



**City of Kingston
Report to Council
Report Number 26-002**

To: Mayor and Members of Council

From: Neil Carbone, Commissioner, Corporate & Emergency Services

Resource Staff: Brent Fowler, Director, Corporate Asset Management & Fleet

Date of Meeting: December 16, 2025

Subject: Asset Management Plan Update Required to Meet Ontario Regulation 588/17 Requirements

Council Strategic Plan Alignment:

Theme: Regulatory & compliance

Goal: See above

Executive Summary:

The City of Kingston has made considerable progress in formalizing asset management practices that align with provincial requirements and emerging municipal best practices. The 2025 Asset Management Plans (AMPs) are a significant milestone for the City, being the first time the City has had standardized data on all \$8.3 billion in municipal assets (with some exceptions noted below), consolidated into a comprehensive, unified framework.

This asset portfolio supports essential municipal services such as transportation, facilities, fire services, public transit, stormwater, parks and recreation, fleet, information technology and numerous others.

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These asset management planning efforts serve to enhance data-driven decision-making capabilities and promote sustainable financial practices, essential for managing municipal infrastructure.

Through this report, Council is being asked to approve a **2025 Asset Management Additional Information Report**, the **Natural Asset Management Plan**, and an updated **Asset Management Policy (2025)**, which collectively demonstrate leadership in sustainable infrastructure management and regulatory compliance.

The City has completed its first **Natural Asset Management Plan**, marking a significant milestone in recognizing natural systems—such as wetlands, woodlands, and green spaces as essential municipal infrastructure. Natural assets provide critical services, including stormwater regulation, flood mitigation, and air quality enhancement, and support Kingston's broader climate resilience and sustainability goals.

The **2025 Asset Management Additional Information Report** fulfills Phase 4 of O. Reg. 588/17, which requires municipalities to define proposed Levels of Service (LOS), establish performance metrics, and prepare 10-year financial strategies for all municipal asset categories. This report extends upon the City's existing Asset Management Plans developed between 2022 and 2025, covering 25 service areas.

- 1) Core Asset Management Plan (June 2022)
- 2) Asset Management Plan (November 2024)
- 3) Facilities Asset Management Plan (November 2024)

The assets associated with water and wastewater services, gas operations, and appliance rental services fall under the responsibility of Utilities Kingston and are considered in the Utilities Kingston 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.

The primary objectives of this report are to:

- Refine current LOS parameters and performance metrics, and establish clear proposed LOS targets; and
- Provide a forward-looking analysis of LOS and financial implications under three investment scenarios: 1) maintaining current forecasted funding, 2) maintaining current LOS, and 3) achieving proposed LOS over the next ten years.

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In each scenario above, there is a predicted backlog of infrastructure renewal work at the end of the 10-year forecast period. This is common to nearly all municipalities; in a [Municipal Infrastructure report published in August 2021](#), the Financial Accountability Office of Ontario estimated that across the province there was an estimate of \$52B in municipal infrastructure work in backlog.

For the City, the value of the current backlog emphasizes the need for continued asset renewal investment despite current capital pressures to help reach sustainable funding levels that are aligned with approved levels of service.

Importantly, the identified backlog is not intended to be fully funded under the City's proposed levels of service for the prescribed 10-year timeframe. As permitted in O. Reg 588/17, the City is not required to approve a financial plan that fully funds its proposed levels of service or that addresses the entirety of its SOGR backlog over the prescribed 10-year period, provided it has identified strategies to mitigate the resulting asset performance risks. Consequently, the City has identified certain lifecycle and renewal activities in its Asset Management Plans that over the longer-term will be prioritized to help manage those risks.

It should be noted that few if any comparator municipalities are fully funding their proposed levels of service, with most employing similar strategies to the approach referenced above.

Furthermore, despite analyzing and modelling a more realistic funding strategy over a 20-year time frame, there is still potential for the City not to achieve the proposed reinvestment rates or meet the proposed levels of service targets when faced with other non-renewal capital priorities, overall affordability and capacity challenges.

However, together, all these documents position the City of Kingston to fully meet Phase 4 requirements outlined under O. Reg. 588/17, while providing overall guidance and action items to strengthen long-term financial stewardship, support informed decision-making that balances cost, risk, and service outcomes for the community.

Recommendation:

That Council adopt the 2025 Asset Management - Additional Information Report as set out in Exhibit A to Report Number 26-002; and

That Council adopt the Natural Asset Management Plan as set out in Exhibit B to Report Number 26-002; and

That Council adopt the updated 2025 Asset Management Policy as set out in Exhibit C to Report Number 26-002; and

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That the Director of Corporate Asset Management & Fleet be delegated the authority to make any required non-material amendments to the 2025 Asset Management – Additional Information Report and the Natural Asset Management Plan, as approved by the City Solicitor, with said authority to be added to By-Law Number 2025-157, Delegation of Authority By-Law, as part of future amendments; and

That Council direct staff to submit the final approved 2025 Corporate Asset Management Plan – Additional Information Report and Natural Asset Management Plan to the Provincial Ministry of Infrastructure and to make it available to the public via the City’s website along with the City’s Asset Management Policy.

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Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

**Neil Carbone, Commissioner,
Corporate & Emergency
Services**

ORIGINAL SIGNED BY CHIEF

ADMINISTRATIVE OFFICER

**Lanie Hurdle, Chief
Administrative Officer**

Consultation with the following Members of the Corporate Management Team:

Paige Agnew, Commissioner, Growth & Development Services

Jennifer Campbell, Commissioner, Community Services

David Fell, President & CEO, Utilities Kingston

Not required

Desirée Kennedy, Chief Financial Officer & City Treasurer

Jenna Morley, City Solicitor, Legislative Services

Ian Semple, Commissioner, Transportation & Infrastructure Services

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Options/Discussion:**Background**

Ontario Regulation 588/17: *Asset Management Planning for Municipal Infrastructure* was enacted on January 1, 2018, under the Infrastructure for Jobs Prosperity Act 2015 establishing mandatory requirements and timelines for municipal asset management plans and policies. It builds on the province's 10-year infrastructure plan. "Building Together: Guide for Municipal Asset Management Plans (2012)". The regulations were subsequently amended in March of 2021 under Ontario Regulation 193/21, to change the timing of reporting requirements under the Act.

