For Information Only

Asset Management Strategy

Presented To:	Finance and Administration Committee
Presented:	Tuesday, Oct 24, 2017
Report Date	Wednesday, Oct 11, 2017
Type:	Presentations

Resolution

For Information Only

Relationship to the Strategic Plan / Health Impact Assessment

This report refers to the sustainable infrastructure priority as identified in the Strategic Plan.

Report Summary

This report outlines the corporate asset management strategy that will be used to prioritize infrastructure investments commencing in the 2019 budget process.

Financial Implications

There are no financial implications.

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Infrastructure Priority Session - Asset Management

History

Public infrastructure is essential for economic prosperity, safety and quality of life of the residents of the City of Greater Sudbury. In June 2011, the province of Ontario released a long-term infrastructure plan for Ontario entitled "Building Together". Building together is a response to trends such as aging infrastructure, increasing urbanization and climate change. A large element of Building Together is ensuring proper stewardship over public assets through proper asset management planning.

As a result, the province views municipal asset management plans as a pre-requisite for solutions to the infrastructure deficit problem including funding for municipal infrastructure. Municipalities seeking provincial funding are required to be able to demonstrate how a proposed project fits within an asset management plan. Asset management plans are also a requirement for Federal funding programs.

In early 2017 the Executive Leadership Team was restructured to include a Corporate Services area that brings together the disciplines required to implement new and more mature organizational administrative systems aimed at bolstering Employee and Citizen confidence. The Asset Management Plan and the Long Term Financial Plan are early markers of progress towards a Corporate Services strategy. Practically speaking, the Asset Management strategies contained in this report are pursued so that the highest order asset needs are addressed in our capital asset prioritization decisions.

The City of Greater Sudbury in conjunction with KPMG completed an asset management plan in 2016. As the City does not have condition data for many of its asset classes, this asset management plan is largely predicated on the accounting data available at the City. The result is an asset management plan that reflects an approximate level of the financial requirements associated with maintaining City assets in a good state of repair. In 2017, the Council authorized the Long Term Financial plan. At that time, staff committed to amending several responsive financial policies and working at Asset Management Planning. A more strategic approach to Asset Management Planning sets CGS on a path to improved sustainability, flexibility and helps eliminate vulnerabilities, all goals of long term financial planning.

During 2017 budget deliberations, Council approved a full time employee for the purpose of generating a more detailed and robust asset management plan

for the City of Greater Sudbury. This asset management plan will be based on the condition of assets and the appropriate level of maintenance and capital investment required to keep the asset in a state of repair that is consistent with providing approved service levels. This position has been posted and is in the process of being filled. The successful candidate will be responsible for leading the corporate asset management plan across all asset categories in partnership with the applicable operating department.

Definition

Asset management planning is the process of making the best possible decisions regarding the acquisition, operation, maintenance, renewal, replacement and disposal of infrastructure assets. When supported by sound financial policy, it is a best practice in long term financial planning. Asset management requires an understanding of the physical characteristics and condition of the asset and careful consideration for the service levels expected from them. As well, it requires the setting of strategic priorities to effect decision making regarding the timing and intent of investments. Lastly, a financial plan for achieving the objectives of the asset management plan is of paramount importance.

Proposed Legislation

On May 25, 2017, the Ontario government released a proposed Asset Management (AM) regulation.

The proposed AM regulation is under the *Infrastructure for Jobs and Prosperity Act, 2015* which was proclaimed on May 1, 2016 and includes an authority for the province to regulate municipal asset management planning. This proposed regulation requires that all Ontario municipalities adopt strategic AM policies by January 1, 2019 and update them at least every 5 years from that date. The regulation specifies the required components, considerations, processes and discussions.

The policy would include:

- Which municipal goals, plans (e.g., official plan, strategic plan, master plans) or policies the municipality's asset management plan would support
- A process for how the asset management plan would affect the development of the municipal budget and any applicable long-term financial plans

