Vaughan Metropolitan Centre

Stormwater Management and Drainage Enhancement Study

Public Information Centre #2

DAVID BRALEY VAUGHAN METROPOLITAN CENTRE OF COMMUNITY 200 APPLE MILL ROAD, VAUGHAN, ON MAIN LOBBY THURSDAY, JUNE 5, 2025 | 5:30 P.M. TO 7:30 P.M.



Third Party Public



Land Acknowledgement

We respectfully acknowledge that the City of Vaughan is situated in the Territory and Treaty 13 lands of the Mississaugas of the Credit First Nation. We also recognize the traditional territory of the Huron-Wendat and the Haudenosaunee. The City of Vaughan is currently home to many First Nations, Métis and Inuit people today.

As representatives of the people of the City of Vaughan, we are grateful to have the opportunity to work and live in this territory.





Municipal Boundaries Related to the Toronto Purchase (1805) and the Rouge Tract Claim (2015)



Project Objective

The purpose of the study is to refine and enhance the stormwater management (SWM) strategy for the Vaughan Metropolitan Centre (VMC) to support the area's growth and future developments.

The VMC has grown faster than expected and its boundaries are expanding to include Expansion Area A and B and the SWM strategy from the 2012 VMC Municipal Servicing Master Plan no longer meets the needs of current and future development.

Once completed, the study will propose a stormwater management plan that follows best practices and City policies to treat storm runoff and reduce flood risks while considering the interests of the public, impacted property owners and planned developments.





Stormwater Management

Stormwater is the rainwater or melted snow that flows across hard surfaces like roads, sidewalks, parking lots, and rooftops instead of seeping naturally into the ground. Without proper management, stormwater contributes to poor water quality, flooding and erosion in receiving watercourses.

The quality and quantity of stormwater can be managed through source, conveyance and end-of-pipe best management practices.

Source Controls

- Rain gardens
- Permeable pavement
- Green roofs
- Rainwater Harvesting (cisterns, rain barrels)

Conveyance Controls

- Vegetated swales
- Bioretention facilities
- Infiltration systems
- Soil cells

End of Pipe Controls

- Wet ponds
- Dry ponds
- Oil-grit separators



Rain Garden



Bioretention Swale



Wet Pond



Background



2012	2017 - 2021	2024	2025
SWM strategy developed with on-site SWM criteria, end-of- pipe ponds and retrofits for all four quadrants through the VMC Master Servicing Plan	Edgeley Pond retrofit study for Northeast Quadrant	Larger SWM ponds to meet SWM criteria and account for expansion areas, through the Integrated Urban Water Plan – VMC Functional Servicing Strategy Report	Draft VMC Secondary Plan replaces previous VMC Secondary Plan and outlines the new framework for Vaughan's downtown



Municipal Class Environmental Assessment Process

This study is being carried out in accordance with the requirements of Schedule 'B' projects outlined in the Municipal Engineers Association "Municipal Class Environmental Assessment" (MCEA) document (February 2024). This study is being undertaken to satisfy Phases 1 and 2 of the MCEA process.

Phase 1	*	Implementation		
Problem or Opportunity	Site Inventory / Identify Alternatives	Evaluation of Alternatives	Select Preferred Solution	Detailed Design / Implementation
 Identify problems and opportunities Initiate consultation with the public and agencies Notice of Commencement Public Information Centre #1 	 Inventory the natural, built, social and economic environments Identify alternative solutions to the problem or opportunity Public Information Centre #2 We are here 	 Identify the impacts of the alternative solutions on the environment and required mitigation measures Evaluate alternative solutions and identify the preliminary recommended solution Public Information Centre #3 	 Refine and confirm the preferred solution Preliminary design of preferred solution Recommendations to mitigate impacts of the preferred solution during and following construction Prepare the Project File Report Notice of Study Completion 30-day Public Review 	 Detailed design of the proposed works Obtain permits and approvals Prepare contract drawings and tender documents Construction and operation of the works Post-construction monitoring

Existing Conditions

Recent studies, including the City's June 2024 Integrated Urban Water Plan, provide information on existing conditions for stormwater management, fluvial geomorphology, natural heritage, hydrology, hydrogeology, archaeology, and cultural heritage in the study area. The (Draft) VMC Secondary Plan 2025 provides information on current and future land use conditions. This current MCEA considers and builds upon the information from these plans and studies.



- Natural heritage features within the VMC are limited to small areas abutting Black Creek and the Edgeley Pond.
- Fluvial geomorphology (i.e., the study of the physical form of rivers) was previously assessed within VMC. Erosion and instability concerns were addressed through the Black Creek Renewal project.
- Previous hydrogeology studies indicated relatively high groundwater elevation in the VMC.
- Existing stormwater management system includes a minor and major drainage system, and SWM ponds that discharge to a tributary or the main branch of Black Creek.
- Stormwater management criteria for development and redevelopment established through previous studies.
- Floodplain delineated by Toronto and Region Conservation Authority (TRCA).
- Storm sewer and roadway drainage model for VMC completed through 2024 Integrated Urban Water Plan study.