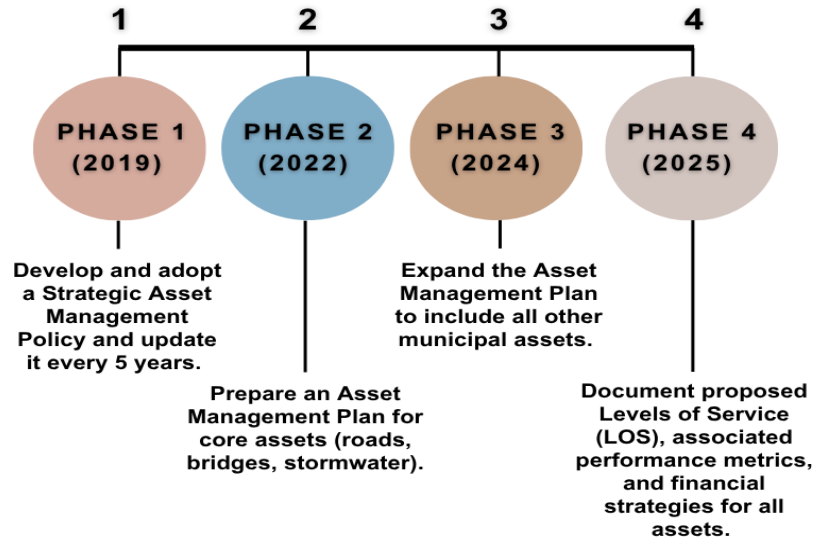
Additionally, the Regulation requires that the strategic asset management policy and asset management plans be approved by a resolution passed by Council and made available to the public via the City's website and to persons who may request a copy.

Under this regulation, the province mandated phased requirements to ensure that municipalities develop Asset Management Plans. Following the adoption of an Asset Management Policy, Asset Management Plans for Core Assets, and Asset Management Plans for all other assets, the final phase 4 of O Reg 588/17 requires the development and approval of a Proposed LOS and the lifecycle management and financial strategy for a 10-year period to achieve the proposed LOS. An outline of the milestones and deadlines from the province are as follows:

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O. REG. 588/17 SETS OUT A PHASED APPROACH TO COMPLIANCE:



The City has successfully met all previous milestones through completion of the following:

- [2019 Asset Management Policy](#) (2025 – Currently Seeking Approval)
- [2022 Core Asset Management Plan](#)
- [2023 Facilities Asset Management Plan](#)
- [2024 Corporate Asset Management Plan](#)

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The City’s Asset Management Plans include owned assets that support the following service areas. *(Water and wastewater asset management documents and plans are the responsibility of Utilities Kingston)*



In accordance with Clause 4(1) of O. Reg. 588/17, municipalities must review and, if necessary, update their Strategic Asset Management Policy at least every five years. The City’s original 2019 Asset Management Policy has therefore been reviewed and updated in 2025 to align with current best practices, evolving organizational needs, and the City’s strategic priorities related to climate resilience, lifecycle optimization, and transparent governance.

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Furthermore, under Clause 5(1) of O. Reg. 588/17, municipalities are required to include in their Asset Management Plans all owned infrastructure assets that provide services essential to the community—a scope that encompasses both built and natural assets. To satisfy this requirement, the City has developed its first Natural Asset Management Plan (2025), recognizing the vital role of ecosystems such as wetlands, woodlands, and green spaces in providing municipal services including stormwater regulation, flood mitigation, carbon storage, and biodiversity support.

The scale and criticality of the City's asset portfolio demands an integrated asset management approach that requires collaboration from multiple departments and operations to ensure that value from assets is realized, risks reduced and expected community levels of service maintained.

The City of Kingston's commitment to develop asset management plans goes well beyond simply meeting the provincial regulatory requirements and treating it as a one-off project. The City recognizes the value and benefits of an integrated, holistic approach to asset management planning. As such, the project objectives include the following:

- Ensure that the City is well-positioned for current and future grant programs by meeting the requirements of O. Reg 588/17.
- Enhance service delivery to the community by developing a framework for corporate infrastructure planning and asset lifecycle management thereby maximizing the benefit of the dollars invested in those assets.
- Raise awareness of asset management as a business model, its purpose and how it can enhance decision making and assist with meeting strategic objectives.
- Meet provincial regulatory requirements for asset management planning.
- Enhance interdepartmental communication and collaboration on projects that involve asset management.
- Create a consistent management process and protocol for all corporate assets.
- Support and foster the development of improved asset management practices that clarify and justify funding requirements.
- Support both internally and externally the prioritization and rationale of capital plans and capital funding resources.
- Demonstrate long-term asset stewardship and sustainability.

Current Status

1) 2025 Asset Management Additional Information Report

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This report serves as an extension to the City's existing Asset Management Plans developed between 2022 and 2025, consolidates and refines asset data across 25 service areas and represents a total capital replacement value (CRV) of approximately \$8.3 billion.

1. Core Asset Management Plan (June 2022)
2. Asset Management Plan (November 2024)
3. Facilities Asset Management Plan (November 2024)

