

Vaughan Metropolitan Centre

Stormwater Management and Drainage Enhancement Study

Public Information Centre #1

DAVID BRALEY VAUGHAN METROPOLITAN CENTRE OF COMMUNITY
200 APPLE MILL ROAD, VAUGHAN, ON
MAIN LOBBY

THURSDAY, DECEMBER 5, 2024 | 5:30 P.M. TO 7:30 P.M.

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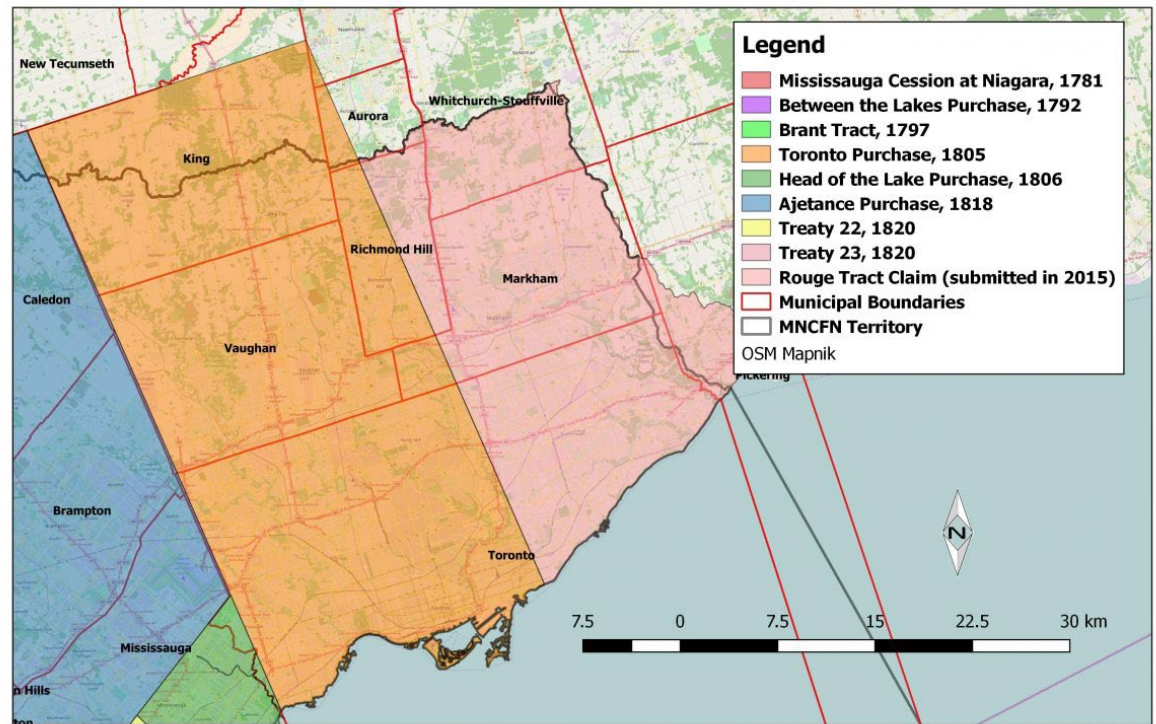
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METROPOLITAN CENTRE

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.



