Municipality of Lakeshore – Report to Council

Finance & Technology

Financial Planning & Analysis

To: Mayor & Members of Council

From: Justin Rousseau, Corporate Leader-Chief Financial Officer

Date: September 9, 2022

Subject: Municipality of Lakeshore Asset Management Plan 2022

Recommendation

Approve the Municipality of Lakeshore Asset Management Plan 2022;

Direct the Corporate Leader-Chief Financial Officer to submit the Municipality of Lakeshore Asset Management Plan 2022 to the Ontario Ministry of Infrastructure;

Direct that the Municipality of Lakeshore Asset Management Plan 2022 be made available on the Municipal website;

Direct that the financial strategies outlined in Municipality of Lakeshore Asset Management Plan 2022 Report presented at the September 27, 2022 Council meeting be adopted and implemented in future budgets and fiscal planning and policy documents.

Background

December 2017, the Province passed an Asset Management Planning regulation under the Infrastructure for Jobs and Prosperity Act, 2015. Ontario Municipalities are now subject to Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure. Under the Regulation, every Municipality is required to prepare a comprehensive strategic asset management policy, a plan to maintain core municipal infrastructure, a level of service proposal, and a publicly accessible Asset Management Plan (AMP) which is required to be updated every fifth year going forward with data obtained within the preceding two years.

The following are the key dates to this Regulation:

- January 1, 2018: Effective date of Regulation.
- July 1, 2019: Date for Municipalities to have a finalized strategic Asset Management Policy.
- July 1, 2021 (*now 2022): Date for Municipalities to have an approved AMP for core assets (roads, bridges and culverts, water, wastewater and stormwater

management) that discusses current levels of service and the cost of maintaining those services.

- **July 1, 2023(*now 2024)**: Date for Municipalities to have an approved AMP for all municipal infrastructure assets that discusses current levels of service and the cost of maintaining those services.
- **July 1, 2024(*now 2025)**: Date for Municipalities to have an approved AMP for all municipal infrastructure assets that builds upon the requirements set out in 2023. This includes a discussion of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund the activities.

***Due to the pandemic and the state of many Municipal resources in the province, the deadlines where extended a year.

On July 12, 2022, the Municipality of Lakeshore passed By-Law 66-2022 enacting an Asset Management Policy thus satisfying the July 1, 2019, requirement.

This report contains the Municipality of Lakeshore AMP 2022 which stratifies the July 1, 2022, requirement.

The Ontario Regulation 588/17 Requirements and Reporting Deadlines are included below:

Requirement	2019	2022	2024	2025
Asset Management Policy	●		●	
Asset Management Plans		●	●	●
State of infrastructure for core assets		●		
State of infrastructure for all assets			●	●
Current levels of service for core assets		●		
Current levels of service for all assets			●	
Proposed levels of service for all assets				●
Lifecycle costs associated with current levels of service		●	●	
Lifecycle costs associated with proposed levels of service				●
Growth impacts		●	●	●
Financial strategy				●

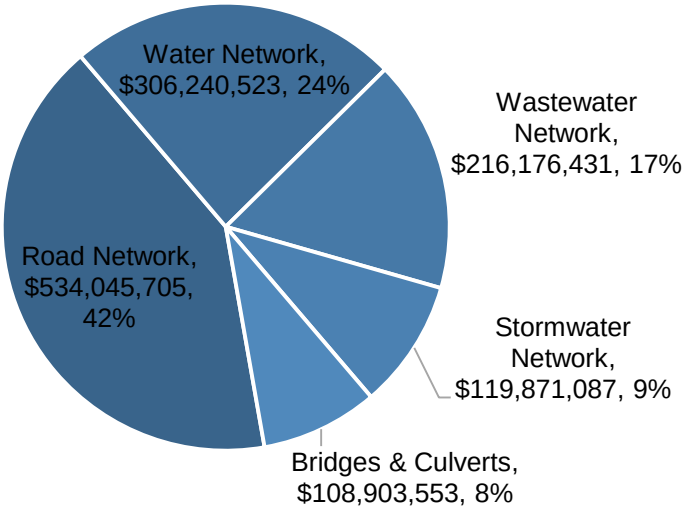
Upon Council approval Lakeshore will be compliant with reporting requirements.

