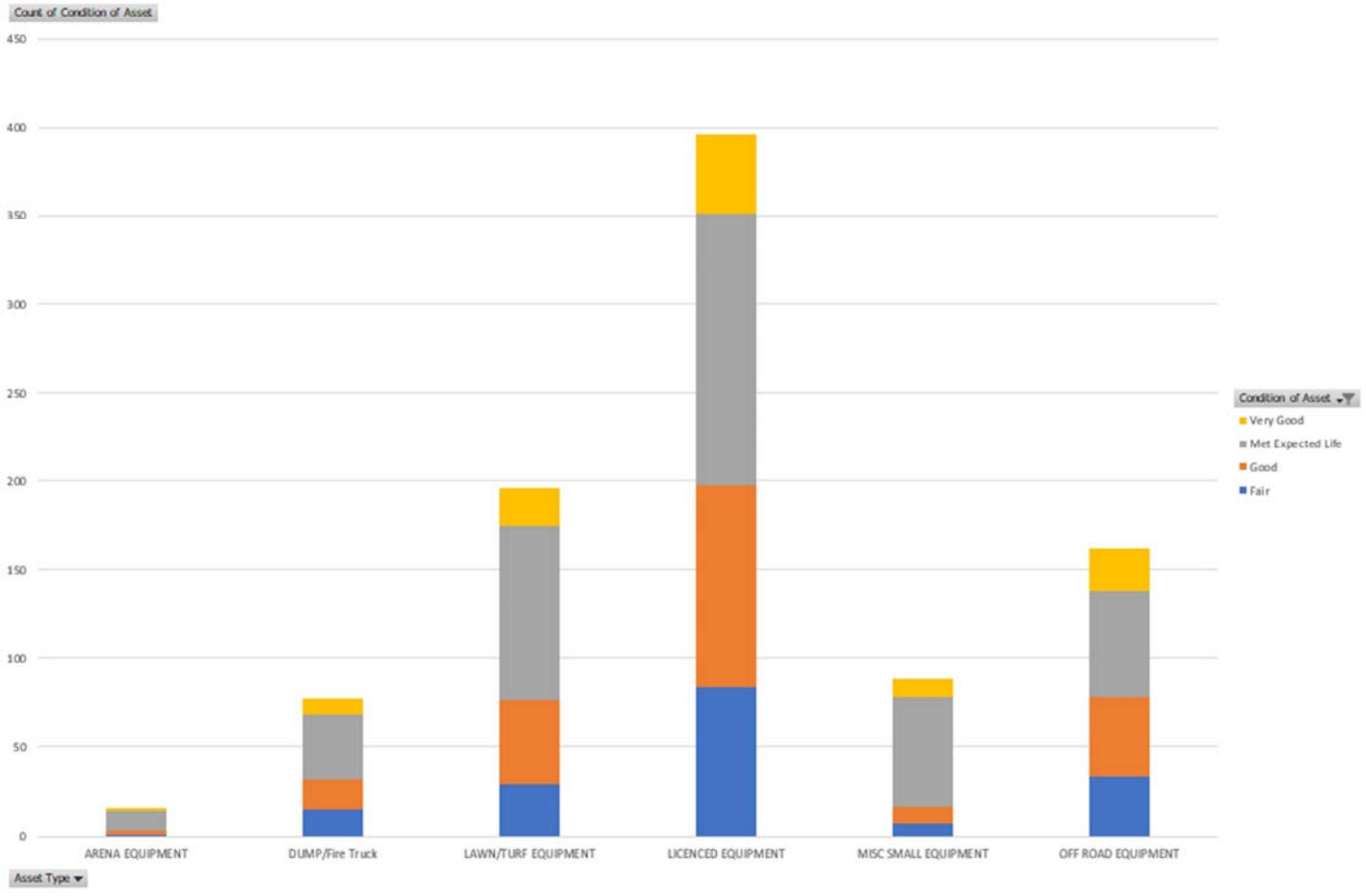
Once an asset has met the expected life, this triggers a comprehensive condition assessment and review. The asset is considered Met Expected Life – Fair until it is replaced and removed from service or has been deemed poor.

Due to the risks associated with driving an asset that have been deemed “poor” the city will not permit poor vehicles to be driven. Therefore, any vehicles that have been designated as poor will be immediately removed from service and sent to auction or will be repaired to elevate the status to either “fair” or “met expected life – fair”.



Overall Condition by Asset Category

Asset Category	Fair	Good	Met Expected Life - Fair	Very Good	Totals
Arena Equipment	1	2	11	2	16
Dump/Fire Truck	15	17	36	9	77
Lawn/Turf Equipment	29	47	98	22	196
Licensed Equipment	83	114	154	45	396
Misc/Small Equipment	7	10	61	10	88
Off Road Equipment	33	45	60	24	162
Totals	**168**	**235**	**420**	**112**	**935**



Levels of Service and Compliance

The preparation and definition of City equipment and vehicle use, function and purpose, is generated as a collaborative effort between City users and Fleet management. Asset purpose and functionality within the City is identified via historical knowledge of the asset, the manufacturer's recommendations, and user input during the creation of the Service Agreement. Additional and betterment purposes can be requested during the completion of the Equipment Replacement Request form.

For equipment assets, there is a value threshold of $5,000.00 that eliminates the need for a Service Agreement and as a result, the need to monitor and provide preventive maintenance and repair. For small equipment under the threshold, Fleet Division repairs and services the asset as deemed necessary. Such assets are replaced once the repair costs exceed their current value.

Service Agreement

The Service Agreement is provided by the Fleet Division of the Infrastructure Services Department, with the purpose of prescribing a customized level of service at a competitive cost that enables the user department to fulfill their customer needs in an efficient, effective, and timely manner.

Assumptions and expectations are defined throughout the Service Agreement and cover the following areas/elements to be provided by Fleet to the user, on an annual basis:

Planning:

1. Vehicle and equipment procurement
2. New vehicle and equipment outfitting
3. Technical specifications, selector list
4. Vehicle titling, licensing, and insurance
5. Manage equipment reserve system - depreciation, life cycles
6. Control vehicle and equipment operating costs
7. Vehicle and equipment re-marketing
8. Fleet administration and management reports
9. Outsourcing of vehicles and equipment
10. Continuous review and development of improved methods, policies and procedures
11. Bulk fuel supplies
12. Spare equipment through pool system
13. Assist with vehicle costing and utilization analysis

Mechanical:

1. Vehicle and equipment repair and maintenance
2. Daily equipment maintenance
3. Fuel/Wash/Inspect
4. Collision/damage estimates and repair
5. Preventative maintenance program and schedules
6. Legislated maintenance and inspection programs
7. Warranty administration
8. Clean vehicles

Safety and Compliance:

1. Collision Review
2. Operator training programs
3. Commercial vehicle operator registration monitoring
4. Permit System
5. Driver abstract review
6. Hours of Service

Legislative Requirements

As part of their commitment to quality service to the City of Kitchener users, Fleet is governed by a myriad of laws and regulations related to the environment, health and safety and the transportation ministry of Ontario.

To ensure knowledge, enforce compliance and regulate policy and procedures, Fleet management annually performs internal and external audits of the laws and regulations. In addition, the Safety and Compliance department of Fleet also performs random audits and inspections of City users in the field.

The following laws and regulations govern the Fleet management system scope of purpose:

Canadian Federal
TRANSPORTATION OF DANGEROUS GOODS ACT - *Transportation of Dangerous Goods Regulations*
ENVIRONMENTAL BILL OF RIGHTS ACT
Hazardous Products Act *R.S.C., 1985, c. H-3* **Controlled Products Regulations** *SOR/88-66*
Occupational Health and Safety Act

Ontario Provincial	
ENVIRONMENTAL PROTECTION ACT	
• Part iii	**Motor Vehicles** *including additional environmental controls added to vehicles after purchase*
• Part v.1	**Vehicle Permits and Number Plates**
• Part x	**Spills**
Motor Vehicles - O. Reg. 361	
General – Air Pollution – Local Air Quality - O Reg. 419	

MINISTRY OF TRANSPORTATION - **Highway Traffic Act**
Commercial Vehicle Inspections O. Reg. 199
Safety Inspections – O. Reg. 611 *Modernization and Harmonization of Commercial Vehicle Inspection Requirements - O. Reg. 601, 611 and 199*

Monitoring and Measurement Agents of Fleet Assets

Fleet Administration ensures all vehicles and equipment are inventoried within Flint (software program maintained by Fleet), capable of providing all details associated with each piece of equipment and each vehicle. Users with access to Flint are able to quickly extract vehicle and equipment data and information including procurement data, lifecycle status, asset attributes, asset category, and/or type.

Annual Equipment Review

The Annual Equipment Review is a comprehensive review, analysis and determinant for all Fleet assets that have been met the expected life. The review reports to City executive vehicle and equipment inventory, values and replacement needs juxtaposed against the asset's purpose and capability to maintain that purpose for the user.

The Annual Equipment Review is governed as follows:

Month	Activity
January	1. Generate list of equipment/vehicles met expected life (including deferred assets from previous year) 2. Schedule ER Meeting for Sept/Oct.
February/March	1. Fleet management completes a comprehensive review of each asset that has met expected life – including utilization, function, repair costs versus replacement costs.
April	1. Create Equipment Review (ER) sheets for all units evaluated 2. Fleet enters points into ER sheets based on evaluations and makes recommendation on replacement or deferral 3. Send list of equipment/vehicles qualifying for replacement to all operating areas 4. Evaluations sent to Directors for approval
May/June	1. Approved ER sheets returned to Fleet 2. Fleet updates database with recommendations, labour and parts costs
July	1. Print and check ER sheets from database 2. Any additional equipment forms completed
August	1. Compile book and send for printing 2. Deliver books and meeting timelines
September/October	1. Meeting 2. Approved replacements and additional reports 3. Flint updated with approved replacements

The purpose of the annual process is to provide a financial risk assessment and impact analysis of equipment and vehicles that have come to their targeted lifecycle expectancy and require replacement.

Membership of Review Committee:

- Chief Financial Officer (*Chair*)
- Chief Administrative Officer (*Optional*)
- Deputy CAO & General Manager of Community Services or designate
- General Manager of Corporate Services or designate
- General Manager of Development Services or designate
- General Manager of Infrastructure Services or designate
- Director of Fleet
- Director of Asset Management or designate

Advisory:

- Director of Supply Services or designate
- Manager of Fleet Planning
- Manager of Fleet Mechanical
- Supervisors of Fleet
- Manager/Supervisor of operating area

Including any staff required to support vehicle/equipment purchases.

The assets recommended for replacement at the Equipment Review are deemed Met Expected Life – Fair and generally require minor to moderate mechanical and/or body repairs. Since most assets have met their expected life it may not be cost effective to continue to repair and/or restore the asset.

Occasionally, assets that have not met the expected life will be recommended for replacement. Through the year, input received from the using department and fleet mechanical (maintenance) to provide Fleet management with additional information relevant to condition of the asset. Subsequently, an asset may be deemed "poor" and removed from service prior to the Equipment Review.

As a method of analysis, Fleet management prepares body and mechanical estimates for all units that have met the recommended life cycle and also identified the equipment utilization from the Fleet FLINT record and appraisal system.

Equipment Replacement Form

The Equipment Replacement Request form provides communication of service definition for City equipment and vehicles which includes requests for betterment costs. The Equipment Replacement Request is the dialogue between the users and Fleet management in an effort to ensure the asset is right for fit, function and serviceability.

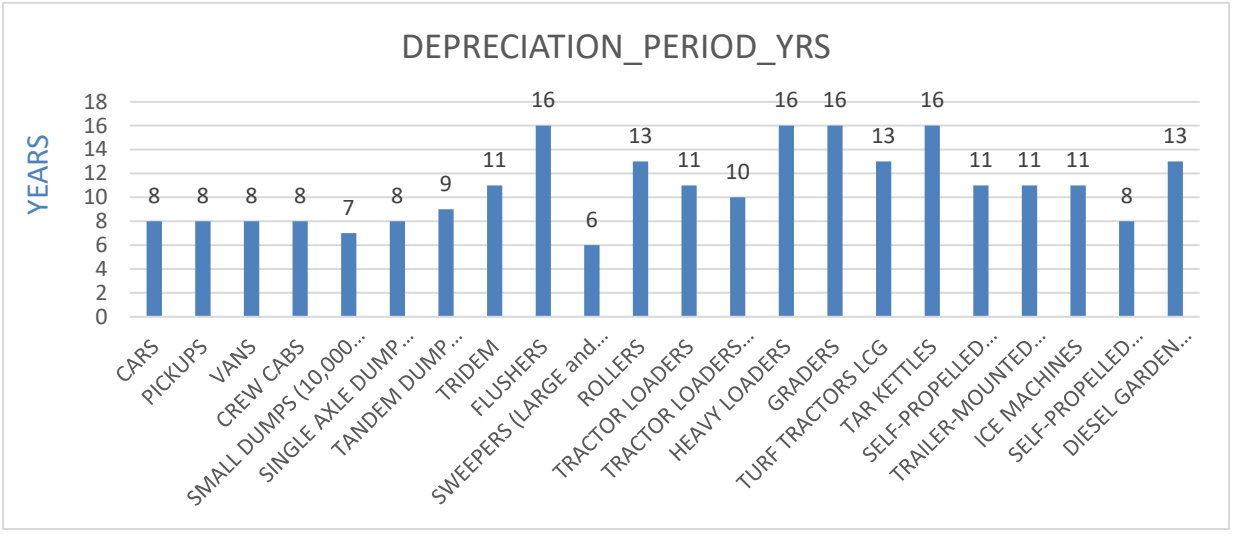
The Equipment Replacement Request form also allows users to make additional and rental requests to meet service growth requirements and short term/emergency requirements.

Users are required to provide details related to the function of the asset, such as the total number of hours of service required per day and any betterment or upgrades to be added to the asset.

Fleet Assets Lifecycle

The lifecycle of the vehicle and/or equipment begins the process of determining the asset's risk; operational and financial. Lifecycle expectancies are pre-determined by the Manager, Fleet Planning, and calculated based on historical data and annual depreciation costs in association with projected repair and maintenance costs. In addition, the Fleet Rating points system provides an objective opportunity to prioritize the risks replacement requirements.