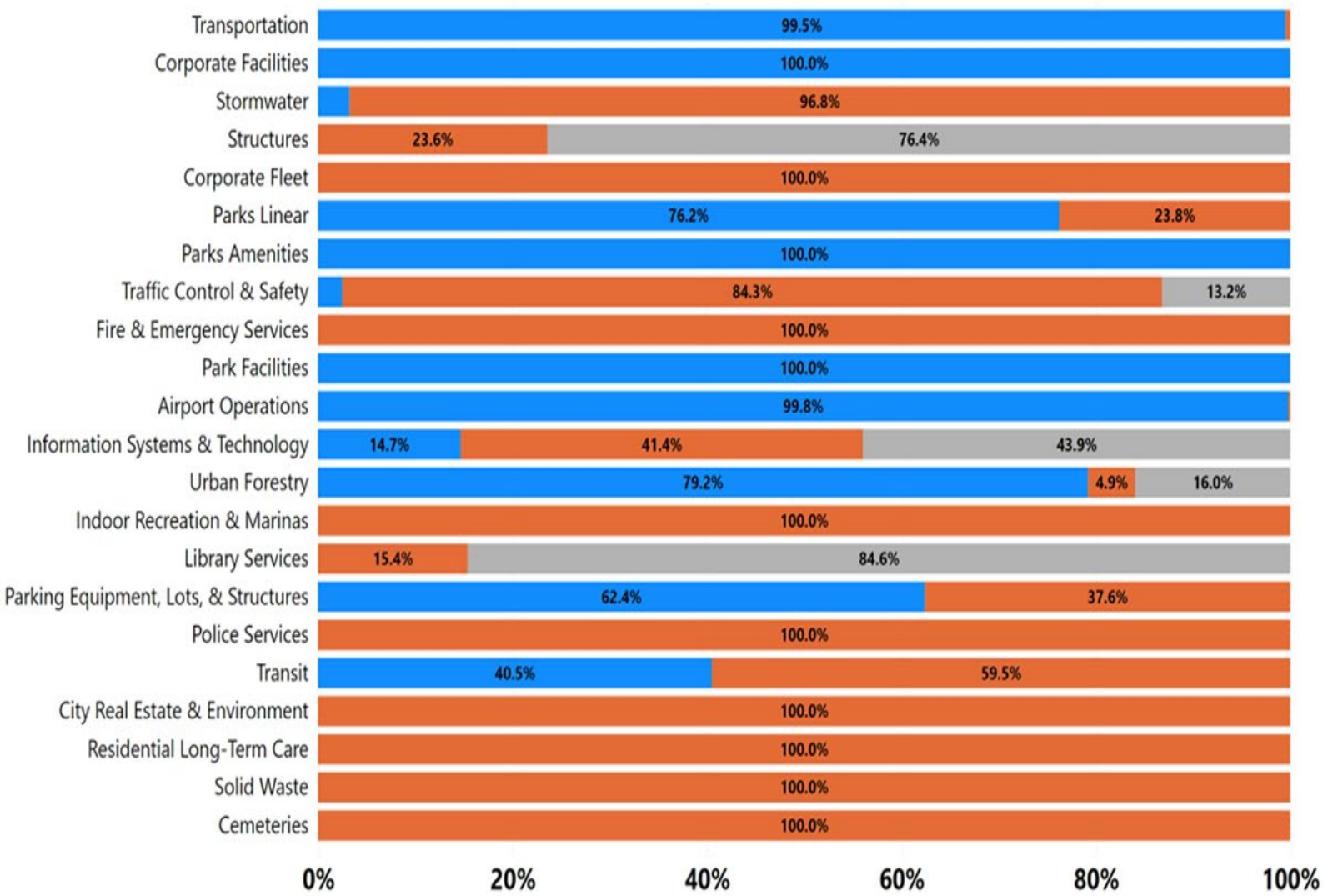
The below figure summarizes the percentage of analyzed assets by CRV using available condition information, age-based methods, or that could not be analyzed due to gaps in available age and condition information.

Overall, approximately 78% of the City's asset portfolio (based on replacement value) has some level of condition-based data to support asset management decision making.

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● % of CRV with Condition Data ● % of CRV Assessed with Age-Based Methods ● % of CRV Not Assessed



The report models the financial and service-level implications of different investment strategies over a 10-year horizon (2025–2035).

The following three standardized performance metrics have been used to evaluate asset condition and investment effectiveness:

1. **State of Good Repair (SOGR) Backlog**, representing the value of deferred maintenance and renewal needs;

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2. **Asset Reinvestment Rate**, the annual level of renewal spending as a percentage of the total asset value; and
3. **Percentage of Assets in Fair or Better Condition**, an overall indicator of infrastructure health.

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 metrics outlined above. All LOS scenarios were modelled using the Asset Inventory results as of December 2024. This ensures that the analysis reflects the most current and comprehensive dataset available at the time of modelling. The three scenarios analyzed are:

Scenario 1 – Existing Capital Forecast (based on 2025)

- A budget-driven analysis that illustrates the expected Levels of Service (LOS) that can be achieved within each service area under the funding levels included in the first 10 years of the 2025 15-Year Capital Forecast.
- Reflects the likely condition and performance outcomes if no changes are made to current investment practices.

Scenario 2 – Maintain Current LOS

- A LOS-driven analysis focused on maintaining the current average condition of assets across each service area.
- Evaluates the investment required to sustain existing LOS with **no** financial constraints applied.
- Represents the cost to minimize degradation trends, ensuring assets remain in fair or better condition.

Scenario 3 – Proposed LOS

- A staff recommended budget-driven analysis balancing affordability, levels of service goals, risk and long-term financial planning over a 20-year baseline.
- Based on a phased longer-term investment strategy that gradually increases from a minimum of \$99.8M to a maximum of \$157.8M, representing a 10-year annual average of \$127.9M in capital renewal investment.
- The above, working towards a 20-year proposed average of \$163 million by 2045 for asset renewal.
- This scenario provides a more realistic, balanced and sustainable LOS target for the City that over-time improves service levels and asset condition.
- The Proposed LOS (Scenario 3) was established with a focus on affordability and strategic financial resource allocation, initially targeting a \$150 million fixed investment goal per year across the multiple service areas.

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The existing Capital Forecast Scenario was analyzed for all 25 service areas to establish a financial baseline, only the 18 and 13 service areas with sufficient data maturity were subjected to the Maintain LOS and Proposed LOS scenario analyses, respectively as shown in **Table 1** below. The primary constraint encountered was the presence of asset data gaps within these specific service areas. These gaps typically manifest in one or more of the following critical areas:

- Asset inventory completeness
- Lack of asset condition
- Age-based data sources
- Lack of historical lifecycle cost data