Although this is a significant milestone, work continues to be required with asset management as we move into Phase 2 of our project.

In 2022 the Municipality of Lakeshore was able to secure $50,000 in funding from the Federation of Canadian Municipalities' (FCM) who offered an eight-year, $50 million Municipal Asset Management Program (MAMP) through the funding from Infrastructure Canada (INFC) to support Canadian Municipalities and communities in building their Asset Management (AM) practice. This funding will help Lakeshore continue to improve our data and business process around Asset Management.

Comments

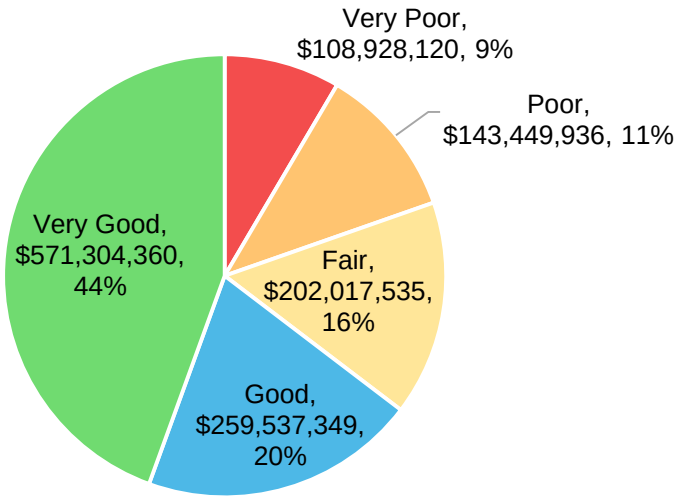
This AMP for the Municipality of Lakeshore was developed in accordance with Ontario Regulation 588/17 ("O. Reg"). It includes key elements of an industry-standard and regulation compliant AMP and provides a detailed overview and analysis of the Municipality's core infrastructure. Together, the five asset categories analyzed in this AMP have a total current replacement cost of **$1.3 billion**.



Total Current Replacement Cost: $1,285,237,300

The Municipality's core asset portfolio comprises of a road network of paved, unpaved, and surface treated roadways; bridges and structural culverts; stormwater collection and conveyance infrastructure; water treatment and distribution network; wastewater collection and treatment infrastructure. At 42% of the total replacement cost of all infrastructure, roads and related assets form the largest share of the Municipality's asset portfolio and have a current replacement cost of more than $534 million.

Based on both assessed condition and age-based analysis, 80% of the Municipality's infrastructure portfolio is in fair or better condition, with the remaining 20% in poor or worse condition. Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Asset criticality and targeted condition assessments may help further refine the list of assets that may be candidates for immediate intervention.



Those assets in fair condition should be monitored for disrepair over the medium term. Keeping assets in fair or better condition is typically more cost-effective than addressing asset needs when they enter the latter stages of their lifecycle or decline to a lower condition rating, e.g., poor or worse.

It should be noted that with the exception of the Municipality's road network, and bridges & culverts (which together comprise 50% of total asset value) no in-field condition assessment data was available for other assets. As such, age was used as an approximation of condition for these assets. While a useful substitute in the absence of inspection data, using asset age to approximate its condition can lead to inaccurate results as age can under- or over-state asset needs. A more programmatic approach to condition assessments is recommended to improve data confidence.

Aging assets require maintenance, rehabilitation, and replacement. On average, $24.3 million is required each year to remain current with capital replacement needs for the Municipality's existing core asset portfolio. This figure relies on age and available condition data. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise. It should be noted that this figure assumes a like-for-like asset replacement and does not account for capacity upgrades that offer higher levels of service at higher potential costs.