Equipment Description	Estimated Life Cycle
Cars	8 Years
Pickups	8 Years
Vans	8 Years
Crew Cabs	8 Years
Small Dumps (10,000 to 18,000 lb. GVW)	7 Years
Single Axle Dump Trucks (30,000 to 39,000 lb. GVW)	8 Years
Tandem Dump Trucks (50,000 to 55,000 lb. GVW)	9 Years
Tridem	11 Years
Flushers	16 Years
Sweepers (large and small)	6 Years
Rollers	13 Years
Tractor Loaders	11 Years
Tractor Loader Backhoes	10 years
Heavy Loaders	16 Years
Graders	16 Years
Turf Tractors LCG	13 Years
Tar Kettles	16 Years
Self-Propelled Gang Mowers	11 Years
Trailer-Mounted Compressors 160 CFM	11 Years
Ice Machines	11Years
Self-Propelled Rotary and Reel Mowers	8 Years
Diesel Garden Tractor	13 Years



Vehicle and Equipment Rating Management

All assets that have met the expected life are monitored and rated via the Fleet Point rating system as defined below:

Factor	Points	
Age	Maximum 10 points for meeting the life cycle or less one point for every 10% beneath the current life cycle.	
Utilization	One point for every 10,000 kms. or 1,000 hours for heavy equipment. One point for every 400 hours on equipment under 120 hp.	
Service Type	Points are assigned based on the type of service that the vehicle provides i.e. 5 = easily replaced, 10 = heavy duty or specialized.	
Reliability	Points are assigned based on the frequency that the vehicle is in the shop for repair i.e. 1 point for every 10 days (Flint Downtime Report).	
M&R Costs	Points are assigned based on the maintenance and repair costs in relation to the purchase price.	
Fuel Efficiency	Points are assigned based on best-in-class fuel economy factor: Best - 0 points, Medium – 5 points, Worst – 10 points.	
Condition	This category takes into consideration the ratio of the estimated repair cost to the depreciated cost.	
Point Ranges	Under 40 points 41-45 46-55 56 and above	Very Good Good Fair Met Expected Life

In addition, data associated with the “Condition” is ascertained via trained mechanical staff within Fleet services. Condition data that supplements the above Rating system includes a visual examination with an estimate of the cost associated with bringing the condition to normal condition or “fair” or “good”.

Estimated asset condition values are provided during the Equipment Review to aid in the discussion and determination of replacement.

Condition Assessment Data

Factor	Points
Body Condition	The overall condition of the body is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the body condition, an estimated cost of repair/replacement to bring the body's condition to normal/good.
Interior Condition	The overall condition of the interior of the vehicle is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the interior condition, an estimated cost of repair/replacement to bring the interior's condition to normal/good.
Tire Condition	The overall condition of the tires is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the tires condition, an estimated cost of replacement of the tires required.
Engine Condition	The overall condition of the engine is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the engine condition, an estimated cost of repair/replacement to bring the engine's condition to normal/good.
Transmission Condition	The overall condition of the transmission is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the transmission condition, an estimated cost of repair/replacement to bring the transmission's condition to normal/good.
Rear Axle Condition	The overall condition of the rear axle is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the rear axle's condition, an estimated cost of repair/replacement to bring the axle's condition to normal/good.
Front Axle Condition	The overall condition of the front axle is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the front axle condition, an estimated cost of repair/replacement to bring the axle's condition to normal/good.
Accessories Condition	The overall condition of the accessories is analyzed by a qualified service technician who provides an estimated rating of either: poor, good, or excellent. In addition, the service technician will include as part of the overall assessment of the accessories' condition, an estimated cost of repair/replacement to bring the accessories' condition to normal/good.

The condition data is assessed, analyzed and calculated into the overall condition rating, and highlighted within the annual vehicle report at the Annual Equipment Review.

Asset Attributes

The following asset attributes are extrapolated from the CMMS and populated on the Equipment Review sheet to be included in the analysis of the comprehensive condition assessment.

Factor	Points
Division	The location of the vehicle or equipment is indicated via department and division.
Identification number	Each asset is identified with a unique number which is maintained in Flint. The identification number provides tracking and monitoring capabilities during the equipment review and analysis process.
Make, model and year	The vehicle or equipment make and model is identified in Flint along with the year the asset was manufactured.
Gross vehicle weight	This category takes into consideration the weight of the asset. For vehicle assets, it is used to determine the necessity of registering the vehicle under the commercial vehicle operator's registration regulation in Ontario.
Mileage	For vehicle assets, the mileage as indicated on the odometer in the vehicle and is recorded and maintained in Flint. For equipment, the approximate number of hours of service, utilization is recorded and maintained in Flint.
Previous year mileage	For vehicle assets, the mileage as indicated on the odometer year to year is recorded and maintained in Flint. For equipment, the approximate number of hours of service, utilization year over year is recorded and maintained in Flint.
Description	A description of the asset is recorded.
Attachments	If an addition to the asset have been made (such as a snow plow on a pick-up truck), it will be noted.
Life cycle	The number of years projected for the asset's life cycle is noted.

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Overall Assessment Value

1. Very Good
2. Good
3. Fair
4. Met Expected Life – Fair
5. Poor

The Overall Assessment Value provides a guideline tool during the risk assessment process at the annual Fleet Review. Values can be ignored providing proponents articulate and rationalize their objection to the provided value.

Additional data that is utilized to assist with determining the ongoing commitment to maintain the asset include:

- Estimated Purchase Price
- Estimated Annual Depreciation
- Estimated Repair Cost
- Depreciation versus Repair Costs

Overall recommendations can include:

1. Keep one more year
2. Replace
3. Remove from service

Recommendation provides a guideline tool during the risk assessment process at the annual Fleet Review. The recommendation can be modified providing proponents articulate and rationalize their objection to the provided value.

Related Risks and Mitigation Management of Fleet Assets

A key part of the asset management process, is a risk analysis of vehicles and equipment that is performed based on a lifecycle target.

Every year, the Manager of Fleet Planning, undergoes a thorough examination of Fleet inventory based on the lifecycle objectives associated with each piece of equipment and vehicle. Detailed summaries/reports are provided for the following user groups within the City:

- *Community Services Enterprise (Neighbourhood Programs and Services)*
- *Community Services (Bylaw Enforcement)*
- *Community Services (Fire)*
- *Community Services Enterprise (Sport)*
- *Corporate Services (Human Resources)*
- *Development Services (Building)*
- *Development Services (Engineering)*
- *Development Services (Transportation Services)*
- *Financial Services (Supply Services)*
- *Infrastructure Services (Parks and Cemeteries)*
- *Infrastructure Services (Facilities Management)*
- *Infrastructure Services (Fleet)*
- *Infrastructure Services (Operations – Roads and Traffic)*
- *Infrastructure Services (Utilities)*

This method of ongoing assessment and rating provides Fleet with a comprehensive tool to provide risk assessment and optimize the level of quality service for City users. The function of the quality management system will enhance Fleet's capacity to provide a measured and continually monitored performance of quality customer service to the City user.

During the Annual Equipment Review, each piece of equipment and vehicle (selected for review based on the lifecycle assessment) undergoes an analysis based on the ratings juxtaposed with financial requirements, losses and projected costs.

Fleet Users Working Group

The primary objective of the Fleet Users Working Group is to improve user satisfaction and service, while educating City users to vehicle and equipment tendencies and uses.

Users of Fleet vehicles and equipment are represented via the Fleet Users Working Group (FUWG); a committee made up of management from across the City. The committee meets on a regular basis and minutes are recorded and maintained by the Fleet, Administrative Assistant.

Members of FUWG include:

- All Operating Areas utilizing Fleet Assets shall have representation on the FUWG.
- Waterloo Region Insurance Pool shall be represented to provide insight and information with respect to Risk Management.

- The Corporate Sustainability Officer shall participate in providing insight, information and support with respect to Corporate Sustainability Initiatives which guide improvement to the environmental impacts of the Fleet.
- The Manager of Corporate Health & Safety shall participate in the provision of information and oversight regarding Health & Safety.
- The Human Resources Associate responsible for Fleet shall participate in providing information and oversight regarding Labour Relations.
- Other participants may be invited to present information or request feedback as applicable to the FUWG.

FUWG is the most active and productive committee for City Fleet users. Its function is ensuring there is an ongoing internal dialogue associated with monitoring, discussing, communicating and educating Fleet users on vehicle and equipment use. FUWG provides the best forum for changes and modifications to Fleet inventory, its policies, procedures and practices. The committee provides a consistent and reliable format for Fleet administration to improve users' understanding and awareness of the vehicles and equipment available for City use.

Global Positioning System Tracking

All vehicles, large equipment and some small equipment utilize GPS as a method of ongoing data analysis and reporting.

Service of vehicles and large equipment and related objectives and targets are monitored by Fleet administration via GPS data received in addition to service records entries as:

Data Collected	Provides information relevant to:
% of Completed Inspections Non-CVOR	1. Vehicle/equipment operation 2. Vehicle/equipment history 3. Vehicle/equipment capabilities and limitations 4. Vehicle/equipment serviceability and risk 5. Vehicle/equipment value and replacement index
% of Completed Inspections CVOR	
Idling Time	
Harsh Breaking Incidents	
Harsh Cornering Incidents	
Speeding Incidents	

All of the above data and information is provided by Fleet Administration on a daily bases. By monitoring user behaviours, the City is able to address employees who are considered a high risk.

Repair Priority Matrix

The following matrix is applied to determine priority of repairs.

CORPORATE PRIORITY MATRIX			DESCRIPTION
1.	**EMERGENCY**		
		1. SSU emergency equipment 2. Winter maintenance equipment (Nov. 1 to Apr. 7) 3. Utilities main break equipment 4. Forestry – aerial truck 5. Fire Department	A threat to life and/or the environmental destruction of property, equipment or facility.
2.	**BREAKDOWN**		
	• Road service	**Questions:** 1. Is it a hazardous situation? 2. Is it in an unsafe area? 3. What is the problem (type of repair)? 4. When needed? Is there a spare? 5. Supervisor of Fleet negotiate time frame.	Immediate response with appropriate resources. Permanent or corrective action will be completed through one of the lower priorities.
3.	**RUNNING REPAIRS**		
	• Defects • Building	1. How long down? 2. Is there a spare? 3. User and Fleet negotiate time frame for repair.	Does not render the vehicle/equipment inoperative, but can be completed during the shift. Vehicle cannot operate and ca be repaired during the shift with minimal inconvenience to the user.
4.	**SCHEDULED REPAIRS**		
	• Bodywork • Collisions • Pre-delivery inspection • Servicing (i.e. clean, fuel) • PM inspection/repairs • Legislated inspection/repairs • Retrofitting (i.e. H & S) • Building maintenance	1. Fleet to negotiate with contact person on time frame. 2. Can be upgraded to a higher priority at any time.	Work that can be scheduled and completed within a week and can be interrupted for work of higher priority.
5.	**SEASONAL/CAPITAL**		
	• Rebuilding • New vehicle outfitting • Seasonal overhauls	1. Fleet to negotiate with user on time frame. 2. Can be upgraded to a higher priority at any time.	Completion date required. Work is scheduled on quarterly basis (from 1 week to 12 weeks) Work that can be interrupted for work of a higher priority.

Repair and Maintenance Costing Analysis

Fleet Management System (Flint)

The Fleet Management System (Flint) is a statistics management system utilized by Fleet and maintained by the Manager, Fleet Planning. The primary function of Flint is to record and maintain data relevant to each uniquely identified vehicle and equipment utilized by City users.

Users have access to Flint via Chrystal Reports with an approved access and password from Fleet. Chrystal Reports only provide costs and vehicle/equipment values. Users may obtain detailed information and data for any vehicle or equipment by request.

Jobs and service requests for vehicles and equipment are created and input into Flint by the Manager, Fleet Planning. Jobs and service requests may be accessed by our Service Technicians in Flint in the shop. Technicians must enter work performed and additional notes and details in Flint once the job/service is complete. This process maintains complete and accurate data relevant to maintaining a high level of customer service for City users.

Preventive maintenance schedules are automatically generated in Flint as prescribed in the Service Agreement.

Work Orders – Maintenance, Service and Repairs

Work orders are initiated via Flint and by the Fleet Mechanical staff. For the most part, work orders are generated for the purpose of asset maintenance and repair but may also be executed for betterment, non-routine and/or service requests.

Service work orders are entered into Flint. Data received from the service technicians in Flint is utilized as part of the value criteria for each asset.

SERVICE	Typical examples include accessory items and attachments to vehicles and equipment such as: plows, running boards, Geotab GPS, back rack, box alarms
ROUTINE	Typical examples include: oil changes, filter changes, tire rotation and changes, brake changes
BETTERMENT	Typical examples include: battery replacement, transmission replacement, replacement of water pump, power steering unit

Assets Out of Scope

Although this plan generally covers vehicle and equipment assets, there are two groups of assets that have not been included or monitored in our CMMS.

Vehicle Charging Stations
The city currently owns and operates 48 charging stations (59 charging ports) both for public use and dedicated fleet use. Repair and maintenance occurs on an on-demand basis. Performance is monitored through the 3 party provider (Chargepoint).

Fuel Stations

The Fleet Division is responsible for 17 Fuel tanks of varying size and type. Although these tanks are not monitored within our CMMS, they are inspected monthly by fleet staff and are inspected annually by a 3rd party to insure TSSA compliance.

