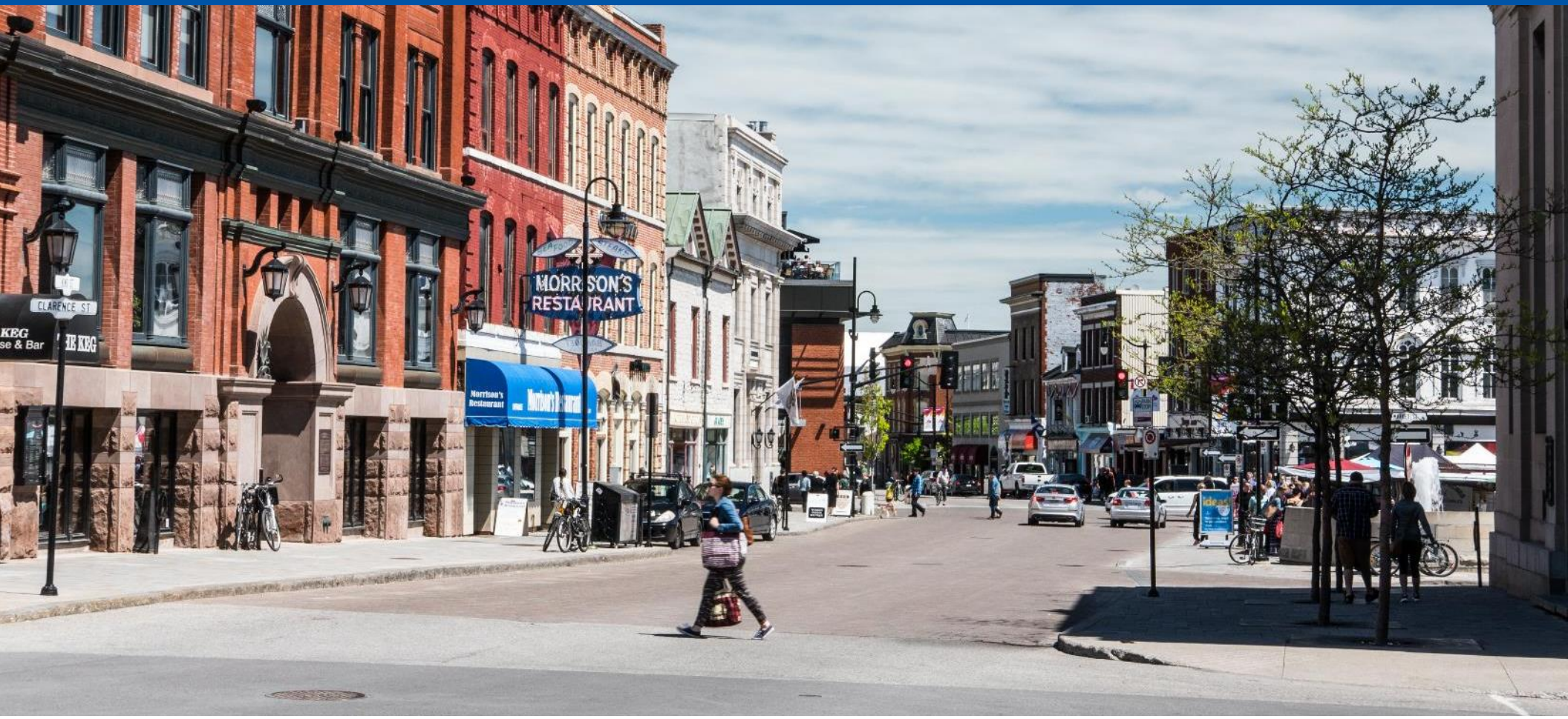


City of Kingston

Additional Information Report

2025 Asset Management Plan Updates and Financial Strategy

November 2025

Table of Contents

Table of Contents

Table of Contents

Figures

Table of Contents

Tables

Table of Contents

Appendices (Provided in Separate Document)

Acronyms and Abbreviations

Acronym	Definition
AAARR	Average Annual Asset Reinvestment Rate
AMP	Asset Management Plan
B	Billion
CIRC	Canadian Infrastructure Report Card
CPI	Consumer Price Index
CRV	Capital Replacement Value
DC	Development Charges
DC Study	Development Charges Background Study
DMAF	Disaster Mitigation Adaptation Fund
FCI	Facility Condition Index
FCM	Federation of Canadian Municipalities
GMF	Green Municipal Fund
HVAC	Heating, Ventilation, and Air Conditioning.

Acronyms and Abbreviations

Acronym	Definition
ICIP	Investing in Canada Infrastructure Program
IS&T	Information Systems & Technology
K	Thousand
LOS	Levels of Service
m	Metre
M	Million
O. Reg. 588/17	Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure
SME	Subject Matter Experts
RSL	Remaining Service Life
SOGR	State of Good Repair
the City	City of Kingston

Executive Summary

This Additional Information Report was prepared for the City of Kingston (the City) to fulfill the requirements outlined under Phase 4 of **Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure** (O. Reg. 588/17). This report acts as a critical extension to the City's existing Asset Management Plan (AMP) documents that have been generated between 2022 to 2025, covering 25 service areas.

1. Core Asset Management Plan (June 2022)
2. Facilities Asset Management Plan (November 2023)
3. Asset Management Plan for All Other Assets (November 2024)
4. Asset Management Plan: Volume 6 Natural Assets (November 2025)

The analysis excludes city-owned water, wastewater, natural gas, and water heater rental assets, which fall under the responsibility of Utilities Kingston.

The primary objectives of this report are:

1. To review and refine current Levels of Service (LOS) parameters and performance metrics and develop clear proposed LOS targets across multiple service areas; and
2. To provide a forward-looking analysis of the LOS and financial implications tied to the City's forecasted budget, maintaining the current LOS, and ultimately achieving the proposed LOS.

The total 2025 Capital Replacement Value (CRV) of all assets across the service areas included in this report is **$8.3 billion**.

LOS Approach and Scenario Analysis

Based on best practices in asset management and to guide development of proposed Asset LOS while standardizing reporting across various service areas, the City has selected three standard performance metrics. These metrics correspond to the asset parameters of **Quality** (the asset is meeting its intended function effectively) and **Reliability** (providing continuous service operation). The three metrics chosen are:

- **Metric #1: State of Good Repair (SOGR) Backlog,** which provides a clear, quantifiable understanding of the current infrastructure and maintenance deficit, including repair and replacement projects that are currently unfunded, delayed, or stalled due to insufficient resources or execution capacity;
- **Metric #2: Asset Reinvestment Rate**, which evaluates the City's current capital budget allocation against the total CRV of the assets, and comparing that result with industry-recommended reinvestment rates; and
- **Metric #3: Percentage of Assets in Fair or Better Condition**, which provides a clear understanding of the overall relative health and quality of the asset portfolio within each service area.

LOS Scenarios

To analyze the associated LOS performance and financial implications of different investment strategies, an analysis of three different LOS scenarios was conducted and evaluated using the three standard performance metrics outlined above. The three scenarios analyzed are:

- **Scenario #1: Forecasted Budget**, which uses the City's forecasted 10-year capital budget developed in 2025;
- **Scenario #2: Maintain Current LOS**, which calculates the associated cost required to maintain the current LOS for each of the service areas with no financial constraints; and
- **Scenario #3: Proposed LOS**, which provides a more balanced investment approach based on the City's current financial constraints. This approach was developed in consultation with key City staff and Subject Matter Experts (SME's) within each service area including Finance and represents staff's recommended option.

The Proposed LOS (Scenario #3) was established with a focus on affordability and strategic financial resource allocation, initially targeting a phased investment strategy which gradually increases capital investment for asset renewal to $150 million annually over the next 20 years across all service areas. Due to unavailable asset register and or condition data, the detailed analysis was completed for 18 of the 25 service areas. The following table summarizes the modelling results for the assets across the 18 service areas analyzed for the 10-year planning horizon (ending in 2035), based on the standard LOS performance metrics.

Table E-1: Summary of LOS Scenarios (18 Service Areas)

Metric	Scenario #1: Forecasted Budget	Scenario #2: Maintain LOS	Scenario #3: Proposed LOS	Outcome (Relative to Forecasted Budget)
Metric #1: 10-Year SOGR Backlog (2035)	$3.7B	$1.1B	$3.0B	The Proposed LOS is projected to reduce the accumulated backlog by approximately $700M by 2035.
Metric #2: Average Annual Asset Reinvestment Rate	$78.7M (56.9% shortfall against the Target Annual Investment of $182.6M)	$282.1M (54.5% above the Target Annual Investment of $182.6M)	$127.9M (30.0% shortfall against the Target Annual Investment of $182.6M)	This represents an increase of $49.2M annually compared to the Forecasted Budget investment level.
Metric #3: % of Assets in Fair or Better Condition (2035)	38.7%	61.8%	44.5%	The Proposed LOS projects a 5.8% increase of assets in fair of better condition by CRV relative to the Forecasted Budget scenario.

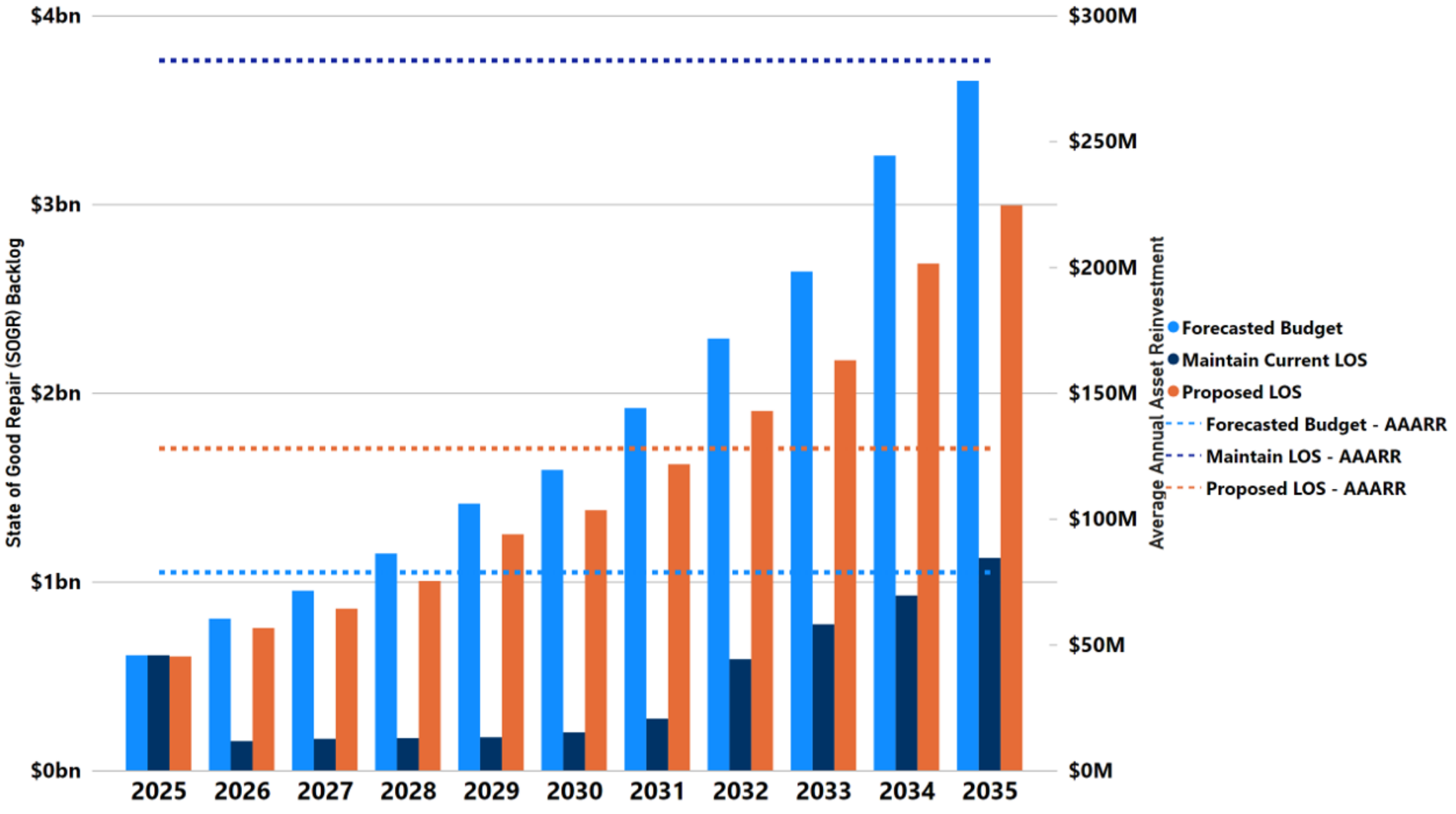
The modelling above demonstrates that the Proposed LOS (Scenario #3) offers a fiscally responsible path forward, providing tangible improvements in asset condition (an increase to 44.5% of assets in fair or better condition by CRV) and a reduction in the long-term backlog (by approximately $700 million), while avoiding the significantly higher annual investment of $282.1 million required to fully maintain the current LOS.

Financial Risk and Mitigation

A critical finding from the analysis was the large financial deficit in projected levels of asset renewal funding. The analysis shows that the investment required to maintain the existing LOS and prevent further deterioration of critical assets requires an average annual capital investment of $282.1 million. The current forecasted capital budget allocation commits an average of $78.7 million per year to renewal. This results in an annual funding gap of $203.4 million, representing unsustainable financial liability and accelerating potential risk exposures for the City. **Figure E-1** summarizes state of good repair backlog projected over the next 10-years for each scenario on the primary axis and the associated average annual asset reinvestment rate (AAARR) on the secondary axis. The figure illustrates a significant financial risk for the City of Kingston, as the forecasted capital budget consistently falls substantially short of the cost required to maintain the existing LOS over the next 10 years and translates to an anticipated accumulation of state of good repair backlog in the amount of $3.7 billion by year 2035. Unless capital funding dramatically increases towards the required investment to Maintain LOS, assets will continue to deteriorate, leading to service failures, increased reactive spending, and a failure to meet community expectations for service quality.

The Proposed LOS scenario, by contrast, adopts a higher, more consistent investment level, specifically bridging the gap with an additional $27 million to $40 million per year resulting in an average annual capital investment of $127.9 million. This proactive approach immediately mitigates the acute financial risk, resulting in a 10-year cumulative backlog that is contained around $3 billion by 2035. This $700 million reduction in deferred renewal liability translates directly into a lower risk of reduced LOS. Instead of facing unpredictable and widespread infrastructure failure, the slightly higher investment level demonstrated in the Proposed LOS scenario provides funding to manage a more controlled, deliberate decline in LOS, allowing the City to strategically prioritize critical assets specifically, high-risk service areas like Transportation, Corporate Facilities, and Stormwater, which constitute approximately 80% of the City's total asset CRV, face potential risks regarding increased backlog and asset deterioration. Additionally, this recommended option will buy the City some time to develop a robust long-term financial strategy.

