
Performance Audit of the
Asset Management Program

November 19, 2019

Final Report



OBJECTIVES

To review and assess the effectiveness of the City's asset management program and processes.

BACKGROUND

Asset management is the systematic and coordinated activities and practices of an organization in order to optimally and sustainably deliver on its objectives through the cost-effective life-cycle management of assets. Asset management planning is the process of making the best possible decisions regarding the acquisition, operating, maintaining, renewing, replacing and disposing of infrastructure assets and is regarded as a best practice for long-term financial planning.

In December 2017, the province issued Regulation 588/17 titled "Asset Management Planning For Municipal Infrastructure" to help improve the way municipalities plan for their infrastructure and to bring consistency and standardization to asset management planning process.

This regulation requires every municipality to prepare an Asset Management Policy (Policy) by July 1, 2019 and an Asset Management Plan for core municipal assets including water, wastewater, storm water, roads, bridges and culverts by July 1, 2021. A Plan for all other municipal infrastructure assets is required by July 1, 2023.

In 2012, KPMG prepared a plan entitled "Financial Planning for Municipal Roads, Structures and Related Infrastructure" which was presented to Council. In 2016, KPMG prepared an asset management plan (AMP) for the City and recommended a number of steps be taken to address the City's aging infrastructure assets.

In October 2017, management prepared an asset management strategy that was to be used to prioritize infrastructure investments commencing in the 2019 budget process.

In April 2018, management presented an Enterprise Asset Management Policy and timelines to complete the City's AMPs, both of which were approved by Council.

In October 2019, management provided an update to Council on the status of the City's AMP.

SCOPE

Asset management activities undertaken from 2012 to 2019.

AUDIT STANDARDS

We conducted our audit in accordance with Generally Accepted Government Auditing Standards which require that we adequately plan audits; properly supervise staff; obtain sufficient, appropriate evidence to provide a reasonable basis for audit findings and conclusions; and document audits. For further information regarding this report, please contact Ron Foster at the City of Greater Sudbury at 705-674-4455 extension 4402 or via email at ron.foster@greatersudbury.ca

OBSERVATIONS AND ACTION PLANS:

A. Asset Management Program

Regulation 588/17 requires all municipalities to develop Asset Management Plans for their infrastructure assets. This regulation also requires municipalities to manage the life cycle costs of its assets and to communicate the service levels for these assets to residents. To adhere to this regulation, the City must develop a plan for its core infrastructure assets (water, wastewater, storm water, road, bridges and culverts) by July 1, 2021 and a plan for all other assets by July 1, 2023. A financial plan to fund the activities required to achieve the proposed levels of service for the City's assets is required by July 1, 2024.

In 2016, KPMG prepared an asset management plan (AMP) and recommended the City consider a strategy that incorporates the following components to address the City's \$3.1 billion of aging infrastructure assets which were at or near the end of their useful lives:

- A multi-year program of affordable tax increases that would increase the City's available capital funding by approximately \$5 million per year in addition to the existing capital funding envelopes;
- The use of debt for the financing of major capital projects;
- The realignment of the City's capital envelopes to avoid a predominant focus on roads, so as to limit situations where necessary infrastructure components such as facilities and fleet are disadvantaged;
- A focus on asset rationalization, which would include the closure/consolidation/divestment/of excess City facilities, fleet and other assets; and
- Service rationalizations, which would allow the City to redirect funding for operating costs to capital, thereby mitigating increases in taxes and user fees.

In October 2017, management prepared an asset management strategy that was to be used to prioritize infrastructure investments commencing in the 2019 budget process. To adhere to Regulation 588/17 and to provide guidance to the whole organization to minimize the risk of service interruption or increased cost due to asset failure, the City developed the following policy statement for asset management:

"The City of Greater Sudbury ensures its municipal infrastructure systems are supported by plans and financing decisions that demonstrate effective service support and appropriate regard for managing lifecycle costs."

In April 2018, management presented an Enterprise Asset Management Policy that included guiding principles and practices for asset management such as:

- Establishing full life-cycle costing principles aligned with asset management strategies that minimize ownership costs over the asset's service life;
- Maintaining assets in order to deliver defined levels of service that meet legislative requirements and customer expectations;

- Establishing risk management strategies to support service delivery at expected levels of service;
- Maintaining a system of performance monitoring and reporting on asset level of service and the impacts of potential changes in policy, levels of service or risk;
- Maintaining assets to protect the safety of the public and health & safety of our employees; and
- Establishing clear and continuous connections to the corporation's long-term financial plan and related financial policies.

Observations:

In the 2019 update on the City's AMP, management advised Council that annual expenditures of over \$300 million would be required to maintain existing service levels on the City's assets.

The 2019 update of the City's Long-Term Financial Plan included estimates of annual capital expenditures required to respond to the City's aging assets.

The 2020 budget recommends a 1.5% special capital levy as well as a significant increase to capital expenditures to address the City's infrastructure funding requirements. Similar capital levy recommendations were made in the 2019, 2018 and 2017 budgets. The 2020 budget identifies risks related to the City's aging assets and indicates that the development of strong asset condition information and plans to address asset weaknesses is a priority in the coming years.