TANK NUMBER	LOCATION	FUEL TYPE	TANK TYPE	DESIGN	CAPACITY	ESTIMATED COST OF DISPOSAL
1	KOF - 131 Goodrich Drive	Diesel, Clear	Steel	Above Ground	78, 000 L	$20,000.00
2	KOF - 131 Goodrich Drive	Diesel, Marked	Steel	Above Ground	39, 000 L	$10,000.00
3	KOF - 131 Goodrich Drive	Regular Gas	Steel	Above Ground	39,000 L	$10,000.00
4	KOF - 131 Goodrich Drive	Premium Gas	Steel	Above Ground	1,136 L	$1,000.00
5	Rockway Golf Course - 280 Carwood Drive	Regular Gas	Fiberglass	Underground	2,250 L	$100,000.00
6	Rockway Golf Course - 280 Carwood Drive	Diesel, Marked	Fiberglass	Underground	4,500 L	$150,000.00
7	Doon Valley Golf Course - 500 Doon Valley Drive	Regular Gas	Steel Protected	Underground	2,250 L	$100,000.00
8	Doon Valley Golf Course - 500 Doon Valley Drive	Diesel, Marked	Fiberglass	Underground	4,500 L	$150,000.00
9	Woodland Cemetery - 119 Arlington Blvd.	Regular Gas	Steel	Above Ground	2,200 L	$1,000.00
10	Woodland Cemetery - 119 Arlington Blvd.	Diesel, Marked	Steel	Above Ground	2,200 L	$1,000.00
11	Williamsburg Cemetery - 1541 Fischer Hallman Rd.	Regular Gas	Steel	Above Ground	1,136 L	$1,000.00
12	Williamsburg Cemetery - 1541 Fischer Hallman Rd.	Diesel, Marked	Steel	Above Ground	1,136 L	$1,000.00
13	Victoria Park - 135 Dill St.	Diesel, Marked	Steel	Above Ground	1,136 L	$1,000.00
14	Budd Park - 1111 Homer Watson Blvd.	Diesel, Marked	Steel	Above Ground	1,136 l	$1,000.00
15	Bridgeport Sportsfields - Bridge St. E.	Diesel, Marked	Steel	Above Ground	1,136 L	$1,000.00
16	Queensmount Arena - 1260 Queen's Blvd.	Diesel, Marked	Steel	Above Ground	1,136 L	$1,000.00
17	Peter Hallman Ball Yard - Lennox Lewis way	Diesel, Marked	Steel	Above Ground	1,136 L	$1,000.00

Financial Summary

Fleet Ten Year Operating Budget

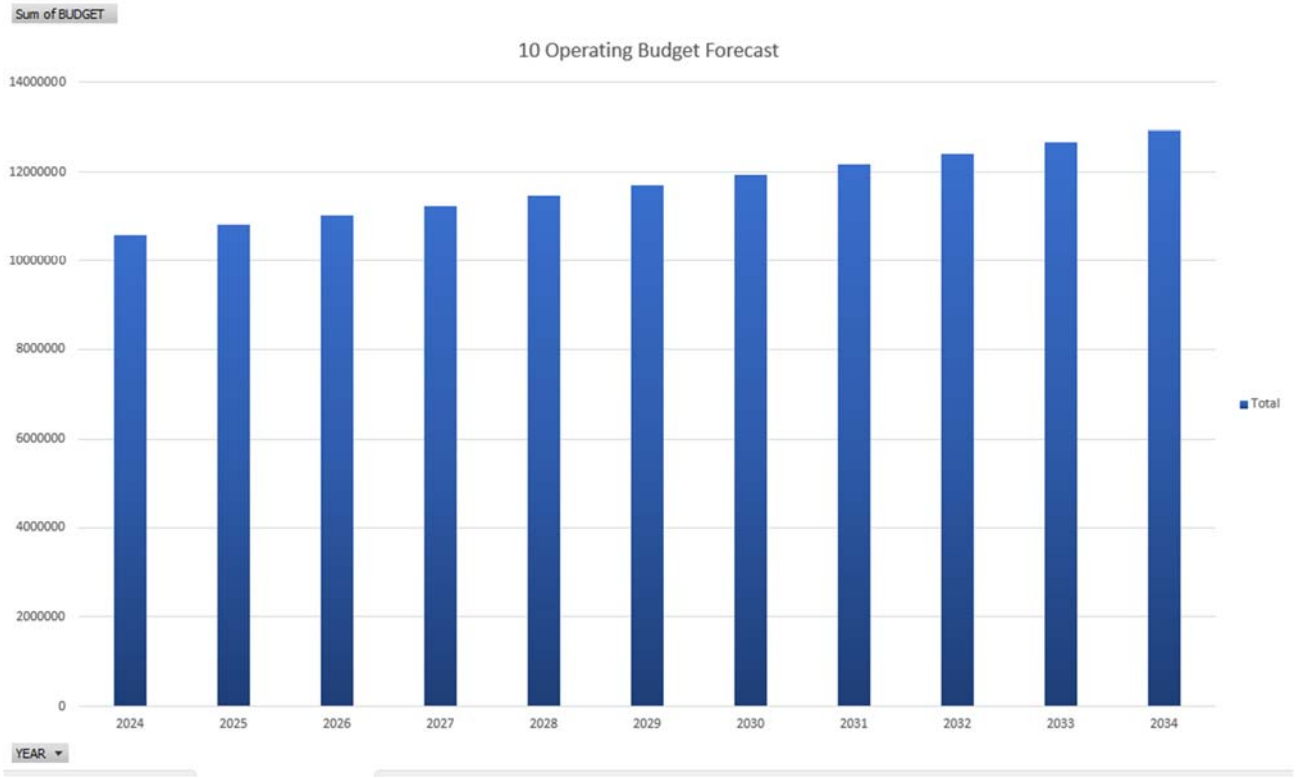
Operating and maintenance charges are applied against each asset through an hourly shop rate. The shop consists of the hourly technician rate plus percentage increases to include benefits, shop supplies and management/ administration fees.

The following 10-year operating budget has been extrapolated via the previous year of actual Work Order costs associated with all asset categories and a 2% inflation rate has been applied to build out the projection.

Year	Budget
2024	$10,597,280.00
2025	$10,809,225.60
2026	$11,025,410.11
2027	$11,245,918.31
2028	$11,470,836.68
2029	$11,700,253.41
2030	$11,934,258.48
2031	$12,172,943.65
2032	$12,416,402.53
2033	$12,664,730.58
2034	$12,918,025.19
Total	**$128,955,284.50**

The Fleet Operating budget is intended for the repair and maintenance of Fleet assets. This includes ongoing routine maintenance, preventative maintenance, annual safety inspections, defect repairs and body repairs.

Funding for this operating budget is generated through an internal charge out rate when vehicles and equipment are applied to an operations workorder. Any repair and maintenance completed on an asset will draw down on this account according to the hourly Shop Rate. The operating budget for Fleet division is intended to operate at net zero dollars. Therefore, if there is a deficit at year end, the gap will be funded through internal charges spread across the different users (divisions). If there is a surplus, the funds will be moved to maintenance the Fleet Equipment Reserve.

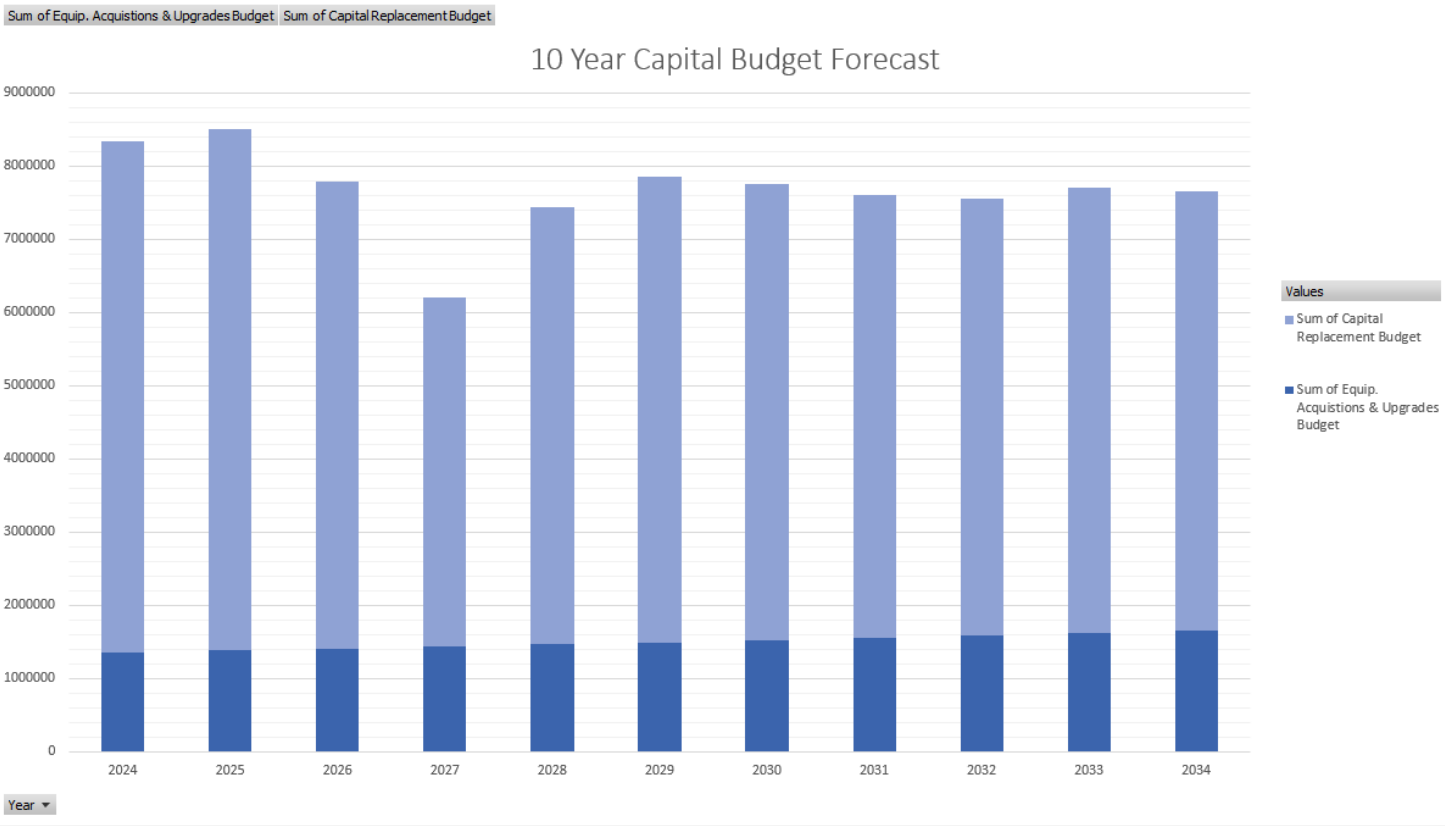


Ten Year Capital Budget Forecast

The 10 year Capital Budget Forecast is the budget that is currently entered into the budget system. However, this forecast is reviewed and updated annually after the Equipment Review process. Fleet Capital purchases are funded through the Equipment Reserve. The Equipment Reserve is maintained by depreciating the cost of the asset on a monthly basis through internal charges to the user (division).

This forecast also incudes the budget for Equipment Acquisitions & Upgrades. This funding is applied to net new assets and upgrades to replacement vehicles & equipment. This funding source is from the City's enterprises (Kitchener Gas & Water Utilities) and the City's Development Charges.

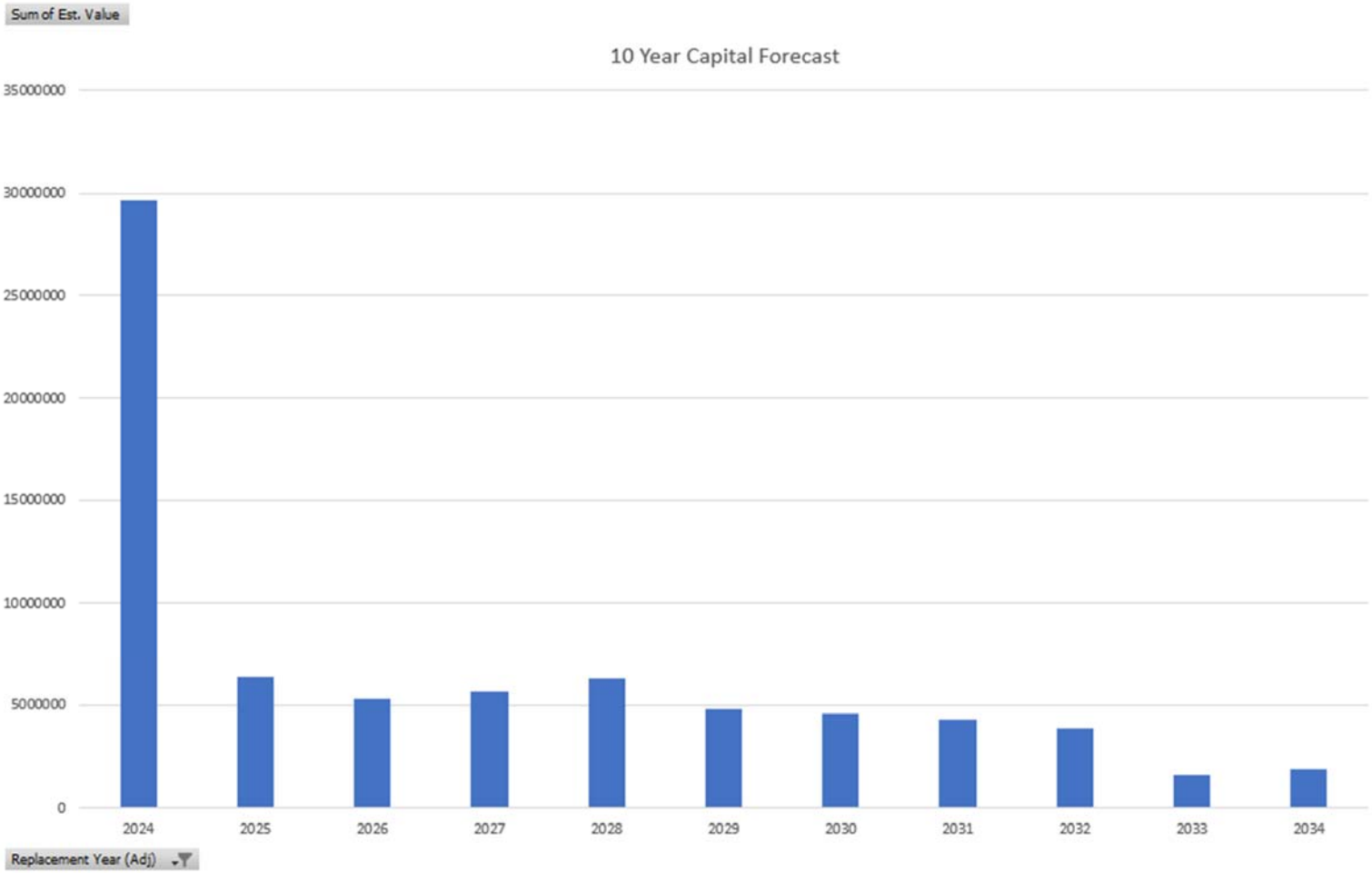
Year	Capital Replacement Budget	Equip. Acquisitions & Upgrades Budget	Total Budget
2024	$ 6,987,000	$ 1,353,000	$ 8,340,000
2025	$ 7,124,000	$ 1,381,000	$ 8,505,000
2026	$ 6,387,000	$ 1,407,000	$ 7,794,000
2027	$ 4,768,000	$ 1,435,000	$ 6,203,000
2028	$ 5,966,000	$ 1,464,000	$ 7,430,000
2029	$ 6,354,000	$ 1,493,000	$ 7,847,000
2030	$ 6,225,000	$ 1,523,000	$ 7,748,000
2031	$ 6,042,000	$ 1,554,000	$ 7,596,000
2032	$ 5,971,000	$ 1,585,000	$ 7,556,000
2033	$ 6,091,000	$ 1,616,000	$ 7,707,000
2034	$ 6,000,000	$ 1,650,000	$ 7,650,000



Asset Replacement Forecast

The Replacement Forecast is based on the expected life cycle and based on current estimated replacement values. Although there is a high estimated value for the year 2024, this value is a sum the assets that have met the expected life at the year 2024 or prior and are considered fair and therefore, still in service. These assets are evaluated each year as part of the Equipment Review process and are continually maintained according to the prescribed level of service. This value will continue to move forward year to year as assets continue to meet the expected life and assets are replaced (removed from inventory).

