

January 19, 2018

John Antoszek, P. Eng  
Ministry of the Environment and Climate Change  
40 St. Clair Avenue West, Floor 9  
Toronto Ontario M4V1M2

**Re: Green Infrastructure Ontario Coalition supports runoff volume control**

The implementation of a runoff volume control target in Ontario is necessary in order to ensure our cities are adapting to a changing climate and protecting our water resources, including groundwater, drinking water, recreational waters, and aquatic habitat. This approach will ensure that new development and redevelopment projects are constructed to manage runoff using the most modern practices to protect property and the environment.

The LID Stormwater Management Guidance Manual provides a strong rationale for why this approach is needed. It describes the impacts of urbanization on the water cycle, including

- Erosion and channel enlargement;
- Increased frequency and severity of flooding;
- Impaired water quality;
- Habitat degradation;
- Decreased infiltration to groundwater aquifers and;
- Decline in aesthetic and recreational value of water bodies.

Approximately 70% of the developed area of the GTA was constructed without any storm water quantity or quality controls. Further, monitoring has shown us that conventional stormwater management practices (end of pipe approaches) have not been sufficient to protect against these impacts. With the last wave of development in the white belt looming and the significant redevelopment of older areas in the GTA without any storm controls, we will never have a better time to get it right.

Low impact development and green infrastructure are proven effective at reducing runoff volumes and filtering out pollution. The manual provides a good overview of these measures and references other resources for design and construction guidelines.

The runoff volume control target is laid out in Chapter 3 of the manual. The target is set at the 90<sup>th</sup> percentile event, which is consistent with what is being done in other jurisdictions (British Columbia, Lake Simcoe Watershed, Minnesota, New York, Michigan) and is a reasonable target for ensuring that development does not contribute to negative watershed impacts. The target will apply to new development, redevelopment, and linear (road) projects. The target is strongly worded to require that projects manage stormwater at its source as a first

priority. This is necessary, as stormwater guidance going back to the early 1990s has encouraged source controls, but this has not resulted in managing rain where it falls on the ground. The target provides enough flexibility for projects with constraints, without allowing for the target to be ignored at the first difficulty.

The manual acknowledges that this is a different approach that is not currently common practice in many municipalities. It provides additional content on addressing potential groundwater impacts, and on modeling the performance of LID. It also provides an overview of operations, maintenance, and monitoring approaches, in order to assist municipalities with implementation. On the ground experience in Mississauga and elsewhere has shown no additional maintenance costs and improved performance where LID has been implemented.

The manual also lays out what is required in order to design stormwater infrastructure to be resilient to a changing climate. This fulfills a key recommendation of the report produced by the multi-agency Stormwater Working Group in 2010, *Policy Review of Municipal Stormwater Management in the light of Climate Change*.

The scope of the manual is very large, and includes a wide range of content, not all of which is applicable or understandable to all audiences. There are a range of professionals from engineers, developers, landscape architects, politicians, planners, and the construction industry, who will need to understand how to implement the manual. The province will need to support a significant, targeted education and outreach effort in order to ensure municipalities in all areas of Ontario have the capacity to implement the LID Stormwater Management Guidance Manual on the ground.

We recommend that the province support the development of a Green Infrastructure Centre of Excellence to bring together resources and expertise for effective delivery of tools and training to support this transition. There is a strong need to build capacity in the sector to ensure that designers, reviewers, approvers, constructors and maintenance personnel are able to quickly and capably begin incorporating LID into their storm water systems. The public will also need to be engaged so they understand what these LID practices are for and how they can assist in keeping them functioning. Municipal policies may also need to be updated. The Green Infrastructure Ontario Coalition can recommend Ontario-based experts who would be able to serve as trainers and curriculum-developers for such a centre.

The development and release of this manual has taken significantly longer than originally estimated. The Green Infrastructure Ontario Coalition encourages the MOECC to complete the manual (including thorough copyediting) and put it into effect as soon as possible. We expect the benefits of this approach to stormwater management to be felt throughout Ontario's economy, as well as its watersheds, and there is no reason to delay.

Respectfully,

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On behalf of the Green Infrastructure Ontario Coalition

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