- The municipality's approach to continuous improvement and adoption of best practices regarding asset management planning
- The principles that would guide asset management planning in the municipality, which would be required to include the principles in section 3 of the *Infrastructure for Jobs and Prosperity Act, 2015*
- A commitment to consider in asset management planning:
    - the actions that may be required to address the risks and vulnerabilities that may be caused by climate change to the municipality's infrastructure assets, including to: operations requirements (e.g. increased maintenance schedules); levels of service (e.g. raising or lowering levels of service); and lifecycle management; and the anticipated costs that could arise from these impacts, and adaptation opportunities that may be undertaken to manage these potential risks
    - mitigation approaches to climate change, such as greenhouse gas emission (GHG) reduction goals and targets
    - disaster planning and any required contingency funding.
- A process to ensure that asset management planning would be aligned with Ontario's land-use planning framework, including any relevant policy statements issued under section 3(1) of the Planning Act; provincial plans as defined in the Planning Act; and, municipal official plans
- A discussion of capitalization thresholds used to determine which assets are to be included in the asset management plan and how this compares to the municipality's Tangible Capital Asset policy, if one is in place
- A commitment to coordinate planning between interrelated infrastructure assets with separate ownership structures by pursuing collaborative opportunities with neighbouring municipalities and jointly-owned municipal bodies
- Identification of who would be responsible for asset management planning, including an executive lead and how council will be involved; and
- A commitment to provide opportunities for municipal residents and other interested parties to provide input into asset management planning.

Additionally, there are other requirements set out for the asset management plans in two separate phases.

Phase 1 which would be required by January 1, 2020 would require explanations of the current levels of service, analysis of asset inventory including condition data, estimated costs to sustain current levels of service and identification of estimated costs to service growth.

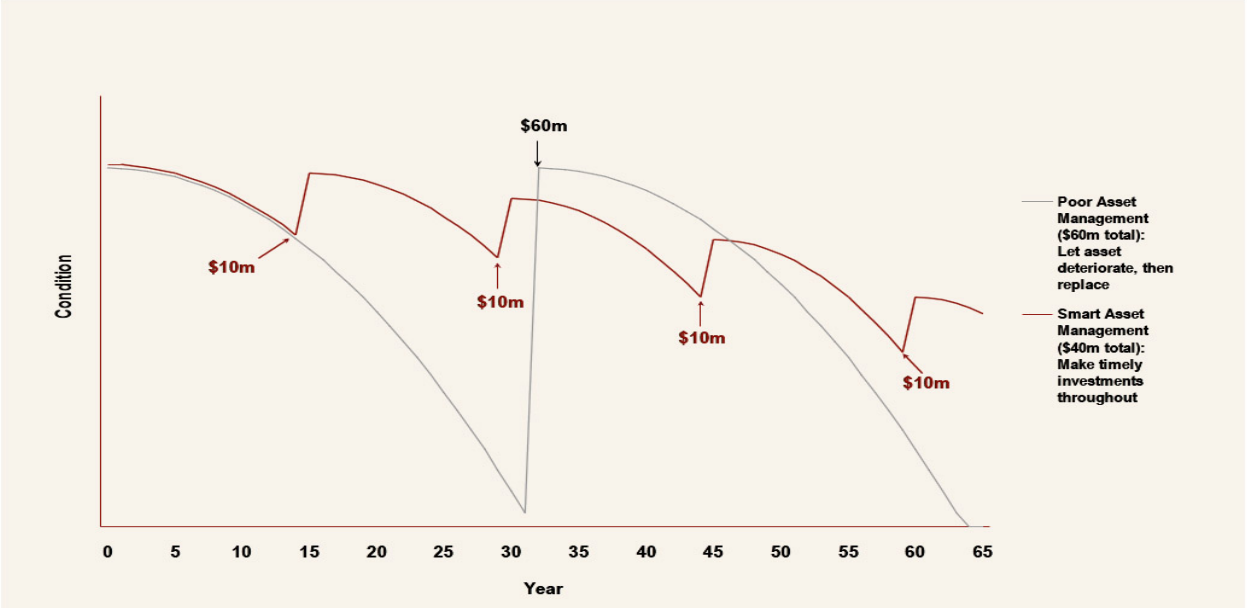
Phase 2 which would be required by January 1, 2021, includes the above and in addition some further clarity on proposed service levels, inventory/lifecycle management, as well as a financial strategy which incorporates solutions to address any funding shortfall, a financial strategy to service growth (ex. development charges) and a risk analysis.

The regulation was open for comment until July 24th, and the City joined the Municipal Finance Officers Association of Ontario in collectively providing comments.

Capital Investment Decisions

The importance of asset management is grounded in its long-term perspective. Adherence to a good asset management plan can maximize the benefits provided by infrastructure. It assists decision makers with strategically prioritizing what needs are most important and in understanding how they can be addressed. An asset management plan is a tool to demonstrate to ratepayers that the correct long-term decisions are being made with respect to supporting services, while addressing financial and risk management. Additionally, it considers impending legislative requirements such as the prescribed by the Accessibility for Ontarians with Disabilities Act or those that deal with designated substances such as asbestos. It also provides the opportunity to achieve cost savings/avoidance by recognizing deterioration in its early stages and taking the appropriate steps to rehabilitate or renew the asset as illustrated in Figure 1.