Year	Estimated Replacement Value
2024	$29,623,039.04
2025	$6,404,288.68
2026	$5,323,942.34
2027	$5,693,383.50
2028	$6,301,473.28
2029	$4,833,451.39
2030	$4,629,617.97
2031	$4,331,981.24
2032	$3,906,939.22
2033	$1,632,217.82
2034	$1,899,824.73
Total	**$74,580,159.20**



Replacement Budget versus Replacement Forecast

In order to budget for the value of assets being deferred, the total value is divided over the 10 Capital Budget Forecast. Although there is a projected gap, the gap is expected to be funded from the Fleet Equipment Reserve. Again, these budgets are reviewed annually after the Equipment Review.

Row Labels	Sum of Total Forecast	Sum of Capital Replacement Budget	Sum of Funding Gap
2024	$7,620,063	$6,987,000	-$633,063
2025	$8,849,064	$7,124,000	-$1,725,064
2026	$7,768,717	$6,387,000	-$1,381,717
2027	$8,138,159	$4,768,000	-$3,370,159
2028	$8,746,248	$5,966,000	-$2,780,248
2029	$7,278,227	$6,354,000	-$924,227
2030	$7,074,393	$6,225,000	-$849,393
2031	$6,776,756	$6,042,000	-$734,756
2032	$6,351,714	$5,971,000	-$380,714
2033	$4,076,993	$6,091,000	$2,014,007
2034	$4,344,600	$6,000,000	$1,655,400
Grand Total	**$77,024,934**	**$67,915,000**	**-$9,109,934**



KITCHENER	POLICY	Policy No: **GOV-COR-506**
Policy Title: **CORPORATE ASSET MANAGEMENT** Policy Type: ADMINISTRATIVE Category: Governance Sub-Category: Corporate Author: Manager, Infrastructure Asset Planning Dept/Div: Financial Services, Financial Planning & Asset Management		Approval Date: Click here to enter a date. Reviewed Date: May 2024 Next Review Date: May 2029 Reviewed Date: Click here to enter text. Last Amended: Click here to enter a date. Replaces: Click here to enter text. Repealed: Click here to enter a date. Replaced by: Click here to enter text.
Related Policies, Procedures and/or Guidelines: Corporate Asset Management Strategy Update O. Reg 588/17 Asset Management Planning For Municipal Infrastructure		

1. POLICY PURPOSE:

Concise, easy-to-understand statement, which explains the objective or philosophy underpinning the policy.

To outline the Corporation's principles and governance models regarding the coordinated approach for the management of municipal assets.

2. DEFINITIONS:

Unusual or specialized language, acronym, jargon or unique application of words.

Asset: Any item, thing or entity that has potential or actual value to the organization. For this policy assets are categorized as core and non-core as shown in the table below.

Core Assets	Non-Core Assets
Water	Facilities
Wastewater	Cemeteries
Stormwater	Parks & Trails
Roads	Parking
Bridges & Culverts	Golf
Gas	Forestry
	Transportation
	Fleet

Asset Management (AM): A coordinated set of activities to realize optimal value from the organization's assets throughout their lifecycle.

Asset Management Plan (AMP): Document that details how groups of assets are to be managed over their lifespan. The plan describes the characteristics and conditions of infrastructure assets, the levels of service expected from them, planned operational and maintenance actions to help assets provide the expected level of service, and financing strategies to try to implement the planned actions. This document also addresses the impacts and maintenance risks associated with owning the asset.

Asset Management System: A set of processes and procedures that govern how Asset Management is to be implemented.

Level of Service: Defined service for a particular activity or service area against which service performance may be measured. Service levels relate to measures like capacity & use, function, quality & reliability, and financial sustainability.

Lifecycle: The various phases of an asset's life that are identified as; planning and construction, operations, maintenance and disposal. Each phase has its own opportunities, risks, impacts and costs.

Optimization: The City will apply consistent application of practices based on the needs of the asset classes, interventions and operations to achieve sustainability and provide optimum value for the public through the:

- Implementation of a lifecycle approach to managing infrastructure;
- Inclusion of changes that consider and addresses impacts to equity deserving groups;
- Evaluation of risk related to environmental, social and external impacts; and,
- Incorporation of sustainability criteria into infrastructure projects to help ensure a responsible balance between cost, performance, people-centered outcomes and risk.

Subject Matter Expert (SME): Individuals that accumulate knowledge over time in particular fields or topics and have a level of understanding that is broader than just common knowledge. SMEs are an important resource in maintaining or improving municipal processes or assets.

Sustainable: Achieving or retaining an optimum compromise between performance, costs, and risk of the asset life, while avoiding adverse long-term impacts to the organization from short- term decisions.

Treatment: Any infrastructure improvement activity, including but not limited to maintenance, betterment, renewal, rehabilitation, reconstruction, replacement, lifecycle management activity

3. SCOPE:

Statement as to whom the policy applies, as well as exceptions and the ramifications of non-compliance, if any and deemed appropriate to include.

POLICY APPLIES TO THE FOLLOWING:	
☒ All Employees	
☐ All Full-Time Employees	☐ All Union
☐ Management	☐ C.U.P.E. 68 Civic
☐ Non Union	☐ C.U.P.E. 68 Mechanics
☐ Temporary	☐ C.U.P.E. 791
☐ Student	☐ I.B.E.W. 636
☐ Part-Time Employees	☐ K.P.F.F.A.
☐ Specified Positions only:	☐ Other:
☐ Council	☐ Local Boards & Advisory Committees

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4. POLICY CONTENT:

Policy details, including specific roles and responsibilities relating to the policy.

Guiding Principles

The City's Corporate Asset Management methodology is designed to be an integrated network that will create a systematic framework to critically evaluate municipal infrastructure decisions. The principles in this policy will guide the City in developing an effective approach to managing its assets and deliver optimal value. The City will do it's best to:

1. **Adopt a Lifecycle Approach:** Applying a whole-life methodology for managing infrastructure assets through the various phases of its lifecycle;
2. **Provide Optimal Value:** Balance cost, risk, and performance of assets;
3. **Ensure Sustainability:** Prioritize environmental, and financial outcomes while meeting expected levels of service;

4. **Develop Service Knowledge:** Asset service levels will be clearly defined and communicated;
5. **Continuously Improve:** Adopt and improve asset management practices and processes throughout the City; and,
6. **Endorse Evidence Based Decision**s: Improve asset optimization by using up-to-date infrastructure information.

Objectives

The City has a social, environmental and fiduciary responsibility to develop a structured method of effectively managing assets on behalf of the public. Significant portions of the City's assets have long lifecycles and are in service for decades. Through the establishment of good asset management practices, the City will critically evaluate the impact of the assets lifecycle to ensure the asset is providing optimum value for the public in a fiscally responsible manner.

The combination of lifecycle analysis, financial sustainability, and risk analysis will be the driver of asset management recommendations. Asset management planning itself will not occur in isolation from other municipal goals, plans, and policies. An integrated approach will be followed to successfully develop practical asset management plans and procedures that align with the overarching accountabilities and aspirations of the community. When working as it should, asset management plans and principles will be integrated into everyday decisions that achieve the goals articulated in other City documents such as the Strategic Plan, Official Plan, Master Plans, and the budget.

In addition to integrating into everyday decisions, as part of its asset management planning, the City is committed to consider the actions that may be required to address the vulnerabilities caused by climate change to the City's infrastructure assets with respect to operations, levels of service, and lifecycle management. This includes, but is not limited to:

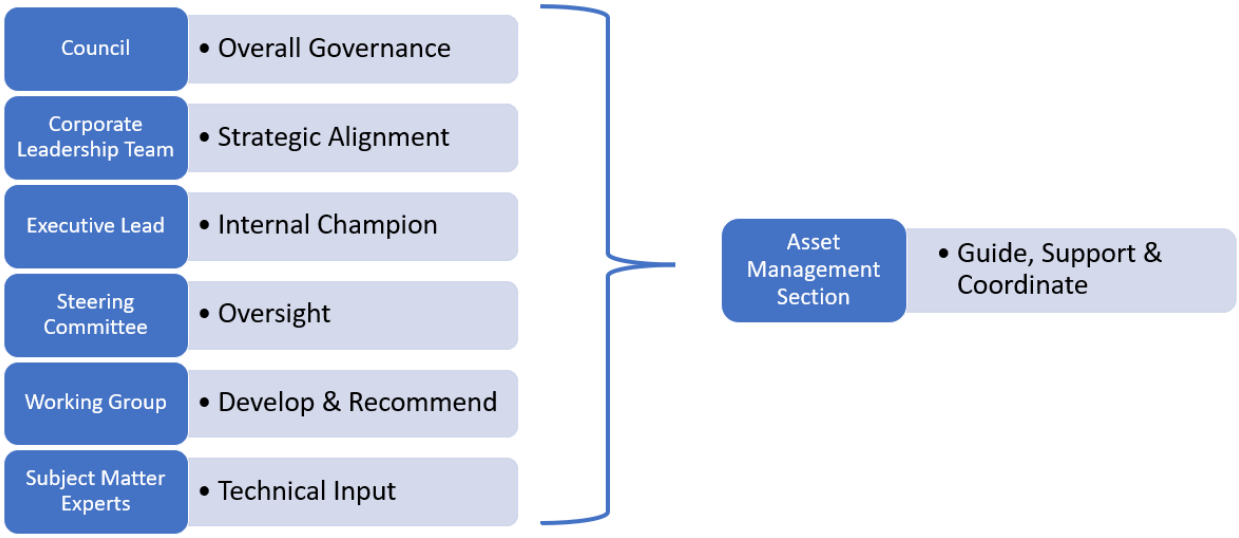
- Anticipating the costs related to any vulnerabilities
- Identifying adaptation opportunities to manage the risks associated with vulnerabilities
- Developing mitigation approaches to climate change
- Conducting disaster planning exercises
- Identifying contingency funding

The objectives of the Corporate Asset Management Program are to:

1. Ensure all legislative requirements and regulatory standards are met.
2. Support the improvement of data-driven decision-making that promotes doing the right thing, to the right asset, at the right time.
3. Establish a set of consistent corporate standards and processes to help optimize how assets are managed throughout their lifecycle including acquisition, maintenance, disposition, and service provision.
4. Develop tools to clearly communicate complex asset management concepts in plain language that can be understood by stakeholders.
5. Achieve continuous improvement in asset management processes related to data quality and related systems, thereby improving forecast reliability.

Roles and Responsibilities

The model described is the internal governance structure to outline the connections and flow of information in regards to the City's AM model.



Council's Role – Overall Governance

1. Approve policies and asset management plans (AMPs).
2. Approve levels of service for different program areas across the City.
3. Approve funding allocations through the City's annual budget process to support desired levels of service.
4. Support ongoing efforts to continuously improve and implement the City's asset management plans.

Corporate Leadership Team Role – Strategic Alignment

1. Promote alignment between corporate goals and asset management principles.
2. Endorse the asset management policy, AMPs, and any related updates in advance of seeking Council approval.

Executive Lead (CFO) Role – Internal Champion

1. Champion corporate adoption and integration of asset management principles, objectives and practices.
2. Encourage an integrated approach to planning and communication to help ensure asset management goals are achieved.

Asset Management Steering Committee Role - Oversight

1. Steering Committee will be comprised of Directors from the various asset areas included in the AMPs, as well as the Director of Financial Planning & Asset Management, and Manager of Infrastructure Asset Planning.
2. Provide oversight and guidance to asset management issues.
3. Monitor progress towards stated asset management goals.
4. Decide on recommendations for changes to asset management principles, objectives, and practices.
5. Seek approval for adequate staff and financial resources to support asset management goals.
6. Promote corporate adoption and integration of asset management principles, objectives and practices throughout the corporation.

Asset Management Working Group Role – Develop & Recommend

1. Working Group will be comprised of Managers/Supervisors/Technical staff from the various asset areas included in the AMPs, as well as related support divisions (e.g. TIS, ERP Solutions, Financial Planning) and the Manager of Infrastructure Asset Planning.
2. Develop and recommend improvements related to asset management issues.
3. Report progress towards stated asset management goals.
4. Develop asset management principles, objectives, and practices to be applied in specific asset areas.
5. Identify staff and financial resources needs to support asset management goals.
6. Promote adoption and integration of asset management principles, objectives and practices in their respective areas including the value of the activities staff are undertaking and the asset information they are providing.
7. Coordinate with SMEs regarding assets in their area.

Subject Matter Experts (SMEs) Role – Technical Input

1. Collect and track asset information for assets within their portfolio. This includes but is not limited to asset inventory, condition, estimated service life, treatment strategies, deterioration rates, treatment costs, replacement costs.
2. Help establish and maintain the risk profile and levels of service for assets in their area.
3. Use asset management processes and data to inform decisions in their rehabilitation and replacement prioritization decisions.
4. Apply a full lifecycle perspective when considering the construction or acquisition of assets and development of future capital and operating plans.

Asset Management Section Role – Guide, Support & Coordinate

1. Guide divisions related to asset management principles, objectives and practices and facilitate related skill development.
2. Support the continuous improvement of asset management processes, data, and systems.
3. Coordinate and prepare AMPs and other asset management reports (such as an asset management report card) based on input from SMEs, the AM Working Group, and the AM Steering Committee.
4. Ensure asset management plan information is considered in the development of the municipal budget.
5. The Manager of Infrastructure Asset Planning is the centralized point of contact for asset management and is responsible for the integration of AM principles. They advise the AM Steering Committee, AM Working Group and SMEs.

Other Legislative Requirements

In addition to the preceding content of this policy, the following items are included to comply with legislation.

Capitalization Thresholds

The capitalization thresholds for the City are detailed in the policy FIN-REP-698, Tangible Capital Assets (TCA). Every asset that provides value or has the potential to provide value and connects to the ability to deliver a level of service will be evaluated for inclusion within the appropriate Asset Management Plan. Inclusion will not be based solely on the established TCA capitalization thresholds.

Interrelated Assets

The City is committed to coordinate the planning of asset management for municipal infrastructure connected to other municipalities or jointly-owned municipal bodies.

Input Into Asset Management Planning

The City is committed to provide opportunities for residents and other interested parties to provide input into the City's asset management planning.

5. HISTORY OF POLICY CHANGES

Administrative Updates

The date (yyyy-mm-dd) and a short annotation on the nature of the change to reflect the current corporate structure i.e. Departmental re-organization / Titling changes / Standing Committee restructuring.

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Formal Amendments

The date of the resolution passed by Council or CLT, for example, "2020-01-20 - As per Council/CLT directive"

[Start typing here]

REPORT TO: **Finance and Corporate Services Committee**

DATE OF MEETING: **May 13, 2024**

SUBMITTED BY: **Jonathan Lautenbach, Chief Financial Officer, 519-741-2600 ext. 7334**

PREPARED BY: **Katie Fischer, Director of Financial Reporting & ERP Solutions, 519-741-2600 ext. 4630**

WARD(S) INVOLVED: **All Wards**

DATE OF REPORT: **May 13, 2024**

REPORT NO.: **FIN-2024-222**

SUBJECT: **Reserve Fund Policy Update**

RECOMMENDATION:

That Policy FIN-RES-770 Reserve Funds be amended as identified in report FIN-2024-222; and,

That funds in the amount of $400,863 be transferred from the Tax Stabilization Reserve Fund to the Investment Stabilization Reserve Fund; and further,

That funds in the amount of $4,488,866 be transferred from the Tax Stabilization Reserve Fund to the Tax Capital Reserve Fund.