Figure E-1: 10-Year Cumulative Backlog vs. AAARR – All Scenarios



Total 10-Year Financial Outlook

The total projected financial requirement over the 10-year planning horizon, encompassing capital renewal and anticipated capital growth needs is **$1.7 billion**. Capital renewal projects represent the largest component at 76% of this total spend, while the plan is structured to accommodate significant growth investments in 2027 and 2029 which is supported by the City's 2024 Development Charges Background Study (DC Study).

Strategic Financial Decisions

To successfully implement the recommended $127.9 million annual investment and support long-term stability, the following four strategic financial and operational recommendations were established:

- **Improving Asset Condition Information**: Continue to prioritize funding and resource allocation to develop a Standardized Condition Assessment Program across multiple asset classes leveraging the best practices established already for Roads, Bridges, Structures, Stormwater, Sidewalks and Facility assets. This is an investment in data quality, ensuring the annual $127.9 million is prioritized based on genuine asset risk and return on investment, moving beyond some simple age-based replacement schedules.
- **Performance Governance**: Establish a governance framework requiring regular, transparent reporting through the asset management program. This tracks the effectiveness of the investment by linking capital spending directly to the results of key performance indicators, ensuring accountability and preventing mission drift.
- **Developing a Long-Term Infrastructure Financing Strategy:** To achieve the Proposed LOS and move the asset portfolio into a fiscally sustainable position, the City should immediately develop and implement a comprehensive, long-term infrastructure financing strategy. This strategy should move beyond reliance on federal or provincial grants for core capital renewal and focus on diversified, dedicated municipal revenue tools. Drawing on public sector best practices, such as those promoted by the Federation of Canadian Municipalities (FCM), recommended mechanisms include establishing an infrastructure levy (a dedicated percentage of the property tax levy solely for capital renewal) or implementing targeted user fees and surcharges to ensure that residents who directly benefit from infrastructure services contribute to the full lifecycle cost of those assets. The City currently has a 1% infrastructure levy which could be increased to help close the capital renewal funding gap.

This report provides a fiscally responsible roadmap that, together with sound governance and sustainable, dedicated revenue streams, positions the City to prudently manage financial risk and support the ongoing health of its infrastructure.

1.0 Introduction

This **Additional Information Report** has been prepared for the City of Kingston (the City) to meet the comprehensive requirements of Phase 4 under **Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17).** It is intended to serve as a critical extension to the City's foundational asset management documentation, specifically supplementing the following previously completed documents:

- Asset Management Policy (2025 – Currently Seeking Approval);
- 2022 Asset Management Plan (Core Assets – Roads, Bridges, Retaining Walls, and Stormwater);

- 2023 Facilities Asset Management Plan;
- 2024 Asset Management Plans (All Other Assets):
  - Executive Summary and Introduction (All Other Infrastructure Asset Management Plans);
  - Volume 1 – Infrastructure, Transportation, Transit, and Emergency Services;
  - Volume 2 – Corporate Services and Parking Operations;
  - Volume 3 – Community Services;
  - Volume 4 – Parks, Parkland, and Trails; and
  - Volume 5 – Police, Libraries, City Real Estate, and Environment.
- 2025 Asset Management Plan:
  - Volume 6 – Natural Assets.

The assets associated with water and wastewater services, gas operations, and appliance rental services fall under the responsibility of Utilities Kingston and are not included in the analysis for this report. These assets are considered in Utilities Kingston's updated Water and Wastewater Utilities Asset Management Plan, the Natural Gas Distribution System Asset Management Plan, and the Water Heater Asset Management Plan, which were approved by council in October 2025 (Report Number 25-237). These AMPs are outside the scope of the analysis conducted for this report.

This Additional Information Report builds upon the City's ongoing efforts to establish comprehensive Asset Management Plans (AMP) that comply with O. Reg. 588/17. The primary objective of this report is twofold:

- **Levels of Service (LOS) and Growth:** To review and refine the current LOS parameters and performance metrics across the 25 service areas, and, where applicable, develop clear proposed LOS targets. Foundational to this exercise was the development of standardized LOS performance metrics that were employed across most service areas; and

- **Lifecycle Management and Financial Strategy:** To provide a forward-looking analysis of the LOS and financial implications tied to the City's forecasted budget allocations across multiple service areas, to maintaining the current LOS within each service area, and to ultimately achieving the City's proposed LOS.

1.1 Alignment with Regulation

Provincial O. Reg. 588/17 - Asset Management for Municipal Infrastructure is built on an earlier document called "Building Together: Guide for Municipal Asset Management Plans (2012)" and aligns with the international standard ISO55000. The regulation establishes the following timeline for compliance:

Phase 1 - 2019

- A strategic asset management policy must be developed.

Phase 2 - 2022

- All core assets to be covered in the asset management plan with current LOS. Core assets include water, wastewater, stormwater, roads and bridges/culverts.

Phase 3 - 2024

- All assets owned by the municipality to be covered in the AMP with current LOS. Non-core assets include buildings, fleet and equipment as well as green infrastructure assets.

Phase 4 - 2025

- Proposed LOS, lifecycle and financial strategy for a 10-year period to achieve the proposed LOS.

1.2 Scope of Report

This **Additional Information Report** serves as an extension of the City's existing AMPs: the 2022 AMP (Core Assets), the 2023 Facilities AMP, and the 2024/2025 AMP (All Other Assets). Together, these documents cover a comprehensive total of 25 unique service areas, as detailed in **Table 1-1**.

Table 1-1: Service Areas Included in Scope

Asset Management Plan	Service Areas	Example Asset Classes / Types
2022 AMP (Core Assets)	• Transportation • Stormwater	• Roads, bridges, retaining walls, storm lines, storm manholes, detention ponds, storm inlets & outlets, oil-grit separators
2023 Facilities AMP	• Corporate Facilities	• Corporate buildings
2024 AMP: Volume 1 - Infrastructure, Transportation, Transit, & Emergency Services	• Transit • Traffic Control & Safety • Structures • Urban Forestry • Fire & Emergency Services • Solid Waste • Airport Operations	• Bus shelters, on-board bus equipment, guiderails, traffic signs, streetlights, traffic signals, sidewalks, wildlife fencing, minor culverts (< 3 m), street trees, fleet, equipment, collection carts, airport site elements (runways, runway lighting), other equipment
2024 AMP: Volume 2 - Corporate Services & Parking Operations	• Corporate Fleet • Information Systems & Technology • Parking Equipment, Lots, & Structures	• Vehicles, fleet equipment, IT infrastructure, end user devices, video camera systems, surface Lots, parking structures, parking equipment

Asset Management Plan	Service Areas	Example Asset Classes / Types
2024 AMP: Volume 3 - Community Services	• Heritage Services • Arts & Culture Services • Residential Long-Term Care • Indoor Recreation & Marinas	• Heritage collections, facility equipment and furniture, resident direct care equipment, pool equipment, arena equipment, fitness equipment, boat launches, wharfs
2024 AMP: Volume 4 - Parks, Parkland, & Trails	• Park Linear • Park Amenities • Park Facilities • Cemeteries	• Trails & paths, shoreline protection & seawalls, off-leash dog parks, skateparks & splash pads, playgrounds, sports fields & courts, park maintenance buildings, park (site) lighting, picnic shelters, park washrooms
2024 AMP: Volume 5 - Police, Libraries, City Real Estate & Environment	• Library Services • Police Services • City Real Estate & Environment	• Vehicles, specialized equipment, other equipment, environmental remediation infrastructure
2025 AMP: Volume 6 - Natural Assets	• Natural Assets	• Woodlots, forests, plantations, constructed green lands, meadows & thickets, marshes, swamps, agriculture & fencerows, watercourses & rivers, lakes & shorelines, rock barrens

Figure 1-1: Total Current Capital Replacement Value (2025) by Service Area

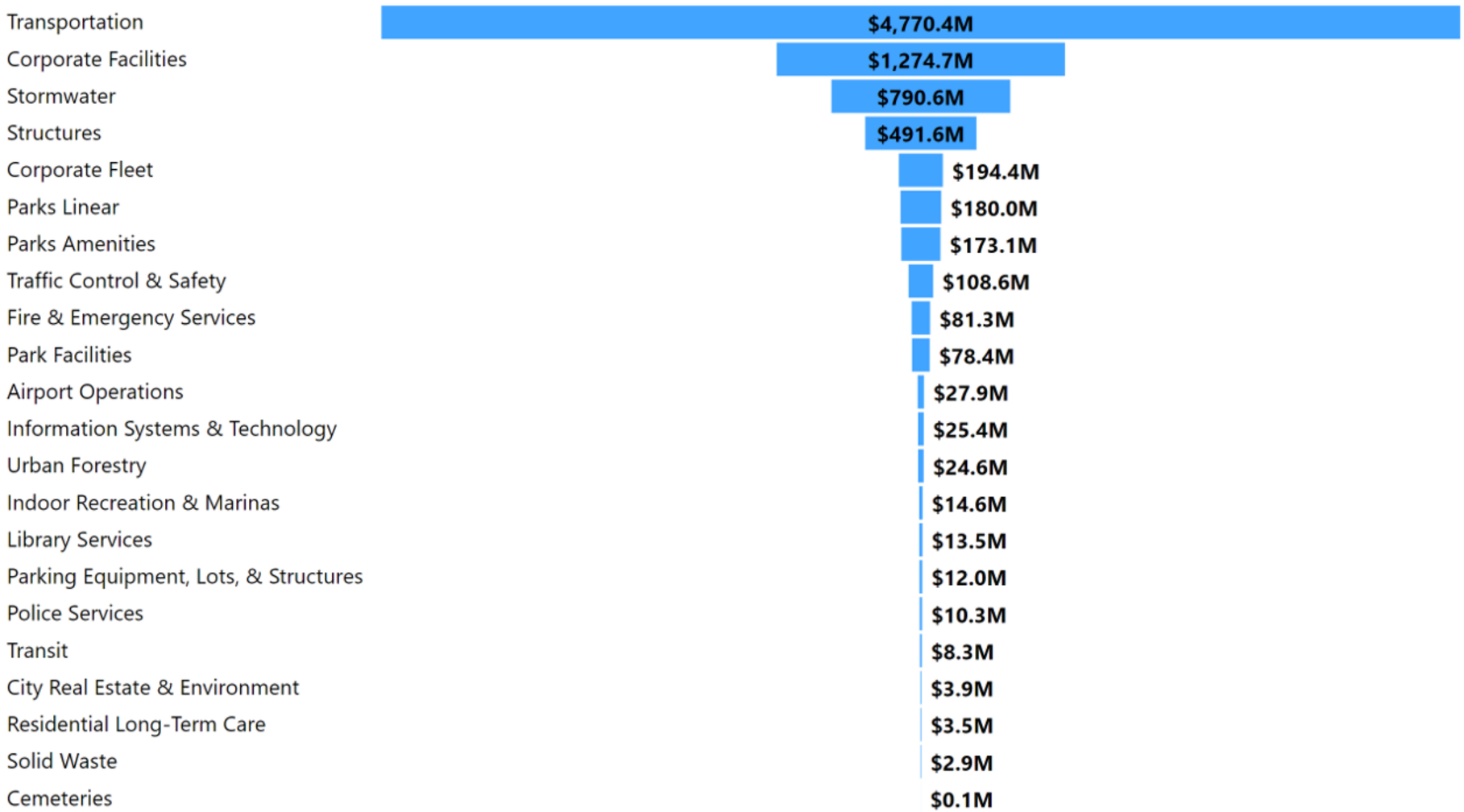


Figure 1-1 Notes

[1] Library Assets excludes the Collections.

[2] In the absence of a centralized repository for functional capital assets related to Arts & Culture Services, key asset attributes—such as age, condition, and replacement cost remain unknown, limiting the ability to incorporate these assets into the asset management analysis. For Heritage Services, no replacement cost data is available as these assets are considered irreplaceable. The City maintains an extensive civic collection of historical artifacts and artworks that hold significant cultural value. As such, these pieces do not have a defined replacement value or service life and are not subject to depreciation or depletion. City staff ensure that these items are managed as unique assets, with preservation and conservation practices prioritized to safeguard them for future generations. Functional capital assets will be captured in the 2026 update.

Figure 1-1 summarizes the total current Capital Replacement Value (CRV) for all Service Areas organized from highest to lowest. The overall total CRV for all assets is approximately **$8.3 billion**.

Additionally, asset replacement forecasts could not be developed for the Heritage Services and Art & Culture Services assets at this time due to significant asset data gaps.

As the City continues its journey of improving its asset management program, this report aims to enhance the existing AMPs. Its core purpose is to provide more detailed strategies for asset performance, lifecycle management, and financial planning.

Specifically, this report will outline both the qualitative expectations, and the specific performance metrics used to measure the LOS. It will also provide lifecycle management strategies, identifying the activities needed to maintain infrastructure, and present a proposed financial strategy for the next 10-years, including estimated capital costs and recommended funding levels.

This report is organized into the following key sections:

- Section 2: Levels of Service;
- Section 3: Growth Planning;
- Section 4: Asset Management Strategy;
- Section 5: Financial Analysis and Strategy; and
- Section 6: Next Steps and Recommendations.

1.3 Assumptions and Limitations

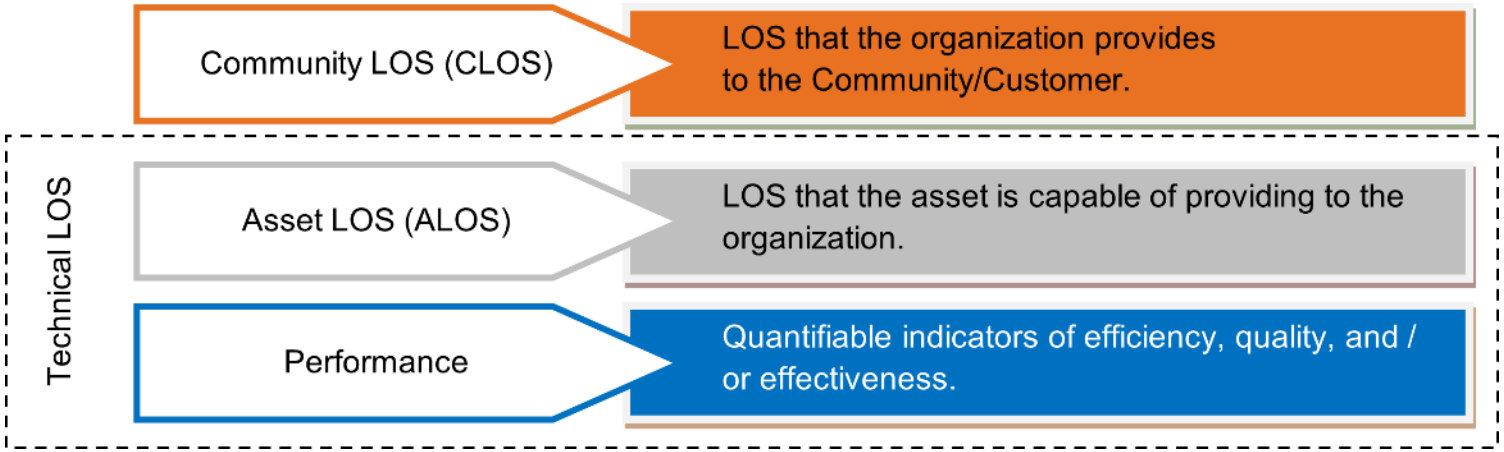
The report uses several key assumptions for the asset modeling and financial planning, they include:

- Water, wastewater, natural gas, and water heater services are excluded from this report as they fall under Utilities Kingston.
- Future costs derived within the lifecycle modeling incorporate an assumed average inflation rate of 3% annually.
- The ability to model Scenarios #2 and #3 was restricted to 18 service areas due to varying maturity and availability of asset data.
- The 10-year planning horizon (2026 to 2035) is the primary period for financial and performance projections.
- Growth projections rely on the City's 2024 Development Charges Background Study.
- Assets missing replacement cost data or those with significant asset data gaps were not included in the model.