Average annual funding available totals $15.5 million for core assets. As a result, the Municipality is funding 64% of its annual capital requirements (based on the relative data). This creates a total annual funding deficit of $8.8 million. Addressing annual infrastructure funding shortfalls is a difficult and long-term endeavor for municipalities. Considering the Municipality's current funding position, it will require many years to

reach full funding for current assets. Short phase-in periods to meet these funding targets may place too high a burden on taxpayers too quickly, whereas a phase-in period beyond 20 years may see a continued deterioration of infrastructure, leading to larger backlogs.

To close annual deficits for tax-funded assets, we recommend the Municipality review feasibility of implementing a 3.4% annual increase in revenues over a 5-year phase-in period. Similarly, water rate revenues would need to increase at 1.2% to achieve full-funding over a 5-year phase-in period. For wastewater, a 10-year phase-in is recommended, requiring a 2.3% increase in rate revenues annually to close annual funding gaps. Funding scenarios over longer time frames are also presented which may reduce these annual increases.

As this plan is based on like-for-like replacements, these increases do not reflect the additional costs that will need to be accounted for as the Municipality implements its gravel conversion program. Through to 2032, a total of 76 kilometers of gravel roads are slated for conversion from gravel to surface treated, yielding higher service levels and improved user experience. Based on existing replacement costs and target reinvestment rates, this will result in an annual cost increase of $656,800. As roads are converted, their added lifecycle costs would need to be factored into future financial planning, which may have implications on tax rates.

Further, a full asset management breakdown and plan has not been undertaken for Lakeshore's water and wastewater treatment facilities. Although there currently a plan being developed to complete these detailed assessments (with an intention to complete this in the short term), it does pose some concern related to the older facilities (i.e. the Stoney Point water treatment plant requiring life cycling if remaining in use and/or the eastern lagoons for replacement when this is likely not achievable) as exact costs have not been determined for these assets and will likely impact this plan once thee detailed assessments are completed.

In addition to annual needs, there is also an infrastructure backlog of nearly $38 million, comprising assets that remain in service beyond their estimated useful life. It is highly unlikely that all such assets are in a state of disrepair, requiring immediate replacements or full reconstruction. This makes targeted and consistent condition assessments integral to refining long-term replacement and backlog estimates.

Risk frameworks and levels of service targets can then be used to prioritize projects and help select the right lifecycle intervention for the right asset at the right time—including replacement or full reconstruction in lieu of rehabilitation or continued maintenance. The Municipality has developed preliminary risk models which are integrated with its asset register. These models can produce risk matrices that classify assets based on their risk profiles.

Most Municipalities in Ontario, and across Canada, continue to struggle with meeting infrastructure demands. This challenge was created over many decades and will take many years to overcome. To this end, several broad recommendations should be considered, including:

- Continuous and dedicated improvement to the Municipality's infrastructure datasets, which form the foundation for all analysis, including financial projections and needs;
- Continuous refinements to the Municipality's risk and lifecycle models as additional data becomes available. This will aid in prioritizing projects and creating more strategic long-term capital budgets that are better aligned with corporate goals.
- Development of key performance indicators for all infrastructure programs to meet 2024 O. Reg requirements, and to establish benchmark data to calibrate levels of service targets to meet 2025 regulatory requirements; and
- Establishing a dedicated, full-time asset management function to manage the Municipality's AMP.

The Municipality has taken important steps in building its AMP, including developing a more complete and accurate asset register—a substantial initiative. Continuous improvement to this inventory will be essential in maintaining momentum, supporting long-term financial planning, and delivering the highest affordable service levels to the Lakeshore community.

This AMP is designed to be a live document requiring sustainability and continuous updating (resources) to ensure proper planning, reporting and financial accuracy.

Lakeshore is also developing its first corporate asset management strategy to support the development of a formal and more structured asset management program. This essential step will reinforce the Municipality's commitment to deliver a quality infrastructure program with affordable levels of service.

It should be noted that the AMP only deals with the current existing assets owned by Lakeshore (and assumes like-for-like replacement), it does not factor in growth assets nor does it consider increased service levels like park expansions or road widening projects.