REPORT HIGHLIGHTS:

- The purpose of this report is to amend the City's Reserve Funds Policy, following a review by staff.
- The key finding of this report is to balance the risk and funding needs across the operating program (stabilization reserve funds) and capital program (capital reserve funds), supporting the City's asset management plan while maintaining reserve fund balances within their minimum and maximum ranges according to best practices as defined by the Government Finance Officers Association (GFOA).
- The financial implications result in a transfer of funds from the Tax Stabilization Reserve Fund to the Investment Stabilization Reserve Fund ($0.4M) and to the Tax Capital Reserve Fund ($4.5M). Funds will be factored into the 2025 budget to move forward with additional capital project work.
- This report supports the delivery of core services.

*** This information is available in accessible formats upon request. ***
Please call 519-741-2345 or TTY 1-866-969-9994 for assistance.

BACKGROUND:

The City's current Reserve Funds policy, FIN-RES-770, was approved in 2012 and was last reviewed in 2016. In line with the action items from the City's Long Term Financial Plan, staff have completed a review of the policy with a particular focus on stabilization reserve fund targets and how annual surpluses are allocated to reserve funds. With the exception of the COVID-19 pandemic impacts, the City has traditionally realized modest operating surpluses within approximately 1% of budget, demonstrating effective budget control practices. Reviewing the policy of how these surpluses are allocated supports the City's financial sustainability and asset management plan.

REPORT:

Allocation of Surplus

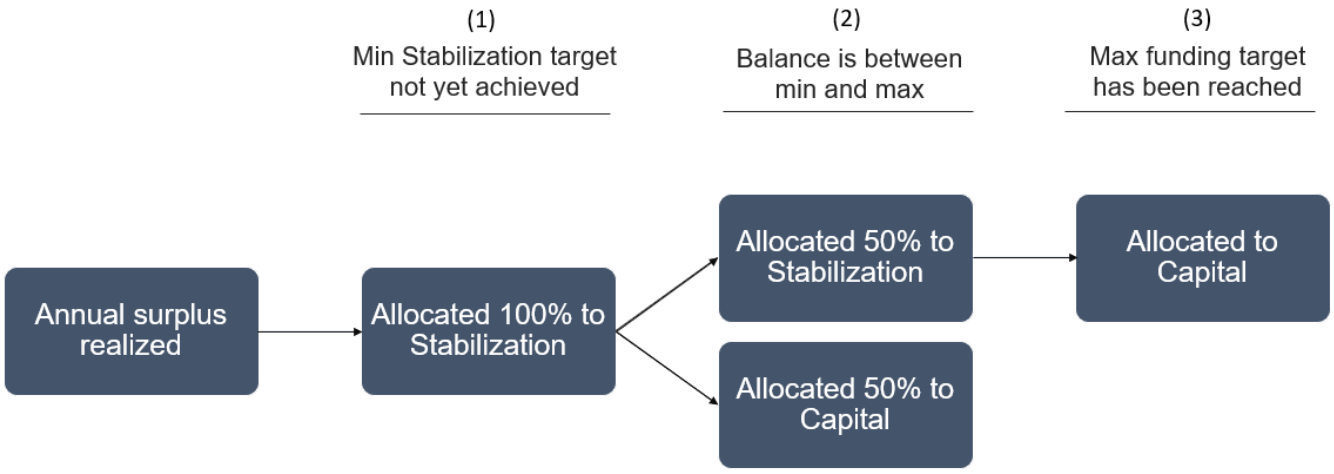
Under the existing Reserve Funds policy, surpluses resulting from the Operating and Enterprise budgets are allocated first to their associated stabilization reserve funds; once the stabilization reserve fund maximum target balance is reached, any additional funds are allocated to the associated capital reserve fund.

- Stabilization reserve funds are generally seen as the "rainy day funds", used to provide a contingency for unforeseen events and stabilize fluctuations caused by one-time expenditures or revenue shortfalls.
- Capital reserve funds are used to assist in financing the capital program.

The City's reserve fund policy follows best practices, as identified by the Government Finance Officers Association (GFOA), in identifying minimum and maximum funding target levels for reserve funds. The City aims to maintain reserve fund balances within this minimum and maximum range, as part of its risk management strategy and financial plan.

The proposed changes to the reserve fund policy aims to balance the risk and funding needs across the operating program (stabilization reserve funds) and capital program (capital reserve funds). Similar policies are in place at other municipalities. As the stabilization reserve funds achieve their minimum funding target level, the balance would continue to grow should there be an annual surplus, while at the same time allowing the City to use funds for capital purposes.

The proposed new approach to the allocation of potential annual surpluses is as follows:



(1) 100% of any surplus is allocated to the associated Stabilization reserve fund until its minimum funding target is achieved, recognizing that minimum thresholds are desired to mitigate operational risk.
(2) After its minimum funding target is achieved, then 50% of the surplus would be allocated to the associated Stabilization reserve fund and 50% to the associated Capital reserve fund.
(3) Once the Stabilization reserve fund has reached its maximum funding target, all remaining funding surplus would be allocated to the associated Capital reserve fund.

Before allocating funds for capital needs, the policy ensures the funding balance in the stabilization reserve fund remains within the best practices recommended by the GFOA. This approach would apply to the tax operations and all enterprises, with the exception of the Building Enterprise as it is governed by the *Building Code Act, 1992, S.O. 1992, c. 23*.

Surpluses resulting from the City's investment portfolio (within the operating budget) are treated similarly, but are proposed to be directed first to the Investment Stabilization reserve fund until its maximum funding target is met, after which they would be allocated to reserve funds using the same approach as a tax-supported operating surplus.

Other Proposed Changes

While the above represents the most significant changes to the draft Reserve Funds policy, staff additionally reviewed the overall policy. Proposed changes to the policy are highlighted in yellow in Attachment A, with strikethrough text being proposed deletions. The proposed Reserve Funds policy changes contain many of the same elements of the existing policy, with updated language in some areas following a review of policies from other municipalities. The following is a summary of changes proposed to the policy.

- The Investment Stabilization reserve fund's maximum target balance is proposed to increase from $2.0 million to $2.5 million, representing approximately 50% of the annual budget in investment income in the operating fund. The previous target of $2.0 million was estimated as the impact if interest rates decreased by 1 percentage point. As the budget is determined based on historical average investment income, it is proposed instead to base the stabilization reserve fund on the budget, to assist with smoothing budgetary impacts resulting from the running three-year average.

- Policy Purpose: No changes to the language is proposed; this section consolidates the previous "Policy Content" and "Policy Purpose" from the existing policy.

- Definitions: Language was refined to make definitions clearer and more concise.

- Reserve Fund Classifications: It is proposed to replace the classification of "Development Charges Reserve Funds" with the wider classification "Obligatory Reserve Funds". This wider classification would include not only Development Charges Reserve Funds, but also other obligatory reserve funds such as Building Enterprise, Recreational Land, and Canada Community-Building Fund (formerly Gas Tax). This classification segregates reserve funds that Council does not have control to repurpose for any use other use than what the fund was prescribed for. The classification also aligns with the mandatory reporting to the Ministry of Municipal Affairs and Housing as part of the Financial Information Return.

- An "Authority" section has been introduced, referencing the Municipal Act, as well as a section on "Responsibilities" to identify key roles and responsibilities.

- The "Guiding Principles" have been updated, to better align to the overall financial plan for the City.

- The "Target Reserve Fund Levels" section has been updated; in particular, the policy now includes a "Schedule A" to more explicitly state the reserve funds that are approved, their purpose, funding source, intended use, and funding target.

- A new section entitled "Specific Policies" has been introduced. This section introduces a policy statement on how the City will allocate its annual surpluses as outlined above.

- Within the "Schedule A", it is proposed that the Building Enterprise Stabilization and the Building Enterprise Capital reserve funds be consolidated into one single "Building Enterprise" reserve fund. The *Building Code Act, 1992, S.O. 1992, c. 23* does not require more than one reserve fund to be established, and the capital needs of the Building Enterprise are not material relative to the City's overall reserve funds or the Building Enterprise operations. Having one single reserve fund for the Building

Enterprise will streamline the financial reporting and financial planning of this enterprise, and is consistent with other municipalities reviewed.

STRATEGIC PLAN ALIGNMENT:

This report supports the delivery of core services.

FINANCIAL IMPLICATIONS:

The 2023 books have been closed out, with the financial results reported to the Committee of the Whole on April 8, 2024 (FIN-2024-153). To support the City's asset management plan moving into the 2025 budget process, staff recommend the proposed reserve fund policy be applied to the 2023 year-end surpluses, resulting in transfers between reserve funds as identified in the following table. The change in reserve fund policy did not have an impact to funding transfers resulting from 2023 financial results for any of the Enterprises.

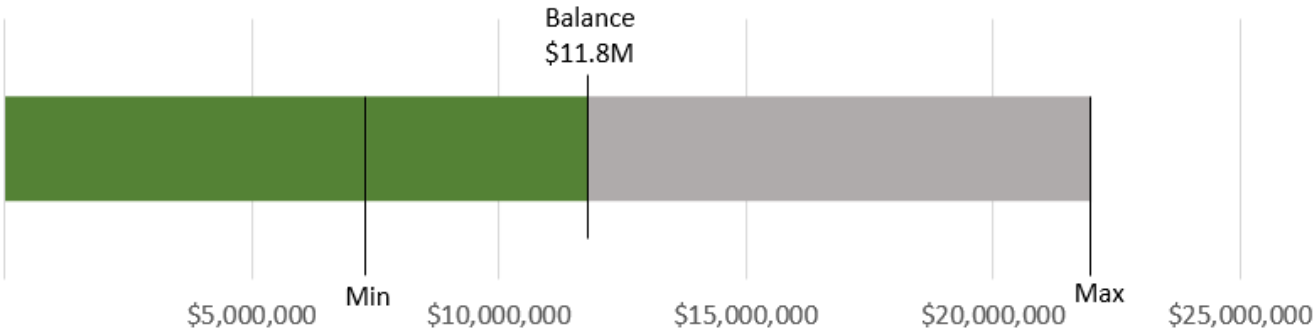
	Investment Stabilization Reserve Fund	Tax Stabilization Reserve Fund	Tax Capital Reserve Fund
Current balance following 2023 year-end	$2.1M	$16.7M	$1.7M
Redistribute 2023 Investment Income Surplus	$0.4M	($3.4M)	$3.0M
Redistribute 2023 Operating Surplus	$0	($1.5M)	$1.5M
Revised balance	**$2.5M**	**$11.8M**	**$6.2M**
Funding Target Min & Max	$0-$2.5M (Note 1)	$7.3M-$22.0M	$0.8-$2.25M (Note 2)
Additional (less) funds compared to existing policy	$0.4M	($4.9M)	$4.5M

Note 1: The funding target max for the Investment Stabilization reserve fund is currently $2.0M and is proposed to be increased to $2.5M.

Note 2: Tax Capital funds will be factored into the 2025 budget to move forward with additional capital project work.

The Tax Stabilization reserve fund balance remains within the funding target range and best practices as identified by the GFOA.

Tax Stabilization Reserve Fund Balance



COMMUNITY ENGAGEMENT:

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

PREVIOUS REPORTS/AUTHORITIES:

- *Municipal Act, 2001*

APPROVED BY: Jonathan Lautenbach, Chief Financial Officer

ATTACHMENTS:

Attachment A – Reserve Fund Policy

POLICY		FIN-RES-770	
Reserve Fund Policy		**Category** FIN - Finance	**Sub-category** RES - Reserve
Approval Type COUNCIL	**Department/Division** Financial Services	**Author and Position** Jonathan Lautenbach, Chief Financial Officer	
Date Approved June 11, 2012	**Review Date** Click here to enter a date.	**Last Amended** June 16, 2016	

Related Policies or Procedures

- N/A

Policy Purpose

It is the policy of the City of Kitchener (the City) to establish and manage reserve funds for planned future capital expenditures, unexpected or unpredicted events or extraordinary expenditures, which would otherwise cause fluctuations in the operating or capital budgets. A reserve fund will only be used for the specific or intended purpose for which it was established.

Reserve funds form a critical component of the longer-term financial planning and funding strategies for the City and support sound financial and cash management for the ongoing financial stability of the Corporation. A clear policy provides the appropriate guidance for responsible stewardship and management of reserve funds. This policy should be considered in conjunction with investment and capital financing and debt, and budget control policies.

Definitions

Reserve Fund – ~~means a fund with assets which are segregated and restricted to meet the purpose of the reserve fund. There are two types of reserve funds: obligatory reserve funds and discretionary reserve funds.~~ funds that have been set aside by Council for a specific purpose (discretionary) or as required by legislation (obligatory)

Reserve Fund Types:

Discretionary Reserve Fund – ~~means a reserve fund created under Section 290 of the Municipal Act, at the discretion of Council, to finance future expenditures of a purpose designated by Council for which it has the authority to spend money, and to set aside a certain portion of any year's revenues so that the funds are available as required. Discretionary reserve funds are established through a by-law of Council.~~ a reserve fund created under Section 290 of the Municipal Act, at the discretion of Council, to finance future expenditures of a purpose designated by Council

Obligatory Reserve Fund – ~~means a reserve fund created when a provincial statute requires that revenue received for special purposes be segregated from the general revenues of the municipality. Obligatory reserve funds are to be used solely for the purpose prescribed for them by statute.~~ a reserve fund that is required by legislation or agreement to be segregated from the general revenue of the municipality

Reserve Fund Classifications:

Capital Reserve Funds – ~~means~~ reserve funds used to assist in financing the capital program. They provide flexibility and liquidity as well as enhance the City's capacity to address current and future capital infrastructure and asset replacement needs.

Corporate Reserve Funds – ~~means~~ reserve funds available for corporate programs to protect the City against the consequences of certain risks and liabilities.

Program Specific Reserve Funds – ~~means~~ reserve funds set aside for specific purposes to be used for their identified purpose.

Stabilization Reserve Funds – ~~means~~ reserve funds used to provide a contingency for unforeseen or extraordinary events and stabilize fluctuations caused by one-time expenditures or revenue shortfalls. ~~They are also used to maintain the City's cash flow and minimize the need for short term borrowing. They are not intended to be an ongoing funding source for the operating budget.~~

~~**Development Charge Reserve Funds –** means reserve funds used to pay for growth related net capital costs of servicing new development. The City's Development Charges by-law imposes development charges on new development in the City.~~

Obligatory Reserve Funds – reserve funds segregated as required by legislation or agreement and to be used solely for the purpose prescribed for them by legislation or agreement.

