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STAFF REPORT #T2021-06
Standing Committee 5/3/2021
Council 5/17/2021
Amendments: no

Submitted to: Strategic Initiatives Standing Committee | Council

Submitted by: Dennis Sloan, Manager, Capital and Financial Planning
Monica Quinlan, Treasurer

Subject: Asset Management Plan - Update

PURPOSE

The purpose of this report is to provide an update on the status of the Asset Management Plan with respect to the requirements of Ontario Regulation 588/17.

RECOMMENDATION

THAT Staff Report T2021-06, Asset Management Plan Status be received.

AMENDMENTS

None.

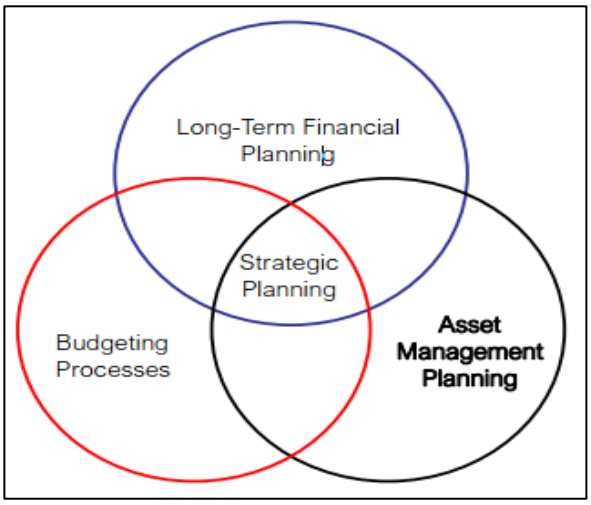
1. BACKGROUND

"Asset Management Planning is part of a strategic planning process that is integrated with budgeting processes and long-term financial planning. Good asset management planning helps municipalities make well-informed and evidence-based decisions about their infrastructure assets[1]."

[1] Ministry of Infrastructure presentation September 19, 2018.

There are four key components of an asset management plan:

1. Asset Inventory
2. Levels of Service
3. Asset Management strategy
4. Financial Strategy



Ontario Regulation 588/17: ASSET MANAGEMENT PLANNING FOR MUNICIPAL INFRASTRUCTURE

While the province of Ontario has been encouraging municipalities to develop AMPs for a number of years with regulation, grants and guidance (PSAB 3150 2009, Building Together Guide Dec 2013), it wasn't until 2017 that it become mandatory for municipalities to develop and adopt AMPs with the adoption of the 588/17 regulations. The first requirement under this regulation was the development of a Strategic Asset Management Policy by July 1st, 2019, the Town of Collingwood met this requirement in June of 2019.

The next step under the regulation is to prepare an AMP in three phases:

1. Phase I would be to address core infrastructure assets (i.e. roads, bridges, culverts, wastewater, water, and stormwater) and would be required to be completed by July 1st, 2022.
    a. Requires an asset inventory(registry), including replacement cost, age, and condition
    b. Current level of service and performance metrics
    c. Estimated lifecycle costs by asset category to maintain current levels of service for 10 years.
    d. For municipalities with populations over 25,000: Population and employment forecasts (from Growth Plans, official plans, etc.), and the lifecycle costs required to maintain current levels of service in order to accommodate projected increases in demand caused by growth.

    Core assets are further defined as:
    - water asset that relates to the collection, production, treatment, storage, supply or distribution of water;
    - wastewater asset that relates to the collection, transmission, treatment or disposal of wastewater, including any wastewater asset that from time to time manages stormwater;
    - stormwater management asset that relates to the collection, transmission, treatment, retention, infiltration, control or disposal of stormwater;
    - road, or;
    - bridge or culvert.

2. Phase II would expand on Phase I by including all infrastructure assets in the plan by July 1, 2024.

3. Phase III would require further details to be provided for all infrastructure assets by July 1, 2025.

    a. Define proposed level of service for each asset class for 10 years,
    b. A lifecycle management strategy,
    c. And a financial strategy.
    d. Municipalities with populations over 25,000: Estimated lifecycle costs to achieve proposed levels of service to accommodate projected increases in demand caused by population and employment growth.

Within each of the phases the Town is following the Asset Management Framework that was developed to assist municipalities through the process:

1. A complete asset inventory;
2. Refining the asset data – include detailed components listing, asset age and condition;
3. Replacement values of the assets;
4. True condition of assets – through assessments and inspections and set assessment parameters;
5. Current Levels of Service (LOS) (qualitative and technical metrics) – understanding community expectations, setting LOS targets and understanding the costs to meet these targets;
6. Financing Strategy.