The AMP serves as a fiscal policy document and the actual funding contributions and reserve transfers remain part of the annual budget process/document. However, policy documents like the AMP ensure sound financial planning for future investment needs and financial strategies for the municipality.

It is recommended that Council approve the AMP, as well as direct Administration to submit it to the Ministry of Infrastructure to be compliant with legislation and not to risk future grant funding allocations such as OCIF and Gas Tax. It is also recommended that the AMP be posted on the Municipal Website and that Administration incorporate recommendations of the AMP in the preparation of future budgets.

Others Consulted

Israr Ahmad, Public Sector Digest Citywide Inc.

Financial Impacts

The AMP has identified significant annual funding gaps and deficits. At existing levels as further detailed below, the Municipality is funding 64% of its annual capital requirements for all infrastructure analyzed in this AMP. This creates a total annual funding deficit of $8.8 million.

Asset Category	Annual Capital Requirements	Average Annual Funding Available	Annual Infrastructure Deficit	Funding Level
Road Network	$14,861,377	$10,527,489	$4,333,888	71%
Bridges & Culverts	$1,497,524	$208,425	$1,289,099	14%
Stormwater Network	$1,365,319	$438,018	$927,302	32%
Water Network	$3,386,853	$2,831,682	$555,172	84%
Wastewater Network	$3,188,736	$1,477,102	$1,137,574	46%
Total	**$24,299,810**	**$15,482,715**	**$8,817,095**	**64%**

The following compares Lakeshore’s target vs. actual reinvestment rates. It shows that, while the Municipality’s reinvestment rates are below target, they are higher or in line with other municipalities based on CIRC’s 2016 average. The exception is bridges and culverts.

Asset Category	Target Reinvestment Rate	Lakeshore Actual Reinvestment Rate	CIRC 2016 Municipal Average
Road Network	2.8%	2.0%	1.1%
Bridges & Culverts	1.4%	0.2%	0.8%
Stormwater Network	1.1%	0.4%	0.3%
Water Network	1.1%	0.9%	0.9%-1.1%
Wastewater Network	1.5%	0.7%	0.7%-1.4%
Total	1.9%	1.2%	NA

Tax-Funded Assets

For 2022, the Municipality of Lakeshore's forecasted property tax revenue totals $36,448,510. Annual capital requirements for tax-funded categories total $17,724,221 against available funding of $11,173,932. This creates a funding deficit of $6,550,289. To close this annual gap, the Municipality's property tax revenue would need to increase by 18%. This will allow Lakeshore to meet its average annual requirements of $17.7 million for tax-funded categories.

2022 Property Taxation Revenue	Additional Revenue Needed for Infrastructure	% Increase Needed
$36,448,510	$6,550,289	18%

To achieve this increase, several scenarios have been developed using phase-in periods ranging from five to 20 years. Shorter phase-in periods may place too high a burden on taxpayers, whereas a phase-in period beyond 20 years may see a continued deterioration of infrastructure, leading to larger backlogs.

Total % Increase Needed in Annual Property Taxation Revenues	Phase-in Period			
	5 Years	10 Years	15 Years	20 Years
18%	3.4%	1.7%	1.1%	0.8%

Funding 100% of annual capital requirements ensures that major capital events, including replacements, are completed as required. Under this scenario, projects are unlikely to be deferred to future years. This delivers the highest asset performance and customer levels of service.

Council has set roads as a key priority in its strategic plan and to stay true to that commitment its recommended that a 5-year approach be adopted to fund that level of service.

Rate-Funded Assets

For 2022, the Municipality of Lakeshore's forecasted water rate revenues total $9,269,371. Annual capital requirements for the water network total $3,386,853, against available funding of $2,831,682. This creates a funding deficit of $555,172. To close this annual gap, the Municipality's water revenues would need to increase by 6%. This will allow Lakeshore to meet its average annual requirements of $3.4 million.

Similarly, wastewater rate revenues are forecasted to be $6,751,651 in 2022. Average annual requirements for Lakeshore's wastewater assets total $3,188,736, against available funding of $1,477,102, creating an annual deficit of $1,711,635. Rate revenues would need to increase by 25.4% to close this funding gap.