2.0 Levels of Service

Asset management is fundamentally centered on the services that a municipality provides to its end-users. The LOS is a combination of indicators that reflect the social and economic goals of the municipality and link an asset's performance to its target performance goals. LOS is measured from both the community and the technical perspective, as shown in **Figure 2-1**.

Figure 2-1: LOS Definitions



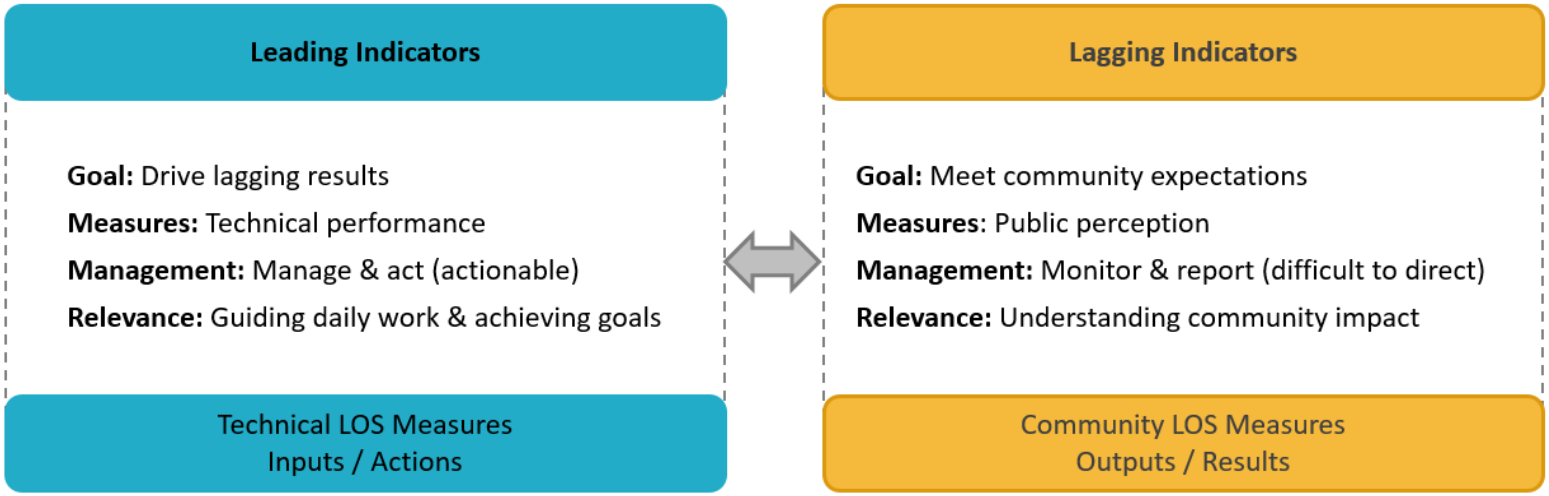
To effectively manage the existing and future performance of assets in providing a service, measures such as lagging and leading indicators may be used. This approach is in alignment with a recognized robust model for assessing public sector service delivery performance. These two categories of indicators provide critical, complementary support for managing performance:

- Lagging indicators measure the ultimate, desired outcomes and define the core service delivery goals. They reflect past performance and are typically focused on the realized LOS, asset condition, or failure rates; and

- Leading indicators track the specific, influential activities that drive performance improvement. They are predictive, enabling proactive change management actions that secure the achievement of desired outcomes and prevent issues before they impact the lagging metrics.

Innovative asset management performance measurement requires the clear alignment and interaction of these two categories: lagging indicators (outcome-focused) and leading indicators (driver-focused) as presented in **Figure 2-2**, related to LOS performance.

Figure 2-2: Defining Leading Indicators and Lagging Indicators Related to Performance



Each lagging or community measure is supported by one or more leading or technical measures that focus on the actions needed to deliver effective asset management. For each of the LOS measures, performance indicators will focus on service delivery results. These indicators serve multiple purposes:

- They document the results of asset management efforts, providing accountability;
- They set targets for asset management improvement, guiding future actions;
- They inform daily operations, particularly maintenance activities; and

- They report on performance by comparing actual results against set targets.

For this additional information report, the LOS builds on the existing indicators developed through the various City AMPs. The following sections include a summary of the results of the community engagement as it applies to service delivery, an overview of standardizing LOS metrics, and the current results of these measures.

2.1 Community Engagement

In alignment with O.Reg. 588/17, the City conducted a comprehensive, multi-phased public engagement process to help inform the development of the proposed LOS. The AMP Public Engagement process commenced in November 2024 and was designed to identify and assess the public's perspective on Asset LOS that are important to them.

The engagement focused on asset and service categories that the community interacts with the most, representing 13 of the 24 areas outlined in the City's Corporate Asset Management plans. Many of these related directly to the following Council 2023-2026 Strategic Priorities:

- Build an active and connected community;
- Lead environmental stewardship and climate action; and,
- Drive inclusive economic growth.

The overall purpose and objectives of the community engagement were to:

- **Inform city residents**: Provide an overview to the community about municipal services, cost of service delivery, and preference for payment for those services;
- **Gather input on service**: satisfaction levels with current service, willingness to pay to maintain or improve current service; and
- **Gain customer perspective**: include a customer perspective in the proposed LOS recommendations to Council.

Levels of Service

As part of the Public Engagement Consultation Plan, a project website was launched, an internal focus group was organized, a public survey questionnaire was distributed (launched on Get Involved Kingston in January), and two online community-based focus groups were held. Additional pop-up events and other engagement tactics were also utilized.

The service and asset categories selected for Public Engagement represented 13 of 24 areas outlined in the City's Corporate AMPs. Priority was placed on those assets and services that the community interacts with the most. The full 2025 Asset Management Public Engagement Overview & Results report (Report Number 25-083), was presented to Council on May 20, 2025.

2.1.1 Internal Focus Group

An Internal Focus Group consisting of Senior City staff was held in November 2024. The group's primary goal was to understand the current alignment of their departmental work with the City's 2023 to 2026 Strategic Plan priorities and Council-approved service levels. The specific goals of the focus group were to determine:

- Current alignment with City of Kingston strategic priorities;
- Department capacities to improve LOS; and
- Barriers to providing the expected or projected LOS.

Input from senior staff helped inform the design and the information that was included in the public Asset Management survey.

2.1.2 Public Online Survey

The public survey and other engagement channels obtained specific community feedback. Overall participants expressed a strong preference to:

- Maintain current levels of service with modest cost increases.

- Prioritize investment in transportation infrastructure (roads, sidewalks), natural assets, and core facilities.
- Allocate more resources toward transportation asset capital maintenance needs.

It is important to note that while there was a relatively high level of engagement through the community survey and other channels, public engagement is just one of several sources of information, alongside best practices, fiscal constraints, and other strategies, which will help support the development of the City's Asset Management Plan, service levels, and financial planning decisions.

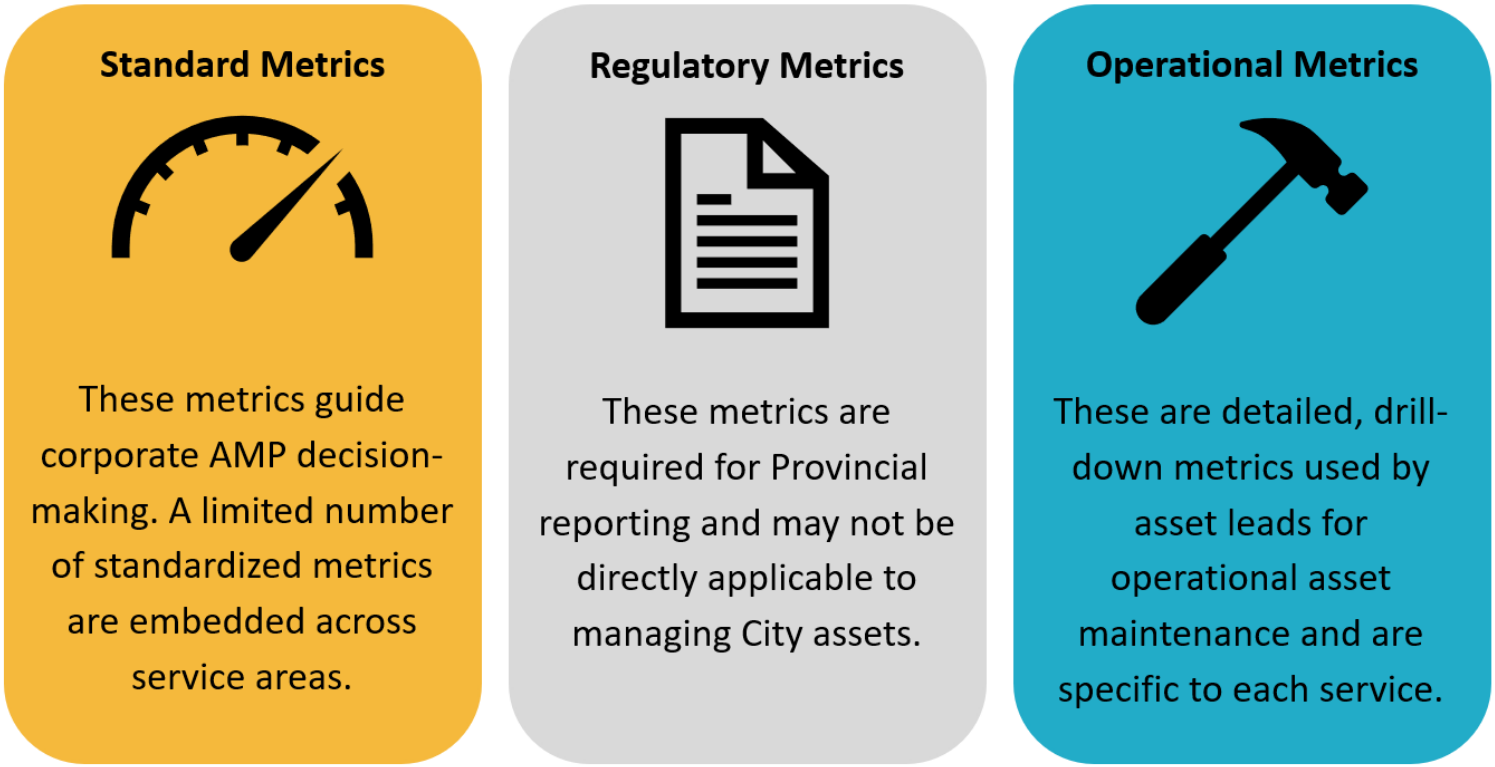
2.2 LOS Approach

As the City has completed their AMPs over several years, a refinement of the LOS parameters and indicators was undertaken as part of this most recent update. This refinement aimed to guide the development of the City's proposed LOS measures. The principles guiding this refinement included:

- **A Standardized Measurement Approach Across Service Areas**: Implement a consistent set of standard measurements across the 25 service areas;
- **Improved Organizational Reporting**: Develop a recurring and compelling holistic narrative to articulate the City's AMP story across all service areas; and
- **Alignment of Asset Performance Priorities with Community Expectations and Affordability**: Ensure that asset performance priorities are reflective of community expectations and are financially sustainable.

To facilitate reporting, three categories of performance indicators were assigned to the measures. These categories help identify their role in the decision-making process. The three categories are highlighted in **Figure 2-3** below.

Figure 2-3: Performance Indicator Categories



The repository of performance indicators includes the following elements:

- **Service Attribute**: The LOS parameter that is most applicable to the service area and the assets that are providing the service;
- **Service Expectation**: An overview of the meaning of the service attribute with respect to the service area;

- **Community Performance Metrics**: How the customer receives the service; and
- **Technical Performance Metrics**: How the organization provides the service (or will provide the service). Where applicable the driver for the technical performance metric is stated and comments are provided.

2.2.1 Asset Condition

To standardize the methodology for evaluating and reporting on the condition of the assets, a condition rating was assigned using a 5-scale rating system, which is based on the Canadian Infrastructure Report Card (2019) produced by the Canadian Network of Asset Managers and several other Canadian Associations. **Table 2-1** outlines the rating system which ranges from 1 (Very Good) to 5 (Very Poor).

