
Subject: Asset Management Policy

Report to: Corporate Services Committee

Report date: Wednesday, April 17, 2019

Recommendations

That the Asset Management Policy, Appendix 2 to Report CSD 20-2019, **BE APPROVED.**

Key Facts

- The purpose of this report is to obtain Council's approval of the strategic Asset Management (AM) Policy which, upon approval, will be published on the Region's website.
- The Region's capital asset portfolio replacement value is in excess of \$7.4 billion.
- In 2017, the Ontario government released a new regulation under the Infrastructure for Jobs and Prosperity Act, 2015 – Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17) which outlines deadlines for achieving strategic AM practices.
- Under O. Reg. 588/17 the Region is required to create, approve and publish a strategic AM Policy by July 1, 2019.
- In addition to O. Reg. 588/17 Federal and Provincial governments require updated comprehensive AM plans for Federal Gas Tax funding, future application based funding and Development Charges.
- The AM Policy, which forms the basis for AM at the Region, will be implemented along with procedures and will be enforced by the corporate Asset Management Office (AMO).

Financial Considerations

There are no immediate financial implications related to the approval of the AM Policy. The adoption of the AM Policy will establish the framework for performing AM activities consistently across the Region, leading to more effective and comprehensive financial planning for the sustainment of existing assets and the creation of new ones.

As articulated in CSD 10-2019, Asset Management Governance Model, the implementation of a corporate AMO is expected to result in savings related to capital asset budgeting, on-going maintenance costs and utilities savings. These savings will be a result of the Region being able to make corporate wide risk and condition based prioritization decisions to ensure that the projects that are approved deliver the best return for the Region. It will implement processes and procedures across the Region

that will better identify other lifecycle activities that may be undertaken and the ideal timing for them to sustain the level of service (LOS) of the asset and prolong the useful life at the most effective cost for the Region. The AMO will also help the Region better coordinate efforts across divisions and with local municipalities to ensure interconnected projects are completed concurrently, therefore reducing scenarios where assets are replaced before the end of their useful life.

Analysis

The Region has embarked on a multi-year phased AM Program to develop and implement leading AM principles and practices. O. Reg. 588/17, was released in December 2016 and came into effect on January 1, 2017. Per O. Reg. 588/17, several legislative requirements are to be included in the AM Policy, including commitments to consider climate change risks to infrastructure assets and mitigation approaches to address these vulnerabilities, to provide opportunities for municipal residents and other interested parties to provide input into AM planning, and to coordinate planning for AM with other local municipalities where infrastructure assets connect or are interrelated.

The requirements and timelines the Region needs to accomplish per O/ Reg. 588/17 include the following:

- July 2019: Strategic AM Policy approved and published
- July 2021: Core infrastructure AMP and current LOS
- July 2023: Comprehensive AMP and current LOS
- July 2024: Alignment of the Comprehensive AMP to the proposed LOS and financing strategy to achieve the proposed LOS
- Continuous updates to these every 5-years.

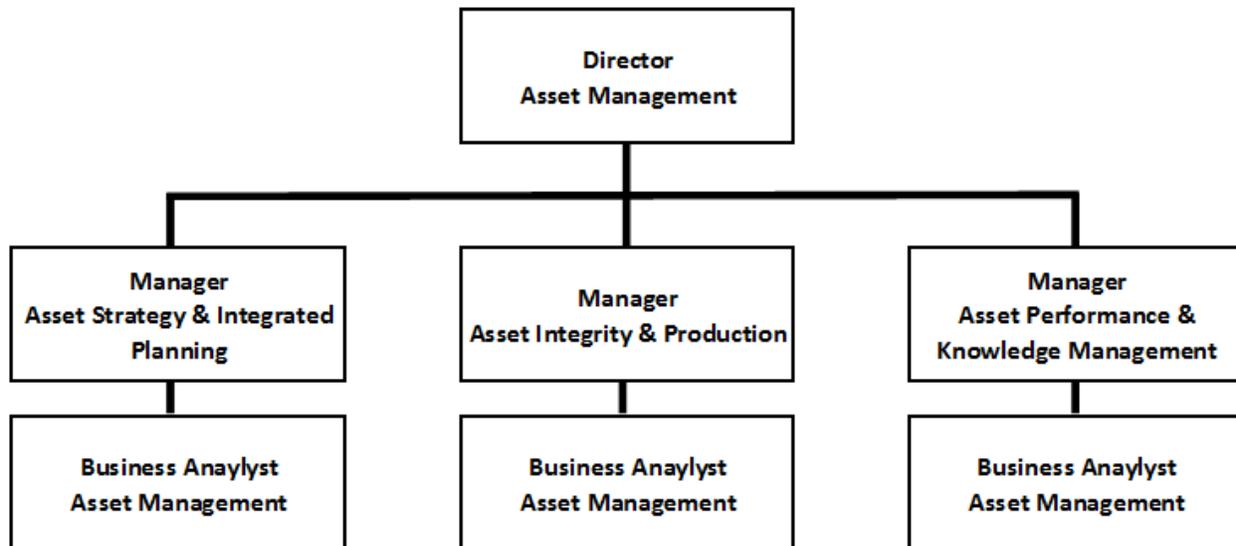
AM is a systematic process to guide planning, acquisition, operation, maintenance, rehabilitation, replacement and disposal of assets and is considered to be a fundamental element in an asset-intensive organization's operations, as the efficient allocation and management of resources are crucial to maximize performance and fulfil strategic goals.