Existing Conditions (continued)



- (Draft) VMC Secondary Plan 2025 designates land use for development and redevelopment, parks and environmental open space, and infrastructure including stormwater management.
- Current City of Vaughan Official Plan and Provincial Planning Statement.

Cultural Heritage			
Environment			

Social and Economic Environment

- Cultural heritage resources refers to archaeology, built heritage, and cultural heritage landscapes.
- Built heritage and cultural heritage landscapes are inventoried by the City and there are no heritage properties within the study area.
- Archaeological potential has been removed for most of the study area because of previous disturbance (land alterations) from the existing development in the VMC.
- The VMC is the City's emerging downtown and central business district the financial, innovation and cultural centre of the City.



VMC Stormwater Management Quadrants

Stormwater runoff within the VMC is managed based on drainage boundaries. Drainage is split into four 'quadrants', which consist of the northeast, northwest, southeast and southwest.





Northeast Quadrant Edgeley Pond and Park



Stormwater management for the northeast quadrant will be provided by the Edgeley Pond retrofit to meet current SWM criteria. The Edgeley Pond retrofit will also integrate park amenities.

The Edgeley Pond and Park will be constructed using a Design-Build approach as part of the Black Creek Renewal, beginning in 2025.



From Black Creek Renewal Design Build Public Information Centre Presentation (May 2, 2024)



Northwest Quadrant Alternative: No SWM Pond Retrofit

- Retain the existing (interim) SWM ponds.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



DOWNTOWN Vaughan Metropolitan centre

April 2025 Draft VMC Secondary Plan Schedule I (Flood Plain and Environmental Open Space) is shown on the figure.

Northwest Quadrant Alternative: Retrofit SWM Ponds

- Expand SWM ponds according to 2012 Municipal Master Plan and 2024 VMC Functional Servicing Strategy.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



DOWNTOWN Vaughan METROPOLITAN CENTRE

April 2025 Draft VMC Secondary Plan Schedule I (Flood Plain and Environmental Open Space) is shown on the figure.

Northwest Quadrant Alternative: Underground SWM Tanks

- New underground storage for quantity and erosion control with upstream water quality control within SWM block.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Black Creek Western Spill Area (see Policy 6.7.7)

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April 2025 Draft VMC Secondary Plan Schedule I (Flood Plain and Environmental Open Space) is shown on the figure.

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Southwest Quadrant Alternative: No SWM Pond Retrofit

• Retain the existing Interchange SWM Pond.

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• Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Southwest Quadrant Alternative: Retrofit SWM Pond

- Expand SWM pond according to 2012 Municipal Master Plan and 2024 VMC Functional Servicing Strategy.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Southwest Quadrant Alternative: Underground SWM Tank

- New underground storage for quantity and erosion control with upstream water quality control within SWM block.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Southeast Quadrant Alternative: No SWM Pond

- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.
- While this alternative does not propose water quality treatment in public roadways, the City currently requires water quality control for new / redeveloped public roadways through low impact development (LID) facilities.



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Southeast Quadrant Alternative: New SWM Pond

- New SWM pond south of Peelar Road according to 2012 Municipal Master Plan and 2024 VMC Functional Servicing Strategy.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Southeast Quadrant Alternative: New Underground SWM Tank

- New underground storage for quantity and erosion control with upstream water quality control within SWM block.
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC.



Southeast Quadrant Alternative: Water Quality Control for Roadways

- Water quality control only for roadways (no quantity or erosion control).
- Privately-owned SWM controls to be implemented during development and redevelopment of private properties, according to current City requirements and SWM criteria for the VMC, with the addition of on-site water quality control.



DOWNTOWN Vaughan Metropolitan centre

---- Existing Flood Plain (prior to Black Creek Renewal channel work)

Black Creek Renewal Area (see Section 6.7)

April 2025 Draft VMC Secondary Plan Schedule I (Flood Plain and Environmental Open Space) is shown on the figure.

Special Policy Area (see Policy 7.7.8)

Evaluation Process

Evaluation criteria established based on previous studies, stakeholder input, municipal and provincial guidelines and existing conditions. Preliminary evaluation criteria fall under the following categories:



Potential beneficial or adverse impacts will be identified for the above categories. During the next stage of the project, the alternatives will be evaluated according to their relative advantages and disadvantages to select preferred solutions for each stormwater management quadrant.

Next Steps

After this Public Information Centre #2, the following activities will take place:

- Review comments received from PIC #2 and respond to comments
- Refine stormwater management alternatives for Northwest, Southwest and Southeast Quadrants and complete evaluation to select the preferred solutions
- Engage City departments, technical agencies, and impacted property owners regarding the preferred stormwater management solutions
- Hold PIC #3 in Fall 2025 to present the preliminary recommended solution

We encourage you to provide comments in writing tonight or through the project website at vaughan.ca/VMCSWM by June 20, 2025.

Contact Information

Visit <u>vaughan.ca/VMCSWM</u> for project information, future notices, and to access the on-line comment form.

Email <u>VMC.SWMStudy@vaughan.ca</u> to be added to the study's mailing list.