Additionally, the recommended components of an AMP have been outlined in the Building Together Guide developed by the Province of Ontario:

Section		Description
1. Executive Summary	*	Usually the final section prepared and provides a succinct overview of the plan.
2. Introduction	*	Explains how the goals of the local government are dependent on infrastructure.
	*	Clarifies the relationship of the asset management plan to municipal planning and financial documents.
	*	Describes purpose of plan, assets included, and the plan's timeframe.
	*	This section should link to the strategic policy.
3. State of the Local Infrastructure	*	Contains reporting for each asset category in regards to asset descriptions (length, type, make/model, etc.), replacement cost of assets, asset age distribution and asset conditions (Good, Fair, Poor, etc.).
4. Levels of Service	*	Defines levels of service through performance measures, targets and timeframes to achieve the targets if they are not already being achieved.
	*	Shows current performance relative to target (when available).
5. Asset Management Strategy	*	The set of planned actions that will enable the assets to provide the levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost (e.g. through preventative action).
	*	This section lists actions by non-infrastructure solutions, maintenance activities, renewal/rehabilitation activities, replacement activities, disposal activities and expansion activities.
	*	This section also discusses strategies on risk mitigation.
6. Financing Strategy	*	Analysis of lifecycle costs for each asset class broken down by non-infrastructure solutions, maintenance activities, renewal/rehabilitation activities, replacement activities, disposal activities and expansion activities.
	*	Analysis of the existing and expected infrastructure deficit.
	*	Discussion of financial strategies necessary to control the infrastructure deficit.

The Town of Collingwood's first Asset Management Plan (AMP) was received and approved by Council in July 2014. This initial plan was a key milestone in the ongoing development of our strategic financial plan in that it provided an initial glimpse into the magnitude of the Towns estimated overall AMP liability and funding gap. However, it was soon recognized that this plan had some shortcomings as the plan was an Excel based standalone "snapshot in time" model based largely on 2013 data that was quickly out of date. Furthermore, it was difficult to fully substantiate the $10M/year funding gap the model provided. It was however, still a valuable exercise in that it illustrated the critical strategic importance of an AMP as a keystone of the Town's strategic financial plan and provided a starting point to a more fully developed AMP.

Efforts were soon underway to develop the next generation of the AMP for the Town that would be a live model fully integrated with existing town operations and financial information systems (GIS, Great Plains Diamond and Worktech). A staff working committee was formed with the key departmental stakeholders and a consultant engaged to meet regularly and plot the path forward

for the Town and in July 2019 the AMP Policy was accepted and approved. Initial results of the model were produced and shared with Council (Asset Management Plan Update presentation December 9th, 2019) and this data has been used to validate and inform the annual and 10 year capital budgets.

2. INPUT FROM OTHER SOURCES

- The information included in this report was discussed at Department Heads on April 27, 2021 and recommended to proceed to Council;
- Building together Guide – Province of Ontario.

3. APPLICABLE POLICY OR LEGISLATION

Ontario Regulation 588/17

4. ANALYSIS

Since 2019, further resources have been added, including contract positions for both IT (GIS) and Finance, as well as a new engineering technologist position which was approved in the 2021 Budget.

The key milestones that have been reached over the last 18 months are as follows:

- Updated Sewer and Storm inventory:
  - Part of the Master Servicing Plan efforts;
- Updated Roads condition assessment:
  - 2018 completed by Public Work's staff;
  - 2020 completed by Ainley Group;
- A review completed of the Water linear and Water treatment plant assets by the water department;
- Bridge Condition assessment – completed 2016, 2018, 2020;
- Inclusion of all Town fleet licensed rolling stock;
- Updated asset pricing algorithms:
  - Developed as part of 2019 DC study and Engineering study; and
- There was also a very significant effort by the GIS department throughout this period of time to review and update the asset inventory layers in the Town's GIS model. The GIS model is a critically important piece of the AMP model in that it serves as the master inventory of the data.

The current efforts underway in 2021 are as follows:

- Town wide Facility Condition Assessment:
  - All town facilities (13);
  - RFP awarded March 2021;
  - Results expected by July/August 2021;
- Inventory and condition assessment for all town traffic signals;
- Inclusion of LED street light inventory in GIS;

- Inventory and condition assessment of Wastewater / Water treatment plant, and pumping stations:
  - GHD engaged to provide with work currently underway;
  - Results also expected late spring 2021.