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Table 1: Summary of LOS Scenario Analysis Completed by Service Area			
Service Area	Scenario #1: Forecasted Budget	Scenario #2: Maintain LOS	Scenario #3: Proposed LOS
Transportation (Roads, Bridges, Structures)	✓	✓	✓
Corporate Facilities (Buildings and Sites)	✓	✓	✓
Stormwater (Ponds, Pipes, etc.)	✓	✓	✓
Structures (Sidewalks, etc.)	✓	✓	✓
Corporate Fleet (Vehicles & Equipment)	✓	✓	✓
Parks Linear (Fencing, Trails, Park Land, Pathways, Shoreline Protection Infrastructure)	✓	✓	✓
Parks Amenities (Gardens, Playgrounds, Skateparks, Splash Pads, Sports Fields)	✓	✓	✓
Traffic Control & Safety (Signs, Streetlights, Signals)	✓	✓	✓
Fire & Emergency Services (Fleet, Equipment)	✓	✓	✓
Park Facilities (Maintenance Buildings, Lighting, Shelters)	✓	✓	✓
City Real Estate & Environment (Housing, Land Assets, Environmental Remediation Infrastructure)	✗	✗	✗
Parking Equipment, Lots, & Structures	✓	✓	✓
Airport Operations (Site, Runway, Lighting)	✓	✓	✗
Information Systems & Technology (IT Infrastructure, End-User Devices, Software)	✓	✓	✓
Urban Forestry (Tree Canopy)	✓	✓	✗
Indoor Recreation & Marinas (Pool Equipment, Ice Plants, Marinas, etc.)	✗	✗	✗
Library Services (Fleet, Equipment)	✓	✓	✗
Police Services (Fleet)	✓	✓	✗
Transit (On-Street Infrastructure, Other Equipment)	✓	✓	✓
Residential Long-Term Care (IT, Resident Care Equipment)	✓	✓	✗
Solid Waste (Carts and Bins)	✗	✗	✗
Cemeteries (Structures)	✗	✗	✗
Heritage Services (Public Art & Civic Collections)	✗	✗	✗
Arts & Culture Services (Grand Theatre, Tett Centre Functional Capital)	✗	✗	✗
Natural Assets (Wetlands, Woodlots, Marshes, Shorelines)	✗	✗	✗

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Airport Operations

There is no new capital investments 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.

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.

Structures

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.

The following **Table 2** summarizes the modeling results for the assets across 18 service areas analyzed for the 10-year planning horizon (ending in 2035), based on the standard LOS performance metrics.

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Table 2: Summary of LOS Scenarios – Key Findings (2026 – 2035)

	Year 2025 (only)	Scenario #1: Forecasted Budget (2035)	Scenario #2: Maintain Current LOS (2035)	Scenarios #3: Proposed LOS (2035)
Average Annual Investment Rate (as modelled)	\$77.4 M	\$78.7 M/year	\$282.1 M/year	\$127.9 M/year
SOGR Backlog	\$0.6B	\$3.7B	\$1.1B	\$3.0B
Target Annual Investment	\$182.6 M	\$182.6 M	\$182.6 M	\$182.6 M
Variance from Target (dollars)	\$105.3M shortfall	\$103.9M short fall	\$99.5 M above target	\$54.7M shortfall
Target Annual Asset Reinvestment Rate	2.2% ¹	2.2% ¹	2.2% ¹	2.2% ¹
Asset Reinvestment Rate	0.9%	1.0%	3.4%	1.5%
% of Assets in Fair or Better Condition (based on CRV)	59.8%	38.7%	61.8%	44.5%

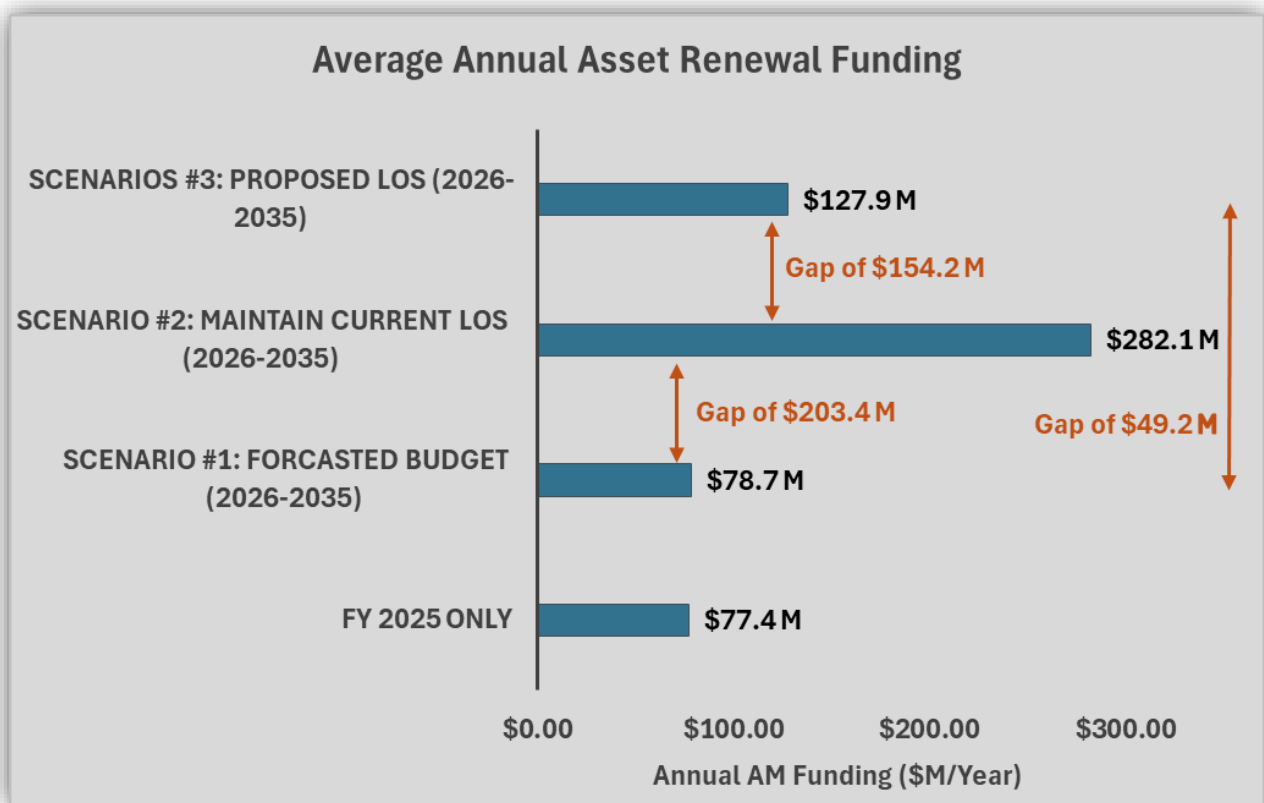
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¹ Target annual capital renewal investment is based on asset management best practices, such as guidance provided by the [Canadian Infrastructure Report Card \(CIRC\)](#) and varies by Service Area.

