



July 21, 2017

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Ministry of Economic Development, Employment and Infrastructure  
Infrastructure Policy Division  
Inter-Governmental Policy Branch  
Municipal Infrastructure Policy Unit  
900 Bay Street, Floor 5, Mowat Block  
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**RE: EBR 013-0551 Proposed Municipal Asset Management Planning Regulation**

Dear Mr. McCann,

The Ontario Society of Professional Engineers (OSPE) is pleased to present the following submission concerning the proposed municipal asset management planning regulation (herein referred to as the Regulation).

OSPE is the voice of the engineering profession in Ontario. As an organization, we advance the professional and economic interests of our members, many of whom work in the municipal and infrastructure sectors. OSPE is pleased to respond to this notice for public comments about the Regulation.

OSPE representatives have been active participants in numerous government-led meetings that gathered input from knowledgeable stakeholders and practitioners. One example is the excess soil management file. With OSPE's recent report [Excess Soil Management: Ontario is Wasting a Precious Resource](#) on excess soil management and engineering expertise about the issue, OSPE is providing insightful comments and information to assist policymaking at Queen's Park.

Last week, OSPE and our partners the Residential and Civil Construction Association of Ontario (RCCAO) and Ontario Sewer and Watermain Construction Association (OSWCA), released its latest report, [Weathering the Storms: Municipalities Plead for Stormwater Infrastructure Funding](#). This report, based on a survey of municipalities, demonstrates the need for asset management planning regulation.

We are grateful for invitations to these meetings and OSPE's advisory role in these discussions are vital activities that fulfill OSPE's mandate to contribute to policy development, and demonstrate the important role that engineers play in environmental stewardship.

Comments that follow refer specifically to the Regulation.

## OSPE Comments on the Paper

OSPE strongly supports the regulation as a positive move and a starting place to ensure municipalities have a common framework to foster responsible infrastructure planning. OSPE maintains that a standardized, methodological approach to asset management needs to be outlined so that municipalities can follow it in a straightforward manner. This does not mean all plans will be the same, but the procedures and metrics used to inventory assets can be set forth in a standardized way. The proposed Regulation recognizes this and MOI is on the right track.

OSPE has a few comments and questions about the Regulation as follows.

### General Questions:

1. What are the proposed provincial monitoring mechanisms?
2. The report indicates several times that “Municipalities would be required to...”. What will define compliance or non-compliance?
3. What is compelling/motivating municipalities to do this or change their current practices?
4. Will provincial infrastructure funding be contingent on filing of asset management plans?

### General Observations:

Now is the time to harmonize the proposed Regulation with other related statutes, regulations, and/or guidelines. For example, two guidance documents related to the MOECC LID (Low Impact Development) Guidelines were on the EBR for review and the proposed Regulation should align with these. As well, there is overlap with O. Reg. 453/07: FINANCIAL PLANS contained within the Safe Drinking Water Act, 2002, and Development Charges Act, 1997, S.O. 1997, c. 27.

A considerable amount of work has been recently completed on municipal infrastructure benchmarking. It is recommended that the Regulation be harmonized with elements contained within the Municipal Benchmarking Network Canada (<http://mbncanada.ca/>).

Concerning approval, the Regulation states, “The asset management plan would be required to be approved in writing by a licensed engineering practitioner representing the municipality, and the executive lead of the municipality prior to it being presented to the municipal council for approval.”

OSPE supports the recognition that a Qualified Professional Engineer must sign-off on plans. While elected officials should make recommendations related to revenue and income generation, engineers excel at conducting cost benefit analyses, break-even analyses, and total lifecycle costing. On matters of intersectionality between technical design and economic considerations, engineers should be consulted with and recognized as authoritative and highly-skilled advisors. These planning functions are interrelated and should not be determined separately.

## The Regulation and Climate Change:

OSPE recently researched climate change as it relates to stormwater asset management, and there are several comments that can be made in this regard that are pertinent to the Regulation. OSPE acknowledges that the Regulation applies to all municipal assets—from roads to bridges to facilities to maybe even playgrounds, and beyond.

It is worth noting that the Regulation considers stormwater separate from other related assets (water and wastewater). This aligns with the findings of OSPE's report on stormwater asset management which stresses that stormwater asset management plans (SIAMPs) should be separate from water/wastewater asset management plans. Municipalities that keep these separate seem to have a better account of the conditions of their stormwater assets and can therefore better prepare and mitigate any effects of climate change such as flooding.