Council has advanced AM at the Region through approval of the following:

- CBPCOTW-C 2-2017 – Asset Management Project – Asset Management Roadmap and Information Technology Strategy;
- CSD 21-2017 – Asset Management Plan – 2016 AM plan;
- CSD 10-2019 Asset Management Governance Model – Council endorsed the creation of a corporate AMO with the structure outlined in Figure 1;
- CSD 20-2019 – Asset Management Policy

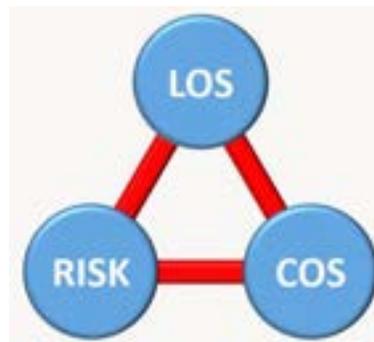
Looking forward, in the second quarter of 2020 Council will receive the annual update on the status of AM at the Region and progress made during the year. This update is in-line with this policies requirement that Council annually approves the review of AM progress before July 1 every year.

Figure 1: Corporate Asset Management Office Proposed Structure



The AMO will provide leadership in the use of consistent AM policies, procedures and practices across the Region’s departments, boards and commissions, and will result in the most effective use of Regional resources while ensuring capital decisions are based on effective management of infrastructure risks, and balance the lowest cost of service (COS) while providing the desired levels of service (LOS), as per Image 1. The AMO will also ensure that all departments, boards and commissions adhere to the established policies, procedures and practices to ensure AM is consistent across the organization.

Image 1: Relationship between LOS, COS and Risk



The Region is the custodian of capital assets with an estimated \$7.4 billion replacement value, which are required to deliver services to the residents of Niagara. The AM Policy establishes the foundation and framework for AM at the Region to help ensure that the Region is doing the right work, on the right assets, at the right time, for the right costs and the right reasons.

Staff developed the AM policy by conducting workshops with cross departmental and ABC representation, in collaboration with external expertise, to ensure all regulatory requirements were addressed while being conscious of Regional impacts. The resulting policy was provided to the AM Steering Team for final review prior to recommendation to this committee. The policy address the requirements of O. Reg. 588/17 with the inclusion of the following:

- Considering the AM plans in the development of the budget and any long-range financial plans that take into account municipal infrastructure assets;
- Identifying the executive lead who is responsible for AM at the Region;
- Recognizing the impact on service delivery by considering input from residents and business, local municipalities and other Regional departments and ABCs;
- Alignment of AM planning with climate change implications and considering mitigation approaches to climate change, such as green house gas reduction goals and targets; and
- Commitment to align AM planning with financial plans such as those prepared under the Safe Drinking Water Act 2002 and those developed to support wastewater assets.

Alternatives Reviewed

This policy was written as the Region's response to the requirements established by the Province of Ontario under O. Reg 588/17, while also including industry leading practice recommendations. The Region is required to be compliant with O. Reg. 588/17 by publishing of a strategic AM Policy before July 1, 2019.

Relationship to Council Strategic Priorities

The Comprehensive AM Plan was identified as a priority of the previous Council that directly supports Organizational Excellence, as well as supporting the Infrastructure and Taxation priorities.

Other Pertinent Reports

CPBCOTW-C 2-2017	Asset Management Project
CSD 21-2017	Asset Management Plan
CSD 51-2018	Asset Management Governance
CSD 10-2019	Asset Management Governance Model

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Français

ONTARIO REGULATION 588/17
made under the
INFRASTRUCTURE FOR JOBS AND PROSPERITY ACT, 2015

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ASSET MANAGEMENT PLANNING FOR MUNICIPAL INFRASTRUCTURE

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INTERPRETATION AND APPLICATION

Definitions

1. (1) In this Regulation,

“asset category” means a category of municipal infrastructure assets that is,

- (a) an aggregate of assets described in each of clauses (a) to (e) of the definition of core municipal infrastructure asset, or
- (b) composed of any other aggregate of municipal infrastructure assets that provide the same type of service; (“catégorie de biens”)

“core municipal infrastructure asset” means any municipal infrastructure asset that is a,