The current annual renewal investment averages \$78.7 million, compared to the \$282.1 million required to maintain existing LOS—creating an annual funding gap of approximately \$203.4 million.

An important item to consider is there are some asset renewal activities delivered through Operations and Maintenance departmental budgets and are not captured within the capital modelling assumptions. Capturing these activities will form part of future updates to the Asset Management Plans.



The Proposed LOS scenario (Scenario #3) projects a total backlog of \$3 billion over the 10-year period from 2026-2035. 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 \$700 million lower backlog than continuing with the forecasted budget

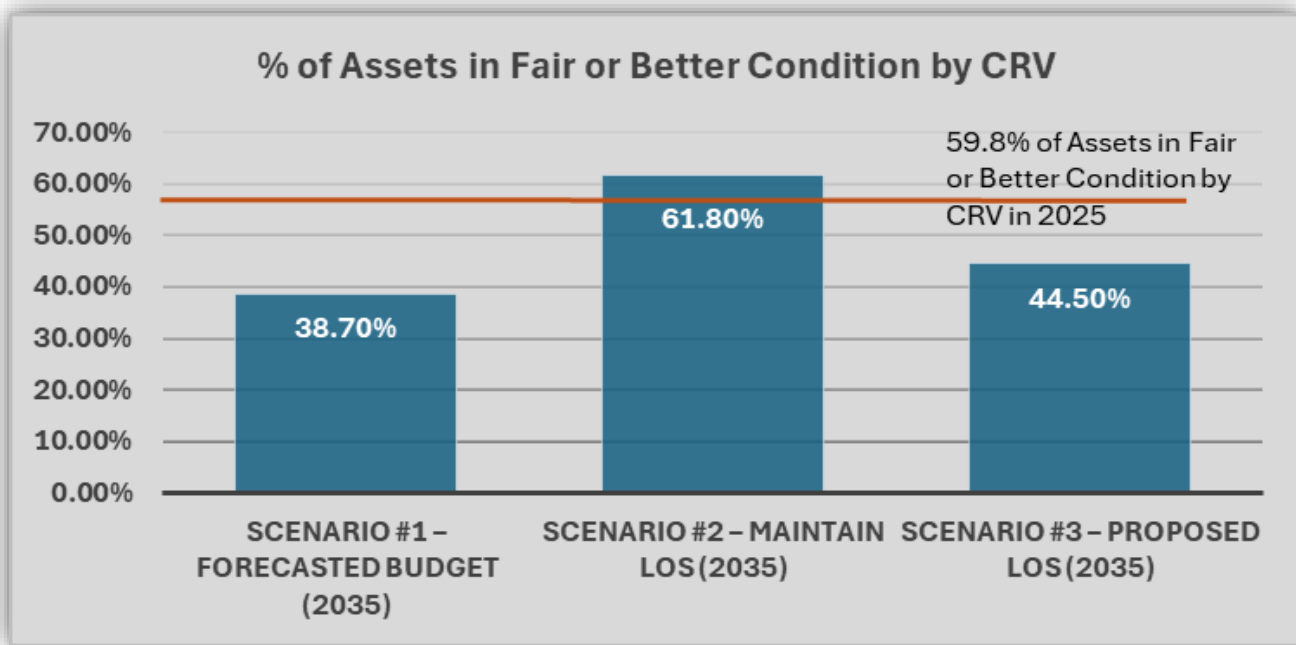
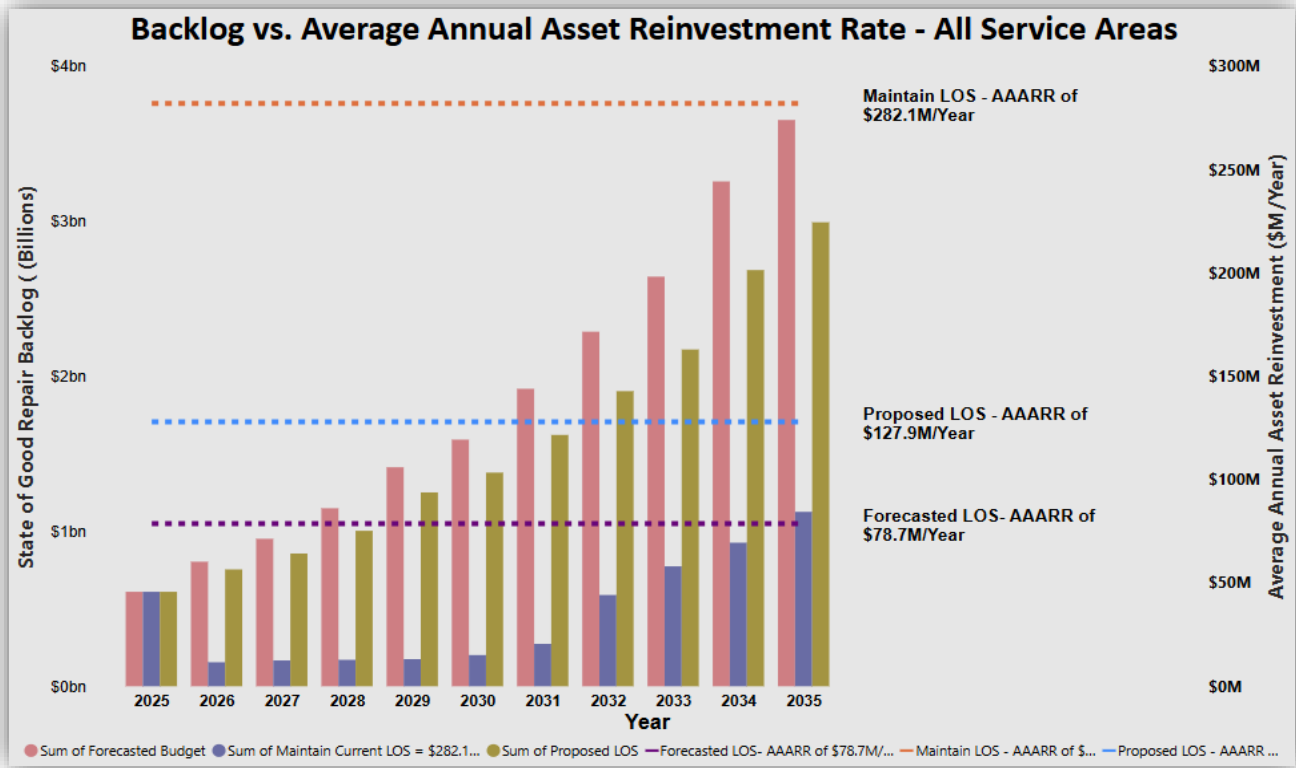
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through to the year 2035. This outcome represents a positive shift towards systematically reducing the accumulated backlog over the next 10 years through increased renewal investments and prioritization. To maintain current LOS, an average annual asset 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.

