

**COMPREHENSIVE ASSET  
MANAGEMENT POLICY**



**APPROVED BY COUNCIL  
ON \_\_\_\_\_, 2021**

# Comprehensive Asset Management Policy

Approved by:

Category:

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## Policy Statement

The City of Ottawa shall adopt and apply recognized asset management principles and practices to its service delivery. The City will strive to provide accepted levels of service to our residents and the broader community at the lowest lifecycle cost while managing the risks to service.

## Purpose

The purpose of this policy is to ensure the City applies industry-recognized practices in an inclusive, effective, affordable and integrated manner to keep our infrastructure safe, in good working order and at an approved level of service. By doing so, it will ensure continued service delivery that meets the needs of the community, now and into the future.

This policy is also to respect all principles, considerations and commitments for infrastructure planning, urban planning, decision-making, equity, accessibility and safety that are included in legislation governing municipal asset management policies.

This includes, but is not limited to, [Ontario Regulation 588/17](#), the [Infrastructure for Jobs and Prosperity Act](#), the [Planning Act](#), the [Municipal Act](#), the [Environmental Assessment Act](#), the [Water Opportunities Act](#), the [Development Charges Act](#), the [Safe Drinking Water Act](#), any related provincial policy statements, as well as Council-adopted planning policies such as the Official Plan and Secondary Plan, and so on.

## Application

This Policy applies to City Council, managers and all other City staff tasked with making decisions pertaining to the planning, design, construction, acquisition, operation, maintenance, renewal or disposal of assets.

It covers all physical City assets, across all service areas, such as drinking water, wastewater, stormwater and transportation assets. This means that such assets as landfills, fleet, IT systems, buildings and parks are included. It also means that assets considered as wet weather infrastructure and those considered as green infrastructure are included. It also means that for assets managed by the City on behalf of another organization (e.g. Ottawa Public Library), City staff will work in collaboration with the respective asset owner.

## Policy Requirements

The Asset Management Approach and Guiding Principles outlined in this policy embody the principles expressed in the provincial legislation, the Infrastructure for Jobs and Prosperity Act, and further refine City specific ones. As such, the provincial principles are not itemised herein.

## Asset Management Approach

The Asset Management Approach plays a key role in achieving the City's strategic goals and objectives in a manner that is not only affordable and culturally beneficial, but also socially and

environmentally responsible. This is done while also prioritizing the right infrastructure renewal investments at the appropriate time and managing the City's risks and fiscal constraints.

The City's Comprehensive Asset Management Framework ([Appendix; Figure 1](#)) divides these elements into four key groupings:

## Visioning

Conveys the understanding of the community and stakeholder expectations to Council. These expectations are embedded into longer-term corporate strategies and plans that guide decisions through the lifecycle of the assets.

## Strategic

Articulates Council's expectations and Senior Management's commitment on the approach that staff will use to deliver the expected outcomes, as well as how the physical assets are to be managed to achieve those outcomes.

## Tactical

Provides guidance and consistency in the documentation and implementation of asset management practices across business areas to support and deliver services.

## Operational

Applies the asset management best practices across service areas.

## Guiding Principles

### Inclusive and Transparent

Infrastructure decisions will be made to ensure the continued provision of core public services, including health care. Decision-making will also endeavour to promote diversity, inclusion and equity for people in keeping with the City's Equity and Diversity Policy, such as providing accessibility for persons with disabilities.

Infrastructure decisions will support economic competitiveness and productivity. The City will seek opportunities to boost job creation and skill training to the benefit of its community. For workers involved in the construction, operation and maintenance of City assets, the City will undertake measures to protect their health and safety.

The City will be evidence-based and transparent in the decision-making concerning the City's infrastructure planning and investment. The City will continue to improve the public's access to the information that the City's infrastructure investment decisions are based upon. This will be done using the City of Ottawa website. Stakeholders will be engaged or considered when defining and developing strategies, policies, levels of service, delivery of services and managing

risks. Stakeholders include residents, staff, neighbouring municipalities, broader public sector entities such as utilities, provincial and federal governments, and other public and private agencies. The City will strive to provide opportunities for all stakeholders and any other interested parties to give input in the City's asset management planning. Where the City has interrelated or jointly owned infrastructure with other agencies, the City will be collaborative and coordinate the planning of asset management activities.

The City will consider all the assets in a service context and account for their interrelationships as opposed to optimizing individual assets in isolation. The City will seek service delivery and funding opportunities to ensure a positive impact on the quantity and quality of the assets built, renewed or acquired.

The City will take a comprehensive and holistic approach to managing all aspects of the asset lifecycle.

### **Effective and Efficient**

The City will adopt a formal, consistent, repeatable approach to the management of its assets to ensure the provision of services in the most effective manner.

