

Stormwater Management Guide 2023

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Recommended by:	General Manager of Growth and Infrastructure
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Report Summary

This report provides information regarding the City's new Stormwater Management Guide.

Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

This recommendation is consistent with Council's Strategic Plan, specifically;

- 2.3 Strengthen Business and Development Processes and Services to Support Business Growth.
- 3.1 Support Ecological Sustainability
- 3.2 Develop and Strengthen Strategies and Policies to Mitigate Impact of Climate Change

And, Community Energy and Emission Plan, which indicates that,

- Effective stormwater management also ensures infrastructure assets can obtain their design lifespans, reducing carbon intensive replacement and renewal.

Financial Implications

There are no financial implications associated with this report.

PURPOSE

The purpose of this report is to advise City Council of the City's new Stormwater Management Guide dated April 18, 2023. The Stormwater Management Design Guide was prepared to provide guidance to City staff, the development community, and their consultants regarding the Stormwater Management (SWM) and Erosion / Sediment Control (ESC) requirements as required under the City's new stormwater Consolidated Linear Infrastructure (CLI) Environmental Compliance Approval (ECA).

The SWM guide is expected to provide the following benefits:

- enhanced protection of the natural environment and improved resiliency to climate change;
- designs that better reflect natural hydrology;
- application of uniform and consistent SWM standards;
- reduced need for re-submissions due to inadequate information;

- streamlined review process and improved client service; and
- provide further guidance related to Source Water Protection, Conservation Sudbury, or other Provincial/Federal Acts.

Generally, the new SWM Guide reflects policies currently in place and outlined in the City's Sub-watershed Reports, Site Plan Control Guide and Engineering Design Manual. However, the Ministry of the Environment Conservation and Parks (MECP) has outlined additional storm water management requirements that must be addressed for developments and capital works projects that outlet to the City's storm infrastructure. The main requirements are as follows:

- to the maximum extent possible the hierarchy of storm water controls must be followed, starting with storm water infiltration (bioswales, permeable pavements, soakaway pits), followed by filtration (bioswales with subdrains), and lastly end of pipe controls such as storm water ponds and oil/grit separators;
- promote ground water recharge through water balance assessments.
- sediment and erosion control requirements, including the need for a Qualified Person to design and inspect sediment and erosion control for developments larger than 5 Ha;
- general maintenance and operation documentation requirements;
- streamlined ECA amendment approval process through notification forms.

BACKGROUND

Storm water management policy and regulations are relatively new and have been subject to continuous improvement over the past few decades. Some of the relevant regulations, manuals, guidelines, and studies that have been created over the years to guide and regulate storm water management on private and municipal developments within Ontario and the City of Greater Sudbury are as follows:

- 1997 MTO Drainage Management Manual.
- 2003 MOE Stormwater Management Planning and Design Guide.
- 2006 CGS Stormwater Background Study.
- 2010 TRCA/CVC Low Impact Development Stormwater Management Planning and Design Guide.
- 2011 Ontario Water Resources Act.
- 2012 CGS Engineering Design Manual.
- 2014 CGS Source Protection Area Plan.
- 2016/2021 CGS Site Plan Control Guide.
- 2019 and 2022 Junction Creek and Ramsey Lake Sub-watershed Reports.
- 2022 MECP draft Low Impact Development Stormwater Management Guidance Manual.

The latest documents are the Ministries new draft 2022 LID Guide, and the CLI ECA that was granted to the City in 2022. This ECA makes it easier for the City to approve most new storm infrastructure through a Notification Form and eliminates the requirement for an ECA amendment and additional approval from the ministry. However, the new ECA also sets out new minimum design requirements for expansion, and modification of the City's storm sewer system.

To help guide developers and City Staff through these requirements the City has put together a storm water management guide that is not meant to be a comprehensive design guide like the MECP draft Low impact Development Guide or the 2006 SWM planning and design guide, but is meant to focus on key requirements that must be considered to properly implement SWM within the City of Greater Sudbury, especially related to low impact development and the City's Watershed studies.

How was the Stormwater Management Guide updated?

The Stormwater Management Guide was created through consultation with Infrastructure Capital Planning Services, Planning Services, Engineering Services, Sudbury Conservation Authority, and the Development Liaison Advisory Committee (DLAC).

A meeting was held with DLAC on April 25, 2023, to discuss the new storm water management requirements. This Draft Stormwater Management Guide will be posted on the city's website after this meeting and can be found as an attachment to this report.

CONCLUSION

The new Stormwater Management Guide will further the City's commitment to create and guide open and engaging processes that work with our partners to build an exemplary City.

The SWM guide should provide the following benefits:

- enhanced protection of the natural environment and improved resiliency to climate change;
- designs that better reflect natural hydrology;
- application of uniform and consistent SWM standards;
- reduced need for re-submissions due to inadequate information;
- streamlined review process and improved client service; and
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