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Note: Currently approximately 60% of the City's assets are considered in "fair", "good" or "very good" condition.

Alternatively, those remaining assets categorized as "Poor" or "Very Poor" may still be fit for service and performing at an acceptable standard but are approaching the end of their prescribed service life. It is critical to note that these categorizations of "Poor" and "Very Poor" are not representative of any health or safety risks to the public. Anything identified as essential to the community's well-being is proactively identified and prioritized for action by City staff through capital and operational planning. Critical to this is the City's continued prioritization of legislated minimum maintenance standards for specific infrastructure assets and adoption of formalized condition assessment programs for approximately 78% of the City's infrastructure.

The below figure shows the Percentage of Assets in fair or better condition by CRV per service area. It excludes Minor Culverts (< 3 m) and the Library Collection assets.

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Table 3: Percentage of Assets in Fair or Better Condition by CRV broken down by Service Area				
Service Area	2025	2035		
	Current LOS	Forecasted Budget	Maintain LOS	Proposed LOS
Transportation	48.7%	32.5%	54.9%	38.1%
Corporate Facilities	93.3%	49.4%	89.2%	55.5%
Stormwater	72.3%	62.3%	62.3%	54.2%
Structures	34.7%	39.1%	32.2%	84.6%
Corporate Fleet	67.5%	34.6%	66.9%	58.1%
Parks Linear	75.8%	41.2%	50.9%	42.8%
Park Amenities	61.1%	9.4%	50.2%	11.7%
Traffic Control & Safety	62.6%	32.6%	70.6%	57.9%
Fire & Emergency Services	32.6%	43.8%	68.2%	78.1%
Parks Facilities	92.5%	72.9%	100.0%	93.0%
IS & T	29.6%	53.9%	43.1%	29.7%
Urban Forestry	67.8%	60.6%	67.8%	67.8%
Library Services	86.5%	50.1%	50.1%	50.1%
Parking Equipment, Lots, & Structures	58.8%	58.7%	53.7%	35.8%
Police Services	39.5%	45.9%	35.8%	45.9%
Transit	91.7%	65.8%	67.2%	10.0%
Residential Long-Term Care	71.7%	25.3%	73.8%	73.8%

The proposed LOS represents the most balanced and fiscally responsible strategy that involves an acceptable level of strategic risk. While the proposed funding level of **\$127.9** million over the next 10 years is not sufficient to address full asset maintenance, any risk of unplanned asset failures and increased costs will be managed by prioritizing lifecycle investment.

This scenario will utilize a risk-based approach to prioritize investments that focus on safety, criticality and service continuity, particularly in key areas of focus such as roads, sidewalks, and active transportation which also reflect the areas that were highlighted in the Asset Management Public Engagement findings outlined later in this report.

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Based on the Proposed LOS, the total projected financial requirement over the 10-year horizon is \$1.74 billion, comprising:

- 76% – Capital Renewal;
- 24% – Growth-Related Investments

It should be noted that some asset renewal activities are delivered through Operations and Maintenance budgets and are not captured within the capital modelling assumptions. The City's assets provide essential and diverse services to the community. As the City grows to an anticipated permanent population of 197,000, by the year 2051 (as outlined in the Medium Growth Scenario presented in [Report Number 24-016 Population, Housing and Employment Growth Forecast Update to 2051](#)), the asset management plans and corresponding financial strategy become increasingly important to meet the rising need. The future expected renewal of new assets implemented over the next 10 years to support growth are factored into the plan.

Asset Management Levels of Service Modelling Conclusion

The 2025 analysis confirms that the investment required to maintain current levels of service across the 25 service areas is significantly higher than current forecasted renewal funding allocations. As a result, the City would need to either significantly reduce service levels, adjust investment strategies, acquire additional capacity, or secure considerable additional revenues to achieve the current levels of service within the planning timeframe established under O. Reg. 588/17.

It is important to note that the Proposed Levels of Service (LOS) scenario is designed as a fiscally responsible option that balances affordability and long-term risk *over a more realistic and achievable 20-year timeframe*. However, it targets a phased annual investment over the next 10 years of approximately \$129.7 million, which represents a significant increase over current funding levels but avoids the substantially higher annual investment of \$288.5 million required to fully maintain existing service levels. The Proposed LOS scenario reduces the projected long-term infrastructure backlog by approximately \$850 million by 2035 compared to the City's current rate of reinvestment and improves the overall condition of the municipal asset portfolio.

In the recommended scenario above, where the City is projecting a funding shortfall the City's AMP's and continuous improvement initiatives identify a number of current and future strategies to manage risk. These include:

- Continued prioritization of critical high-risk assets for renewal.
- Increasing preventative maintenance activities where applicable.
- Elevating and prioritizing asset monitoring and inspections including the deployment of innovative remote monitoring techniques and solutions.

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Complimenting the risk management strategies identified, City staff continue to prioritize and include the use of higher-confidence condition-based methods for estimating renewal needs, rather than age-based methods, this can lead to more accurate and potentially lower funding gap estimates. These updated methods will require additional investments in staff time, prioritization and funding.

2) Natural Asset Management Plan (2025)

The City's first Natural Asset Management Plan (2025) identifies and manages Kingston's natural systems such as wetlands, woodlands, meadows, watercourses etc. as municipal infrastructure assets that provide essential municipal services. Of note, City-owned tree canopy assets have been included in the 2024 All Other Asset Management Plans in Volume 1: Infrastructure, Transportation, Transit and Emergency Services. It evaluates the services these natural assets provide, including stormwater management, flood mitigation, cooling, carbon storage, and biodiversity support, and outlines the condition, risks, and investment needs required to sustain these benefits over time. The Plan aligns with Clause 5(1) of O. Reg. 588/17, which requires municipalities to include City-owned green infrastructure in Asset Management Plans.