Policy Scope

The Reserve Fund Policy applies to all departments of the Corporation of the City of Kitchener.

Application

☒ Employees (All)
☐ Unions Choose an item.
☒ Council
☐ Specified Positions
☐ Other Choose an item.

Policy Content

Authority

Under section 417(1) of the Municipal Act, municipalities have the authority to provide for Reserve Funds in annual budgets for any purpose for which it has the authority to spend money.

Responsibilities

Council

Under section 224(e) of the Municipal Act 2001, Council is responsible "to maintain the financial integrity of the municipality." Unforeseen events or extraordinary expenditures can have significant financial implications if reserve funds are not managed properly. Council is required to make decisions that adhere to the financial policies and procedures that have been put in place to provide financial governance for the municipality.

Chief Administrative Officer (CAO)

Under section 229(a) of the Municipal Act 2001, the Chief Administrative Officer is responsible for "exercising general control and management of the affairs of the municipality for the purpose of ensuring the efficient and effective operation of the municipality." This includes providing strategic advice to Council regarding creation of, use of, and funding of reserve funds and ensuring that processes are in place that support the effective administration of reserve funds.

Chief Financial Officer (CFO) / Treasurer

Under section 286(1) of the Municipal Act 2001, the Treasurer is responsible for "handling all of the financial affairs of the municipality on behalf of and in the manner directed by the council." For the purpose of this policy this includes:

- monitoring existing reserve fund levels and the impacts of transfers to and from the reserve funds within the annual operating and capital budgets
- advising Council accordingly of any concerns related to overall reserve fund levels
- promoting the appropriate use of reserve funds as a potential funding option as identified through the budget process and as applicable throughout the year

Policy/Guidelines

~~1. The general guiding principles with respect to reserve fund management are:~~

- ~~to ensure all City reserve funds are supported by a financial plan identifying contribution sources and projected disbursements required to meet planned future obligations to be funded by the reserve funds;~~
- ~~to ensure that all disbursements from reserve funds relate only to the intended use of the fund and have Council approval;~~
- ~~to ensure that reserve funds do not enter into a negative position at any point, and;~~
- ~~to ensure the sustainability of the City's programs and infrastructure by providing annual contributions from the operating budget for the maintenance of reserve funds at target levels.~~

~~For the purpose of this policy and reserve fund management, the City will categorize all funds as reserve funds under the following classification:~~

- ~~Capital Reserve Funds~~
- ~~Stabilization Reserve Funds~~
- ~~Program Specific Reserve Funds~~
- ~~Corporate Reserve Funds~~
- ~~Development Charge Reserve Funds~~

Objectives

The guiding principles for reserve funds are listed below and ordered in priority. The order of the priorities will be considered in managing the City's reserve funds.

a) To adhere to statutory requirements;
b) To protect against known risks and unforeseen events;
c) To promote financial stability and flexibility;
d) To provide for life cycle replacement of capital assets;
e) To meet specific liabilities;

f) To smooth out expenditures which would otherwise cause fluctuations in operating or capital budgets;
g) To provide for planned future expenditures;
h) To provide a source of internal financing; and
i) To promote intergenerational equity

2. Creation

All proposals to establish a new reserve fund, whether for capital or operating purposes, will be in the form of a report approved by the CFO/Treasurer and forwarded to Council for approval, including the following elements:

- Name of the fund
- Intended purpose of the fund
- Classification
- Funding Source(s)
- Intended use or allocation of funds
- Minimum and maximum target balances to be maintained
- Rationale for minimum and maximum target balances
- Allocation of excess funding
- Reporting requirements
- Allocation of interest
- ~~Expiry date for the fund, if applicable~~
- ~~Review cycle for the fund~~

For a reserve fund that is time limited, the report shall also include a request for pre-approval to wind up the reserve fund upon the expiry date.

Any reserve fund that is created is to be added to Schedule A of this policy.

3. Amending or Closing

Amendments may be undertaken as a response to the periodic review process or proactively by the originating City department. The process for amending or closing for any purpose should follow the same process as approving a new reserve fund. Any change to the purpose for which a reserve fund is designated must be permitted by ~~provincial statute~~ legislation and approved by Council. Before creating a new reserve fund, the option of adding an incremental contribution to an existing reserve fund of a like nature will be considered. Reserve funds for different purposes shall be separate, but each may include a group of services in the same category.

Any amendment or closure of a reserve fund should be reflected in Schedule A of this policy.

4. Oversight

    a. The CFO/~~ City~~ Treasurer will be responsible for monitoring the status of reserve funds, for determining the appropriate source of financing for the City's programs and capital works, and for making recommendations to Council on the use of reserve funds.

    b. Reserve funds will be managed in accordance with the purpose and any or all conditions and/or restrictions placed upon the reserve fund by Council. Each reserve fund will be reviewed on a periodic basis to ensure the current target levels are appropriate and to rationalize a continued need for the reserve fund.

    c. The annual budget will set out the estimated portion of revenues considered necessary to be paid into City reserve funds. Money in a reserve fund will be spent only for the stated purpose of the reserve fund.

    d. Reserve funds ~~will not be allowed to enter into~~ should not be in a negative position at any point with the exception of DC reserve funds. A funding strategy will be put in place for any reserve fund in a negative position to ensure that it returns to a positive balance in an appropriate timeframe.

5. Authorization for Transfers and Utilization of Funds

    a. Transfers will be made to or from reserve funds as prescribed by applicable ~~provincial statute~~ legislation or as approved by by-law and this policy, ~~including but not limited to the Development Charges By-law and the annual budget by-law.~~

    b. Transfers from operating budgets to reserve funds, and transfers from reserve funds to capital or operating, will be completed based on Council approval.

    c. Utilization of funds from a reserve fund must be identified in an approved annual budget, or a separate report submitted to Council for approval outside the normal annual budget process, or in accordance with the limits included in the City's Budget Control policy.

    d. The Chief Administrative Officer, under Chapter 115 of the Municipal Code has the authority to approve any one-time use of funds or contributions under $50,000 that are not included in the authorizing documents.

6. Interest Allocation

Reserve funds must be invested in accordance with the City's approved investment policy. Earnings from the combined cash and investment portfolio will be credited to each separate fund in proportion to the amount invested from it.

7. Inter-Reserve Fund Borrowing

   Temporary inter-fund borrowing to cover a reserve fund shortfall is permitted and encouraged to avoid external debt charges. However, borrowing from a reserve fund may occur only when an analysis of the reserve fund has determined that excess funds are available and that the use of these funds will not adversely affect the intended purpose of the reserve fund.

8. Internal Borrowing From Reserves

   Borrowing from reserves for the purpose of addressing capital financing needs is permitted under the following conditions:

   - A reserve providing funding will not be adversely affected as result of providing funding for a purpose other than what it was originally intended
   - The reserve should have a balance that is above its mid-level target
   - The amount borrowed will be repaid with interest over a term not to exceed 5 years
   - Interest to be repaid will reflect annual interest that the reserve would have earned if the funding hadn't been provided
   - Funding provided under this scenario will be transferred to the Internal Borrowing Reserve Fund to support better tracking and transparency

9. Reserve Fund External Debt

   The City does not issue external debt financed through reserve funds.

10. Reporting

    Reserve fund balances, projected contributions, planned withdrawals and target levels will be reported to Council on an annual basis. Any additional reporting requirements for obligatory reserve funds will be reported according to the applicable legislation.

11. Target Reserve Fund Levels

    A summary listing of reserve funds and target levels are included in Schedule A.

    ~~The adequacy of an individual reserve fund will be determined on a case-by-case basis using an estimate of the timing and magnitude of the costs to be incurred and a projection of expected contributions and interest earned. Updated~~

~~forecasts of reserve fund balances, including minimum and maximum target levels, will be prepared annually to assist with the evaluation.~~

A review of reserve fund levels will be evaluated annually to determine:

a. The adequacy of each individual reserve fund taking into consideration:
    - The purpose for which the reserve fund has been established and whether the balance is sufficient to achieve that purpose
    - Any anticipated forecasted expenditures or commitments that could impact the overall balance within the next 5 years
    - The minimum and maximum target levels and whether they have been achieved

~~In addition to reviewing the target levels of individual reserve funds, the consolidated balance of all reserve funds will also be evaluated by comparing the aggregate minimum and maximum target levels to municipal benchmarks, provincial guidelines and credit rating agency standards.~~

b. The adequacy of the consolidated balance of all reserve funds considering:
    - The aggregate minimum and maximum target levels compared to municipal benchmarks, provincial guidelines and credit rating agency standards

12. Specific Policies

a. When revenues exceed expenses for a fiscal year leading to an annual surplus in the tax-supported operations, the Gas Utility (Delivery), the Water Utility, the Golf Enterprise, the Parking Enterprise, the Sanitary Sewer Utility, and the Stormwater Utility, the surplus will be contributed to reserve funds as follows:

    i. 100% of the surplus will be contributed to the corresponding stabilization reserve fund, up to its minimum funding target.

    ii. Once the minimum funding target has been met, 50% of the surplus will be contributed to the corresponding stabilization reserve fund up to its maximum funding target, and the remaining 50% will be contributed to the corresponding capital reserve fund.

    iii. Any funds in excess of the maximum funding target for the stabilization reserve funds will be transferred to the corresponding capital reserve fund.

Results of Review

☐ No Edits Required
☐ Housekeeping Edits
X Substantial Edits
☐ Repeal/Replace

Policy History

Administrative and Housekeeping Changes

Date	Nature of Change
2016-06-01	I-770 policy template re-formatted to new numbering system and given number FIN-RES-770.

Substantial Changes

Date	Council/CLT Directive

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Stabilization Reserve Funds				
Operating Stabilization Reserve Funds				
Tax Stabilization	Provide funding to stabilize impact of year-to-year tax rate changes	Transfers from tax supported operations for previous year's operating surpluses	Transfers to tax supported operations for non-recurring expenditures and for previous year's operating deficits	5-15% of previous year's tax revenues based on best practices per Government Finance Officers Association. Once upper end of the target has been reached, transfer to Tax Capital Reserve Fund (if also at max, transfer to tax-based reserve funds w/ largest deficiencies)
Investment Stabilization	Provide funding to mitigate risk and uncertainty related to changes in interest rates and market conditions	Transfers from operating budget for investment income surpluses (i.e. actuals > budget)	Transfers to operating budget for investment income deficits (i.e. actuals < budget)	Maximum funding target of $2.5M, representing approximately 50% of previous year's investment income budget, to allow for volatility in markets and funding available to stabilize investment income in the budget. Once upper end of the target has been reached, the surplus from investment income will be transferred to the Tax Stabilization reserve fund in accordance with its terms.
Weather Events	Provide funding to stabilize financial impact of extreme weather conditions	Transfers of surpluses from Winter Control operating budget and other budgeted transfers	Transfers to operating budget for any weather related deficits, including both summer & winter operations	25-50% of the five-year historical average annual of winter maintenance expenses. Any funds in excess of the ceiling will be allocated to the tax stabilization reserve fund.
Enterprise Stabilization Reserve Funds				
Gas Utility (Delivery) Stabilization	Provide funding for Gas Utility (Delivery) in the event of a shortfall in their operating budget	Transfers from Gas Utility (Delivery) for previous year's operating surpluses	Transfers to Gas Utility (Delivery) operations for previous year's operating deficits	10-15% of the Gas Utility (Delivery) annual revenues
Gas Utility (Supply) Stabilization	Provide funding for Gas Utility (Supply) in the event of a shortfall in their operating budget	Transfers from Gas Utility (Supply) for previous year's operating surpluses	Transfers to Gas Utility (Supply) operations for previous year's operating deficits	10-15% of the Gas Utility (Supply) annual revenues
Water Utility Stabilization	Provide funding for Water Utility in the event of a shortfall in their operating budget	Transfers from Water Utility for previous year's operating surpluses	Transfers to Water Utility operations for previous year's operating deficits	10-15% of the Water Utility annual revenues

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Golf Enterprise Stabilization	Provide funding for Golf Enterprise in the event of a shortfall in their operating budget	Transfers from Golf Enterprise for previous year's operating surpluses	Transfers to Golf Enterprise operations for previous year's operating deficits	10-15% of the Golf Enterprise annual revenues
Parking Enterprise Stabilization	Provide funding for Parking Enterprise in the event of a shortfall in their operating budget	Transfers from Parking Enterprise for previous year's operating surpluses	Transfers to Parking Enterprise operations for previous year's operating deficits	10-15% of the Parking Enterprise annual revenues
Sanitary Sewer Utility (SSU) Stabilization	Provide funding for SSU in the event of a shortfall in their operating budget	Transfers from SSU for previous year's operating surpluses	Transfers to SSU operations for previous year's operating deficits	10-15% of the Sanitary Sewer Utility annual revenues
Stormwater Utility Stabilization	Provide funding for Stormwater Utility in the event of a shortfall in their operating budget	Transfers from Stormwater Utility for previous year's operating surpluses	Transfers to Stormwater Utility operations for previous year's operating deficits	10-15% of the Stormwater Utility annual revenues
Corporate Reserve Funds				
Mediation	Provide funding for development mediation	Transfers from operating budget (portion of planning & development application fees)	Transfers to operating budget for planning & development dispute resolution costs	Minimum target balance of 1 year of projected expenditures based on 5-yr average annual spend. Maximum target balance up to 5x for higher than anticipated dispute resolution costs.
Learning & Development	Provide funding for staff learning and development	Transfers from operating budget	Expenditures for staff training programs, management development courses, and training equipment	Minimum target balance of 1 year of projected expenditures based on 5-yr average annual spend. Maximum target balance up to 1.5x for unexpected costs.
Arbitration	Provide funding for labour arbitration legal fees	Transfers from operating budget (annual budget net of actual expenditures for labour arbitration)	Transfers to operating budget (annual budget net of actual expenditures for labour arbitration)	Minimum target balance of 1 year of labour arbitration. Maximum target balance up to 1.5x for unexpected costs.
Workplace Safety & Insurance Board (WSIB)	Provide funding for WSIB claims and related costs (the City is a Schedule 2 organization i.e. self-insured).	Transfers from operating budget (fringe benefit charges)	Expenditures for WSIB insurance claims, WSIB administrative expenses, and claims management	100%-150% of actuarial liability to provide additional funding to cover unusually high claims.
Sick Leave	Provide funding for accumulated sick leave benefit liability and extended absences of current employees	Transfers from operating budget (fringe benefit charges)	Payments to eligible employees upon retirement, termination or death and costs of extended sick leave	50%-75% of actuarial liability to provide additional funding to cover unexpected early retirements