The City will have an approach of continual improvement in its asset management practice. This will be through driving innovation in the development of tools, practices, and solutions to lessons learned, as well as in the planning and design of infrastructure. The City will strive to maintain information and data on its assets as complete and up to date as possible.

The City will make the appropriate decisions and provisions to position its assets to meet future challenges. Those challenges include shifting demographics, populations and customer expectations, growing legislative requirements, evolving economic trends, emerging technologies, and ever-changing environmental impacts on and from the assets, such as climate change.

### **Affordable and Sustainable**

The City will decide infrastructure priorities and choose plans, practices, materials, actions and operations that aim at minimizing the cost of asset ownership over the entire life of the asset. All while accommodating growth needs, satisfying approved levels of service and managing risks.

The City will develop and maintain Service-based Asset Management Plans to guide the development of annual capital and operating budgets and the Long-Range Financial Plans (LRFPs). The Service-based Asset Management Plans (ServAMPs) will form the basis for the City's Strategic Asset Management Plan (SAMP), which will support and inform the City's Official Plan. Working in conjunction with each other, these planning documents will ensure consideration of the full asset lifecycle for current and future needs.

To move towards being a more sustainable, resilient community, there will be an increased emphasis on mitigating climate change risks and vulnerabilities. The City will consider materials with recycled content, especially for cost and/or environmental benefits. Levels of service, lifecycle management, and operations / maintenance planning will be considered when working towards the targets and priority actions described in the Climate Change Master Plan.

Consideration will also be given to disaster planning and contingency funding in conjunction with the impacts of climate change on City assets.

The City will manage the risks associated with attaining the levels of service by focusing resources, expenditures, and priorities based upon risk assessments and the corresponding benefits to the community, for sustainability both now and in the future.

## Progressive and Adaptive

To provide adaptive management, the City will consider the fiscal viability, the environmental impacts, the resiliency of the assets to climate change, and their ability to deliver the intended service under changing circumstances, over their entire life cycle.

The City will monitor and report on the performance of the organisation as it relates to the asset management program. Staff will track the effectiveness of the asset management practices and report to Council with an emphasis on continual improvement.

The City will foster staff's development of asset management knowledge and competencies aligned with industry-recognised competency frameworks.

## Key Documents

The key documents identify and outline the City's strategic objectives and ensure that the City meets provincial legislation.

## Accessibility Design Standards | Accessibility Plans

The City of Ottawa Accessibility Design Standards (ADS) form a living document that assists compliance with relevant provincial legislation and requirements. The standards will evolve over time to meet both regulations and best practices, including any future changes that may be related to updates of the Ontario Building Code (OBC), the Canadian Standards Association (CSA) and the Accessibility for Ontarians with Disabilities Act (AODA).

The ADS impact the yearly City of Ottawa Municipal Accessibility Plans (COMAP). These plans must report on the steps that the municipality has taken to identify, remove and prevent barriers for people with disabilities within City buildings, facilities, programs, practices, services, by-laws and policies. People with disabilities are included in the planning process through direct consultation. The accessibility plan and related information are made available to the public.

## City's Official Plan

The Official Plan sets the vision for Ottawa's future growth and acts as a framework to guide the city's physical development. It sets policy direction for public realm design while respecting related provincial requirements and identifies measures such as land use planning and transportation mode prioritization for incorporation in asset management decisions. Further details and support for the Plan are provided by such documents as the Transportation Master Plan (TMP), the Infrastructure Master Plan (IMP), the Ottawa Cycling Plan (OCP), and the Ottawa Pedestrian Plan (OPP). It in turn supports and respects the City's climate change

policies/plans through alignment with the Climate Change Master Plan to encourage more resilient infrastructure assets.

## City's Strategic Plan

The City's Strategic Plan is a key planning document that defines Council's priorities and serves as the roadmap for establishing goals and milestones under the current term of Council. The plan includes strategic priorities with specific actions that lay the foundation of all City programs and service. By focusing on these priorities and undertaking the specific actions outlined, the City aims to achieve identified outcomes. A key priority of the City's Strategic Plan is sustainable infrastructure. The Comprehensive Asset Management (CAM) Program provides the framework for achieving this priority through evidence-based decisions to prioritize investment.

## Climate Change Master Plan

The Climate Change Master Plan is the overarching framework for how Ottawa will mitigate and adapt to climate change over the next three decades. It has a vision to take unprecedented, collective action that transitions Ottawa to a clean, renewable and resilient city by 2050 and sets guiding principles, goals, greenhouse gas (GHG) emission reduction targets, and priority actions for the next five years. One of the priority actions is the application of a climate lens to asset management. Among the key climate adaptation projects to-date is emergency preparedness and response, which respects Incident Management System (IMS) principles in emergency management. Another key project involves ongoing public health outreach.