This established a baseline inventory of 2,508 natural assets across 3,031 hectares, valued at **\$1.8 billion**. It should be noted that the asset inventory excludes those owned and managed by the Cataraqui Regional Conversation Authority (CRCA).

The Plan establishes preliminary Levels of Service (LOS) using methodologies developed by Dillon Consulting and supported by reference standards from Natural Assets Initiative (NAI).

Relationship with the City's other Natural Asset Plans and Studies in Progress

While the Natural Asset Management Plan is used to comply with O. Reg. 588/17 and integrate natural assets into the City's asset management and financial frameworks, the City is also advancing two complementary initiatives that serve distinct purposes:

The Natural Heritage Study (NHS)

The City is developing a Natural Heritage Study (NHS) to guide the new Official Plan and promote a greener, healthier, and more equitable Kingston for the next 25+ years. The NHS will map key natural features—wetlands, woodlands, watercourses—and their connecting corridors, regardless of ownership. It will recommend policies for identifying and protecting these features. Findings will support natural asset management, including system enhancements, wildlife habitat and species-at-risk protection, linkage roles, and opportunities to expand public access for education, recreation, and cultural use.

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The Forest Management Strategy (FMS)

The Forest Management Strategy (FMS) outlines a 24-year plan to sustain and grow Kingston’s Rural and Urban Forest (RUF) as vital community infrastructure. It reviews the current state of the RUF and sets a clear direction for future management, emphasizing climate resilience, biodiversity, and community well-being to create a greener, healthier Kingston for generations to come.



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Table 4: Highlights of the 2025 Natural Asset Management Plan

Category	Asset Area (ha)	Replacement Value (\$Millions) *
Woodlands, Forests, Plantations	902.0	\$357.2
Constructed Green Lands	730.3	\$807.7
Meadows and Thickets	516.6	\$151.9
Marshes	292.6	\$166.2
Swamps	261.0	\$109.9
Agriculture & Fencerows	184.2	\$54.1
Watercourses & Rivers	100.0	\$113.9
Lakes & Shorelines	22.6	\$12.9
Rock Barrens	4.2	\$0.8
Total	3,013.5 ha	\$1,774.6M

*Replacement costs were calculated using standardized unit rates from the Region of Peel (Beacon Environmental, December 2020) framework, applying the average of moderate-level creation and acquisition costs per hectare and adjusting for inflation. These rates were multiplied by mapped natural asset areas to produce current replacement values.

The Plan emphasizes risk-based management—with high-risk areas including shorelines and wetlands—and proposes future actions such as standardized condition assessments, data verification, and integration of ecological performance into corporate reporting.

By formally valuing and managing its natural assets, Kingston strengthens its commitment to climate resilience, sustainability, and evidence-based decision-making, positioning the City as a provincial leader in natural asset management.

3) 2025 Asset Management Policy

The updated 2025 Asset Management Policy has also been completed in accordance with Clause 4(1) of O. Reg. 588/17, which requires that the policy be reviewed and updated at least every five years. The updated policy formalizes governance, accountability, and the integration of climate resilience and sustainability principles into the City's corporate asset management framework while aligning with Kingston's Strategic Plan.

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Together, these deliverables ensure the City's full compliance with Phase 4 of O. Reg. 588/17, advance corporate asset management maturity, and strengthen the City's ability to make data-driven, transparent, and sustainable investment decisions that support long-term service delivery and community well-being.

Public Engagement

Public consultation, as required under O. Reg. 588/17, was carried out through [Get Involved Kingston](#) between January 24 and February 24, 2025, and Asset Management Public Engagement Consultation "What we heard Summary Report" was presented to council on May 20, 2025 ([Report Number 25-083](#)). The engagement included an online survey, focus groups, and internal workshops, gathering input from over 400 residents and staff across service areas.

Feedback showed strong satisfaction with recreation, arts, and heritage services, while roads, sidewalks, and active transportation emerged as top improvement priorities. Most participants supported maintaining or modestly enhancing current service levels, even with small tax increases.

Public engagement informed the Proposed Levels of Service (LOS) and financial strategy in the 2025 Asset Management Plan by identifying which services residents value most, their satisfaction with current service levels, and their willingness to pay to maintain or improve them. Insights from the internal focus group and the public survey—particularly priorities around roads, sidewalks, pathways, and transit—were used to align LOS targets with community expectations and financial affordability.

Existing Policy/By-Law

City of Kingston – Asset Management Policy, Version 1.0, April 2019

Financial Considerations

Adoption of the recommended 2025 Asset Management Additional Information Report, Natural Asset Management Plan, and updated 2025 Asset Management Policy are not a request for new capital funding and does not have immediate financial implications. These documents are strategic planning tools that support Council and staff to understand the current state of infrastructure, help forecast future needs and allow for decision-making that better balances cost, risk and service delivery. Additional funding requirements will continue to be brought forward through the City's existing annual capital and operating budget processes.

A measured backlog can be expected in established municipal infrastructure portfolios. Documenting current condition performance, service levels, funding gaps, and future risks provides clearer insight into key drivers, impacts, and strategies for managing a diverse asset portfolio.

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For Kingston, like other Canadian municipalities, the City continues to experience a growing infrastructure funding gap, driven by older assets, climate change effects, rising costs and stretched revenue services. The scale and magnitude of these challenges highlight just how critical a tool asset management practices and processes are.

As outlined in the conclusion above, the 2025 analysis confirms that the investment required to maintain current levels of service across the 25 service areas is significantly higher than current forecasted renewal funding allocations. As a result, the City would need to either significantly reduce service levels, adjust investment strategies, or secure considerable additional revenues to achieve the current levels of service within the planning timeframe established under O. Reg. 588/17.

It is important to note that the Proposed Levels of Service (LOS) scenario is designed as a fiscally responsible option that balances affordability and long-term risk *over a more realistic and achievable 20-year timeframe*. However, it targets a phased annual investment over the next 10 years of approximately \$129.7 million, which represents a significant increase over current funding levels but avoids the substantially higher annual investment of \$288.5 million required to fully maintain existing service levels. The Proposed LOS scenario reduces the projected long-term infrastructure backlog by approximately \$850 million by 2035 compared to the City's current rate of reinvestment and improves the overall condition of the municipal asset portfolio.