- (a) water asset that relates to the collection, production, treatment, storage, supply or distribution of water,
- (b) wastewater asset that relates to the collection, transmission, treatment or disposal of wastewater, including any wastewater asset that from time to time manages stormwater,
- (c) stormwater management asset that relates to the collection, transmission, treatment, retention, infiltration, control or disposal of stormwater,
- (d) road, or
- (e) bridge or culvert; (“bien d’infrastructure municipale essentiel”)

“ecological functions” has the same meaning as in Ontario Regulation 140/02 (Oak Ridges Moraine Conservation Plan) made under the *Oak Ridges Moraine Conservation Act, 2001*; (“fonctions écologiques”)

“green infrastructure asset” means an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands,

- stormwater management systems, street trees, urban forests, natural channels, permeable surfaces and green roofs; (“bien d’infrastructure verte”)
- “hydrological functions” has the same meaning as in Ontario Regulation 140/02; (“fonctions hydrologiques”)
- “joint municipal water board” means a joint board established in accordance with a transfer order made under the *Municipal Water and Sewage Transfer Act, 1997*; (“conseil mixte de gestion municipale des eaux”)
- “lifecycle activities” means activities undertaken with respect to a municipal infrastructure asset over its service life, including constructing, maintaining, renewing, operating and decommissioning, and all engineering and design work associated with those activities; (“activités relatives au cycle de vie”)
- “municipal infrastructure asset” means an infrastructure asset, including a green infrastructure asset, directly owned by a municipality or included on the consolidated financial statements of a municipality, but does not include an infrastructure asset that is managed by a joint municipal water board; (“bien d’infrastructure municipale”)
- “municipality” has the same meaning as in the *Municipal Act, 2001*; (“municipalité”)
- “operating costs” means the aggregate of costs, including energy costs, of operating a municipal infrastructure asset over its service life; (“frais d’exploitation”)
- “service life” means the total period during which a municipal infrastructure asset is in use or is available to be used; (“durée de vie”)
- “significant operating costs” means, where the operating costs with respect to all municipal infrastructure assets within an asset category are in excess of a threshold amount set by the municipality, the total amount of those operating costs. (“frais d’exploitation importants”)
- (2) In Tables 1 and 2,
- “connection-days” means the number of properties connected to a municipal system that are affected by a service issue, multiplied by the number of days on which those properties are affected by the service issue. (“jours-branchements”)
- (3) In Table 4,
- “arterial roads” means Class 1 and Class 2 highways as determined under the Table to section 1 of Ontario Regulation 239/02 (Minimum Maintenance Standards for Municipal Highways) made under the *Municipal Act, 2001*; (“artères”)
- “collector roads” means Class 3 and Class 4 highways as determined under the Table to section 1 of Ontario Regulation 239/02; (“routes collectrices”)
- “lane-kilometre” means a kilometre-long segment of roadway that is a single lane in width; (“kilomètre de voie”)
- “local roads” means Class 5 and Class 6 highways as determined under the Table to section 1 of Ontario Regulation 239/02. (“routes locales”)
- (4) In Table 5,
- “Ontario Structure Inspection Manual” means the Ontario Structure Inspection Manual (OSIM), published by the Ministry of Transportation and dated October 2000 (revised November 2003 and April 2008) and available on a Government of Ontario website; (“manuel d’inspection des structures de l’Ontario”)
- “structural culvert” has the meaning set out for “culvert (structural)” in the Ontario Structure Inspection Manual. (“ponceau structurel”)

Application

2. For the purposes of section 6 of the Act, every municipality is prescribed as a broader public sector entity to which that section applies.

STRATEGIC ASSET MANAGEMENT POLICIES

Strategic asset management policy

3. (1) Every municipality shall prepare a strategic asset management policy that includes the following:
1. Any of the municipality’s goals, policies or plans that are supported by its asset management plan.
 2. The process by which the asset management plan is to be considered in the development of the municipality’s budget or of any long-term financial plans of the municipality that take into account municipal infrastructure assets.
 3. The municipality’s approach to continuous improvement and adoption of appropriate practices regarding asset management planning.
 4. The principles to be followed by the municipality in its asset management planning, which must include the principles set out in section 3 of the Act.