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Insurance	Provide funding for insurance premiums, claim deductibles and self-insurance costs	Contributions from Tax, Utility and Enterprise operations and from non-city organizations (e.g. Library)	Premium payments, insurance claims, and other related insurance costs	Minimum target balance of 1 year of projected expenditures based on 5-yr average annual spend. Maximum target balance up to 1.5x for unanticipated increase in claims.
Program Specific Reserve Funds				
Activa Group Sportsplex	Provide capital funding for Activa Group Sportsplex (AGS)	Sale of naming rights and contributions from Places to Play campaign in excess of $2,000,000	Transfers to capital budget for approved AGS projects and contributions to Places to Play campaign if under $2,000,000	Maximum funding target of up to $500,000, representing the total amount committed to purchase naming rights. Reserve fund concludes once all committed funds have been received and spent.
Energy Retrofit	Provides funding for projects that result in energy savings (including water and waste)	One-time contribution when reserve was created, additional contributions approved by Council, energy savings up to initial investment in projects	Transfers to capital for stand-alone projects and to pay marginal costs of efficiency improvements within larger capital projects	Maximum funding target based on one-time contributions made to the reserve fund. Energy savings in excess of initial investment should accrue to the appropriate divisional budget.
Public Art	Provide funding for public art	Donations from individuals & corporations	Acquisition of art including sculptures, paintings, photography; expenditures for facilities for artistic and cultural activities; artist in residence program.	Maximum funding target based on projected balance of reserve fund, as no additional funding anticipated
Economic Development (Ec Dev)	Provide funding to support Kitchener economic development strategy	Transfers from EDIF & Ec Dev capital projects as a result of capital close outs, proceeds from sale of downtown lands, repayment of applicable façade & downtown improvement loans	Transfers to capital for Ec Dev projects, costs related to purchase of downtown lands, costs related to replacement of surface parking capacity when downtown lands are sold	Maximum funding target of $10,000,000 (allows for economic development capital purchases of a significant nature)
Economic Development Investment Fund (EDIF) 2.0	Provide funding to support Make it Kitchener 20 strategy	Proceeds from strategic sale of lands, issuance of debt (using 40% of debt room from EDIF 1.0), one-time transfer from Economic Development Reserve Fund, revenues from Bramm St & Upper Bramm St parking	Transfers to capital for projects related to themes of Make It Kitchener 2.0 (i.e. Resilience, Catalytic Investment, Talent Attraction, Vibrant City, Future Planning, Enabling Difference Makers)	Maximum funding target of $10,000,000 (allows for economic development capital purchases of a significant nature)

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Municipal Accommodation Tax	Provide funding to support and enhance tourism within the City	Portion of Municipal Accommodation Tax collected by Waterloo Region Tourism Marketing Corporation allocated to the City (40% less an administrative fee)	Expenditures incurred to enhance and support tourism, sport and cultural offerings, as well as major event attraction efforts	Maximum funding target of $1,900,000 (approximates 5 year of revenue, which allows balance to accumulate for high-ticket items)
Affordable Housing	Provide funding to support affordable housing development	One-time contribution when reserve was created and annual contributions approved by Council	Grants to qualifying properties in the amount of City's portion of development charges	Remain in a positive funded position.
Election	Provide funding for cost of municipal election every four years	Transfers from operating budget	Transfers to operating budget for election related costs	Maximum funding target based on highest projected costs for next 2 elections
Oktoberfest	Provide funding for cost of Oktoberfest float	Transfers from operating budget	Transfers to operating budget for float maintenance & replacement costs	Minimum target balance of $15,000 (based on projected annual maintenance costs) Maximum target balance of $50,000 (allows for float replacement costs)
Capital Reserve Funds				
Tax Capital	Provide funding for tax supported capital projects and for Federal and Provincial grant programs that require the City to match their funding	Transfers from tax supported capital projects as a result of capital close outs	Transfers to tax supported capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x.
Development Charges (DC) Recovery	Reserve fund transparently tracks specific DC recoveries of identified excess capacity that had been originally funded from City sources and is now used to support growth	Transfers from DC as calculated in the DC background study (these arise as some "oversized" projects could have been funded through DC, but were funded by City sources, so costs are being recovered)	Transfers to non-growth capital projects directly related to the DC service area for which the recovery is generated (1st priority) and other non-growth capital projects (2nd priority)	Maximum funding target of $5,000,000
Facility Infrastructure	Provide funding for Facilities Management State of Good Repair (SOGR) program to address Facilities Infrastructure deficit	Transfer from 60% of debt room from original Economic Development Investment Fund (EDIF)	Transfers to Facilities Management capital projects for deficits/funding shortfalls	None. Remain in a positive funded position; funding may need to be built up over many years for significant projects.

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Auditorium Ticket Sales	Provide capital expenditure funding for the existing Kitchener Memorial Auditorium Complex (KMAC) facility	Capital reserve fund (CRF) fees included in ticket sales and transfers from KMAC capital projects as a result of capital close outs	Transfers to capital for KMAC projects, transfers to operating (up to 25% of annual CRF revenue can be allocated to KMAC operations)	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x.
Land Inventory	Provide funding for strategic property purchases	Proceeds from sale of city-owned lands except for parkland, industrial land, and other land allocated to specific projects (e.g. fire stations)	Costs related to strategic land purchases and land acquisition strategy	Maximum funding target of $5,000,000 (provides funding for future land purchase(s) of a significant nature)
Business Parks	Provide funding for business park capital projects	Proceeds from sale of business park lands	Costs related to purchase and sale of business park lands	Maximum funding target of $5,000,000 (provides funding for future business park land purchase(s) of a significant nature)
Technology Infrastructure	Provide funding for purchase of computer and telephone hardware	Monthly computer & telephone usage charges, transfers from capital projects as a result of capital close outs	Computer & telephone hardware purchases and telephone system operating costs	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Hydro Investment	Provide funding for tax supported capital projects (via Capital Pool) and tax supported operating budget	Revenues from City's investment in Enova Energy Corporation (previously Kitchener Power Corporation)	Transfers to Capital Pool and transfers to operating budget	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Equipment	Provide funding for purchase of vehicles and fleet equipment	Monthly vehicle & equipment charges, transfers from capital budget	Vehicle & equipment purchases	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Gas Utility Investment	Provide funding for tax supported capital projects (via Capital Pool)	Transfers from Gas Utility	Transfers to Capital Pool	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x.

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Gas Utility (Delivery) Capital	Provide funding for Gas Utility capital projects	Transfers from Gas Utility capital projects as a result of capital close outs	Transfers to Gas Utility capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Water Utility Capital	Provide funding for Water Utility capital projects	Transfers from Water Utility capital projects as a result of capital close outs	Transfers to Water Utility capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x.
Golf Enterprise Capital	Provide funding for Golf Enterprise capital projects	Transfers from Golf Enterprise capital projects as a result of capital close outs	Transfers to Golf Enterprise capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Parking Enterprise Capital	Provide funding for Parking Enterprise capital projects	Transfers from Parking Enterprise capital projects as a result of capital close outs	Transfers to Parking Enterprise capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Sanitary Sewer Utility Capital	Provide funding for Sanitary Sewer Utility capital projects	Transfers from Sanitary Sewer Utility capital projects as a result of capital close outs	Transfers to Sanitary Sewer Utility capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x
Stormwater Utility Capital	Provide funding for Stormwater Utility capital projects	Transfers from Stormwater Utility capital projects as a result of capital close outs	Transfers to Stormwater Utility capital projects for deficits/funding shortfalls	Minimum target balance of .5x avg annual value of approved expenditures in 10 yr capital forecast. Maximum target balance of up to 1.5x

Name	Purpose	Funding Sources (Revenue)	Funding Uses (Expenditure)	Funding Target
Obligatory Reserve Funds				
Canada Community-Building Fund (CCBF)	Provide funding for capital projects that meet "eligible projects" and "eligible costs" criteria as outlined in Municipal Funding Agreement	Funding allocations from Federal Government for share of CCBF and transfers from CCBF funded capital projects as a result of capital close outs	Transfers to eligible capital projects for eligible costs as outlined in Municipal Funding Agreement for the Transfer of Federal Gas Tax Funds	Maximum funding target of 50% of annual funding allocation from Federal Government for share of CCBF
Development Charges (DC)	Provide funding for growth related capital costs of servicing new developments	Development charges and transfers from capital projects as a result of capital closeouts	Transfers to capital for servicing new development projects	Maxmium funding target based on projected net capital costs as determined in DC study
Recreational Land	Provide funding for development, redevelopment, and purchase of parklands	Contributions from developers and sale of parklands	Expenditures related to development / redevelopment and purchase of parklands	Maximum funding target of $5,000,000
Building Enterprise	Provide funding for Building Enterprise to stabilize building permit fee revenues	Transfers from Building Enterprise for previous year's operating surpluses	Transfers to Building Enterprise operations for deficits/funding shortfalls or reduction of fees	Minimum target balance of 1 year of projected expenditures. Maximum target balance up to 1.5x.

REPORT TO:	**Finance and Corporate Services Committee**
DATE OF MEETING:	**May 13, 2024**
SUBMITTED BY:	**Kathryn Dever, Director of Strategy & Corporate Performance, 519-741-2200 ext. 7370**
PREPARED BY:	**Justin Watkins, Manager of Corporate Planning, 519-741-2200 ext. 7203**
WARD(S) INVOLVED:	**All Wards**
DATE OF REPORT:	**April 26, 2024**
REPORT NO.:	**CAO-2024-220**
SUBJECT:	**Strategic Plan Update – April 2024 Implementation**

RECOMMENDATION:

For information.

REPORT HIGHLIGHTS:

- The purpose of this report is to highlight progress made on implementation of the strategic plan, as of April 30, 2024 (Attachment A).
- The key finding of this report is that 18 out of 23 strategic actions planned for 2024 have commenced and one strategic action has been completed.
- There are no financial implications associated with this report.
- Community engagement included posting this report to the City's website with the agenda in advance of the committee meeting.
- This report supports implementation of the 2023-2026 City of Kitchener Strategic Plan.

BACKGROUND:

Kitchener's strategic plan sets priorities and actions to guide progress and resourcing over the term of council towards our long-term community vision. Through extensive engagement with the community and council, and initial set of 30 strategic actions were identified and approved with the new strategic plan in August 2023. Progress on strategic plan implementation is reported to council three times per year.

REPORT:

Since the last strategic plan update in January, a refined implementation plan for the 23 strategic actions commencing in 2024 has been developed by CLT, including a clear description of work; an identified lead department, division, and project manager; planned start and completion date;

and additional project details for those strategic actions that will be multi-year endeavours. Any changes to the implementation plan that may occur throughout the year will be reported to council. The complete implementation plan for 2024 strategic actions can be found in Attachment A.

Of the 23 strategic actions for 2024, 18 have commenced during this reporting cycle, one of which (*Accelerate Commercial Business Approvals*) has been successfully completed. All other 2024 strategic actions remain on track for expected completion, in accordance with the implementation plan.

STRATEGIC PLAN ALIGNMENT:

This report supports implementation of the 2023-2026 City of Kitchener Strategic Plan.

FINANCIAL IMPLICATIONS:

Capital Budget – The recommendation has no impact on the Capital Budget.

Operating Budget – The recommendation has no impact on the Operating Budget.

COMMUNITY ENGAGEMENT:

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

PREVIOUS REPORTS/AUTHORITIES:

CAO-2024-055 Strategic Plan Implementation Update

APPROVED BY: Dan Chapman, CAO

ATTACHMENTS:

Attachment A – Strategic Plan Implementation – April 2024 Update

Attachment A: Strategic Plan Implementation – April 2024 Update

Building a Connected City Together

We live in all kinds of neighbourhoods and types of housing. We work together to ensure that we each have secure and affordable homes.
We get around easily, sustainably and safely to the places and spaces that matter most to us.

Strategic Action	Description	Dept & Division	Project Manager	Planned Start	Planned Completion	Implementation Notes	Progress Update	
Housing For All Implementation	Continue to implement the City's Housing For All Strategy, working with other orders of government and a broad range of community partners, to enable the delivery of affordable housing units in our community by removing barriers at the City, advocating on behalf of the City of Kitchener; and implementing incentives that will enable more affordable housing to be built faster.	**DSD Planning & Housing Policy**	**Lucas Van Meer-Mass**	**Jan 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, focus of the action will be continued implementation of the Housing for All strategy, including Inclusionary Zoning and the Four Units as of Right policy, exploring partnerships with non-profits, and aligning zoning and policy to promote housing growth in Major Transit Station Areas.	**On Track**	In March, council approved an Inclusionary Zoning framework for Kitchener's Protected Major Transition Station Areas and an updated planning framework (land use and zoning) to allow for more housing opportunities and require affordable units in future developments. Council also approved new zoning rules to allow four units to be built "as of right" in residential areas across the city. In April, council considered two of Kitchener's Housing Accelerator Fund initiatives – a Not-for-Profit Affordable Rental & Co-op Housing Incentive pilot, and use of a city-owned property to partner with a non-profit organization to deliver affordable housing. Staff continue to work with the Lived Expertise Working Group on its year two workplan, currently focused on providing input on a rental replacement by-law and Kitchener's new Official Plan.
Localized Transportation Safety Improvement Program	Implement targeted, strategic infrastructure changes to make big improvements in the safety and connectivity of the active transportation network. This work is data-driven and community-guided through priorities identified in the Cycling and Trails Master Plan and Vision Zero.	**DSD Transportation**	**Faranak Hosseini**	**Jan 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, the focus of the action will be continued implementation of the Cycling and Trails Master Plan (CTMP) and Vision Zero, including: wayfinding along major trails and active transportation routes; semi-permanent radar speed display boards; and various safety and traffic calming measures.	**On Track**	Staff have been preparing the annual Vision Zero update, which will be shared with Council in May, highlighting infrastructure safety improvements completed in 2023 and recommendations for 2024, including proposed locations for 'hot spot' improvements, sidewalk/multi-use trail infill, automated speed enforcement, seasonal traffic calming, and Complete Streets. These safety improvements will be tendered in late spring 2024.
City-wide Active Transportation Routes	Encourage increased use of active transportation that connect neighbourhoods through holistic trail and bike route enhancements that are easy to identify, navigate and use for all ages and abilities.	**DSD Transportation**	**Alison Carlyle**	**April 2024**	**Sept 2025**	This strategic action will be complete in 2025.	**On Track**	The project scope has been finalized and several potential city-wide wayfinding routes have been identified for further analysis and future community engagement.
Official Plan Comprehensive Update	Undertake a comprehensive review of both the City's Official Plan and Transportation Master Plan in an integrated way, to update the rules around what can be built in Kitchener's neighbourhoods and provide more flexible options for how people get around; and including a focus on encouraging missing middle housing and adapting to climate change.	**DSD Planning & Housing Policy**	**Tim Donegani**	**Feb 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, Phase 1 of this action will focus on technical studies, establish the community working group and have broad community engagement on the technical inputs of the Official Plan. Phase 2 of this action will begin in 2025.	**On Track**	In February, a report to council launched the Official Plan project and confirmed scope, milestones, and key engagement principles. Staff are working to issue requests for proposals to develop background and technical studies and assist with community engagement. The Transportation Master Plan is being coordinated and integrated with the new Official Plan, and land uses established through the OP update will be a critical input for the TMP update.