## Corporate Planning Framework

This demonstrates the integration of Council's priorities within all components of the planning process, including long-term planning, term of Council strategic planning, accountability, risk management, operational execution, performance reporting, the Long-Range Financial Plans and budgets.

## Long-Range Financial Plans

These documents are financial plans that identify funding strategies to provide for the renewal, maintenance and growth of City assets. They include the rate-funded, the Transit, and the City-wide tax Long-Range Financial Plans.

## Maintenance Quality Standards | Quality Management Systems

Quality has a direct link to Asset Management in that it contributes to lifecycle costing and the level of service that the customer experiences. There are several Maintenance Quality Standards and Quality Management Systems used to manage the City's infrastructure. These standards and systems are coordinated with the Comprehensive Asset Management Program.

The Drinking Water Quality Management System (DWQMS) is especially significant and is described by the DWQMS Operational Plan. To meet the requirements of the operational plan, the City prepares and submits reports to Council annually, covering all the City-owned drinking

water systems. The annual reports identify water system infrastructure needs, related projects and supporting financial information, consistent with the Safe Drinking Water Act.

## **Service-Based Asset Management Plans**

These plans are individual to the specific service types provided to residents. They are embedded with detailed goals, strategies, and actions related to the assets from the various corporate plans and policies listed as key documents in this policy, such as the Long-Range Financial Plans. The Service-Based Asset Management Plans also convey how the assets are managed through their lifecycle in support of City service delivery by detailing relevant key initiatives, funding requirements, condition, changes in approach to operation and maintenance, levels of services, and so on. Particularly in regard to the levels of service the public can expect to receive, the plans provide clear direction and promote the coordination of public service delivery from staff. They are to be reviewed and updated at least every five years after the year in which the plan was completed. Along with the Strategic Asset Management Plan, these will be available to the public through the City website.

## **State of the Asset Report (Infrastructure Report Card)**

This document provides information on the quantity and condition of the City's physical assets, which can then be referenced when making infrastructure investment decisions. This information will be embedded directly within the City's various Service-Based Asset Management Plans as they are developed.

## **Strategic Asset Management Plan**

The Strategic Asset Management Plan (SAMP) plays an important part of the Council adopted Comprehensive Asset Management Program. The SAMP is embedded with high-level goals, strategies, and actions related to the City's assets from the various corporate plans and policies listed as key documents in this policy, such as the Long Range Financial Plans. It communicates to residents and stakeholders the reasons why new assets, or modifications to existing assets, are required. The SAMP also provides further details on how the City intends on continuing to deliver the services by relying on safe and reliable assets, and how the City intends to fund the required investments in a manner to remain financially sustainable.

The SAMP was developed collaboratively with various service areas within the City to develop asset-specific measures that the City is actively taking or pursuing to provide services to residents, businesses, and visitors at levels that correspond to the fees and taxes they pay. Along with the Service-Based Asset Management Plans, the SAMP will be available to the public through the City website.

## **Tangible Capital Assets Policy**

This policy stipulates the accounting treatment for tangible capital assets so that users of the financial report can discern information about the investment in property, plant and equipment and the changes in such investment. The policy stipulates the various capitalization thresholds, defines inclusions, exclusions, and other reporting specifics. Assets below these thresholds will be included in the City's asset management plans if they are determined to support identified



service delivery goals.

## Urban Forest Management Plan

This plan is to provide strategic and technical guidance to achieve urban forest sustainability in Ottawa over the coming decades, including recommendations for growing the urban forest and making it healthier, more diverse and resilient.

## Urban Forest and Greenspace Master Plan

The Plan expresses the City's vision for greenspace and canopy coverage in the Urban Area and sets strategic policies to guide the way forward for how this vision can be pursued over time. Its principles incorporate resident input and align with asset management principles in that as the City grows, an adequate and sustainable supply of high-quality, accessible greenspace will be available to serve the City, all its residents and its visitors. The Plan enables the City to pursue its greenspace vision in partnership with other levels of government, the private sector and the community.

## Wet Weather Infrastructure Management Plan

The Wet Weather Infrastructure Management Plan has matured from its original form of start-up projects and initiatives into an expanding suite of ongoing programs related to wet weather infrastructure assets. It aims to identify, prioritize and coordinate solutions for level of service improvement and risk reduction between multiple City departments and in accordance with the principles of the Comprehensive Asset Management Program.

## Responsibilities

The following describes the roles and responsibilities in relation to the Comprehensive Asset Management Program.

### Council

Approve the City's Comprehensive Asset Management Policy, Strategic Asset Management Plan and Service-based Asset Management Plans; including levels of service, and their updates. Council is also responsible for approving the annual budget, Long Range Financial Plans and other related policies.