5. The municipality's commitment to consider, as part of its asset management planning,
 - i. the actions that may be required to address the vulnerabilities that may be caused by climate change to the municipality's infrastructure assets, in respect of such matters as,
 - A. operations, such as increased maintenance schedules,
 - B. levels of service, and
 - C. lifecycle management,
 - ii. the anticipated costs that could arise from the vulnerabilities described in subparagraph i,
 - iii. adaptation opportunities that may be undertaken to manage the vulnerabilities described in subparagraph i,
 - iv. mitigation approaches to climate change, such as greenhouse gas emission reduction goals and targets, and
 - v. disaster planning and contingency funding.
6. A process to ensure that the municipality's asset management planning is aligned with any of the following financial plans:
 - i. Financial plans related to the municipality's water assets including any financial plans prepared under the *Safe Drinking Water Act, 2002*.
 - ii. Financial plans related to the municipality's wastewater assets.
7. A process to ensure that the municipality's asset management planning is aligned with Ontario's land-use planning framework, including any relevant policy statements issued under subsection 3 (1) of the *Planning Act*, any provincial plans as defined in the *Planning Act* and the municipality's official plan.
8. An explanation of the capitalization thresholds used to determine which assets are to be included in the municipality's asset management plan and how the thresholds compare to those in the municipality's tangible capital asset policy, if it has one.
9. The municipality's commitment to coordinate planning for asset management, where municipal infrastructure assets connect or are interrelated with those of its upper-tier municipality, neighbouring municipalities or jointly-owned municipal bodies.
10. The persons responsible for the municipality's asset management planning, including the executive lead.
11. An explanation of the municipal council's involvement in the municipality's asset management planning.
12. The municipality's commitment to provide opportunities for municipal residents and other interested parties to provide input into the municipality's asset management planning.

(2) For the purposes of this section,

"capitalization threshold" is the value of a municipal infrastructure asset at or above which a municipality will capitalize the value of it and below which it will expense the value of it. ("seuil de capitalisation")

Update of asset management policy

4. Every municipality shall prepare its first strategic asset management policy by July 1, 2019 and shall review and, if necessary, update it at least every five years.

ASSET MANAGEMENT PLANS

Asset management plans, current levels of service

5. (1) Every municipality shall prepare an asset management plan in respect of its core municipal infrastructure assets by July 1, 2021, and in respect of all of its other municipal infrastructure assets by July 1, 2023.

(2) A municipality's asset management plan must include the following:

1. For each asset category, the current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan:
 - i. With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.
 - ii. With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.
2. The current performance of each asset category, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency, and based on data from

at most two calendar years prior to the year in which all information required under this section is included in the asset management plan.

3. For each asset category,
 - i. a summary of the assets in the category,
 - ii. the replacement cost of the assets in the category,
 - iii. the average age of the assets in the category, determined by assessing the average age of the components of the assets,
 - iv. the information available on the condition of the assets in the category, and
 - v. a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.
 4. For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service as described in paragraph 1 for each of the 10 years following the year for which the current levels of service under paragraph 1 are determined and the costs of providing those activities based on an assessment of the following:
 - i. The full lifecycle of the assets.
 - ii. The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.
 - iii. The risks associated with the options referred to in subparagraph ii.
 - iv. The lifecycle activities referred to in subparagraph ii that can be undertaken for the lowest cost to maintain the current levels of service.
 5. For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, the following:
 - i. A description of assumptions regarding future changes in population or economic activity.
 - ii. How the assumptions referred to in subparagraph i relate to the information required by paragraph 4.
 6. For municipalities with a population of 25,000 or more, as reported by Statistics Canada in the most recent official census, the following:
 - i. With respect to municipalities in the Greater Golden Horseshoe growth plan area, if the population and employment forecasts for the municipality are set out in Schedule 3 or 7 to the 2017 Growth Plan, those forecasts.
 - ii. With respect to lower-tier municipalities in the Greater Golden Horseshoe growth plan area, if the population and employment forecasts for the municipality are not set out in Schedule 7 to the 2017 Growth Plan, the portion of the forecasts allocated to the lower-tier municipality in the official plan of the upper-tier municipality of which it is a part.
 - iii. With respect to upper-tier municipalities or single-tier municipalities outside of the Greater Golden Horseshoe growth plan area, the population and employment forecasts for the municipality that are set out in its official plan.
 - iv. With respect to lower-tier municipalities outside of the Greater Golden Horseshoe growth plan area, the population and employment forecasts for the lower-tier municipality that are set out in the official plan of the upper-tier municipality of which it is a part.
 - v. If, with respect to any municipality referred to in subparagraph iii or iv, the population and employment forecasts for the municipality cannot be determined as set out in those subparagraphs, a description of assumptions regarding future changes in population or economic activity.
 - vi. For each of the 10 years following the year for which the current levels of service under paragraph 1 are determined, the estimated capital expenditures and significant operating costs related to the lifecycle activities required to maintain the current levels of service in order to accommodate projected increases in demand caused by growth, including estimated capital expenditures and significant operating costs related to new construction or to upgrading of existing municipal infrastructure assets.
- (3) Every asset management plan must indicate how all background information and reports upon which the information required by paragraph 3 of subsection (2) is based will be made available to the public.
- (4) In this section,
- “2017 Growth Plan” means the Growth Plan for the Greater Golden Horseshoe, 2017 that was approved under subsection 7 (6) of the *Places to Grow Act, 2005* on May 16, 2017 and came into effect on July 1, 2017: (“Plan de croissance de 2017”)