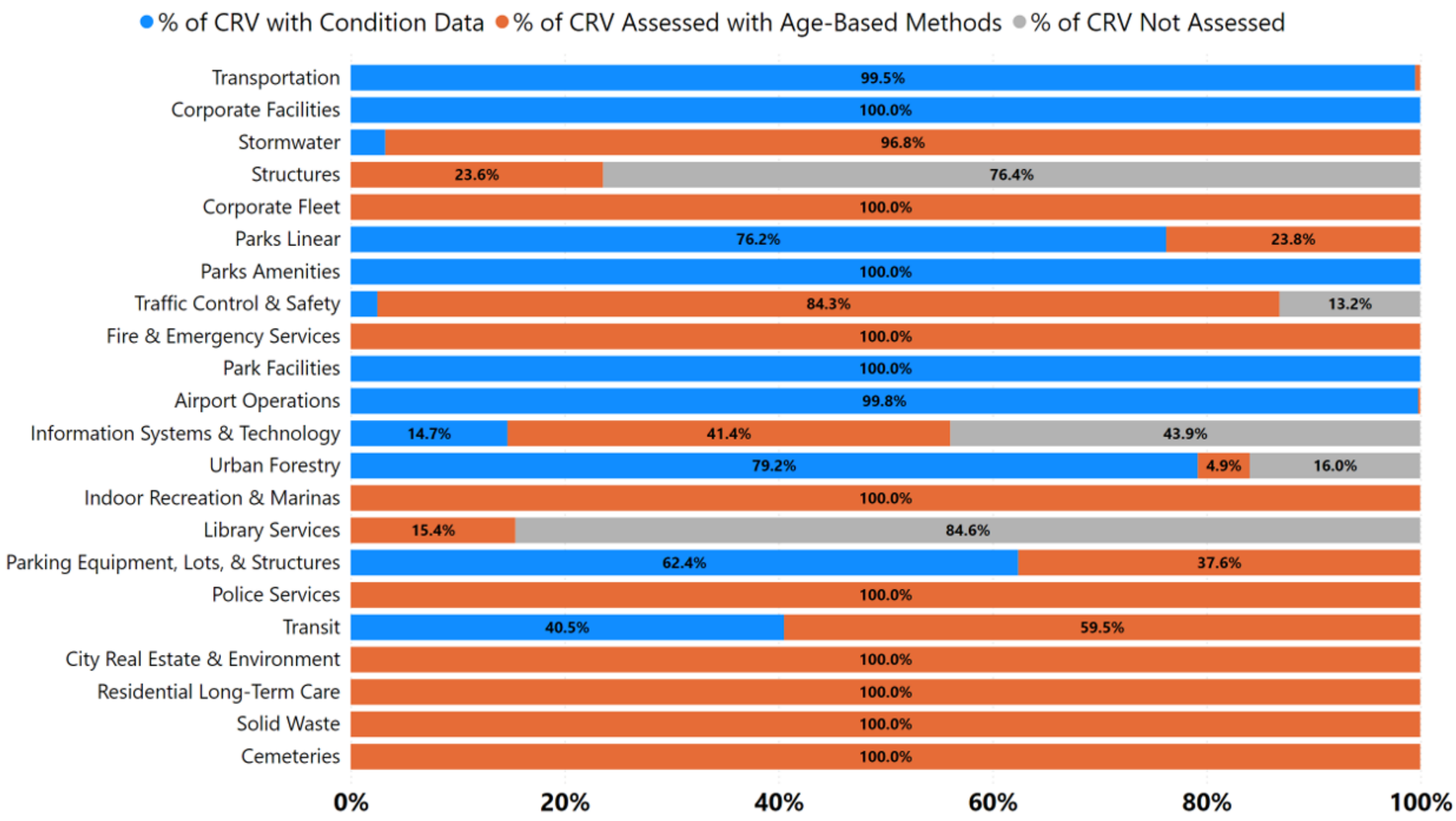
Table 2-1: Condition Rating System

Condition Rating	Condition Grade	Remaining Useful Life	Description
1	Very Good	more than 80%	Physically sound, performing as intended and resembles “like-new” condition.
2	Good	60% to 80%	Physically sound and performing as intended. Needs to be re-inspected in the medium term.
3	Fair	40% to 60%	Showing deterioration, with some elements physically deficient. Early stages of decay are becoming evident.
4	Poor	20% to 40%	Major portion of asset is physically deficient. It is not functioning properly due to significant deterioration and is a candidate for replacement in the short term.
5	Very Poor	less than 20%	Asset is physically unsound. There is a high probability it will fail, or it already has. Immediate replacement is required.

Condition Rating	Condition Grade	Remaining Useful Life	Description
N/A	**Unknown**	N/A	No or limited data to estimate the condition of the asset.

A hybrid approach was used for determining the condition, considering: 1) the age of the asset; 2) expected useful life (EUL); and 3) the last known condition rating assigned to the asset. It is important to note that if condition assessment information was not available, asset deterioration was assumed to calculate the condition ratings based on remaining useful life. For each service area, **Figure 2-4** summarizes the percentage of assets by CRV analyzed using available condition information, age-based methods, or that could not be analyzed due to gaps in available age and condition information.

Figure 2-4: Condition Information Summary



2.2.1.1 Corporate Facilities and Park Facilities – Condition Methodology Variation

The City's 2023 Facilities AMP assesses the overall condition of its facility assets primarily using the Facility Condition Index (FCI). The FCI is a widely recognized, monetary-derived measure used in facilities management to gauge the economic health and relative condition of an asset. It is fundamentally a financial liability index, indicating the investment required to address deficiencies relative to the asset's overall worth. The FCI primarily assesses financial liability (the required investment) and does not directly correspond to an engineering-derived Physical Condition Index (like a Pavement or Bridge Condition Index), which is based on explicit physical deterioration characteristics (e.g., crack severity, structural faults). While the FCI is calculated from the outcomes of a physical condition assessment, its ultimate purpose is a comparative financial benchmark.

The central objective of this report is the assessment of LOS for all services, including Corporate Facilities and Park Facilities. To further facilitate the review of asset condition across all service areas, a Remaining Service Life (RSL) analysis for the facilities was conducted for this report that considered facility element condition information to forecast future lifecycle costs. The approach used to establish and maintain the LOS of Corporate Facilities and Park Facilities in this report differs from the one presented in the 2023 Facilities AMP. This difference is intentional and necessary to ensure a like-for-like comparison using standardized LOS metrics across various service areas within the City and results are derived based on influencing physical deterioration of facility elements rather than striving to achieve or maintain financial liability targets.

2.3 Standard LOS Performance Metrics

City staff have selected three standard LOS performance metrics to establish the current and proposed LOS. The three metrics are:

1. State of Good Repair Backlog (**Section 2.3.1**);
2. Asset Reinvestment Rate (**Section 2.3.2**); and
3. Percentage of Assets in Fair or better Condition (**Section 2.3.3**).

Levels of Service

These metrics correspond to the parameters of Quality (the important role of an asset in meeting its intended function effectively) and Reliability (ensuring reliable service, often involving proactive maintenance and contingency planning to minimize disruptions and maintain continuous operation). The above three metrics are based on best practices in asset management and have been utilized across many Ontario municipalities.

NOTE: The following figures exclude assets associated with Library Services (specifically collections), Structures (specifically Minor Culverts (< 3 metre [m]), Heritage Services, and Arts & Culture Services. In the absence of a centralized repository for minor culverts (< 3 m), and functional capital assets related to Arts & Culture Services, key asset attributes—such as age, condition, and replacement cost remain unknown, limiting the ability to incorporate these assets into the asset management analysis. For Heritage Services, no replacement cost data is available as these assets are considered irreplaceable. The City maintains an extensive civic collection of historical artifacts and artworks that hold significant cultural value. As such, these pieces do not have a defined replacement value or service life and are not subject to depreciation or depletion. City staff ensure that these items are managed as unique assets, with preservation and conservation practices prioritized to safeguard them for future generations. Functional capital assets will be captured in the 2026 update.

2.3.1 Metric #1: State of Good Repair Backlog

The purpose of the State of Good Repair (SOGR) Backlog metric is to provide the City with a clear and quantifiable understanding of its current infrastructure and renewal or maintenance deficit. By identifying and quantifying repair, renewal, and replacement projects that are currently unfunded (“waiting” for capital budget inclusion), those previously delayed or dropped due to insufficient resources, and projects stalled due to limited execution capacity, this metric serves as a critical indicator of potential risks to service levels and asset integrity. Ultimately, this insight will empower the City to prioritize investments, strategically allocate resources, and develop proactive strategies to address its existing infrastructure needs.

Levels of Service

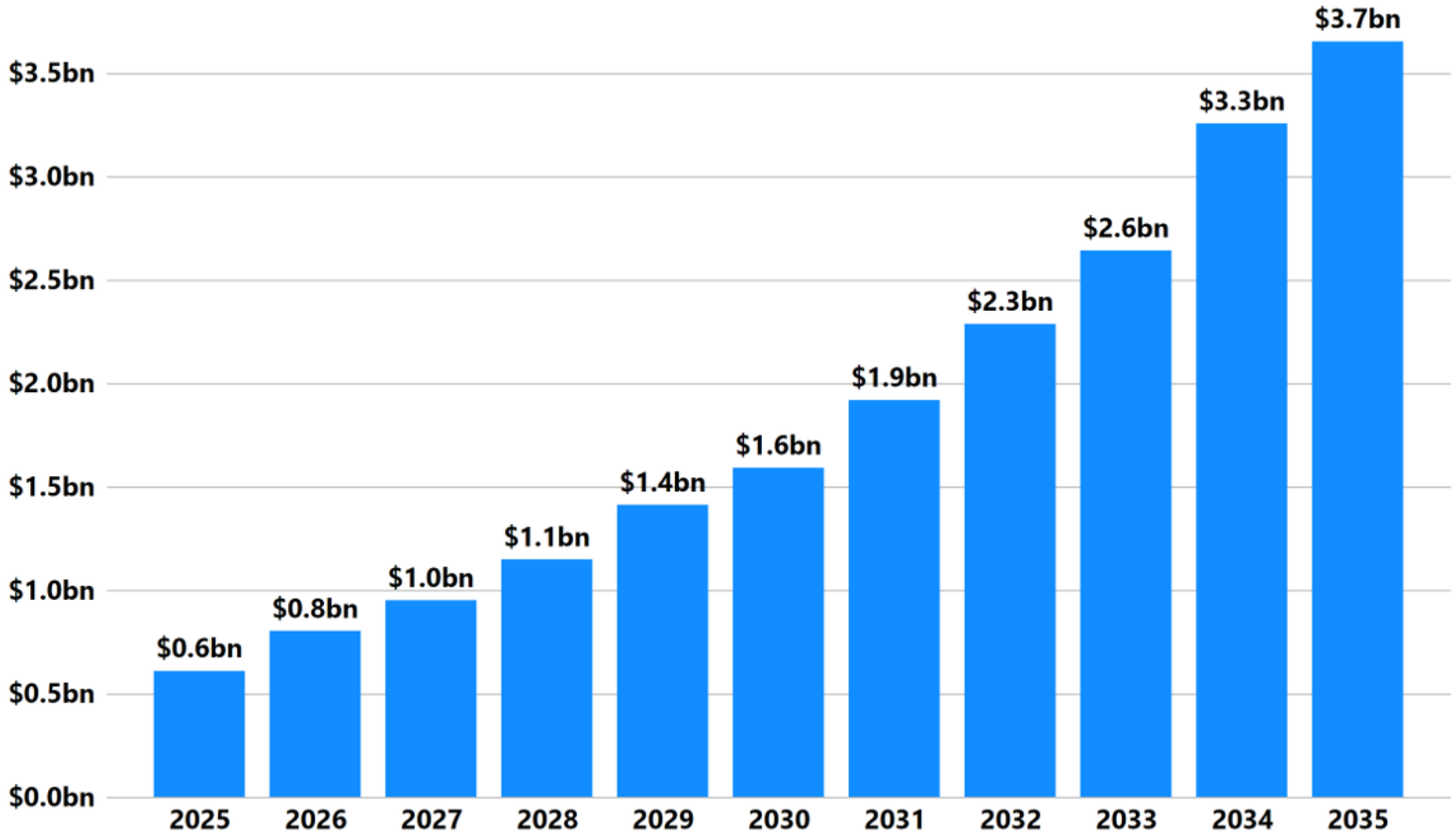
The SOGR backlog is calculated as follows:

1. **Calculate the Projected Annual Renewal Needs**: This is calculated by projecting the replacement year of all assets in the service area and their capital replacement value.
2. **Determine the Actual Annual Renewal Contribution to Capital Budget**: The planned capital budget allocated to each service area, as provided by the City, will be utilized in subsequent steps to calculate the SOGR backlog. This budget amount represents the planned average of current allocated funding available for addressing capital asset renewal projects within each service area.
3. **Determine the Annual SOGR Backlog**: The Annual SOGR Backlog is calculated by subtracting the Annual Renewal Contribution to the Capital Budget from the Projected Annual Renewal Needs.
4. **Total SOGR Backlog**: The estimated annual SOGR Backlog (calculated in Step 3) is projected across each year of the 10-year planning horizon. The sum of these annual backlog amounts represents the Total SOGR Backlog LOS metric.

$$SOGR\ Backlog = Capital\ Needs - Capital\ Renewal\ Contribution$$

This calculation yields the estimated annual shortfall in funding for maintaining the assets in a SOGR. **Figure 2-5** illustrates the accumulating SOGR backlog anticipated over the 10-year planning horizon based on the current planned capital renewal contribution to the City's capital budget. The 2025 SOGR backlog across all assets is estimated to be approximately **$0.6 billon**, accumulating to **$3.7 billon** by 2035.

Figure 2-5: Current LOS – Total SOGR Backlog



2.3.2 Metric #2: Asset Reinvestment Rate

The purpose of the Asset Reinvestment Rate is to evaluate the City's current capital budget allocation against the current replacement value of the assets and compare those results with industry recommended reinvestment rates (e.g., the Canadian Infrastructure Report Card). This metric will indicate whether current funding levels are sufficient to meet established reinvestment targets. Furthermore, tracking this rate over time will provide valuable insights into a reasonable reinvestment range for the City, facilitating informed financial planning and benchmarking against best practices and other municipalities.

The asset reinvestment rate is calculated as follows:

1. **Determine the Current Capital Investment**: Identify the current planned spend for capital renewal projects in the City's 15-year Capital Plan.
2. **Determine the Current Asset Capital Replacement Value**: Based on the current asset inventory, determine the Total Capital Replacement Value of all assets.
3. **Determine the Reinvestment Rate**: Divide the Current Capital Renewal Investment by the Total Capital Replacement Value of all assets.

$$Reinvestment\ Rate = \frac{Capital\ Renewal\ Contribution}{Total\ CRV}$$

Table 2-2: Current LOS – Asset Reinvestment Rate

Table 2-2 Notes

[1] Target annual capital renewal investment is based on asset management best practices, such as guidance provided by the Canadian Infrastructure Report Card (CIRC) and varies by Service Area.

Total 2025 Capital Replacement Value	Total 2025 Capital Renewal Investment	Target Annual Capital Renewal Investment	2025 Asset Reinvestment Rate	Target Annual Asset Reinvestment Rate
$8.29 B	$77.35 M	$182.6 M[1]	0.9%	2.2%[1]

2.3.3 Metric #3: Percentage of Assets in Fair or Better Condition

The purpose of the percentage of assets in Fair or better condition metric is to provide the City with a clear understanding of the overall relative health of its asset portfolio within each service area and to focus on the quality of the assets. This metric offers a valuable snapshot of the current state of all assets. Furthermore, tracking this percentage over time will enable the city to evaluate trends in asset condition, identify areas of improvement or deterioration, and assess the effectiveness of current asset management strategies.

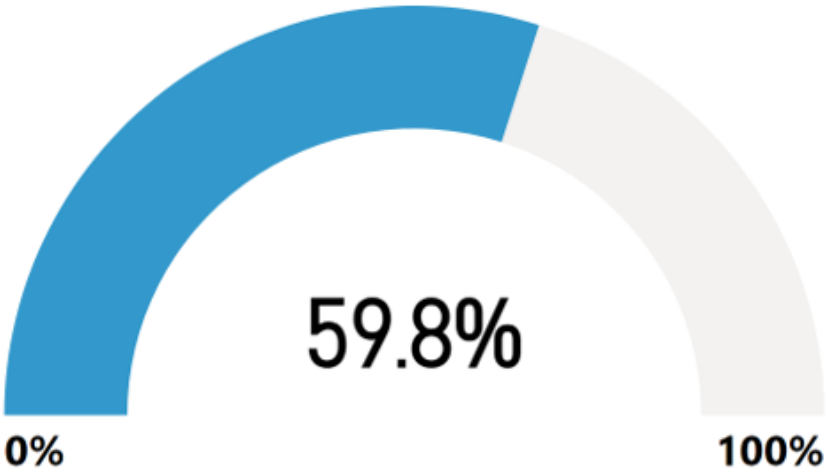
The percentage of assets in Fair or better condition is calculated as follows:

1. **Determine the Number of Assets in Fair or Better Condition**: The total number of assets within a specific service area was determined by asset inventories and the number of assets within the same service area that has been assessed and classified as being in fair or better condition, determined based on established condition assessment criteria;
2. **Calculate the Quotient of Assets in Fair or Better Condition**: Divide the total number of assets in fair or better condition (as determined by Step 1) by the total number of assets in the service area (as determined by Step 1); and

3. **Calculate the Percentage of Assets in Fair or Better Condition**: Multiply the resulting quotient by 100 to express the proportion as a percentage to determine the assets in fair or better condition.

$$\%\ of\ Assets\ in\ Fair\ or\ Better\ Condition = \frac{CRV\ of\ Assets\ in\ Fair\ or\ Better\ Condition}{Total\ CRV} \times 100$$

Figure 2-6: Current LOS – Percentage of Asset in Fair or Better Condition by CRV (2025)



3.0 Growth Planning

As the City continues to grow, there are multiple impacts to existing service levels and assets based on future needs. Proactive planning to align future service delivery with anticipated growth is essential. By evaluating the effects of this growth, the City can better prepare a strategy that optimizes asset investment and maintains desired service levels.