### City Manager

Promote the provision of excellent municipal services to deliver the priorities established by Council.

### General Manager (Planning, Infrastructure and Economic Development Department)

Executive lead of the Comprehensive Asset Management Program.

### Senior Leadership Team (SLT)

Ensure compliance with the provisions of this policy and associated procedures. The Senior

Leadership Team will review and endorse the Comprehensive Asset Management Policy, Strategic Asset Management Plan and Service-based Asset Management Plans for approval by Council.

### **Directors**

Ensure that adequate resources are available for development and implementation of these initiatives. They will provide overall guidance and direction for development and application of asset management initiatives. Directors will review and approve the Service-based Asset Management Plans when they are updated.

### **Managers and supervisors**

Provide leadership to embed asset management practices across the organization. Ensure consistency and continual improvement of asset management approaches across the City's service areas.

### **Employees and All Roles Listed Above**

Read, understand and adhere to this policy.

## **Monitoring | Contraventions**

City Departments are responsible for enforcing this policy and for ensuring that employees are fully aware of its requirements. The Comprehensive Asset Management Policy shall be reviewed, and updated if necessary, every five years and as needed. The most current version will be posted on the City website and available to any person upon request.

## **References**

1. Annual Budget
2. Long-Range Financial Plan
3. Strategic Asset Management Plan
4. State of Asset Report
5. 2014 Provincial Policy Statement, under the Planning Act
6. ISO 55000/14
7. IIMM International Infrastructure Management Manual 2015

## **Legislative and Administrative Authorities**

1. Infrastructure for Jobs and Prosperity Act, 2015 (Provincial)
2. Asset Management Planning for Municipal Infrastructure (Ontario Regulation 588/17)
3. Reserve Management Policy
4. Multi-Year, Rate-Supported Budget Policy
5. Budget Development, Monitoring and Reporting Policy
6. Business Case and Project Management Policy
7. Public Private Partnership Policy
8. Equity and Diversity Policy

## Definitions

### Asset

An item, thing or entity that has potential or actual value to an organization. (ISO 55000:2014)

### Asset Lifecycle

The time interval that commences with the identification of the need for an asset and terminates with the decommissioning of the asset or any liabilities thereafter. (IIMM International Infrastructure Management Manual 2015)

### Comprehensive Asset Management (CAM)

An integrated business approach involving planning, finance, engineering, maintenance, and operations geared towards effectively managing existing and new infrastructure to maximize benefits, reduce risk, and provide safe and reliable levels of service to community users. This is done in a socially, culturally, environmentally, and economically conscious manner.

### Comprehensive Asset Management Program

The CAM Program encompasses all aspects of the management of each asset through its lifecycle. The Program achieves this through integration with the Corporate Planning Framework to complement the strategic objectives of the City, other key business systems, legislation, and regulations. It also creates a framework that establishes the mechanism for a clear line of sight between our AM program and Corporate objectives and strategies. It is further realized through the commitment to provide approved levels of service for present and future customers and communities, in the most effective and efficient way, through the planning, design, construction, acquisition, operation and maintenance, renewal, and disposal of assets.

### Enhancement

Work to upgrade, refurbish, or replace existing assets or facilities with assets or facilities of increased capacity or performance capability.

### Green Infrastructure Asset

Natural and humanmade elements that provide ecological and hydrological functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs. (Ontario Regulation 588/17, under the Infrastructure for Jobs and Prosperity Act, 2015).

### Level of Service (LOS)

The parameters, or combination of parameters, which reflect social, political, environmental and economic outcomes that the organization delivers. The parameters can include safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost and availability. (ISO 55000:2014)

### Rehabilitation

Work to rebuild or replace parts or components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. This generally involves repairing the asset to deliver its original level of service (e.g., slip-lining of sewer mains) without resorting to significant upgrading or renewal, using available techniques and standards.

### Renewal

Work to upgrade, refurbish, or replace existing assets or facilities with assets or facilities of equivalent capacity or performance capability.

## Replacement

The complete replacement of an asset that has reached the end of its life in order to provide a similar, or agreed alternative, level of service.

## Wet Weather Infrastructure

These assets include the various collection-pipe systems (stormwater, wastewater, and storm/wastewater combined), as well as the assets engineered for roadway drainage collection, such as ditches, swales and culverts. Natural systems are also considered wet weather assets.

## Keyword Search

AM  
Asset  
Asset Management  
Asset Management Plan  
CAM  
Comprehensive Asset Management  
Levels of Service  
Life Cycle / Lifecycle  
Maintenance  
Renewal  
Risk  
Service Life

## Enquiries

Manager, Asset Management Branch, Infrastructure Services  
City of Ottawa



## Comprehensive Asset Management Framework



Figure 1: Comprehensive Asset Management Framework

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