“Greater Golden Horseshoe growth plan area” means the area designated by section 2 of Ontario Regulation 416/05 (Growth Plan Areas) made under the *Places to Grow Act, 2005*. (“zone de croissance planifiée de la région élargie du Golden Horseshoe”)

Asset management plans, proposed levels of service

6. (1) Subject to subsection (2), by July 1, 2024, every asset management plan prepared under section 5 must include the following additional information:

1. For each asset category, the levels of service that the municipality proposes to provide for each of the 10 years following the year in which all information required under section 5 and this section is included in the asset management plan, determined in accordance with the following qualitative descriptions and technical metrics:
 - i. With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.
 - ii. With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.
2. An explanation of why the proposed levels of service under paragraph 1 are appropriate for the municipality, based on an assessment of the following:
 - i. The options for the proposed levels of service and the risks associated with those options to the long term sustainability of the municipality.
 - ii. How the proposed levels of service differ from the current levels of service set out under paragraph 1 of subsection 5 (2).
 - iii. Whether the proposed levels of service are achievable.
 - iv. The municipality’s ability to afford the proposed levels of service.
3. The proposed performance of each asset category for each year of the 10-year period referred to in paragraph 1, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency.
4. A lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period referred to in paragraph 1:
 - i. An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service described in paragraph 1, based on an assessment of the following:
 - A. The full lifecycle of the assets.
 - B. The options for which lifecycle activities could potentially be undertaken to achieve the proposed levels of service.
 - C. The risks associated with the options referred to in sub-subparagraph B.
 - D. The lifecycle activities referred to in sub-subparagraph B that can be undertaken for the lowest cost to achieve the proposed levels of service.
 - ii. An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities identified in subparagraph i, separated into capital expenditures and significant operating costs.
 - iii. An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the municipality to maximize the funding projected to be available.
 - iv. If, based on the funding projected to be available, the municipality identifies a funding shortfall for the lifecycle activities identified in subparagraph i,
 - A. an identification of the lifecycle activities, whether set out in subparagraph i or otherwise, that the municipality will undertake, and
 - B. if applicable, an explanation of how the municipality will manage the risks associated with not undertaking any of the lifecycle activities identified in subparagraph i.
5. For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, a discussion of how the assumptions regarding future changes in population and economic activity, set out in subparagraph 5 i of subsection 5 (2), informed the preparation of the lifecycle management and financial strategy referred to in paragraph 4 of this subsection.
6. For municipalities with a population of 25,000 or more, as reported by Statistics Canada in the most recent official census,

- i. the estimated capital expenditures and significant operating costs to achieve the proposed levels of service as described in paragraph 1 in order to accommodate projected increases in demand caused by population and employment growth, as set out in the forecasts or assumptions referred to in paragraph 6 of subsection 5 (2), including estimated capital expenditures and significant operating costs related to new construction or to upgrading of existing municipal infrastructure assets,
- ii. the funding projected to be available, by source, as a result of increased population and economic activity, and
- iii. an overview of the risks associated with implementation of the asset management plan and any actions that would be proposed in response to those risks.

7. An explanation of any other key assumptions underlying the plan that have not previously been explained.

(2) With respect to an asset management plan prepared under section 5 on or before July 1, 2021, if the additional information required under this section is not included before July 1, 2023, the municipality shall, before including the additional information, update the current levels of service set out under paragraph 1 of subsection 5 (2) and the current performance measures set out under paragraph 2 of subsection 5 (2) based on data from the two most recent calendar years.

Update of asset management plans

7. (1) Every municipality shall review and update its asset management plan at least five years after the year in which the plan is completed under section 6 and at least every five years thereafter.

(2) The updated asset management plan must comply with the requirements set out under paragraphs 1, 2 and 3 and subparagraphs 5 i and 6 i, ii, iii, iv and v of subsection 5 (2), subsection 5 (3) and paragraphs 1 to 7 of subsection 6 (1).

Endorsement and approval required

8. Every asset management plan prepared under section 5 or 6, or updated under section 7, must be,
- (a) endorsed by the executive lead of the municipality; and
 - (b) approved by a resolution passed by the municipal council.

Annual review of asset management planning progress

9. (1) Every municipal council shall conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality’s asset management plan is completed under section 6.

- (2) The annual review must address,
- (a) the municipality’s progress in implementing its asset management plan;
 - (b) any factors impeding the municipality’s ability to implement its asset management plan; and
 - (c) a strategy to address the factors described in clause (b).

Public availability

10. Every municipality shall post its current strategic asset management policy and asset management plan on a website that is available to the public, and shall provide a copy of the policy and plan to any person who requests it.

TABLE 1
WATER ASSETS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	1. Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system. 2. Description, which may include maps, of the user groups or areas of the municipality that have fire flow.	1. Percentage of properties connected to the municipal water system. 2. Percentage of properties where fire flow is available.
Reliability	Description of boil water advisories and service interruptions.	1. The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system. 2. The number of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system.