Figure 1 Small but Timely Renewal Investments Save Money



A practical example of this is in applying preventative maintenance strategies to extend the life of pavement. Preventative treatments such as crack sealing, hot mix patching or grinding and resurfacing help to maintain the pavement at a high level of service. When applied at the correct time, treatments such as these can extend pavement life up to 15 years. The result is that costly road reconstruction is deferred.

Other examples could include repurposing and renewal of buildings that have life left in the asset, thereby further extending their useful life or rebuilding the engine or transmission of a vehicle to extend useful life as opposed to discarding and buying new.

Capital Budget Principles

Capital funding is currently distributed to operating departments based on a historical "envelope" approach in which each department receives their historical allocation with an inflationary factor included. This envelope is then used to complete capital projects in their respective areas. Departments/divisions use different project evaluation tools with various levels of sophistication to allocate these capital envelopes amongst projects.

The corporate asset management plan will take several years to complete. In the interim and in the interest of moving to a asset management inspired

funding model, the City will be applying some capital budget principles that will move the City to a more robust and asset centric approach.

The City's Executive Leadership Team and their associated Directors lead by the Corporate Services Department have developed principles that will assist in guiding the allocation of capital funds for the 2019 budget. The capital envelope system will be replaced with an enterprise wide approach to prioritizing capital funds. All CGS capital projects will be evaluated based on a prescribed set of criteria prior to budget deliberations. In addition to providing for the long term viability of City infrastructure, this will also aid in aligning investments with levels of service, and create greater systems of accountability for planning and executing approved projects in a reliable manner. These criteria build on the recommended categories of impact, risk, probability of failure and strategic fit described in the City's current asset management plan.

Under this new model, all projects, enterprise wide will be evaluated based on:

- Legislative requirements
- Health and safety
- Effect on service levels (risk of decreased service level or failure)
- Ability to integrate positively with other asset investments
- Contribution to Council's strategic plan
- Return on investment (financial, social, etc.)
- Effect on useful life of an asset
- Environmental impact
- Qualification for external funding or partnership

This standardized approach to funding capital projects in the interim will contribute to a more systematic and rational approach to investing in City assets at the appropriate times and levels. Additionally, it will prompt a more strategic review to retirement of assets in which the costs to rebuild/renew exceed the benefits of doing so. As staff continue to refine this approach and understand both the condition of assets and the assets to service relationship, Council can expect that business cases will come forward recommending the retirement of assets and renewal through new builds or alternate service level options.

Case Example

Since 2000, the City has utilized the Deighton Total Infrastructure Management System ("dTIMS") for the asset management of asphalt and surface treated roads. dTIMS is a complete asset management system which allows the City

long term capital planning from one complete system. In dTIMS, the City has defined the road network, stored all condition data (current and historical), defined the expected life of the road based on specific geometric attributes, defined the expected impact a treatment has on the life cycle of the road and current construction costs. Also, within dTIMS, the City has defined the Overall Condition Index (OCI) which was adopted by City Council in 2005. The OCI is comprised of five (5) different categories. Each category has been given a point value based on a determination of its importance, and is summarized as follows:

Pavement Condition Index – (value 30 points)
Safety Opportunity Index – (value 25 points)
Water / Wastewater Projects Opportunity Index – (value 20 points)
Economic Development Opportunity/Public Needs Assessment Index – (value 15 points)
Mobility Opportunity Index – (value 10 points)

Annually, the City uses dTIMS to determine a 10 year construction program that will provide the greatest benefit based on a defined budget. It does this by evaluating every possible treatment and what benefit it provides to the life cycle of the road. The road construction treatments selected are triggered based on the pavement condition while the program is optimized using the OCI. This 10 year construction program is then reviewed by staff to validate the selected treatments and the associated construction costs.

In addition to generating a construction program, dTIMS is able to provide to the City the forecasted condition of the road network based on defined budgets, the infrastructure funding gap for roads, as well as the impact of selecting different treatments for a road segment.

This tool has provided the City an objective analysis of the road network and based on available funding, it has maximized the overall benefit to the road network and the residents of the City of Greater Sudbury.

Conclusion

This report provides information on the approach staff will be taking to develop an enterprise wide approach to prioritizing capital investment. It involves a strategic asset management planning approach, changes to certain financial policies, in particular the capital budget policy and a new process for describing and deciding which investments will be made in any given budget

year. Next steps will include changes to the Capital Budget Policy and implementation and testing of new capital budget methodologies to prepare recommendations for capital spending for 2019 budget deliberations.