3.1 Long-Term Growth Forecast (2021 to 2051)

In 2023, the City completed a “Population, Housing & Employment Projections” study. The study was conducted to provide a basis for the City’s long-range land use, transportation, infrastructure, and capital expenditure planning. The study is completed every five years based on updated Statistics Canada Census data. Within this study, the City identified three growth scenarios (low, medium and high) spanning a period of 30 years (up to the year 2051, using 2021 Census data).

The growth scenarios for population, housing, and employment are summarized in **Table 3-1** below.

Table 3-1: Growth Scenarios (Low, Medium, High)

Scenario	Permanent Population	Total Population (permanent & students)	Permanent Housing (number of units)	Total Households (permanent & students)	Employment (number of jobs)
Existing (2021)	136,600	154,100	57,800	62,900	71,900
Low Growth (2051)	186,600	210,500	80,800	88,200	107,800

Scenario	Permanent Population	Total Population (permanent & students)	Permanent Housing (number of units)	Total Households (permanent & students)	Employment (number of jobs)
Medium Growth (2051)	197,000	220,900	84,800	92,200	113,900
High Growth (2051)	207,400	231,300	88,500	95,900	119,900

In December 2023, Council approved the medium growth scenario as the City's official growth forecast (Report Number 24-016) for future planning. The resulting forecasted growth, presented in 5-year intervals, is shown in **Table 3-2**.

Table 3-2: Forecasted Growth in 5-Year intervals for Medium Growth Scenario

Year	Permanent Population	Total Population (permanent & students)	Permanent Housing (number of units)	Total Households (permanent & students)	Employment (number of jobs)
2021	136,300	154,100	57,800	62,900	71,900
2026	148,000	166,800	63,000	68,600	85,900
2031	158,900	178,400	67,800	73,600	92,700
2036	169,900	189,500	72,600	78,500	98,800
2041	179,600	200,700	77,000	83,300	104,500

The impact of this long-term growth is that as the community expands, the need for new or expanded capacity infrastructure assets also grows. These needs are identified in Master Plans and formally quantified in the Development Charges Background Study.

3.2 2024 Development Charges Background Study

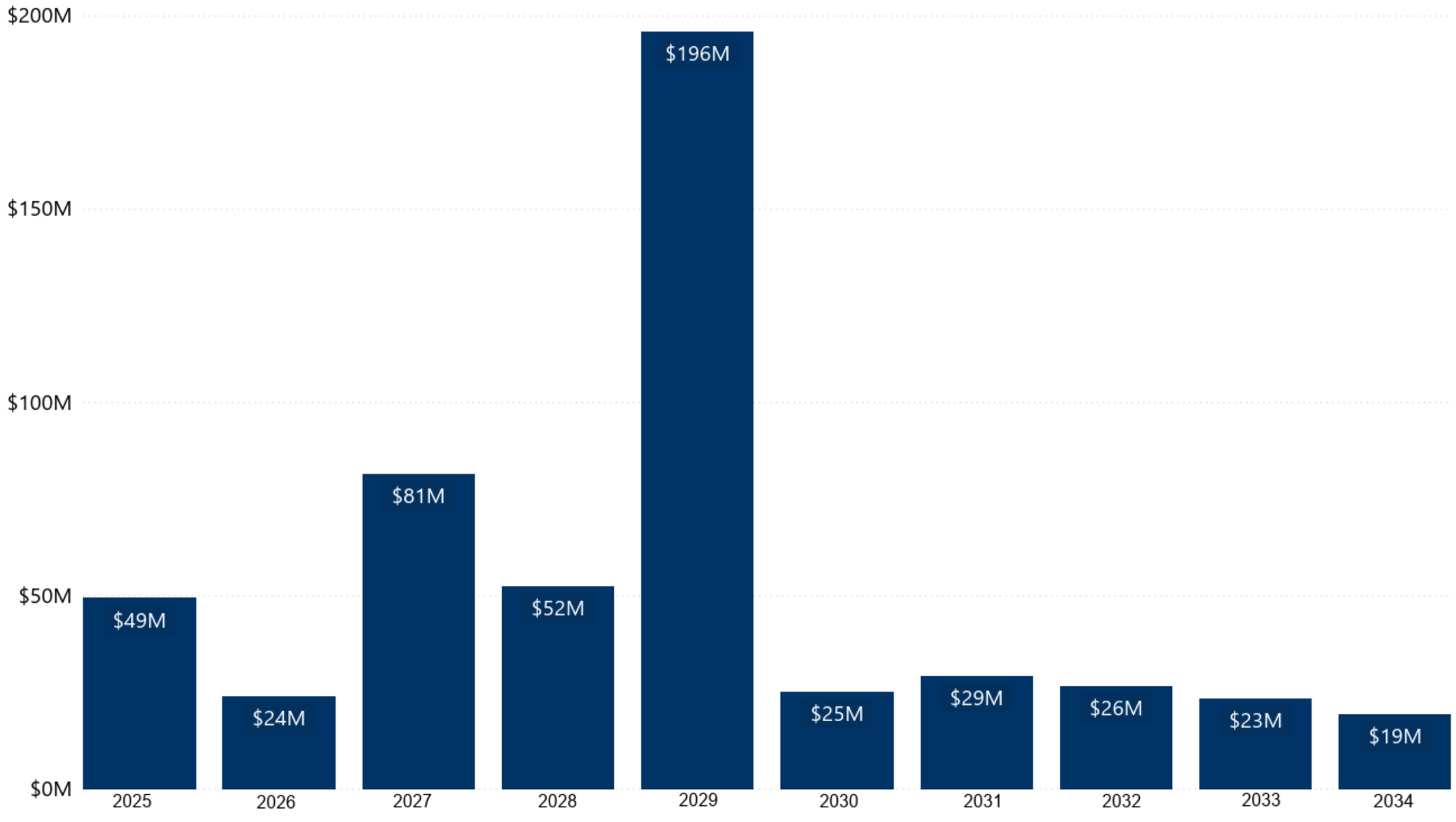
The baseline for growth projections relies on the City's 2024 Development Charges Background Study prepared by Watson and Associates (DC Study). It is pertinent to note a slight divergence between the services in the study and the service areas in the asset hierarchy under consideration. Specifically, the DC Study encompasses the services included in **Figure 3-1**. For clarity, water, wastewater, and ambulance services are excluded from this baseline data as these essential utilities are owned and operated by Utilities Kingston or other agencies.

Figure 3-1: Services included in the DC Study

3.2.1 10-Year Projected Growth Projects

The 10-year growth projection, informed by the DC Study and City insights and subsequently approved by Council, provides a summary of anticipated growth across various service areas. For consistency, all projects initially slated to begin in 2024 are now projected to commence in 2025. Where project timelines included a range of potential start dates, the final year of that range was adopted for this projection. The resulting 10-year gross capital costs estimate (2024) for all service areas is presented in **Figure 3-2**, with a more granular breakdown of the services provided in **Appendix B**. Services under the ownership of Utilities Kingston are excluded from this analysis. The Population, Housing, and Employment Growth Forecast Update to 2051 (Report Number 24-016) was brought to Council in December 2023 and Council approved the medium growth scenario as the recommended growth forecast scenario to be used by the City.

Figure 3-2: 10-Year Growth Projections



The City's projected growth is planned to have two significant spikes, one in 2027 and another in 2029. These large investments are for new facilities (e.g., new Firehall and Aquatics Partnerships). The annual cost then stabilizes between $20 million and $30 million.

3.3 Future Considerations

The City's projected growth presents a critical point, offering both opportunities for advancement and potential challenges to existing infrastructure and service delivery. As such, the City may strategically consider two primary paths forward in response to these anticipated changes.

3.3.1 Strategy A: Maintaining Current LOS

This strategy involves continuing the current approach of regular maintenance and refurbishment of existing City assets, focusing on like-for-like replacement to maintain the current LOS.

- **Benefit:** This approach offers predictable capital costs, as expenditures can be generally forecasted by conducting thorough asset condition analysis.

This strategy may be recommended if the City forecasts minimal population, commercial, or environmental growth over the next 10-year period. However, the City may still choose to direct additional funding toward larger capital projects or projects of lower risk/priority where funding is not usually directed. This will improve the average overall condition of assets and take a proactive approach to asset management.

3.3.2 Strategy B: Strategic Improvements to Meet Future Growth

If the City forecasts an increase in population growth over the next 10-year period, the City may choose to make strategic improvements to their existing assets to match these needs. This strategy suggests a focus on high-risk assets, directing additional funding toward increasing asset capacity for future needs, increased demand, and comprehensive planning efforts.

- **Benefit:** Provides the opportunity to plan for future capital expenditures and creates a schedule that aligns with official land use and infrastructure plans.

Growth Planning

Regardless of the growth trajectory and the chosen strategic response, it is critical to acknowledge the potential effects on key areas. Maintaining the desired LOS under increased demand will require diligent, evidence-based planning and resource allocation. Furthermore, growth invariably introduces new risks that demand careful assessment and robust mitigation strategies. Finally, the impact on the quality and longevity of the City's assets necessitates proactive management and strategic investments, informed by a comprehensive understanding of the lifecycle costs associated with both current and future infrastructure.

Recognizing that growth itself follows a lifecycle, from initial planning and investment through implementation, ongoing operation and decommissioning or retirement, this perspective must inform our understanding of long-term financial planning. The planned growth expenditures by service area presented in **Appendix B** provides critical insights into managing the lifecycle costs associated with the City's projected growth.

4.0 Asset Management Strategy

The asset management strategy outlines the City's current approach to managing asset lifecycles. It provides an overview of the service level modelling, including proposed service level outputs and the risks of not achieving them.

4.1 Lifecycle Management Activities

To assess the long-term financial implications and LOS performance metrics for the service areas selected for modelling, a detailed approach to lifecycle activity modelling was employed where possible. This modelling forms the basis for understanding the costs associated with maintaining current LOS and achieving proposed LOS across the City's diverse asset portfolio. **All future costs derived within the modelling incorporate an assumed average annual inflation rate of 3%**. The adoption of a 3% average annual inflation rate is a prudent assumption for long-term Canadian asset lifecycle analysis. This rate aligns with the upper boundary of the Bank of Canada's 1% to 3% inflation-control target, thereby incorporating a conservative safety margin necessary for robust fiscal planning. Furthermore, using 3% helps mitigate the inherent risk that capital expenditure costs (such as construction and specialized materials) may persistently outpace general Consumer Price Index (CPI) inflation over multi-year planning horizons.

4.1.1 Core Activity Assumption

For all service areas modelled from the City's asset inventory, the core lifecycle activity modelled was the reconstruction/replacement of the asset or asset component at the end of its service life. This activity is utilized as the primary mechanism for renewing assets and is fundamental to calculating long-term sustainable funding requirements.

4.1.2 Facility-Specific Lifecycle Activities

Given the complexity and multi-component nature of facilities, a supplementary lifecycle activity was modelled for Corporate Facilities and Parks Facilities. In addition to the replacement of individual facility components (e.g., Heating, Ventilation, and Air Conditioning (HVAC) systems, roofing, etc.), an allowance for Major Rehabilitation (repair) was considered for components in poor condition.

This major rehabilitation activity was factored into the modelling using an assumed cost equivalent to 30% of the component replacement cost, providing a fiscal mechanism to account for significant, periodic upgrades necessary to extend the service life of the facility components and the facility itself. The timing of these activities was assumed to occur when the component enters a state of poor repair for the first time and subsequent applications of the major rehabilitation activity before replacement were not permitted (i.e., it was assumed a major rehabilitation activity can only be performed once over the course of the component's service life).

4.1.3 Road-Specific Lifecycle Activities

Due to the significant CRV and high public profile of the City's transportation network, the modelling for Roads incorporated an extensive and detailed suite of lifecycle activities. This approach allows for a granular understanding of how investment in various maintenance and rehabilitation levels affects asset condition and LOS performance over time, moving beyond simple end-of-life replacement.

The road network's lifecycle activity modelling included four distinct categories of lifecycle activities: preventative maintenance, minor rehabilitation, major rehabilitation, and reconstruction. The specific activities are summarized in **Table 4-1** below.

Table 4-1: Roads Treatments

Table 4-1 Notes

[1] Specific lifecycle activities and their associated unit costing were developed and verified by City staff. Unit costing originates from 2022 and was inflated based on an assumed average inflation rate of 3% annually.

Activity Category	Activity Name	2022 Unit Cost ($/m^2)[1]
Preventative Maintenance	Application of Rejuvenator	$3
Preventative Maintenance	Cape Seal (slurry + micro)	$18
Preventative Maintenance	Crack Seal	$4
Preventative Maintenance	Slurry Seal	$8
Preventative Maintenance	Fog Seal	$2.6
Preventative Maintenance	Double Micro – Surfacing + Crack Seal	$18
Minor Rehabilitation Treatment	Ultra-Thin Overlay	$21
Major Rehabilitation Treatment	Double Surface Treatment + Fog Seal	$13
Major Rehabilitation Treatment	Pulverize + Double Surface Treatment + Fog Seal	$21
Major Rehabilitation Treatment	Single Surface Treatment + Fog Seal	$10
Major Rehabilitation Treatment	Hot Mix Asphalt Overlay	$59
Major Rehabilitation Treatment	Mill & Pave	$69

4.2 LOS Scenarios Review

To analyze the associated LOS performance and financial implications of different LOS scenarios, an analysis of three distinct LOS scenarios was conducted and evaluated using the standard LOS performance metrics discussed in **Section 2.3**.

The three scenarios analyzed include:

- **Scenario #1: Forecasted Budget** – This scenario uses the City's planned 10-year budget from 2025 to project the resulting LOS.
- **Scenario #2: Maintain LOS** – This scenario calculates the associated cost required to fully maintain the City's current LOS until the end of the 10-year planning period.
- **Scenario #3: Proposed LOS** – This scenario provides a more balanced investment approach based on the City's current financial constraints. This approach was developed in consultation with key City staff and Subject Matter Experts (SME's) within each service area including Finance and represents staff's recommended option.