In the recommended scenario above, where the City is projecting a funding shortfall the City's AMP's and continuous improvement initiatives identify a number of current and future strategies to manage risk. These include:

- Continued prioritization of critical high-risk assets for renewal.
- Increasing preventative maintenance activities where applicable.
- Elevating and prioritizing asset monitoring and inspections including the deployment of innovative remote monitoring techniques and solutions.

The 1% annual tax levy increase dedicated to capital infrastructure has been an important strategy in achieving the city's current level asset management investment and will continue to be an essential component of the financial strategy needed to support future asset management requirements.

Complimenting the risk management strategies identified, City staff continue to prioritize and include the use of higher-confidence condition-based methods for estimating renewal needs, rather than age-based methods, this can lead to more accurate and potentially lower funding gap estimates. These updated methods will require additional investments in staff time, prioritization and funding.

The Natural Asset Management Plan does not create immediate funding obligations but establishes a structured basis for incorporating green infrastructure into financial planning

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cycles. As the City advances climate resilience and ecosystem services integration, natural assets will increasingly be considered in capital prioritization and long-term asset renewal strategies.

Finally, an approved Asset Management Plan remains an eligibility requirement for several provincial and federal grant programs. Plans such as the Municipal Asset Management Program (FCM) and Federal Gas Tax / Canada Community-Building Fund require municipalities to demonstrate asset management maturity and compliance with O. Reg. 588/17. The Asset Management plans together with the City's updated Official Plan, Integrated Mobility Plan, Climate Leadership Plans establish a coordinated framework for managing infrastructure through a sustainable, resilient and community needs lens. Approval of these documents positions the City to continue leveraging external funding opportunities that support infrastructure renewal, risk mitigation, and service delivery.

Future Tasks and Initiatives (Next Steps)

The 10-year Infrastructure Funding Gap provides a strategic indicator of the magnitude of the City's long-term capital pressures and funding shortfall. It is unreasonable to expect that this can be funded immediately, but helps inform a balanced approach between affordability, performance, intergenerational equity and the risk to achieve sustainable service levels.

To effectively manage this, the City will require potential adjustments to its current longer-term financial plan. Such a plan will need to encompass other activities beyond the sorts of additional funding sources implemented by peer municipalities – such as increasing dedicated capital levies and implementing stormwater utility fees to help pay for rising infrastructure and operational costs resulting from climate change. These other activities would include:

- Increasing data confidence.
- Further levels of service adjustments (where applicable)
- Completing additional condition assessments
- Continue implementing proven rehabilitation & intervention programs to maintain or extend the life of the asset while evaluating and exploring new innovative methodologies.
- Rationalizing the asset portfolio (where applicable)
- Refining and adjusting acceptable risk thresholds

The advancement of several planned initiatives to improve the data quality are being prioritized and some already underway including:

- **Data Maturity of Asset Inventory:** Complete inventories and condition assessments for assets with low data confidence to help target backlog of unfunded needs while establishing a framework to maintain timely asset register updates.

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- **Condition Assessment Planning:** Establishing a structured framework for assessing asset conditions with appropriate review cycles and processes for updating condition information.
- **Level of Service (LOS) Optimization:** Exploring ways to improve the current LOS framework for better infrastructure management and adjusting LOS targets to reflect the levels of service the community wants and are willing to pay for.
- **Lifecycle Activity Documentation:** Improving forecasting for new asset acquisitions and raising awareness to the inclusion of future operating cost impacts in forecasts and budgets.
- **Performance Monitoring:** Implementing regular performance tracking with dashboards for transparent reporting.
- **Risk Framework Enhancement:** Refining the risk assessment process, integrating it with asset performance, incorporating climate change impacts and leveraging for project prioritization.
- **Integration of Asset Management Plans with Capital Prioritization Framework and Budgeting:** Enhancing the existing capital prioritization processes used in strategic decision-making; Ensuring full lifecycle and renewal requirements are considered through a framework that emphasizes evidence-based decision-making.
- **Technology Utilization;** Leverage existing systems available to the City to streamline asset register data capture while exploring methods to integrate field inspection results.
- **Data Governance Model:** Establish and implement a framework for data management and governance as it relates to asset management critical components and performance measures.
- **Review of Current Asset Estimated Useful Life Assumptions:** Multiple recommendations were made by (Subject Matter Experts) SME's concerning re-evaluating current (Estimated Useful Life) EUL's for certain assets because of new technologies, life cycle management lessons learned and benchmarks from other municipalities.

Other Identified Continuous Improvement Initiatives:

- Incorporate asset management training and awareness into staff professional development and training programs
- Expand Asset Management Steering Committee to include additional representatives and establish "Terms of Reference"
- Develop and implement a Change Management and Communication Plan with consideration of the governance of the asset management program.
- Network and share ideas and best practices with other municipal peers on asset management processes and data governance.

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- Build upon the City’s previous Asset Management Public Consultation project for the 2025 Asset Management Plans. Staff will continue to engage residents and stakeholders in service level and investment priorities.
- Continue to improve the condition, performance, and safety of our roads and structures through the implementation of the long-term Asset Management Plan.
- **Service Level Optimization for Rural Roads:** Continue to assess and identify opportunities within the rural road network where service levels can be strategically adjusted to improve long-term affordability and asset performance. Although local gravel roads represent less than 3% of the total network (approximately 50 lane-kilometres), they account for a disproportionately high share of annual operating costs. Upgrading selected gravel segments to surface-treated standards may lower lifecycle maintenance costs, even with higher upfront capital investment. Conversely, targeted service changes may be required in other classifications of the road network—such as converting asphalt roads to surface-treated roads—given constrained budgets and a significant rehabilitation backlog. Together, these adjustments aim to optimize overall network condition, improve cost-effectiveness, and align service levels with available resources.

Upcoming Key Milestones and Future Asset Management Reporting to Council:

Annually

- As required by O. Reg. 588/17, municipalities will report to their Councils at least once per year on the current progress of asset management in the Municipality and any barriers to aligning operations with the AMP.

Fiscal Year 2030

- A full update of all AMP’s will be required within 5 years.

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Exhibits Attached:

Exhibit A - 2025 Corporate Asset Management Plan – Additional Information Report

Exhibit B – Natural Asset Management Plan

Exhibit C – 2025 Asset Management Policy