Attachment A: Strategic Plan Implementation – April 2024 Update

Cultivating a Green City Together

We follow a sustainable path to a greener, healthier city. We work together to enhance and protect our parks and natural environment while transitioning to a low-carbon future. We support businesses and residents to make more climate-positive choices.

Strategic Action	Description	Dept & Division	Project Manager	Planned Start	Planned Completion	Implementation Notes	Progress Update	
Corporate Climate Action Plan 2.0	Define the City's corporate Climate Action Plan 2.0 to achieve GHG emission reductions generated by City-owned assets, including at least one energy efficiency business case/implementation and 'greening' the City fleet in order to adapt to a low-carbon future and build resilience for climate change impacts.	**DSD Office of GM**	**Anna Marie Cipriani**	**Jan 2024**	**Jun 2025**	This is a multi-year strategic action. In 2024-2025, the focus of this action will be completing the Corporate Climate Action Plan 2.0 and initiating its implementation.	**On Track**	Corporate Climate Action Plan 2024-2027 was presented to council in April along with a new, net-zero 2050 corporate target. The plan, *Pivot: Net-Zero,* includes 47 actions foundational to further defining the roadmap of the City's pivot to net-zero. A business case has been identified and focused on a new technology for arena/rink ice making that is anticipated to be more efficient than traditional methods. Several indicators are being tracked to support the development of a business case for further deployment across the City.
Clean Energy Transition Strategy	Complete the Kitchener Utilities clean energy transition strategy and implementation plan to shift reliance on conventional natural gas as an energy source in order to transition to a low-carbon future for Kitchener.	**INS Office of GM**	**Kate Daley**	**Jan 2024**	**Jun 2025**	This is a multi-year strategic action. In 2024-2025, the focus will be evaluation of options and recommended business opportunities to respond to the energy transition. Implementation planning associated with this action will begin in 2025-2026.	**On Track**	Phase 2 of the Clean Energy Transition Strategy began in January following council approval of the Phase 1 report and guiding principles in December 2023. The initial focus of Phase 2 has involved workshops with stakeholders and Kitchener Utilities management to generate ideas and discuss suggestions, considering the clean energy transition that is occurring. Suggestions from internal stakeholders were also combined with those received from the public (almost 400 ideas). The next step will involve completing analysis and narrowing focus.
District Energy Business Case	Complete a District Energy business case for the downtown area to explore clean energy opportunities to be a leader as a low-carbon city.	**DSD Planning & Housing Policy**	**Tim Donegani**	**Jan 2024**	**Oct 2024**	This strategic action will be complete in 2024.	**On Track**	Building on the pre-feasibility study endorsed by council in 2020, technical and financial feasibility studies scoping was initiated to connect new/existing public and private buildings in downtown to a system primarily powered by geothermal energy. Staff anticipate completion of these studies in the fourth quarter of 2024.
Implement tree canopy target plan	Implement Council-approved investments in tree canopy improvements with a focus on planting more trees, maintenance of existing trees; increase communication and stewardship for residents, institutions and businesses to plant and maintain trees on private property.	**INS Parks & Cemeteries**	**Hajnal Kovacs**	**Jan 2024**	**Dec 2025**	This is a multi-year strategic action. In 2024-2025, the focus of this action will be tree planting in areas with low equity scores and supporting Reep's private planting program, proactive pruning and maintenance programs, and creating a forestry and natural areas communications strategy.	**On Track**	Efforts to date in 2024 have focused on planning a tree planting roster through tree equity scores to plant 500 trees in spring 2024. A 10-year cycle proactive block pruning program is also being developed to pilot in the spring, along with developing a juvenile tree maintenance program. A social media campaign was initiated (Forestry Fridays, Ask a Forester and updated online content and contact methods), with a larger communication strategy under development for Forestry and Natural Areas.
Green Development Standards	Define and implement green development standards for new building construction throughout Kitchener which will ensure they are more sustainable.	**DSD Planning & Housing Policy**	**Janine Oosterveld**	**Feb 2024**	**Dec 2025**	This strategic action will be complete in 2025.	**On Track**	A project manager was retained in December 2023 through WR Community Energy, and the project plan and community engagement strategy are underway for a harmonized Green Development Standard for local municipalities in Waterloo region. A project update was provided to the Climate Change and Environment Committee in February. Community and development industry consultations are planned to launch in the second quarter of 2024.
Parkland Acquisition Strategy	Create a Parkland Acquisition Strategy to support the addition of park space to urban areas, with a focus on underserviced areas and updating the funding model.	**DSD Development & Housing Approvals**	**Lenore Ross**	**Jun 2024**	**Dec 2025**	This strategic action will be complete in 2025.	**Not Started**	This strategic action is planned to start in June 2024.
Grand River Park Strategy	Complete a strategy to advance the creation of a significant new park near the Grand River.	**INS Parks & Cemeteries**	**Erin Eldridge**	**Oct 2023**	**Dec 2025**	This is a multi-year strategic action. In 2024-2025, Phase 1 of this action will establish a vision for a Grand River Park, a site inventory and assessment of opportunities and constraints, and recommendations on implementation of land acquisition. Phase 2 of this action will begin in 2025-2026.	**On Track**	A project charter and schedule has been developed and endorsed by the Corporate Leadership Team. In the next quarter, conversations will continue with the Grand River Conservation Authority around lands of interest, and to identify and scope the studies needed for site inventory and analysis.

Attachment A: Strategic Plan Implementation – April 2024 Update

Creating an Economically-Thriving City Together

We use our collective strengths to grow an agile and diverse local economy powered by talented entrepreneurs, workers and artists.
We work together to create opportunities for everyone and a resilient future that propels our city forward.

Strategic Action	Description	Dept & Division	Project Manager	Planned Start	Planned Completion	Implementation Notes	Progress Update	
Creative Industries School	Collaborate with Conestoga College to build a new, leading-edge Creative Industries school focused on skill building and career development in media, communications and design.	**DSD Economic Development**	**Jay Brown**	**Jul 2024**	**Mar 2025**	This is a multi-year strategic action. In 2024-2025, Phase 1 of this action will focus on development of a business case to consider an appropriate level of investment. Phase 2 of this action will begin in 2025.	**Not Started**	This strategic action is planned to start in July 2024.
Entertainment Venue Management	Enhance entertainment venue management by working with key stakeholders, businesses and cultural producers across all City-affiliated entertainment venues.	**DSD Economic Development**	**Jeremy Dueck**	**Feb 2024**	**Dec 2025**	This strategic action will be complete in 2025.	**On Track**	The Culture & Entertainment division has made progress in the following areas of enhancing and supporting City-owned culture and entertainment venues: establishing better communication with venue operators to learn about the areas of greatest need; creating a vision for the division; hiring a Manager of Arts & Creative Industries; and beginning to round-out staff roles on the team. Staff are also working towards providing a recommendation to council on a preferred operating model for the Conrad Centre for the Performing Arts.
Accelerate Commercial Business Approvals	Facilitate streamlined business process and approvals for brick and mortar retail business across the City.	**DSD Office of GM**	**Margaret Love**	**Sep 2023**	**Apr 2024**	This strategic action will be complete in 2024.	**Complete**	A Lean review of seven processes, administered within five business areas (Building, Licensing, Planning, Legal, and Economic Development), was completed in March 2024. The review resulted in 55 recommendations to streamline processes and help businesses open their doors quicker. The review included engagement with business owners and City staff, including the Waterloo Region Small Business Centre. A report summarizing the review outcomes and requesting funding to begin implementing the recommendations was provided to Finance and Corporate Services Committee in April. The project is now complete, and a two-year implementation plan has been developed. The final report can be found here.

Attachment A: Strategic Plan Implementation – April 2024 Update

Fostering a Caring City Together

We welcome residents of all ages, backgrounds and lived experiences. We work together on the decisions that matter to us and have a meaningful influence in our community. We're healthy and thriving as we easily access the diverse and inclusive programs and services we need to succeed.

Strategic Action	Description	Dept & Division	Project Manager	Planned Start	Planned Completion	Implementation Notes	Progress Update	
Advance Truth and Reconciliation	Advance meaningful actions to Truth and Reconciliation as identified and through relationship-building with Indigenous communities and rights-holders.	**COR EARII**	**Erin Power**	**Jan 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, intentional and ongoing relationship building with Indigenous rights-holders will continue to be a focus, with emphasis on delivering meaningful actions as identified by and with these communities.	**On Track**	The foundation of advancing meaningful actions to Truth and Reconciliation is through relationship-building and honouring the land in partnership with Rights Holders and urban Indigenous communities. An example of this is land restoration efforts through the Wiijindamaan initiative in partnership with White Owl Native Ancestry, Wisahtewinowak (Wish-ta-winowak) Urban Indigenous Garden Collective, and Conestoga College. The project site is located adjacent to the Grand River in the Pioneer Tower area of Kitchener and involves innovative development and application of urban land co-management strategies rooted in traditional Indigenous land-based practices and knowledges. The first year of working on the land was 2023 and included the establishment of food plots, planting of a fruit orchard, hosting a culture camp, ceremonial space creation, and habitat restoration including prairie grass savannah.
Community Centre Operating Model	Modernize the City's community centre operating model to increase the number and diversity of programs and other supports provided at community centres, with a specific focus on centres located in under-serviced neighbourhoods.	**CSD Office of GM**	**Elin Moorlag Silk**	**Apr 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, Phase 2 of this action will focus on development of EDI training for affiliated neighbourhood associations and development of EDI and reinvestment polices for affiliated neighbourhood associations.	**On Track**	Ten of the 15 recommendations presented to council in June 2023 to modernize the community centre operating model have been completed, including expanding operating hours at some community centres for programming, expanding use of the City's inclusion support services and leisure access, revising policies to ensure community centre programming is being offered to best support the diverse needs of residents living in the surrounding neighbourhoods.
City-Led Recreation & Leisure program review	Review how the City provides direct recreation and leisure programming across all age groups to better position the municipality to respond to changing community needs.	**CSD Office of GM**	**Elin Moorlag Silk**	**Jul 2024**	**Jun 2025**	This strategic action will be complete in 2025.	**Not Started**	This strategic action is planned to start in July 2024.
Municipal Newcomers Strategy	Create a strategy for newcomers to Canada in Kitchener focused on the role the municipality can play in welcoming newcomers into the community and supporting them where needed.	**CSD Office of GM**	**Elin Moorlag Silk**	**Jul 2024**	**Jun 2025**	This is a multi-year strategic action. In 2024-2025, Phase 1 of this action will focus on project scoping, an environmental scan and a community needs assessment. Phase 2 of this action will occur in 2025.	**Not Started**	This strategic action is planned to start in July 2024.
Enhance City's Engagement Practices	Enhance the City's engagement practices to increase diverse representation, with a focus on including more deliberative/collaborative/entrust/co-creation approaches; and include a specific focus on developing capacity to promote, facilitate and coordinate ongoing relationship-building and connection with equity-deserving communities.	**COR Office of GM**	**Erin Power**	**Apr 2024**	**Dec 2024**	This is a multi-year strategic action. In 2024, Phase 1 of this action will include a comprehensive environmental scan of best practices, data analysis and determining an overarching framework. Phase 2 of this action will occur in 2025.	**On Track**	A project plan has been developed defining scope, high-level milestones, and deliverables. The work will include completing a comprehensive review of the City of Kitchener's community engagement policy, framework, and practices using Bloomberg Harvard's City Leader Guide on Civic Engagement to ensure an evidence-based approach to the review that incorporates equity/equitable engagement as a key principle.
Community Grants Review	Change how the City utilizes its community grant program to better support community groups working on priorities that are aligned with the City's Strategic Plan.	**CSD Office of GM**	**Elin Moorlag Silk**	**May 2024**	**Mar 2025**	This strategic action will be complete in 2025.	**Not Started**	This strategic action is planned to start in May 2024.

Attachment A: Strategic Plan Implementation – April 2024 Update

Stewarding a Better City Together We, the City's employees, are stewards of Kitchener's present and its future. We're responsive, innovative, diverse and accountable public servants who work together efficiently to serve residents. We remove barriers and champion residents' collective vision for a better city and a better world.								
Strategic Action	**Description**	**Dept & Division**	**Project Manager**	**Planned Start**	**Planned Completion**	**Implementation Notes**	**Progress Update**	
Strengthen employer identity/value proposition	Strengthen the City of Kitchener employer identity and employee value proposition to remain a competitive employer in order to attract and retain top talent.	**COR Human Resources**	**Annie Johnson**	**Jan 2024**	**Jun 2025**	This is a multi-year strategic action. In 2024-2025, Phase 2 of this action will focus on implementing specific solutions within the Employee Value Proposition (EVP) framework based on the initial set of priorities. Phase 3 of this action will occur in 2025-2026.	**On Track**	Industry and municipal scans and internal engagement have been completed to review current and emerging market trends in recruitment and retention, leading to the identification of key themes that will guide future work in 2024 including recognition and appreciation, flexible growth and development, and fostering a supportive workplace.
Procurement innovation	Create innovative procurement opportunities to better engage with local start-ups and provide more opportunities for companies to propose creative ways to improve city service delivery.	**FIN Financial Operations**	**Ryan Scott**	**Jan 2024**	**Dec 2024**	This strategic action will be complete in 2024.	**On Track**	Information sessions were conducted with City staff to formalize innovative procurement opportunities to be included in the first release of this initiative. The target to release documents for a pitch program is June, with potential pilot programs implementation to follow.
Implement City-wide Data Strategy	Implement a City-wide Data Strategy to build foundational, organization-wide data practices to scale across the City, in order to deliver better services for residents.	**COR Office of the GM**	**Erin Power**	**May 2024**	**May 2025**	This is a multi-year strategic action. In 2024-2025, Phase 1 of this action will focus on developing a project plan utilizing the draft Kitchener Citywide Data Strategy developed as part of the Bloomberg Philanthropy Citywide Data Alliance, with focus on governance, quality, and capacity. Phase 2 of this action will occur in 2025-2026.	**On Track**	The Corporate Leadership Team approved a staff secondment position to provide a dedicated resource towards developing and implementing a City-wide Data Strategy. Once in place, a project plan will be created using the draft Kitchener City-wide Data Strategy developed as part of the Bloomberg Philanthropy Citywide Data Alliance as a framework.