4.2.1 Limitations in LOS Scenario Analysis

It is important to note that the rigorous analysis of all three LOS scenarios - Forecasted Budget, Maintain LOS, and Proposed LOS - could not be applied uniformly across all 25 service areas. The depth of analysis for each service area was necessarily governed by the maturity and availability of the underlying asset data.

The primary constraint is the presence of asset data gaps within certain service areas. These gaps typically manifest in one or more of the following critical areas:

- **Asset Inventory Completeness:** The absence of a fully comprehensive or accurately classified inventory for specific asset classes made it impossible to reliably model future lifecycle needs.

- **Asset Condition and Age Data:** Reliable condition data or application of age-based methods is essential for determining the current LOS and forecasting the degradation rate of an asset or asset component. Where up-to-date condition or age information was unavailable, it was impossible to reliably model future lifecycle needs.
- **Historical Lifecycle Cost Data:** Accurate scenario modelling requires detailed historical cost data for various lifecycle activities (e.g., maintenance, rehabilitation, replacement). For service areas lacking consistent historical financial tracking, developing defensible cost projections for some lifecycle activities was not feasible.

Consequently, while the Forecasted Budget Scenario was analyzed for all provided service areas to establish a financial baseline, only 18 service areas were analyzed for the Maintain LOS and 13 services areas were analyzed for the Proposed LOS, as shown in **Table 4-2**. This difference is due to the fact that only service areas with sufficient data maturity were subjected to the Maintain LOS and Proposed LOS scenario analyses, respectively. The associated asset classes or types can be found in their associated AMPs or examples in **Table 1-1**.

The results of the LOS scenarios modelled for each service area are detailed in LOS scenario summary cards provided in **Appendix A**.

Table 4-2: Summary of LOS Scenario Analysis Completed by Service Area

Service Area	Scenario #1: Forecasted Budget	Scenario #2: Maintain LOS	Scenario #3: Proposed LOS
Transportation	Yes	Yes	Yes
Corporate Facilities	Yes	Yes	Yes
Stormwater	Yes	Yes	Yes
Structures	Yes	Yes	Yes
Corporate Fleet	Yes	Yes	Yes
Parks Linear	Yes	Yes	Yes
Parks Amenities	Yes	Yes	Yes
Traffic Control & Safety	Yes	Yes	Yes
Fire & Emergency Services	Yes	Yes	Yes
Park Facilities	Yes	Yes	Yes
City Real Estate & Environment	No	No	No
Parking Equipment, Lots, & Structures	Yes	Yes	Yes
Airport Operations	Yes	Yes	No
Information Systems & Technology	Yes	Yes	Yes
Urban Forestry	Yes	Yes	No
Indoor Recreation & Marinas	No	No	No
Library Services	Yes	Yes	No
Police Services	Yes	Yes	No
Transit	Yes	Yes	Yes

Service Area	Scenario #1: Forecasted Budget	Scenario #2: Maintain LOS	Scenario #3: Proposed LOS
Residential Long-Term Care	Yes	Yes	No
Solid Waste	No	No	No
Cemeteries	No	No	No
Heritage Services	No	No	No
Arts & Culture Services	No	No	No
Natural Assets	No	No	No

4.2.2 Scenario #1: Forecasted Budget

Scenario #1 utilizes the City's planned 10-year capital budget as of 2025 (based on the previous annual planning period) as its Forecasted Budget scenario. The City generates a 15-year funding model annually, which utilizes input from staff to consistently reprioritize projects and adjust scheduling. The forecasted budget per service area is detailed in **Table 4-3**. The associated asset classes or types can be found in their associated AMPs or examples in **Table 1-1**.

This scenario provides a critical baseline, illustrating the projected LOS performance over the 10-year planning horizon under current funding commitments.

The absence of forecasted capital investment in the present plan does not indicate any risk to the integrity or safety of airport operations. Airside and groundside infrastructure remain safe, reliable, and fully compliant with regulatory standards. Staff will continue to undertake and fund all required capital maintenance to ensure operational continuity, public safety, and service quality. Any interim capital work will be aligned with Council’s approved strategies for the airport’s future operations and be presented for Council consideration as necessary.

Table 4-3: Forecasted Budget Plan 2025 - Capital Renewal by Service Area

Table 4-3 Notes

[1] No new capital investments are reflected in the Airport's long-term funding requirements as the City evaluates governance, operational models, and capital funding structures for the Airport. These options require a clear understanding of future roles and responsibilities before major capital commitments are determined.

Service Area	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Transportation	$15.4M	$26.3M	$33.6M	$28.6M	$14.6M	$11.4M	$17.9M	$20.2M	$10.7M	$9.0M
Corporate Facilities	$13.1M	$14.9M	$12.9M	$12.3M	$14.6M	$12.5M	$16.1M	$14.7M	$15.5M	$18.7M
Stormwater	$10.9M	$17.5M	$16.8M	$18.2M	$28.3M	$21.1M	$18.0M	$23.1M	$9.6M	$16.7M
Structures	$2.3M	$451.4K	$2.2M	$2.3M	$2.6M	$2.9M	$2.4M	$2.7M	$3.0M	$3.4M
Corporate Fleet	$8.3M	$7.7M	$9.5M	$20.7M	$8.4M	$10.1M	$10.0M	$10.5M	$12.4M	$10.1M
Parks Linear	$5.5M	$2.6M	$2.5M	$1.6M	$2.2M	$2.2M	$2.2M	$2.5M	$3.2M	$695.0K
Parks Amenities	$3.2M	$1.6M	$820.9K	$698.6K	$1.4M	$1.5M	$1.9M	$1.4M	$1.2M	$2.4M
Traffic Control & Safety	$945.0K	$12.3M	$4.9M	$7.4M	$1.2M	$1.2M	$1.3M	$1.3M	$1.4M	$1.5M
Fire & Emergency Services	$3.0M	$2.7M	$4.3M	$3.0M	$5.0M	$10.2M	$10.2M	$3.0M	$300.0K	$3.8M
Parks Facilities	$355.0K	$415.0K	$325.0K	$75.0K	$75.0K	$75.0K	$75.0K	$75.0K	$75.0K	$75.0K
Parking Equipment, Lots, & Structures	$2.2M	$365.2K	$737.0K	$2.1M	$238.5K	$2.4M	$38.4K	$383.9K	$860.0K	$774.6K
Airport Operations[1]	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0.	$0.0	$0.0.	$0.0	$0.0

Service Area	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Information Systems & Technology (IS&T)	$5.1M	$3.5M	$3.0M	$2.1M	$2.5M	$2.2M	$2.3M	$2.5M	$2.6M	$2.4M
Urban Forestry	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0.	$0.0	$0.0.	$0.0	$0.0
Transit	$4.8M	$5.5M	$4.0M	$1.1M	$1.6M	$370.0K	$412.5K	$895.6K	$409.4K	$1.4M

4.2.3 Scenario #2: Maintain LOS

The Maintain LOS scenario (Scenario #2) was a critical planning exercise intended to determine the financial requirements necessary to prevent the degradation of LOS performance and sustain the current LOS for applicable service areas over the 10-year planning period.

The core intent of this scenario is to provide the City with an accurate cost benchmark for "business as usual," isolating the investment required to prevent further asset service decline. It addresses the fundamental question: What is the cost of business as usual?

This analysis focused on 18 service areas where sufficient asset inventory and condition data were available to model Scenario #2 (as noted in **Section 4.2.1**). The resulting financial figures from the Maintain LOS scenario provide key insight for subsequent decision-making by demonstrating the cost differential between the Forecasted Budget scenario (Scenario #1) and the investment level required to keep asset condition and associated LOS levels from deteriorating.

4.2.4 Scenario #3: Proposed LOS Methodology

The Proposed LOS scenario (Scenario #3) was developed after reviewing the results of the Forecasted Budget scenario (Scenario #1) and Maintain LOS scenario (Scenario #2). The significant degradation of LOS performance observed in Scenario #1, including unacceptable asset degradation and increasing state of good repair backlog, was not acceptable for the City. Furthermore, the cost of maintaining the current LOS as analyzed in Scenario #2 was financially prohibitive.

To establish a feasible strategy, the Proposed LOS scenario (Scenario #3) adopted a budget-driven approach that considered the City’s service delivery goals, previous public engagement results and existing financial position, and targeted gradual increases in asset reinvestment.

The strategy developed was guided by the following steps:

1. **Affordability Workshop**: The City held a collaborative internal session, which included senior leadership, many of whom are participants in the City's Asset Management Steering Committee. It was determined that the City needed to prioritize a financial commitment over the longer term, making a budget threshold the primary driving factor for the Proposed LOS.
2. **Working Sessions**: Following the workshop, sessions were held with key City staff and Subject Matter Experts (SMEs) representing various asset groups including Finance to confirm and refine this budget-driven approach.

This overall effort successfully determined the maximum attainable annual investment the City could strive towards for asset renewal. The resulting goal is a phased investment strategy which gradually increases capital investment for asset renewal to **$150 million annually over the next 20 years** across all service areas. This level of investment was determined to not be realistically achievable over the 10-year planning period as outlined in O.Reg. 588/17.

To execute the planned strategy, key City personnel and SMEs considered a 20-year planning horizon and adjusted asset reinvestment rates in 5-year increments, ultimately working towards a "ramp-up" of asset reinvestment towards the $150 million per year goal. The exercise resulted in an average annual capital investment of $163 million by year 2045, slightly above the $150 million target after considerations from SMEs. This financial investment target, acting as a primary resource constraint, was the main consideration for defining the Proposed LOS while maintaining an appropriate level of risk. This longer-term view also allows the City to improve key elements of its asset management program over time including data quality, expansion of condition assessment programs & rigor to other service areas, asset rationalization reviews and potential service delivery model changes.

Scenario #3 reflects the results of the City's phased investment strategy over the first 10-year planning period to report consistently against the results of Scenarios #1 and #2. This analysis focused on 13 service areas where sufficient asset inventory and condition data were available to model Scenario #3 (as noted in **Section 4.2.1**). A summary of the target reinvestment rates derived by key City personnel is provided in **Table 4-4**. The annual renewal budgets for each service area were derived based on adjusting annual reinvestment rates in consideration of the total 2025 CRV of each service area and the City's priorities.

Table 4-4: Target Reinvestment Rates & Funding Allocations for Proposed LOS

Service Area	Total CRV	Target Average Annual Reinvestment Rate (2026 to 2030)	Target Average Annual Reinvestment (2026 to 2030)	Target Average Annual Reinvestment Rate (2031 to 2035)	Target Average Annual Reinvestment (2031 to 2035)
Transportation	$4.77B	1.0%	$47.7M	1.5%	$71.6M
Corporate Facilities	$1.27B	1.2%	$15.3M	1.5%	$19.1M
Stormwater	$790.6M	1.0%	$7.9M	1.5%	$11.9M
Structures	$491.6M	2.0%	$9.8M	2.0%	$9.8M
Corporate Fleet	$194.4M	9.0%	$17.5M	10.0%	$19.4M
Parks Linear	$180.0M	1.5%	$2.7M	1.5%	$2.7M
Parks Amenities	$173.1M	1.0%	$1.7M	1.5%	$2.6M
Traffic Control & Safety	$108.6M	3.0%	$3.3M	4.0%	$4.3M
Fire & Emergency Services	$81.3M	9.0%	$7.3M	10.0%	$8.1M
Park Facilities	$78.4M	1.0%	$0.8M	1.5%	$1.2M

Service Area	Total CRV	Target Average Annual Reinvestment Rate (2026 to 2030)	Target Average Annual Reinvestment (2026 to 2030)	Target Average Annual Reinvestment Rate (2031 to 2035)	Target Average Annual Reinvestment (2031 to 2035)
Information Systems & Technology	$25.4M	8.0%	$2.0M	4.0%	$1.0M
Parking Equipment, Lots, & Structures	$12.0M	3.0%	$0.4M	3.0%	$0.4M
Transit	$8.3M	1.0%	$0.1M	1.0%	$0.1M

4.2.5 Summary of LOS Modelling Results

The LOS analysis focused on the three standard LOS performance metrics discussed in **Section 2.3**. This analysis, the results of which are in **Table 4-5**, was conducted for 18 service areas where sufficient asset inventory and condition data were available to model scenarios beyond only the Forecasted Budget scenario (Scenario #1).

Table 4-5: Summary of LOS Modelling Results - All 18 Analysed Service Areas

Metric	Forecasted Budget	Maintain LOS	Proposed LOS	Proposed LOS Outcome
Metric #1: SOGR Backlog	$3.7B	$1.1B	$3.0B	Reduced by $700M
Metric #2: Average Annual Asset Reinvestment Rate	$78.7M	$282.1M	$127.9M	Increased by $49.2M

Metric	Forecasted Budget	Maintain LOS	Proposed LOS	Proposed LOS Outcome
Metric #3: % of assets in Fair or Better Condition by CRV (2035)	38.7%	61.8%	44.5%	Increased by 5.8%

As summarized above, the Proposed LOS scenario (Scenario #3) projects a total backlog of **$3 billion**. This result suggests that the proposed target service area funding allocations derived by key City personnel are sufficient to slow the accumulation of asset degradation, resulting in a backlog approximately **$700 million** lower than continuing with the forecasted budget as of the year 2035. This outcome represents a positive shift towards chipping away at the accumulated backlog over the next 10 years.

To maintain current LOS, an average annual asset reinvestment rate of **$282.1 million** for asset renewal was projected, representing a significant increase compared to the forecasted budget investment level of **$78.7 million** annually. The Proposed LOS demonstrates a strategy to provide a meaningful increase in investment above current levels that is achievable for the City, with an average annual asset reinvestment rate of **$127.9 million,** representing an increase of **$49.2 million** annually compared to the forecasted budget investment level.

To summarize, the Proposed LOS scenario (Scenario #3) will provide tangible improvements in asset condition (**44.5%**) and reduces the long-term backlog (**$3 billion**) relative to the Forecasted Budget scenario (Scenario #1), all while offering a fiscally responsible path forward by avoiding the higher annual investment required to fully maintain the current LOS **($282.1 million**).

4.2.5.1 Proposed LOS Outcome Summary by Service Area

Table 4-6, **Table 4-7**, and **Table 4-8** below summarize the key outcomes of the LOS performance modelling for the 18 service areas where analysis was able to be conducted based on the Proposed LOS.