Notwithstanding this distinction between systems for accounting, we understand that water systems are ultimately integrated functionally whereby "One Water" links urban drainage, wastewater, and riverine systems from "floodplain to floor drain" especially during extreme events. Based on analysis of historical flooding, lost urban rivers can drive local wastewater system flooding. This is a primary cause of urban basement flooding damages in Ontario where riverine flooding is predominantly controlled due to long-standing effective land use planning and floodplain regulations. Thus, municipalities need better cross-ministry integration of flood-risk management initiatives between riverine and urban systems. Furthermore, as municipalities prepare to address the impact climate change will have on infrastructure systems they need to build a foundation of understanding yesterday's and today's system behaviour, including the characterization of intrinsic resiliencies and deficiencies that can in fact overshadow future climate uncertainties.

Related to this, and referring to the aforementioned Municipal Benchmarking Network Canada organization, it is interesting that it does not yet include a stormwater "service area" as a benchmark. Accordingly, the "proposed level of service" in the Regulation could be expanded as per recent benchmarking documents. A few more categories under "community" and "technical" would make the Regulation "up-to-date" with current industry thinking. For example, inclusion of "impervious surface" and "percent of area treated by SWM facilities" into the "performance measures" would be one way of aligning the Regulation with current industry practices and language.

Regarding storm sewers, there does not seem to be any detailed definitions in the Regulation about "urban" and "rural" storm sewers. It may be self-evident, but they should be clarified in the Regulation or related documents. For example, if LID practices are more frequently being required, how will they be recorded (inventoried and valued) as an asset? The same concern relates to the treatment of storm sewers. As such, a more clearly detailed definition of urban versus rural storm sewers would assist in how these assets are documented.

Overall, while the proposed Regulation will "provide a degree of consistency to support collaboration between municipalities," municipalities should be encouraged to prepare Stormwater Infrastructure Asset Management Plans that best suits their situation and the more detailed the better, especially when it comes to addressing climate change.

OSPE expects that the added climate change adaptation lens in the Regulation may convey a lot of motherhood statements to strengthen the optics that it indeed addresses climate change. OSPE stresses that the Regulation must ensure there is depth and meaning to any statements about climate change adaptation. Many cities do not even have a dynamic wastewater model for the whole city to assess today's climate performance, and there are no economic models (just PIEVC-type qualitative matrices on areas of potential interest) to guide adaptation investments. Over the long run municipalities may accomplish these objectives. Currently, what investments are needed to adapt is highly uncertain and may be overshadowed by existing 'design standard adaptation' needs under today's climate, recognizing changing expectations for municipal infrastructure levels of service.

For example, one municipality that works closely with OSPE, has done some future climate resiliency simulations for wastewater and storm drainage systems and found their new systems are resilient already. Future climate (depending on the ensemble model and downscaling method chosen) may stress existing vulnerable systems, or may in fact not stress newer systems given that some ensembles/downscaling projects may be less extreme than today's conservative design intensity-duration-frequency (IDF) data. Their view is that projecting which ensemble and downscaling method to use will mean guesswork that is not readily actionable. In this case, climate adaptation could be a simple co-benefit of upgrading infrastructure systems that are already known to be deficient.

While future IDF projections are available and may provide a 'first order' estimate of future climate conditions that can affect infrastructure systems, key parameters such as hyetograph transformations of this raw input data that is needed for any practical simulations and quantitative assessments are not at all known for future climate scenarios. These measures are widely uncertain and variable for today's climate, varying from practitioner to practitioner, watershed to watershed, city to city, and region to region. Recent updates to MNRF's floodplain technical guidelines suggest that accounting for climate change in natural riverine systems is not practical, and a similar perspective is likely worthwhile for urban systems. One municipality's assessments demonstrate highly non-linear, muted responses in storm and wastewater systems under future climate projects, suggesting that future IDF shifts may have limited system incremental impacts.

OSPE believes that many cities are at the basic inventory and conditions rating stage of asset management planning with a goal of completing long-term strategic planning. The Regulation will help move them in the right direction on the core asset management needs.

In conclusion, the Ontario Society of Professional Engineers appreciates the opportunity to submit commentary regarding the Proposed Municipal Asset Management Planning Regulation. If you have any questions or wish to meet to further discuss the information communicated in this submission, please contact Patrick Sackville, Lead, Policy & Government Relations at [patrick@ospe.on.ca](mailto:patrick@ospe.on.ca) or (416) 223-9961 ext. 225.

## About OSPE:

The Ontario Society of Professional Engineers (OSPE) is the voice of the engineering profession in Ontario. We represent the entire engineering community, including engineers, engineering professionals, graduates, and students who work or will work in several of the most strategic sectors of Ontario's economy.

OSPE elevates the profile of the profession by advocating with governments, offering valued member services and providing opportunities for ongoing learning, networking and community building.

OSPE was formed in 2000 after members of Professional Engineers Ontario (PEO) voted to separate regulatory and advocacy functions into two distinct organizations.