The current priority of the above noted activities is the Water/Wastewater assets refinement as they form part of the "Core Assets" which is the initial requirement of O. Reg 588/17, the table below indicates the status of the Town's AMP with respect to each phase.

	Town of Collingwood AMP Completion to Date		
Components of AMP	**Phase I (Core Assets)**	**Phase II (All Assets)**	**Phase III (All Assets) + (Full LOS / Strat for 10 yrs)**
Asset Inventory	90.0%	35.0%	35.0%
Levels of Service	65.0%	0.0%	0.0%
Asset Management Strategy	65.0%	0.0%	0.0%
Financial Strategy	60.0%	0.0%	0.0%

Collingwood's linear infrastructure (roads, bridges, water, sanitary and storms) are the furthest along relative to the regulatory requirements in that staff have updated and completed asset registries along with their value, replacement cost, age, and condition which satisfy the requirements for the State of Local Infrastructure. Furthermore, staff have many of the elements that will be required to develop the proposed level of service, asset management and financing strategies (see appendix E Asset Performance Roads, Sanitary, Water, Water)

Figure 1.1 - Collingwood State of Local Infrastructure – Core linear assets

Asset Type	Records	Quantity	Units	Replacement Cost	Original Cost	Avg Condition	Avg Age
Bridge	21	4,879	m^2 (Deck Area)	$ 35,742,500	$ 21,293,344	63.94	33.59
Road	767	140	km (length)	$ 187,387,138	$ 155,895,291	81.84	27.62
Sanitary Sewer	1,359	106,937	m (length)	$ 62,838,542	$ 47,246,744	75.01	37.94
Storm Sewer	2,067	78,571	m (length)	$ 100,815,048	$ 70,709,127	69.62	29.22
Watermain	1,792	171,726	m (length)	$ 103,985,215	$ 88,243,945	84.37	31.73
				$ 490,768,443	**$ 383,388,451**	**74.96**	**32.02**

Figure 1.1 above shows the State of Local Infrastructure for Collingwood's core assets (with the exception of water and wastewater treatment plants which are still forthcoming). This data set is the necessary starting point before the next stages of Level of Service Analysis and the Asset Management and Funding Strategies can be developed. All of these core asset classes were extensively reviewed and updated over the last 15 months, including new condition assessments (Roads, Bridges, Water) and updated inventory sets (Sanitary and Storms). In addition, staff have received and included updated unit pricing which was completed as part of the 2019 Development Charges study.

The results of these updates on the asset performance modelling is shown below in figure 1.2, this details the estimated calculated annual average costs of these asset classes relative to the actual average capital and operating expenditures. While staff have previously provided these estimates to Collingwood management and Council (Dec 2019 Asset Management Update

presentation), they were not with the level of accuracy and detail that is now included. Working through the refinements and updating the data over the past several months, allows staff to be more confident with the results of the model relative to what actually occurs in departmental operations. You can see in figure 1.2 that the actual expenditures are quite close to the model estimates in most cases, note, however that these are still **very preliminary estimates that will be further analyzed as staff review the levels of service and the asset/financing strategies, and is only based on core assets at this time.** Staff wanted to provide members of Council with an illustration of what direction the values are approaching.

Figure 1.2 - AMP Model Funding Requirements vs. Actual Expenditures Averages

Asset Class	AMP Model AVG Annual Cost	Approach	Time Frame	Historical AVG Capital Exp.	Historical AVG Operating Exp.	Net Difference (Under) / Over Spent from Model
Bridge	$ 864,000	OSIM Studies	50 years	$ 570,000	$ 8,500	-$ 285,500
Road	$ 3,780,000	Best Practices	50/20 years	$ 2,160,000	$ 483,000	-$ 1,137,000
Sanitary Sewer	$ 642,000	Best Practices	75 years	$ 669,000	$ 292,000	$ 319,000
Storm Sewer	$ 1,050,000	Best Practices	75 years	$ 895,000	$ 211,000	$ 56,000
Watermain	$ 1,370,000	Best Practices	75 years	$ 718,000	$ 781,000	$ 129,000
	$ 7,706,000			**$ 5,012,000**	**$ 1,775,500**	**-$ 918,500**

In figures 1.3 below, staff have provided the historical sources of financing for asset management renewal and rehabilitation over the last five years. The purpose of this table is to illustrate the amounts the Town is investing in asset management (i.e. through rehabilitation/renewal projects and transfers to reserve funds), note that the Town has continually maintained these reserve funds and is making a concerted effort each year to ensure we are addressing the stewardship of our assets.