The 2020 capital budget was developed using a Capital Prioritization Tool that considers legislative requirements, health and safety risks, as well as the probability and consequences of failure of capital projects.

The 2021 to 2024 capital budget forecast includes increased expenditures to address the City's aging assets.

Recommendations:

To ensure the City's aging assets are addressed on a timely basis, we recommend that management continue its efforts to integrate the City's asset management program with the City's annual business plans and long-term planning processes.

Management Response and Action Plan

We agree. Staff will continue to develop and refine the corporate asset management program and provide linkages and integration to other City planning documents such as but not limited to the annual business plan, annual budgets, and long-term financial plan in order to fulfill the strategic plan of Council. Financing decisions, and the level of financial support associated with asset renewal efforts, remain within City Council's control.

B. Asset Management Policy

In April 2018, Council approved the City's Enterprise Asset Management Policy and timelines to complete the City's Asset Management Program.

Observation:

The City’s Asset Management Strategy is dependent upon effective leadership and communication as well as a high degree of collaboration between the Asset Management Coordinator, Executive Leadership Team, Divisional and Sectional Leaders, Finance Staff, Assets Users and Asset Operators. Effective leadership needs to be maintained to ensure timely completion of the program.

Recommendation:

As required by Regulation 588/17, ensure that the City’s Enterprise Asset Management Policy clarifies that the Executive Lead for the City’s Asset Management Program is the General Manager of Corporate Services.

Management Response and Action Plan

We agree. We believe the General Manager of Corporate Services has played, and will continue to play, a leadership role and is clearly the Executive Lead for the corporation’s asset management policy. Staff will review the Enterprise Asset Management Policy produced in 2018 and ensure it is clear that the Executive Lead of the asset management program is the General Manager of Corporate Services.

C. Risk Management

Risks are uncertain events which can be measured by calculating the product of the likelihood and impact of these events. Most risks can be mitigated by purchasing insurance. Other mitigation techniques include applying controls related to the application of human and contract resources; development and implementation of formal procedures; utilization of plant, equipment and tools; and collection and utilization of relevant information. Tables 1 and 2 below, identify the significant risks associated with the City’s Asset Management Program.

Table 1 – Summary of Significant Risks

Risk	Total No. of Risks	Risks Before Controls			Risks After Controls		
		High (15 to 25)	Med (9 to 14.99)	Low (1 to 8.99)	High (15 to 25)	Med (9 to 14.99)	Low (1 to 8.99)
Reputation	1	1	0	0	0	0	1
Operational	4	4	0	0	0	4	0
Financial	2	2	0	0	0	2	0
Legal	1	1	0	0	0	0	1
TOTAL	8	8	0	0	0	6	2

Table 2 – Significant Risks

Risk	Risk Description	Before Controls	After Controls
O2	Insufficient information may be available about the service level expectations and risk tolerances of members of Council.	20	14.5
O3	Relevant data about the condition of assets may not exist or may not be available on a timely basis to aid members of Council with annual budget decisions.	20	14.5
O4	Asset renewals and replacements may not be prioritized based on the impact and probability of failure of the underlying assets.	20	14.5
O1/F1	Asset management plans may not be integrated with the corporate strategic plan, enterprise risk management plan, long-term financial plan, capital budgeting forecast, annual business plans and annual budget.	20	14
F2	The budget package contains information about the City assets that is prepared using estimates, assumptions and professional judgement. Errors or omissions in the budget package may contribute to Council decisions that are less than optimal.	20	13
L1/R1	The legislated timelines for Asset Management Plans may not be met.	15	8

Observation:

In September 2018, management developed an Enterprise Risk Management Policy to systematically identify, recognize, evaluate and manage risks that could affect the achievement of the City’s objectives.

Recommendation:

Management should continue its efforts to establish an enterprise-wide risk management framework to mitigate the risks that may comprise achievement of the City’s asset management goals.

Management response:

We agree. The Executive Leadership Team has very recently approved a governance structure, operating guidance and processes to support the implementation of the corporation’s Enterprise Risk Management Policy. Among the actions staff will undertake will be a thorough understanding of Council’s level of risk tolerance for a number of potential risk areas. Staff will be gauging Council’s understanding and acceptance of the risk O2, O4 and O3. These are reasonable risks to our asset management program and approach.

We disagree with the potential for “errors and omissions” to contribute to less than optimal decision making. While errors and omissions are a risk in any endeavor, staff have acknowledged that asset information is more precise and scientific for some classes than information currently available for other classes. This does not mean that staff is providing erroneous information in the budget package, rather there is an evolution underway in our understanding of asset condition. Staff will continue to develop and refine the corporate asset management program and provide linkages and integration to other City planning documents such as but not limited to the annual business plan, annual budgets, and long-term financial plan in order to fulfill the strategic plan of Council.