Category	2022 Rate Revenues	Additional Revenue Needed for Infrastructure	% Increase Needed
Water Network	$9,269,371	$555,172	6%
Wastewater Network	$6,751,651	$1,711,635	25.4%

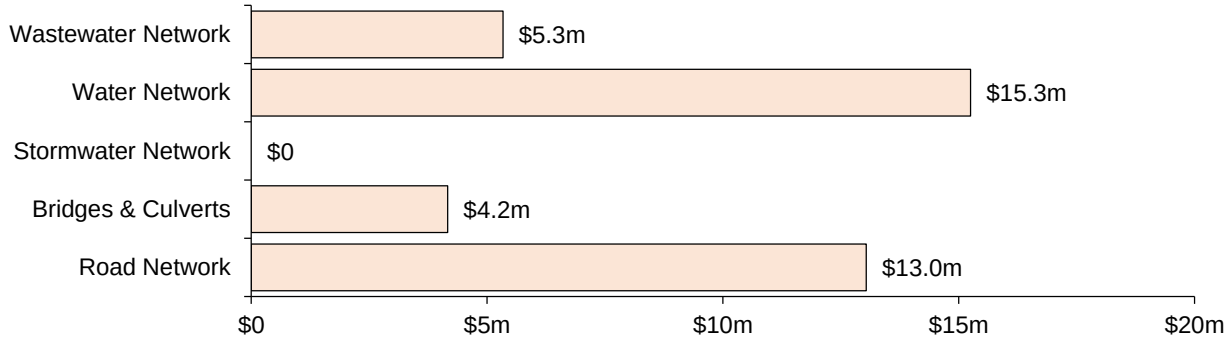
To achieve these increases, several scenarios have been developed using phase-in periods ranging from five to 20 years. As with tax-funded assets, short phase-in periods may require excessive rate increases, whereas more protracted timeframes may lead to larger backlogs and more unpredictable spending on emergency repairs and replacements.

Category	Total % Increase Required in Rate Revenues	Phase-in Period			
		5 Years	10 Years	15 Years	20 Years
Water Network	6%	1.2%	0.6%	0.4%	0.3%
Wastewater Network	25.4%	4.6%	2.3%	1.5%	1.1%

Infrastructure Backlogs

The annual tax and rate increases proposed are designed to eliminate annual infrastructure deficits. However, they do not address existing backlogs. **Error!**

Reference source not found. The figure Below shows that the current infrastructure backlog totals approximately $37.8 million across all asset categories analyzed in this AMP. However, as many assets did not have condition assessment data available, age was used to estimate backlog figures. As a result, the figure below may be an under- or overstatement of actual asset needs. Condition assessment data will be essential in developing more accurate and credible estimates.



Eliminating backlogs will require prioritizing projects, ideally through continuous improvements and application of the Municipality's risk models to augment staff judgement. This risk-based approach will ensure that project selection is objective, supports delivery of the Municipality's service level targets, and is in line with long-term strategic objectives.

Financial Strategy

Review feasibility of adopting a full-funding scenario that achieve 100% of average annual requirements for the asset categories analyzed in this AMP.

This involves:

- implementing a 3.4% annual tax increase over a 5-year phase-in period and allocating the full increase in revenue toward tax-funded asset categories into future budgets for Council consideration;
- implementing a 1.2% rate increase for water over a 5-year phase-in period, and a 2.3% increase for wastewater, over a 10-year phase-in period as well as tie the assumptions into the water and wastewater rates studies and future budget consideration;
- continued allocation of OCIF and CCBF funding as previously done in the past; and
- using risk frameworks and staff judgement to prioritize projects, particularly to aid in elimination of existing infrastructure backlogs.

Report Approval Details

Document Title:	Municipality of Lakeshore Asset Management Plan 2022.docx
Attachments:	- Asset Management Plan for Core Assets 2022.docx
Final Approval Date:	Sep 21, 2022

This report and all of its attachments were approved and signed as outlined below:

Prepared by Justin Rousseau

Approved by Truper McBride