Figure 1.3 - History Collingwood Asset Renewal and Rehabilitation Funding Sources

Source	2015 Ending Balance	2016 Net Spend*	2017 Net Spend*	2018 Net Spend*	2019 Net Spend*	2020 Net Spend*	Total Net Additions / (Expenses)	2020 Estimated Balance**
Lifecycle Reserve Fund	$ 563,563	$ 1,115,016	$ 3,445,605	$ 1,900,495	($ 50,062)	($ 1,586,468)	$ 4,824,586	$ 5,388,149
Special Capital Levy	$ -	$ 350,682	$ 4,559	$ 7,247	$ 508,552	$ 97,985	$ 969,024	$ 969,024
Water Reserve Fund	$ 5,293,154	$ 52,094	$ 1,169,362	$ 2,504,620	$ 1,705,540	$ 3,870,043	$ 9,301,659	$ 14,594,813
Wastewater Reserve Fund	$15,387,340	($ 141,803)	$ 3,028,779	($ 1,807,285)	$ 1,097,848	$ 2,846,747	$ 5,024,286	$ 20,411,626
OCIF Formula	$ -	$ -	$ 131,246	($ 67,688)	($ 392,055)	$ 751,165	$ 422,669	$ 422,669

* Note Net Spend: (-) = less funds were contributed to the Reserve Fund then spent.

** Estimated balances for 2020 as the Audited statemetns are not yet completed.

In addition to this it is important to note that other provincial funding (outside of OCIF) has been a significant portion of the funding of asset renewal in the last 5 years and although staff have no indication as to whether that will continue, we do suspect it will. Finally, note that our levels of debt capacity have not yet been included for review.

Moreover, figure 1.3 highlight these key points for consideration:

- The AMP model estimates of what we should be spending roughly correspond to what we are in fact spending (note **on core assets only** – other asset categories are still to be determined);
- the overall average condition ratings of our asset classes are good (above 70); and
- the internal reserves for asset replacement and rehabilitation are reasonable.

While this is reassuring information, it isn't necessarily surprising, given that these asset classes are highly regulated and have had rigorous requirements for engineering studies and reporting as a matter of course for many years. The difference is now that municipalities are being required to incorporate this information in a centralized strategic financial plan of which the AMP is a central element. [2]

Next Steps

Over the next several months, staff will be working to bring forward a series of reports to members of Council for their review and approval. The expectation is that the Town will meet the Phase I requirements prior to beginning the 2022 Budget discussions. These reports will address the following:

1) Continued refinement of Water/Wastewater Treatment Plant facilities inventory;
2) Defining Levels of Service (LOS) for each category of asset:
   a) current state;
   b) set targets; and
   c) review costs to maintain these targets.
3) Ensure timing of replacement for corresponding assets aligns;
4) Understand the deterioration and degradation of assets with respect to maintenance;
5) Develop a financing strategy;

Concurrently staff will continue the work for the AMP on non-core assets such as Facilities and Parks/Recreation.

5. EFFECT ON TOWN FINANCES

There are no immediate financial implications related to this report however, the Town is required to have a Strategic Asset Management Policy published on its website by July 1, 2022. Compliance with the regulation is an important aspect of receiving continued Federal and provincial funding.

6. CONSIDERATIONS

Community Based Strategic Plan:	☐ N/A or ☒ Explain: Progresses towards achieving CBSP Goal
Climate Change / Sustainability:	☒ N/A or ☐ Explain: Choose an item.
Accessibility:	☒ N/A or ☐ Explain: Choose an item.
Communication / Engagement:	☒ N/A or ☐ Explain: Choose an item.

[2] Staff anticipate the Facility Condition Assessment may show a significant deficit from AMP perspective because facilities have been lass regulated then the engineered assets.

Accountability / Transparency: ☒ N/A or ☒ Explain: Enhances Accountability and Transparency

7. APPENDICES & OTHER RESOURCES

Appendix A	Asset Management Plan Update December 2019
Appendix B	T2019-14 Strategic Asset Management Policy
Appendix C	MFOA Asset Management Framework

SIGNATURES

Prepared by:		Department Head:
Dennis Sloan, *Manager, Capital and Financial Planning*		*Monica Quinlan,* *Treasurer*
Town of Collingwood		Town of Collingwood