

# Stormwater Management

## *Under New Management*

### ***Executive Summary***

On July 16, 2024, Toronto was inundated with 110mm of rainfall, causing widespread basement flooding. Due to my good fortune, my century home basement in the Corso Italia neighbourhood of Toronto did not flood on that day, primarily because I had arranged for a plumber to replace my sewer line after the much-smaller (30mm of rainfall) storm on May 27, 2024 flooded my basement.

Coincidentally, a week before the May 27, 2024 rainfall, Toronto City Council adopted [Official Plan Amendment 720](#) (“**OPA 720**”). OPA 720 amended the Toronto Official Plan by creating new complete application requirements related to sanitary sewer capacity and stormwater run-off.

This blog reviews OPA 720 and other recent measure that the City of Toronto (the “**City**”) has adopted to reduce the impact that stormwater run-off generated during periods of intense, heavy rainfall will have upon available sewer capacity when reviewing development applications, as it relates to combined sewer system which accommodate precipitation and sewage in one pipe.

### ***Provincial and City Guidelines related to Stormwater Management***

When the City’s Engineering and Construction Services Division (“**ECS**”) reviews the stormwater run-off generated by developments proposals, City staff assess compliance with the recommendations and technical requirements found in guidelines. Collectively, these guidelines outline the City’s expectations regarding the management of stormwater run-off. While a full review of these guidelines is beyond the scope of this blog, a summary of their objectives, recommendations, and technical requirements of the most significant guidelines is as follows:

#### *1. Design Criteria for Sewers and Watermains (City of Toronto) dated 2021*

Chapter 2 of Design Criteria for Sewers and Watermains dated 2021 (the “**DCSW Guidelines**”) outlines the assumptions and matters that functional servicing and stormwater management reports must address to demonstrate that stormwater run-off has been adequately managed.

Page 48 of the DCSW Guidelines requires all official plan amendment and zoning by-law amendment applications to assess available local sewer capacity (up to the trunk sewer) and, if found inadequate, for the land developer to fund the necessary upgrades to the sewer system.

Stormwater run-off generated from precipitation or drains that may discharge into the City’s sewer system is subject to achieving two of the three “protection measures” described in Table 6: Capacity criteria for sanitary and combined sewers) found at page 57 of the DCSW Guidelines.

These protection measures include different criterion for sanitary sewers and combined sewers because the combined sewers are prone to overflows during periods of intense, heavy rainfall, when available capacity can be exceeded due to the amount of precipitation.

Simply stated, the combined sewer criteria emphasize that available capacity cannot be exceeded and the on-site discharge of stormwater run-off into the combined system must be offset.

## *2. Sewer Capacity Assessment Guidelines (City of Toronto) dated 2021*

The Sewer Capacity Assessment Guidelines (the “**SCA Guidelines**”) build on the DCSW Guidelines to more fully define adequate sewer capacity and capacity assessment criteria, especially as it relates to the protection measures described in Table 6 of the DCSW Guidelines.

One of the three guiding principle of the SCA Guidelines is that wet weather flow measures will be prioritized to reduce the amount of stormwater run-off infiltration into sanitary sewers and combined sewers, thereby reducing the likelihood and risk of basement flooding.

For a combined sewer, a functional servicing and stormwater management report which confirms that a proposal will comply with two of the three protection measures achieves that principle. Summarily, the three protection criteria require that the (1) the local sewer system will have available capacity during a 2-year storm event; (2) the hydraulic grade line must be 1.8m below grade; and (3) any on-site stormwater run-off infiltration must offset existing infiltration (2-to-1).

## *3. Procedure F-5-5 (Province of Ontario) dated 1997*

Procedure F-5-5 (“**F-5-5**”) is a guideline prepared by the Ministry of Environment, Conservation, and Parks. The City’s Wet Weather Flow Management Guidelines dated 2006 (the “**WWFM Guidelines**”) have incorporated many of the objectives and requirements found in F-5-5.

Guideline 13 of F-5-5 provides that environmental compliance approvals will be issued if a proposed municipal sewer system complies with its recommendations. While compliance with F-5-5 is not stated as being required for official plan amendments or zoning by-laws amendments proposing private infrastructure that does not require the issuance of an environmental compliance approval, the City interprets F-5-5 as applying to site-specific official plan and zoning by-law amendments which propose infrastructure (laterals) that will connect to the sewer system.

Due to increased risks of overflow and basement flooding, guideline 3 prohibits the construction of new combined sewer systems. Where combined sewer systems exist, new sanitary connections are prohibited where significant combined sewer system deficiencies exist per guideline 11. The City has interpreted guideline 11 as prohibiting any net increase of stormwater run-off infiltration into combined sewer systems, so as to ensure that the servicing demands of new development will not increase the likelihood or severity of combined sewer overflows.

## **Official Plan Amendment 720**

OPA 720 is essentially a housekeeping official plan amendment that updates the complete application requirements of the Toronto Official Plan to be consistent with the City’s [new terms of reference](#) for functional servicing and stormwater management reports (the “**FSRSWM TOR**”).

The FSRSWM TOR require a functional servicing and stormwater management report to conduct a capacity analysis, per the minimum requirements of the DCSW Guidelines, the SCA Guidelines, the WWFM Guidelines, and other applicable guidelines, and show that the proposed development will comply with applicable provincial legislation, regulations, and guidelines, including F-5-5.

Should the functional servicing and stormwater management report conclude that there is insufficient available capacity to accept the proposal's servicing demands, the functional servicing and stormwater management report must recommend improvements to existing municipal infrastructure, or new municipal infrastructure, to accommodate the development's needs.

The foregoing terms of reference is consistent with standard servicing-related conditions of approval that the City imposed upon zoning by-law amendments, these conditions including:

The owner has submitted a revised Functional Servicing Report to determine the stormwater run-off, sanitary flow and water supply demand resulting from the development and whether there is adequate capacity in the existing municipal infrastructure to accommodate the proposed development, to the satisfaction of the Chief Engineer and Executive Director, Engineering and Construction Services;

The owner has made satisfactory arrangements with the City and has entered into the appropriate agreements for the design and construction of any improvements to the municipal infrastructure, should it be determined that upgrades are required to the infrastructure to support the development, according to the accepted Functional Servicing Report accepted by the Chief Engineer and Executive Director, Engineering and Construction Services;

There are a number of assumptions inherent to OPA 720 which will require further review and consideration in the future. In particular, the application of F-5-5 to site-specific development applications continues to be unclear and subject to debate, since these provincial guidelines are only intended to review servicing infrastructure which requires an environmental compliance approval, rather than a private lateral that will be connected to the local sewer system.

Moreover, achieving compliance with two of the three protection measures found in Table 6 of the DCSW Guidelines and the SCA Guidelines continues to be time-consuming and challenging.

While the impacts of recent storm events upon the City are undeniable, the author questions whether it is appropriate for the City – through OPA 720 and the new terms of reference – to require land developers to essentially pay for the upgrading of available capacity of local sewer systems as a condition of development, when approximately 17% of development charges collected (\$13,637.06 per 2-bedroom apartment unit) are intended to fund these capital works.

### ***Conclusion***

While there is nothing worse than waking up to a flooded basement for a homeowner, OPA 720 and the new terms of reference now propose to require land developers to undertake significant efforts to manage stormwater run-off into combined sewers per the applicable guidelines.

If you have any questions regarding the OPA 720 or the new functional servicing and stormwater management report, please do not hesitate to contact Michael Nemanic Law at [info@michaelnemaniclaw.com](mailto:info@michaelnemaniclaw.com) or (613)601-4639.