TABLE 2
WASTEWATER ASSETS

Column 1	Column 2	Column 3
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Service attribute	Community levels of service (qualitative descriptions)	Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system.	Percentage of properties connected to the municipal wastewater system.
Reliability	<ol style="list-style-type: none"> 1. Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes. 2. Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches. 3. Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes. 4. Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3. 5. Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system. 	<ol style="list-style-type: none"> 1. The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system. 2. The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system. 3. The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.

TABLE 3
STORMWATER MANAGEMENT ASSETS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	<ol style="list-style-type: none"> 1. Percentage of properties in municipality resilient to a 100-year storm. 2. Percentage of the municipal stormwater management system resilient to a 5-year storm.

TABLE 4
ROADS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity.	Number of lane-kilometres of each of arterial roads, collector roads and local roads as a proportion of square kilometres of land area of the municipality.
Quality	Description or images that illustrate the different levels of road class pavement condition.	<ol style="list-style-type: none"> 1. For paved roads in the municipality, the average pavement condition index value. 2. For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).

TABLE 5
BRIDGES AND CULVERTS

Column 1 Service attribute	Column 2 Community levels of service (qualitative descriptions)	Column 3 Technical levels of service (technical metrics)
Scope	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	Percentage of bridges in the municipality with loading or dimensional restrictions.
Quality	<ol style="list-style-type: none"> 1. Description or images of the condition of bridges and how this would affect use of the bridges. 2. Description or images of the condition of culverts and how this would affect use of the culverts. 	<ol style="list-style-type: none"> 1. For bridges in the municipality, the average bridge condition index value. 2. For structural culverts in the municipality, the average bridge condition index value.

COMMENCEMENT

Commencement

11. This Regulation comes into force on the later of January 1, 2018 and the day it is filed.

<i>Policy Category</i> FINANCIAL	<i>Name of Policy</i> ASSET MANAGEMENT POLICY
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Policy Owner	Enterprise Resource Management Services – Corporate Asset Management Division
Approval Body	Regional Council
Approval Date	
Effective Date	May 1, 2019
Review by Date	

1. Policy

The Region shall manage its assets through a coordinated approach that ensures the delivery of a sustainable level of service that strives to be fully funded.

Budgeting

Asset management planning will encompass sound financial analysis that will be completed by a multi-disciplinary team comprised of representative(s) from finance, the corporate asset management office and the concerned Regional department or ABC, and documented in the financial strategy section of the asset management plan. The financial analysis will align with existing financial plans including plans developed in response to the Safe Drinking Water Act. The alignment will stem from the multi-disciplinary team and its use of common analytical methods and common data sources.

The Region will integrate findings from the asset management plans into its long-term financial planning and budgeting processes. This will include the development of financial strategies that determine the level of funding required to achieve the short-term operating and maintenance needs (operating budget), as well as the long-term funding required to replace or rehabilitate the assets throughout their lifecycle (capital budget).

The asset management plan will be referenced by the Regional department or ABC in the preparation of their budget submission to:

- Determine forecasted spending needs identified in the plan;
- Identify all potential revenues and costs (including operating, maintenance, replacement, and decommissioning) associated with forthcoming infrastructure asset decisions;
- Evaluate the validity and need of each significant new capital asset, including considering the impact on future operating and capital costs;
- Incorporate new revenue tools and alternative funding strategies where possible;

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- Analyze risks;
- Prioritize spending needs for the budget submission; and
- Quantify progress in delivering asset management plan requirements and identify potential gaps.

The business cases submitted to support the annual operating and capital budgets are prepared by each Regional department or ABC and will be provided to the Budget Review Committee of the Whole for the approval of the Region’s annual budget.

Capital Thresholds

Capital assets whose role in service delivery requires deliberate management by the Region, for example those that are deemed to provide benefits or pose substantial risks to the corporation, will be included in asset management plans. This may include assets that fall below the capitalization threshold as outlined in the Region’s tangible capital asset policy.

The scope of these assets will be determined based on their criticality to delivering services, and the professional judgment of senior staff. This qualitative approach is unlike the quantitative and dollar value-based methodology prescribed in the tangible capital asset policy. For this reason, the capitalization threshold developed for financial reporting will not be the guide in determining which assets are to be included in the asset management process.

Community and Long Range Planning

The combination of lifecycle analysis and financial sustainability principles will be the driver in the design and selection of community development or redevelopment that requires new assets, or existing asset enhancements, to take place. Parties involved in the development of the asset management plans will reference the direction established in the community plan as well as the methods, assumptions, and data used in its development. The aim of cross-referencing these plans is to ensure that development and redevelopment occur within the Region’s means through understanding and consideration of current and future asset needs and are integrated with infrastructure strategic documents such as master servicing plans and the development charge background study. Areas identified for population and employment growth will be required to consider infrastructure requirements through policies in the Regional Official Plan that link land use to infrastructure master plans such as the Transportation and Water and Wastewater Master Plans.