Table 4-6: 10-Year Proposed LOS Results – Metric #1: State of Good Repair Backlog (2035)

Service Area	Forecasted Budget SOGR Backlog (2035)	Proposed LOS SOGR Backlog (2035)	Proposed LOS Outcome
Transportation	$2.4B	$2.0B	Reduced by $400M
Corporate Facilities	$734M	$645M	Reduced by $89M
Stormwater	$0	$79.8M	Increased by $79.8M
Structures	$71.4M	$0	Reduced by $71.4M
Corporate Fleet	$135M	$74.0M	Reduced by $61M
Parks Linear	$33.1M	$29.7M	Reduced by $3.4M
Parks Amenities	$112M	$106M	Reduced by $6M
Traffic Control & Safety	$30.6M	$27.5M	Reduced by $3.1M
Fire & Emergency Services	$42.5M	$7.0M	Reduced by $35.5M
Park Facilities	$22.9M	$7.3M	Reduced by $15.6M
Parking Equipment, Lots, & Structures	$4.4M	$10.1M	Increased by $5.7M
Airport Operations	$217M	$29.5M	Reduced by $187.5M
IS & T	$5.1M	$11.1M	Increased by $6M
Urban Forestry	$2.0M	$0	Reduced by $2M
Library Services	$0	$0	No change
Police Services	$5.6M	$5.6M	No change
Transit	$151K	$5.9M	Increased by $5.7M
Residential Long-Term Care	$2.5M	$0	Reduced by $2.5M

Table 4-7: 10-Year Proposed LOS Results – Metric #2: Average Annual Asset Reinvestment Rate (AAARR)

Service Area	Forecasted Budget AAARR	Proposed LOS AAARR	LOS Outcome
Transportation	$17.4M	$57.5M	Increased by $40.1M
Corporate Facilities	$14.5M	$17.2M	Increased by $2.7M
Stormwater	$16.6M	$9.9M	Reduced by $6.7M
Structures	$2.4M	$8.5M	Increased by $6.1M
Corporate Fleet	$10.6M	$16.6M	Increased by $6M
Parks Linear	$1.8M	$2.2M	Increased by $400K
Parks Amenities	$1.6M	$2.1M	Increased by $500K
Traffic Control & Safety	$3.3M	$3.8M	Increased by $500K
Fire & Emergency Services	$4.5M	$7.1M	Increased by $2.6M
Park Facilities	$147K	$979K	Increased by $832K
Parking Equipment, Lots, & Structures	$998K	$359K	Reduced by $639K
Airport Operations	$0	$1.5M	Increased by $1.5M
IS&T	$2.4M	$1.5M	Reduced by $900K
Urban Forestry	$264K	$456K	Increased by $192K
Library Services	$87K	$85K	Reduced by $2K
Police Services	$1.2M	$1.2M	No change
Transit	$668K	$81K	Reduced by $587K
Residential Long-Term Care	$96K	$375K	Increased by $279K

Table 4-8: 10-Year Proposed LOS Results - Metric #3: Percentage of Assets in Fair or Better Condition by CRV (2035)

Service Area	Forecasted Budget % Fair or Better Condition by CRV	Proposed LOS % Fair or Better Condition by CRV	LOS Outcome
Transportation	32.5%	38.1%	Increased by 5.6%
Corporate Facilities	49.4%	55.5%	Increased by 6.1%
Stormwater	62.3%	54.2%	Reduced by 8.1%
Structures	39.1%	84.6%	Increased by 45.5%
Corporate Fleet	34.6%	58.1%	Increased by 23.5%
Parks Linear	41.2%	42.8%	Increased by 1.6%
Parks Amenities	9.4%	11.7%	Increased by 2.3%
Traffic Control & Safety	32.6%	57.9%	Increased by 25.3%
Fire & Emergency Services	43.8%	78.1%	Increased by 34.3%
Park Facilities	72.9%	93.0%	Increased by 17.1%
Parking Equipment, Lots, & Structures	58.7%	35.8%	Reduced by 22.9%
Airport Operations	0%	53.0%	Increased by 53%
IS&T	53.9%	29.7%	Reduced by 24.2%
Urban Forestry	60.6%	67.8%	Increased by 7.2%
Library Services	50.1%	50.1%	No change
Police Services	45.9%	45.9%	No change
Transit	65.8%	10.0%	Reduced by 55.8%
Residential Long-Term Care	25.3%	73.8%	Increased by 48.5%

4.3 Risk Management

In accordance with O. Reg. 588/17, a risk assessment directly tied to the City's ability to achieve its Proposed LOS is to be undertaken. This is a foundational element of the asset management strategy, guiding investment prioritization. The risk review identifies the main risks associated with adopting the Proposed LOS scenario (Scenario #3) as shown in **Section 4.2.4** for the applicable service areas. The risk assessment will review the ability or elements that would prevent the City from potentially delivering the Proposed LOS. Some of the key risks themes across the Services Areas are:

- **Increased Infrastructure Backlog**: This metric reflects deferred capital renewal costs and the resulting increase in future financial liability. A key risk is the expected growth in the 10-year State of Good Repair (SOGR) backlog (Metric #1), which increases future funding pressures and unfunded liability. Deferring asset interventions typically leads to higher operating, maintenance, and capital costs over time, as treatments become more intensive and are affected by inflation.
- **Financial Under-Investment**: A potential risk of underfunding asset replacement (Metric #2) is that it increases the likelihood of critical asset failures, leading to loss of service (e.g., road closures, bridge restrictions), increased public safety hazards, and emergency repair costs that often exceed the cost of carrying out pro-active planned maintenance; and
- **Overall Asset Health Deterioration**: The risk of an increase in assets in poor or very poor condition (Metric #3) decreases the reliability and performance of assets. Assets that are in poor or very poor condition require more reactive maintenance, ultimately impacting Metric #1 and #2. This inefficiency drives up lifecycle operating costs potentially diverting resources from planned projects.

A summary of the specific risk associated with not achieving the Proposed LOS for high-risk services and all other services is provided below.

4.3.1 High-Risk Service Areas

The service areas that currently have the highest risk are Transportation, Corporate Facilities and Stormwater, together they make up approximately 80% of the City's total CRV of all assets. A more detailed risk assessment was completed for these services area and are outlined in **Table 4-9**, **Table 4-10**, and **Table 4-11**.

Table 4-9: Transportation - Risk Assessment

Metric	Proposed LOS	Risk Review	Recommended Mitigation
Metric #1: SOGR Backlog	$2.0B	Failure to fully fund the targeted investment leads to a large projected SOGR backlog by 2035. The Proposed LOS scenario does help proactively prioritize the backlog compared to the Forecasted Budget scenario. However, due to the extensive quantity of assets, there is potential for the backlog to increase further, leading to more critical asset failures.	• Secure additional funding, either moving funds from other service areas or from grant opportunities. • Implement additional lifecycle activities that prolong the life of assets but minimize the cost. • Continue condition assessment investments and practices
Metric #2: Average Reinvestment	$57.5M	The proposed investment is 39% less than the targeted annual investment of $95.41M. The Proposed LOS's average annual capital investment is less than 40% of the funding required to maintain the current LOS, which is the underlying cause for the increased backlog and potential condition deterioration.	• Seek alternative financing options to help close the annual funding gap. • Prioritize spending on critical assets that directly affect safety and system operation.

Metric	Proposed LOS	Risk Review	Recommended Mitigation
Metric #3: % of assets in Fair or Better (2035)	38.1%	The Proposed LOS scenario does improve the asset condition compared to the Forecasted Budget scenario. It still results in a large deterioration of assets compare to current condition. This can lead to loss of service, increase failure of assets or providing reliable service.	• Prioritize critical assets to minimize service interruptions such as prioritizing arterial roads. • Reduce the number or quantity of assets within the service (where possible).

Overall, the Proposed LOS is expected to significantly reduce the overall risk to Transportation assets compared to continuing with the existing Forecasted Budget scenario based on the 2025 Budget year. While the financial commitment provided in the Proposed LOS option mitigates some risk, the substantial investment required to Maintain LOS introduces a large-scale financial risk due to the sheer size of the investment required. Additionally, the currently proposed level of funding is inadequate to address asset replacement needs, which will accelerate the likelihood of unwanted failures and lead to even greater long-term financial liabilities (as noted in the SOGR backlog projection).

Table 4-10: Corporate Facilities – Risk Assessment

Metric	Proposed LOS	Risk Review	Recommended Mitigation
Metric #1: SOGR Backlog	$645.2M	Not achieving the Proposed LOS will increase the City's future financial liability on these assets. The Proposed LOS does support minimizing the Forecasted Budget SOGR; however, the SOGR backlog continues to grow.	• Secure additional funding (i.e., user fees) or move funds from other service areas or from grant opportunities. • Invest in new technologies aimed at prolonging the life of assets while minimizing costs.

Metric	Proposed LOS	Risk Review	Recommended Mitigation
Metric #2: Average Reinvestment	$17.2M	Failure to fully fund the targeted annual investment leads to increased in potential failure of assets or expensive emergency repairs when needed.	• Prioritize spending on critical assets that directly affect safety and system operation.
Metric #3: % of assets in Fair or Better (2035)	55.5%	Not achieving the Proposed LOS results in a deterioration of asset health. Causing potential loss of service levels or increase maintenance requirements.	• Prioritize critical assets to minimize service interruptions. • Asset Rationalization where feasible.

The Proposed LOS for Corporate Facilities is expected to reduce the overall risk to assets compared to the Forecasted Budget scenario. Securing more funds, completing additional lifecycle activities or prioritizing high-risks assets reduce the risk of unplanned failures and support the delivery of services.

Table 4-11: Stormwater – Risk Assessment

Metric	Proposed LOS	Risk Review	Recommended Mitigation
Metric #1: SOGR Backlog	$79.8M	The Proposed LOS scenario will generate a 10-year SOGR backlog of nearly $80 million, unlike the fully funded scenarios (Forecasted Budget and Maintain LOS scenarios). This is due to funds being reallocated to other services.	• Re-allocate funds from non-critical service areas with lower risks to support minimizing the SOGR backlog. • Consider the implementation of a stormwater use/utility fee.
Metric #2: Average Reinvestment	$9.9M	The Proposed LOS requires lowering the average annual capital investment, resulting in a 26.5% funding gap against the target investment. This shortfall is highly likely to cause asset deterioration, increasing the probability and consequence of failure.	• Prioritize annual investment on high-risk assets to mitigate deterioration and minimize the overall loss of service.
Metric #3: % of assets in Fair or Better (2035)	54.2%	The Proposed LOS shows a decrease in asset health, with the percentage of assets in "Fair or Better Condition" by CRV dropping by 8.1% compared to the Forecasted Budget scenario. While the overall average condition remains "Fair," the decline may lead to increased maintenance and operational costs due to assets not performing as intended.	• Continue to prioritize and fund the existing CCTV asset condition data collection program started in 2023, which has completed inspection of approximately 18% of the storm sewer system to date, to ensure accurate assessment of the overall health of the network of assets. • Identify high-risk assets and proactively monitor their condition for necessary intervention.

The Proposed LOS for Stormwater represents a trade-off that accepts a moderate, yet managed, increase in asset risk to achieve short-term budgetary relief for other service areas. The trade-off does increase the overall risk of the service by increasing the SOGR backlog and a deterioration of the overall asset health. This approach is also highly influenced by existing Climate Change Risks and Climate Adaptation Strategies, which continue to shape asset performance expectations, renewal priorities, and long-term service resilience.

It is important to note that the primary driver for the current condition rating was asset age, which was based on incomplete data. Better, more complete stormwater asset data may therefore lead to a different risk assessment. To date, approximately 18% of the total storm sewer network has undergone CCTV inspections, providing verified condition information for those assets. As inspection coverage increases, the accuracy and confidence in the overall network condition and associated risk assessments will continue to improve.

4.3.2 Other Service Areas

Table 4-12 provides a summary of risk associated with reduced LOS for all other service areas.

Table 4-12: Summary of Risk Considerations for Other Service Areas

Service Area	Potential Risk of Not Sustaining LOS
Structures	Structural failure (e.g., culvert collapse, sinkholes), increased liability from poor sidewalk condition, and localized flooding.
Corporate Fleet	Lead to significant increases in operational downtime and disruption across all departments due to frequent vehicle and equipment breakdowns, leading to higher emergency repair costs decreased community service levels for critical municipal services and increased internal or third-party resource demands.
Parks Linear	Erosion, surface deterioration, and public safety risks (tripping hazards) leading to closure or limited accessibility.

Service Area	Potential Risk of Not Sustaining LOS
Parks Amenities	Deterioration and closure of amenities (e.g., sports fields), leading to reduced public utilization and potential negative perception. Health and safety hazards (e.g., failed playground equipment, structural deterioration), leading to public injury and liability claims.
Traffic Control & Safety	Increased traffic congestion, higher rates of vehicular accidents, and pedestrian safety hazards due to faulty signals, signage, or barriers.
Fire & Emergency Services	Slower emergency response times, increased risk of injury, and greater property damage due to potential unreliable or outdated fleet/equipment.
Park Facilities	Health and safety hazards (e.g., structural deterioration), leading to potential public injury and liability claims.
City Real Estate & Environment	Loss of environmental management systems, introducing the risk of regulatory fines and environmental damage.
Parking Equipment, Lots, & Structures	Revenue loss due to non-functioning meters/pay stations, lot surface deterioration leading to higher renewal costs, and risk of potential injuries, tripping in potholes and cracks.
Airport Operations	Safety risks from deteriorated runway/taxiway surfaces, non-compliance with aviation regulations, and operational delays or mandated closures. Loss of existing flight operators (flights schools, medical patient transfers, UPS freight flights, etc.) and inability to attract and retain new schedule service operations.
Information Systems & Technology	Increased vulnerability to cyber-attacks/data breaches, system-wide failure (outages), and loss of business for critical services.
Urban Forestry	Increased number of hazardous tree failures (falling branches/trees), leading to property damage, injury, increased tree removal costs, and increased liability claims.

Service Area	Potential Risk of Not Sustaining LOS
Indoor Recreation & Marinas	Failure of specialized systems (e.g., ice plants, pool filtration), facility closure and loss of user fees.
Library Services	Deterioration of essential functional capital (e.g., shelving, furniture) leading to unplanned closure of some spaces, failure of essential materials handling equipment, and outdated collections/resources.
Police Services	Reduced patrol visibility, and delays in response, potentially compromising public safety.
Transit	Increased service delays and cancellations, lower reliability, reduced ridership, and higher operating costs.
Residential Long-Term Care	Deterioration of essential functional capital (e.g., beds, lifts) leading to regulatory non-compliance and potentially impact resident health and comfort.
Solid Waste	Reduced collection frequency, public health hazards (vermin, odor), and potential regulatory fines.
Cemeteries	Instability of monuments and safety hazards for visitors.
Heritage Services	Permanent deterioration or loss of historical assets and artifacts, safety hazards for visitors in aging structures, and loss of cultural value.
Arts & Culture Services	Facility closures due to maintenance backlog (e.g., specialized theatre equipment failure), compromising arts programming, and revenue generation.
Natural Assets	Decline of ecological function (e.g., reduced flood attenuation, poor water quality), increasing vulnerability to climate risks and damage.

5.0 Financial Analysis and Strategy

Based on the Proposed LOS, the projected financial forecast for the 10-year planning period (**2026 to 2035**) for each service area is shown in **Table 5-1.** This table also includes a summary of the projected growth from the DC Study (as outlined in **Section 3.0**). The total projected cost is **$1.7 billion**.

Table 5-1: Projected Total 10-Year Capital Forecast

Table 5-1 Notes

[1] Minor Culverts (with a diameter of less than 3 meters) within the Structures service area were omitted from the LOS scenario analysis. This decision was predicated on the limited reliability of the existing asset inventory data, the minimal risk profile associated with these assets, their comparatively low individual replacement cost, and the City's established maintenance strategy of contingent replacement rather than preventative programming.