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Impact	Service Delivery	Technology	People	Strategic	Legal/Reputational	Financial
Extreme (5)	<ul style="list-style-type: none"> Less than 30% of service objectives achieved. Unable to perform several essential services where no alternatives exist. 	<ul style="list-style-type: none"> Unrecoverable loss of information from critical system. External exposure of confidential information Unavailability of critical systems or data loss or corruption. 	<ul style="list-style-type: none"> Death of an employee Major legal judgment against the City in workplace matter. Significant turnover of key employees with ELT Sustained strike of key services 	<ul style="list-style-type: none"> Many actions are significantly at odds with the strategic priorities. 	<ul style="list-style-type: none"> Public/media outcry for change in CAO or Council Senior officials criminally charged or convicted Severe legal judgment against the City in a workplace matter Major integrity breach resulting in complete loss of trust in City Council or Administration. Theft/Fraud>\$1,000,000 	<ul style="list-style-type: none"> Uninsured loss, cost overruns or fines >\$10 M Insured loss > \$100M File for bankruptcy Failure to maintain financial capacity to support current demands. City action results in decrease in economic condition.
Major (4)	<ul style="list-style-type: none"> Less than 45% of service objectives achieved. Unable to perform an essential service where no alternative exists. 	<ul style="list-style-type: none"> Unrecoverable loss of information from important system. External exposure of important information Unavailability of significant systems or data loss or corruption. 	<ul style="list-style-type: none"> Serious injury of one or more employees Legal judgment against the City in workplace matter. Turnover of key employees Sustained strike of services. 	<ul style="list-style-type: none"> Numerous actions are significantly at odds with the strategic priorities. 	<ul style="list-style-type: none"> Public/media outcry for change in CAO or Council Public or senior officials charged or convicted Legal judgment against the City in a workplace matter Integrity breach resulting in decreased trust in City Council or Administration. Theft or Fraud>\$100,000 	<ul style="list-style-type: none"> Uninsured loss, cost overruns or fines of >\$1M - \$10M Insured loss of >\$10M - \$100M Unable to pay employees and contractors on a time. Failure to maintain financial capacity to support current demands. City action results in decrease in economic condition.
Moderate (3)	<ul style="list-style-type: none"> Less than 60% of service objectives achieved. Unable to perform essential service but alternatives exist. 	<ul style="list-style-type: none"> Disruptions of significant systems or data loss or corruption Recoverable loss from important system. 	<ul style="list-style-type: none"> Multiple employee injuries or long-term disability from one incident. Inability to retain or attract competent staff. 	<ul style="list-style-type: none"> Numerous actions are at odds with strategic priorities. 	<ul style="list-style-type: none"> Public/media outcry for removal of management Long-term damage to City's reputation Citizen satisfaction survey indicates unacceptable performance. 	<ul style="list-style-type: none"> Uninsured loss, cost overruns or fines of >\$100K to \$1M Insured loss >\$1M to \$10M Having to delay payments to contractors/suppliers. >20% current demands cannot be services with

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			<ul style="list-style-type: none"> • Increase in stress leave, sick leave or WCB claims. • Work-to-rule union disagreement or short-term strike. 		<ul style="list-style-type: none"> • Complaints elevated to Council level. • Results inconsistent with commitments made to citizens • Theft or Fraud under \$100,000. 	<p>existing and approved infrastructure.</p> <ul style="list-style-type: none"> • City action results in lost revenue for significant number of City businesses.
Minor (2)	<ul style="list-style-type: none"> • Less than 75% of service objectives achieved. • Unable to perform non-essential service. 	<ul style="list-style-type: none"> • Disruptions of systems or data loss or corruption • Disclosure of non-confidential but embarrassing information. 	<ul style="list-style-type: none"> • Reportable employee injury. • Loss of key staff but able to recruit competent replacements • Significant increase (>10%) in number of union grievances. 	<ul style="list-style-type: none"> • Instances of actions at odds with strategic priorities. 	<ul style="list-style-type: none"> • Complaints elevated to the Director level. • Short-term repairable damage to City's reputation • Public outcry for discipline of employee. • Moderate amount of negative media coverage • Theft or Fraud of \$1,000 to \$10,000. 	<ul style="list-style-type: none"> • Uninsured loss, cost overruns or fines of \$10K to \$100K • Insured loss < \$100K - \$1M • Inefficient processes • City action results in reduced economic development.
Insignificant (1)	<ul style="list-style-type: none"> • Less than 90% of service objectives achieved. 	<ul style="list-style-type: none"> • Minor disruptions of secondary systems or data loss or corruption. 	<ul style="list-style-type: none"> • Minor reportable employee injury. • Increase in number of union grievances. 	<ul style="list-style-type: none"> • Minor instances of actions that are at odds with strategic priorities. 	<ul style="list-style-type: none"> • Small amount of negative media coverage or complaints to City. • Non-lasting damage or no reputational damage • Theft or Fraud under \$1,000. 	<ul style="list-style-type: none"> • Uninsured loss, cost overruns or fines < \$10K • Insured loss < \$100K • Loss of replaceable asset.

Likelihood	Unlikely (1)	Possible (2)	Probable (3)	Likely (4)	Very Likely (5)
	Less than 20%	>20% but < 40%	>40% but < 60%	>60% but < 80%	80% or more
	Less frequent than every 10 years	May occur in the next 2 years	Will occur this year or next year at least once	May occur regularly this year	Will occur within a matter of months may reoccur often