Climate Change

Climate change will be considered as part of Region’s risk management approach embedded in local asset management planning methods. This approach will balance the potential cost of vulnerabilities to climate change impacts and other risks with the cost of reducing these vulnerabilities. The balance will be struck in the levels of service delivered through operations, maintenance schedules, emergency management program,

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contingency funding, and capital investments. The Region’s contribution to climate change through greenhouse gas emissions will be mitigated in accordance with its local reduction targets, financial capacity, and stakeholder support. Climate change will be addressed by establishing land use policies in the Regional Official Plan that will consider both mitigation and preservation of natural features.

Stakeholder Engagement

The ultimate goal of the Region is to efficiently provide its various stakeholders with the municipal services they need within the bounds of regulatory requirements, the built environment, and the natural environment. To achieve this goal, the Region will seek to understand the needs of current stakeholders and consider the needs of future generations, and incorporate these perspectives into asset management plans. The Region recognizes the various stakeholders as an integral part of the asset management approach. Accordingly, the Region will:

- Provide opportunities for residents and other stakeholders served by the Region to provide input in asset management planning through engagement in public information sessions related to infrastructure master plans, public meetings in advance of approval of the development charge background study and/or approval of budgets;
- Include opportunities for public engagement which may include public meetings and the use of technology including web-based tools; and
- Coordinate asset management planning with other infrastructure asset owning agencies such as municipal bodies and regulated utilities.

Strategic Alignment

The Region's mission to offer its citizens a healthy, secure, and prosperous lifestyle at an affordable cost requires alignment of many strategic goals, policies and plans at any given time. To promote a shared and involved community, the Region will integrate asset management planning with the overarching accountabilities and aspirations of our community for the good of all. Asset management planning will be aligned with other municipal documents including, but not limited to the following:

- Council strategic plans;
- Growth strategies;
- Infrastructure master plans;
- Development charge background study;
- Financial strategies, such as the 10-year capital forecast and those required under the Safe Drinking Water Act.

2. Purpose

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The Region's vision is to achieve excellence and efficiency in service delivery through all capital assets (owned in whole or in part, leased or managed by the Region), at sustainable asset lifecycle costs, and acceptable levels of risk.

The objective of the AM Policy is to provide a framework and guidance to enable provision of levels of service that are appropriate and affordable for the community.

The AM Policy communicates a shared purpose to staff and other stakeholders to:

- Provide a common corporate approach to asset management with clear accountabilities, roles and responsibilities, and governance;
- Inform lifecycle management decision-making related to growth, upgrades, operations, maintenance, and renewal based on levels of service, cost of service and risk considerations;
- Enable objective prioritization of capital needs across Regional departments and ABC's;
- Foster communication and collaboration among stakeholders;
- Address financial, operational, administrative, regulatory and strategic Region-wide requirements; and
- Establish Guiding Principles as provided in Appendix 1 of the policy (service focused, value-based and affordable, and risk-based principles).

3. Scope

Roles and Responsibilities

The policy requires the commitment and participation of the following key stakeholders within the Region's organizational structure:

Council

- Approves, by resolution, the asset management policy and its updates as necessary every five years.
- Approves, by resolution, the asset management plan and its updates every five years.
- Approves, by resolution, the annual reviews of asset management planning improvement progress on or before July 1 of every year for every year following adoption of the policy.
- Supports ongoing efforts to continuously improve and implement the asset management plans.

Chief Administrative Officer

- Ensures compliance with the asset management policy and provincial asset management regulation.

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Commissioner of Enterprise Resource Management Services (acting as the Executive Lead)

- Endorses the asset management policy and its updates as necessary every five years.
- Endorses the asset management plan and its updates every five years.
- Endorses the annual reviews of asset management planning improvement progress before July 1 of every year for every year following adoption of the policy.
- Supports ongoing efforts to continuously improve and implement the asset management plans.

Corporate Leadership Team and Appointees (acting as the Corporate Asset Management Steering Team)

- Current Corporate Leadership Team and appointees from any applicable Regional ABC.
- Champions and promotes asset management planning activities for capital assets that fall within their Regional department or ABC.
- Supports continuous improvement opportunities and oversees development and adoption of appropriate asset management planning practices including people, processes, data and systems.
- Communicates with stakeholders about the asset management system to increase awareness of their role in asset management decision-making including the value of the activities they are undertaking and the asset information they are providing.

Corporate Asset Management Office

- Reports to the Executive Lead.
- Reviews and updates the asset management policy as necessary every five years based on input from department and ABC leads.
- Prepares the asset management plan and its updates every five years based on input from department and ABC leads.
- Creates necessary guiding strategies, supporting frameworks and procedures at the corporate level to continuously improve and adopt appropriate asset management planning and management practices.
- Conducts annual reviews of asset management planning improvement progress before July 1 of every year that includes progress on ongoing efforts to implement the asset management plans, consideration of the asset management policy, any factors affecting the ability of the Region to implement its asset management plans, consultation with department and ABC leads and a strategy to address these factors including the adoption of appropriate practices.