[2] For these service areas, sufficient asset inventory and condition data was not available to fully model lifecycle activities. As a result, projected capital needs were informed by the previously completed AMPs.

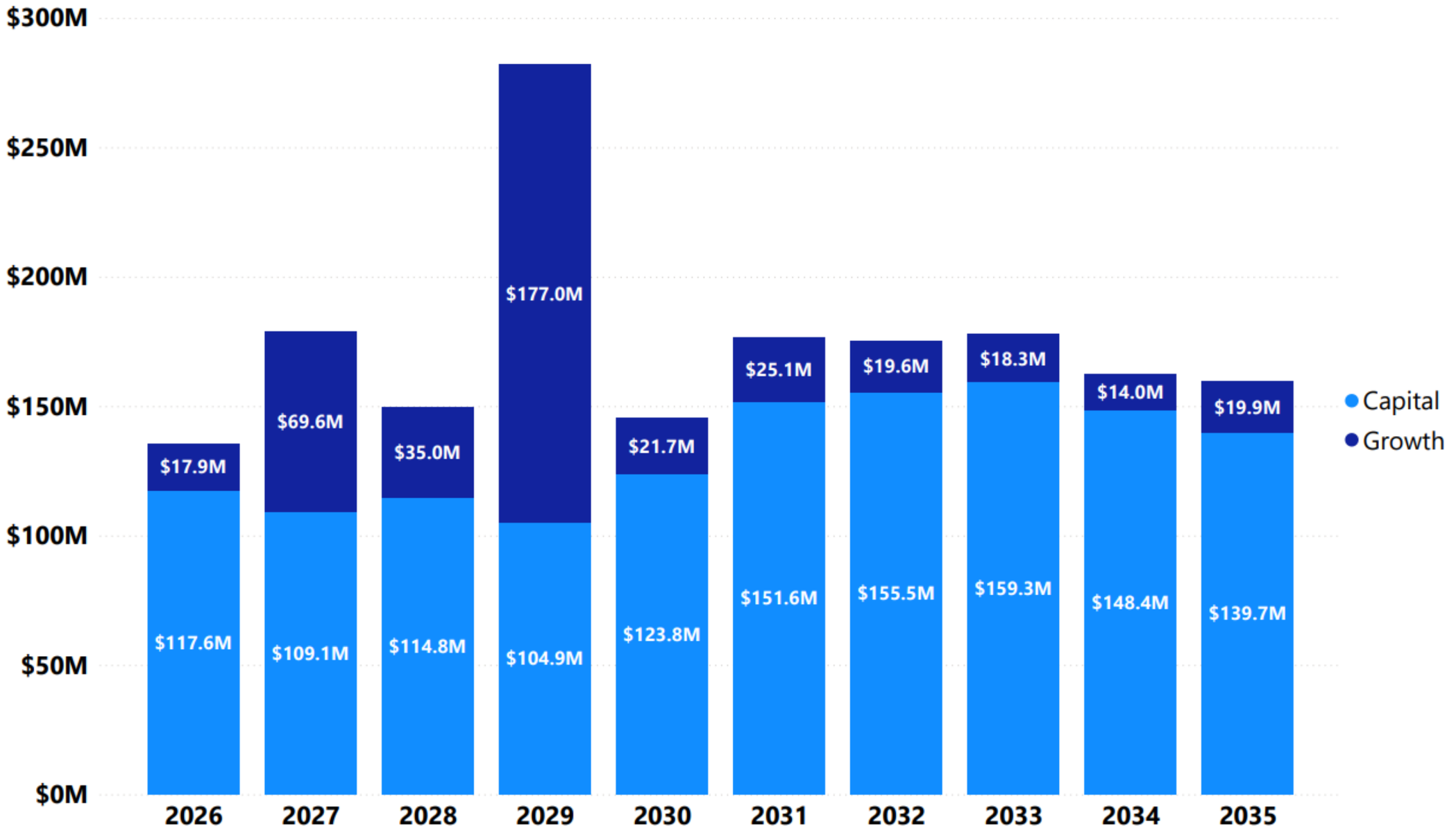
[3] For these service areas, sufficient asset inventory and condition data was not available at the time of this report. As a result, projected capital needs appear as denoted in the City's forecasted budget from the 2025 Capital Plan.

Service Area	Projected Capital Plan	Projected Growth Needs	Total Projected Cost
Transportation	$575M	$61.8M	$637M
Corporate Facilities	$172M	$247M	$419M
Stormwater	$98.8M	$0	$98.8M
Structures[1]	$84.5M	$0	$84.5M
Corporate Fleet	$166M	$8.0M	$174M

Service Area	Projected Capital Plan	Projected Growth Needs	Total Projected Cost
Parks Linear	$22.0M	$16.9M	$38.9M
Parks Amenities	$21.3M	$46.6M	$67.9M
Traffic Control & Safety	$38.0M	$0	$38.0M
Fire & Emergency Services	$70.8M	$513K	$71.3M
Park Facilities	$9.8M	$0	$9.8M
City Real Estate & Environment[2]	$773K	$23.6M	$24.4M
Parking Equipment, Lots, & Structures	$3.6M	$0	$3.6M
Airport Operations	$14.6M	$0	$14.6M
Information Systems & Technology	$15.2M	$0	$15.2M
Urban Forestry	$4.6M	$0	$4.6M
Indoor Recreation & Marinas[2]	$4.8M	$0	$4.8M
Library Services	$849K	$0	$849K
Police Services	$11.5M	$0	$11.5M
Transit	$811K	$10.4M	$11.2M
Residential Long-Term Care	$3.7M	$0	$3.7M
Solid Waste[2]	$3.9M	$3.2M	$7.1M
Cemeteries[2]	$0	$0	$0
Heritage Services[3]	$0	$0	$0
Arts & Culture Services[3]	$1.7M	$0	$1.7M
Natural Assets[3]	$0	$0	$0
Total	**$1.3B**	**$418.0M**	**$1.7B**

Figure 5-1 illustrates the projected annual capital investments across two categories: Capital and Growth. Over the 10-year period, the total annual capital expenditure shows a relatively consistent baseline, fluctuating between approximately $130 million and $175 million. Noteworthy are the two significant spikes in growth investment projected for 2027 and 2029 primarily attributed to funding for new facilities, capacity expansions, and strategic partnerships. On average, the Capital category dominates the 10-year expenditures, accounting for approximately 76% of the total projected costs. Growth investments represent a smaller portion at about 24%.

Figure 5-1: Proposed LOS – 10 Year Projected Annual Capital Spend



5.1 Funding Sources

The City funds its capital projects and municipal infrastructure investments through various sources of revenue streams, local capital levies, development charges (DC), and external grants.

5.1.1 Municipal Funding

The primary source of funding comes from municipal sources, which are critical for supporting the long-term sustainability of existing assets and financing capital projects.

- **Capital Levy:** The City has a policy to increase the annual capital investment by 1% annually. This annual levy has been in place since 2000 and is raised through the operating budget and transferred to the capital reserve funds. This strategy is intended to ensure the sustainability of the City's infrastructure and reduce reliance on long-term debt.
- **Reserves and Reserve Funds:** The City uses its reserves and reserve funds as dedicated savings to finance capital projects on a pay-as-you-go basis, support debt repayment, and manage one-time or unforeseen operating pressures, helping to stabilize tax and rate impacts. While reserves provide flexibility and help smooth tax and rate impacts, they are not a substitute for ongoing, sustainable capital funding. Long-term sustainability depends on matching annual contributions to the level of investment required to manage the SOGR backlog and maintain desired levels of service.
- **Development Charges:** These fees are collected from developers and property owners to fund the construction of new infrastructure related to new development, such as roads, emergency services, transit, and parks. Recent legislative changes (amendments to the *Development Charges Act* through the Protect Ontario by *Building Faster and Smarter Act*, 2025 [Bill 17]) mean that, in some cases, DC are no longer required to be paid at the time of the building permit issuance but can be deferred until the occupancy stage. This deferral may impact the City's ability to fund new infrastructure up front. Additionally, certain types of development, such as long-term care homes, are now exempt from DC, and further changes to the legislation are anticipated.
- **Community Benefit Charges:** These are applied to high-density developments to help fund community amenities like parks and recreational facilities.

5.1.2 Federal and Provincial Grants

External funding streams also support the City's capital budget requirements for strategic projects. The following grants and funds have been used to support past projects. However, it should be noted that these external funding sources are unpredictable and cannot be guaranteed to support annual funding requirements.

- **Provincial Gas Tax:** In Ontario, Dedicated Gas Tax funding can be used for eligible public transit operating and capital costs or set aside in a transit reserve. It cannot be applied to general municipal operating expenses. The City uses these funds to support public transportation operations. Funds are not routinely allocated to capital reserve funds for roads and transit infrastructure renewal.
- **Investing in Canada Infrastructure Program (ICIP):** This is a multi-year federal and provincial funding program designed to invest in public infrastructure across the country, working in partnership with provinces, territories, municipalities, and Indigenous communities.
- **Green Municipal Fund (GMF):** This fund, managed by the Federation of Canadian Municipalities (FCM), provides loans and grants for projects that improve environmental performance in municipal energy, transportation, waste, and water.
- **Disaster Mitigation and Adaptation Fund (DMAF):** This is another multi-year funding program, ending in 2033, included in the City's capital plans used to fund Shoreline protection infrastructure.
- **Building Faster Fund:** A three-year, $1.2 billion provincial program that provides funding to municipalities that meet their provincially designated housing targets. The City received $3.2 million from this fund to help build more homes and community infrastructure, these funds are transferred to the Municipal Capital Reserve Fund.

5.2 Strategy For Addressing Funding Gaps

To effectively help minimize the identified funding gap and address the SOGR backlog, the City could implement a phased financial strategy centered on a blend of asset optimization, asset rationalization, operational savings, and targeted revenue generation. The following components should be gradually implemented with the goal of achieving long-term, sustainable capital funding for infrastructure renewal.

5.2.1 Financial Strategy Benchmarking Study

In 2025, the City completed a Financial Strategy Benchmarking Study Technical Memo which qualitatively assessed the financial strategies of six peer single-tier Ontario municipalities: Barrie, Brantford, Greater Sudbury, Guelph, London, and Peterborough. The study's primary objective was to identify best practices and key trends in areas like common funding sources, the strategic role of reserve funds, and policies governing debt financing to enhance the City's ongoing development of its financial strategies associated with asset management. The insights gained from the study helped to determine achievable LOS and the strategy for managing the SOGR backlog over a 10-year planning horizon.

5.2.2 Strategic Optimization and Asset Management

These strategies focus on maximizing the efficiency of current assets and operations to generate internal capital.

- **Master Plan Streamlining to Maximize Existing Assets:** Transition master planning to an infill and intensification-driven approach to maximize existing asset utilization and reduce reliance on new facilities. This shift avoids new construction costs, mitigates negative development charge outflow, and ensures infrastructure investment is focused on current needs, yielding a significant net financial benefit.
- **Core Service Reviews and Dedicated Savings:** Conduct service reviews to rationalize municipal operations. Identify opportunities for asset/facility divestiture (converting operating expenses to capital funding) or operational cost reduction. All savings generated would be dedicated to reducing the SOGR backlog. Demonstrating these savings may be necessary for securing future residential property tax increases.
- **Prioritized and Targeted Investment Strategy:** Develop a focused investment plan to address the most critical and high-risk asset categories to maintain LOS. This approach includes:
    - Detailed risk assessment and condition-based prioritization to allocate funding where the need and impact are highest; and
    - Enhancing preventative maintenance programs to extend asset lifespan and reduce the need for premature capital expenditures.

5.2.3 Sustainable Financial Funding

These strategies focus on creating stable, long-term revenue streams dedicated specifically to infrastructure renewal.

- **Phased Tax Increases**: Implement carefully planned and transparent incremental property tax increases, explicitly dedicating these funds to capital infrastructure reserves. Based on the Mayor's 2024 Budget, Council's direction was to maintain a total tax rate increase of no more than 3.5%, including the necessary 1% increase explicitly allocated for infrastructure investments. Additionally, in 2023, the City already approved an incremental tax increase of 0.16% annually for a four-year period to fund the Green Standard Community Improvement Plan Program.
- **User Fee Adjustments:** Review and adjust existing or future User Fees to ensure they accurately reflect the full lifecycle costs of the associated infrastructure.
- **Strategic Debt Servicing Capacity:** Utilize the City's Debt Servicing Capacity to fund infrastructure renewal, particularly for reducing the accumulated SOGR backlog. This strategy supports intergenerational equity by spreading the cost of long-term assets to those who benefit from them.
- **Develop a Capital Financing Sustainability Strategy**: The purpose of a capital financing sustainability strategy is to align long-term infrastructure needs with stable, predictable funding sources, so the municipality can maintain desired levels of service, manage financial and infrastructure risk, and avoid sudden tax or rate increases over time.

6.0 Next Steps and Recommendations

This section focuses on recommendations identified through the development of the 2024 and 2025 AMPs and this Additional Information Report. These recommendations are based on barriers experienced with limited or outdated data, gaps or barriers to reporting on LOS and performance, or the desire to apply global best practices to advance asset management at the City. The recommendations have been listed below in **Table 6-1**.

Table 6-1: Recommendations

Type	Recommendation
Asset Data	Continue to update the asset inventory on a regular basis as new assets are added and end-of-life assets are disposed of.
Asset Data	Develop an overall plan for condition assessments, including a standardized process for updating condition information, the appropriate frequency for gathering new condition information and a review of software platform(s) used to store and consolidate that data (technology review).
Performance	Monitor the performance of assets on a regular basis and generate an interactive dashboard for regular reporting of standard LOS performance metrics.
Financial Modelling	Develop a long-term infrastructure financing strategy. To achieve the Proposed LOS and move the asset portfolio into a fiscally sustainable position, the City should immediately develop and implement a comprehensive, long-term infrastructure financing strategy. This strategy should move beyond reliance on federal or provincial grants for core capital renewal and focus on diversified, dedicated municipal revenue tools.
Financial Modelling	Complete an analysis of the funding requirements needed for a 50- or 100-year lifecycle to confirm the financial forecast of maintaining the current LOS.

Type	Recommendation
Organizational Development	It is recommended that the City develop and execute a comprehensive asset management strategy to systematically embed standardized asset management principles and practices across all service areas. A critical component of this implementation will be the mandatory adoption of the standardized LOS performance metrics, as defined in this report, to ensure consistent and accurate reporting of asset and LOS performance.
Organizational Development	Incorporate asset management training and awareness into staff professional development and training programs.
Organizational Development	Expand Asset Management Steering Committee to include additional representatives and establish “Terms of Reference”.
Organizational Development	Develop and implement a Change Management and Communication Plan with consideration of the governance of the asset management program.
Organizational Development	Conduct a review of technology and business practices that support asset management at the City and how asset management can be further embedded across the organization.
Organizational Development	Network and share ideas and best practices with other municipal peers on asset management processes and data governance.