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- Ensures consistency and standardization for asset management practices across the organization and monitors compliance with the established practices.
- Makes recommendations for system improvements and enhancements to further advance asset management initiatives across the organization.
- Communicates with stakeholders about the asset management system to increase awareness of their role in asset management decision-making including the value of the activities they are undertaking and the asset information they are providing.
- Provides opportunities for residents and other stakeholders served by the Region to provide input in asset management planning.

Corporate Asset Management Practice Networks

- Facilitate coordination and collaboration around the asset lifecycle in the form of knowledge sharing and continuous improvement.

Department and ABC Leads

- Provide input to the asset management plan and its updates every five years.
- Provide input to and review draft operating and capital programs and budgets for the annual budget.
- Communicate with staff within their service area about the asset management system to increase awareness of their role in asset management decision-making including the value of the activities they are undertaking and the asset information they are providing.
- Continuously improve and adopt appropriate asset management planning practices within their service areas based on corporate guiding strategies, supporting frameworks and procedures and ensuring compliance with the corporate Asset Management Policy.
- Coordinate asset management planning with other infrastructure asset owning agencies such as municipal bodies and regulated utilities.
- Implement operational plans such as maintenance programs, capital works programs, and asset management practice improvements in accordance with approved the asset management plan.
- Ensure continuous maintenance and quality of the information in the asset management system.

4. References and Related Documents.

4.1. Legislation, By-Laws and/or Directives

- Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure
- By-law 2017-63 – Budget Control By-law
- By-law 02-2016 – Procurement By-law

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5. Related Policies

- C-F-003 Capital Asset Management Policy

6. Document Control

The electronic version of this document is recognized as the only valid version.

Approval History

Approver(s)	Approved Date	Effective Date

Revision History

Revision No.	Date	Summary of Change(s)	Changed by

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Appendix 1: Guiding Principles

Guiding Principles (led by AM Policy Champion)

Asset Management practices will be aligned with best practices in asset management which incorporates the important principle of balancing risk, cost and performance. The availability and sources of funding affect the level of asset management performance that can be achieved and the risks associated with service provision.

The following key principles will guide the Region as it aims to achieve its asset management vision:

Service Focused: Plan and manage the performance of assets to consistently meet service levels expected by customers and other stakeholders.

- Ensure continued provision of core public services for which the Region has taken on the responsibility to deliver, as well as services provided by the broader public sector, such as healthcare and education
- Take a long-term view while considering demographic and economic trends in the region.
- Make evidence based and transparent investment decisions, and, subject to any restrictions or prohibitions under an Act or otherwise by law on the collection, use or disclosure of information,
 - Make investment decisions respecting infrastructure on the basis of information that is either publicly available or is made available to the public, and
 - Share information with implications for infrastructure planning between the Government and broader public sector entities, and factor this information into investment decisions respecting infrastructure.
- Promote community benefits, being the supplementary social and economic benefits arising from an infrastructure project that are intended to improve the well-being of a community affected by the project, such as local (Ontario) job creation and training opportunities (including for apprentices, within the meaning of section 9 of the Infrastructure for Jobs and Prosperity Act, 2015), improvement of public space within the community, and promoting accessibility for persons with disabilities.
- Consider, where relevant and appropriate, the principles and content of non-binding provincial or municipal plans and strategies established under an Act or otherwise, in planning and making decisions surrounding the infrastructure that supports them.

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Value-Based and Affordable: Identify the best combination of investments that deliver the greatest benefit while respecting funding, resource, and timing constraints including customers’ willingness and ability to pay.

- Take into account any applicable fiscal plans or budgets, such as those released under the Fiscal Transparency and Accountability Act, 2004 or adopted under Part VII of the Municipal Act, 2001.
- Promote economic competitiveness, productivity, job creation, and training opportunities.
- Create opportunities to make use of innovative technologies, services, and practices, particularly where doing so would utilize technology, techniques, and practices developed in Ontario.

Risk-Based: Make more informed and better asset management decisions to address existing or potential risks to Regional objectives while understanding the likely outcomes and results of the actions.

- Identify infrastructure priorities while considering the potential risks to the community from asset failures and the resulting service interruptions, which will drive investment decisions.
- Ensure that the identification, evaluation and prioritization of the effects of uncertainty is collaborative, transparent and understood by all stakeholders.
- Minimize the impact of infrastructure on the environment by respecting and helping maintain ecological and biological diversity, augmenting resilience to the effects of climate change, and endeavouring to make use of acceptable recycled aggregates.
- Where possible, invest in green technologies to improve economic and social impacts.
- Protect the health and safety of workers involved in the construction and maintenance of infrastructure assets.