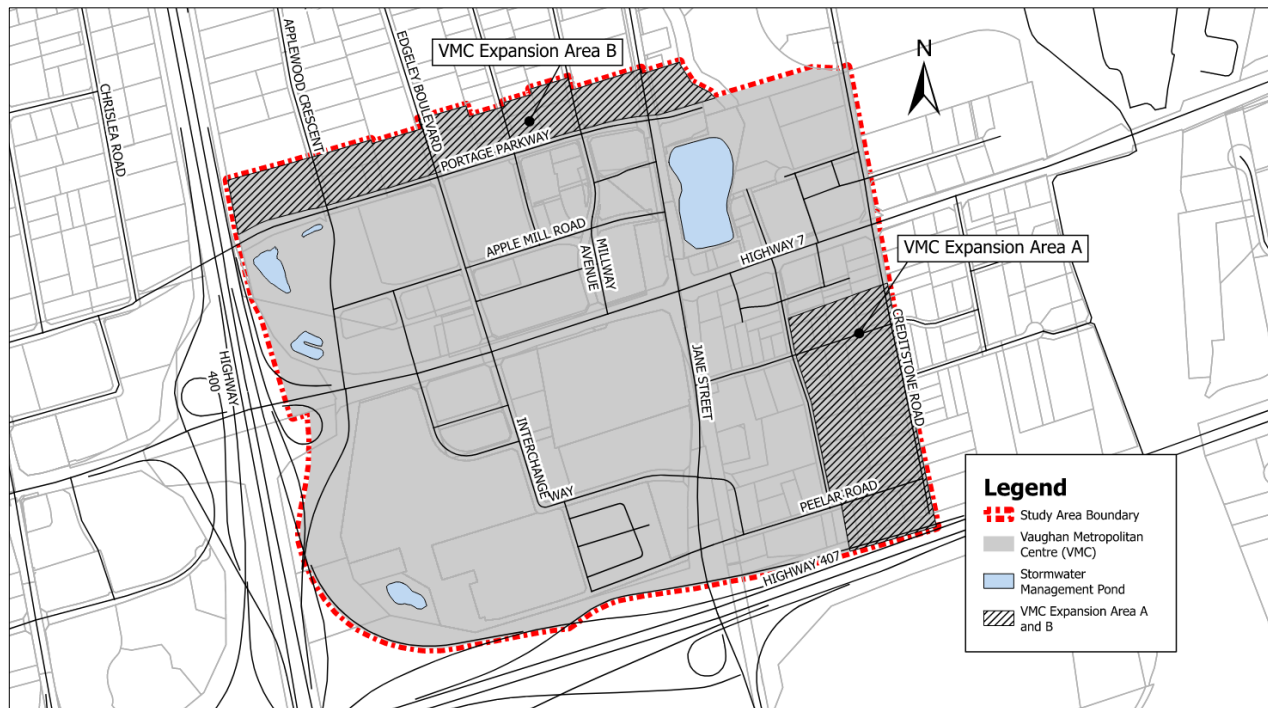
Municipal Boundaries Related to the Toronto Purchase (1805) and the Rouge Tract Claim (2015)

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

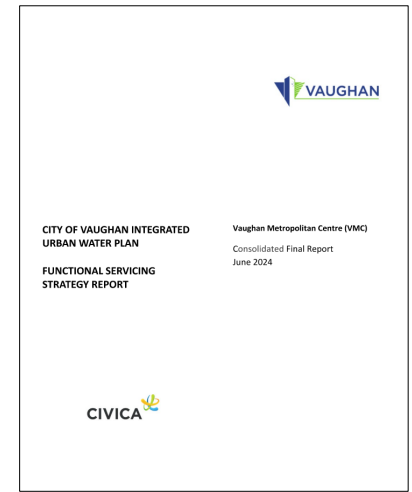
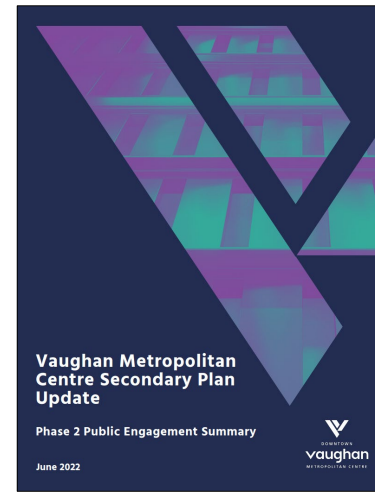
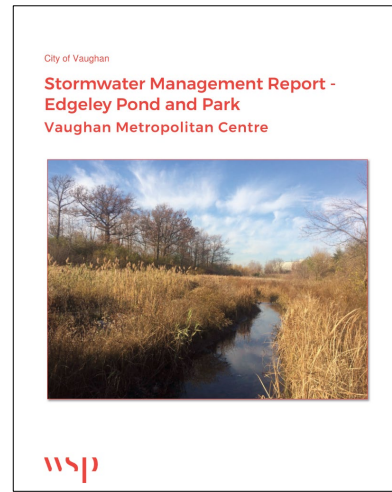
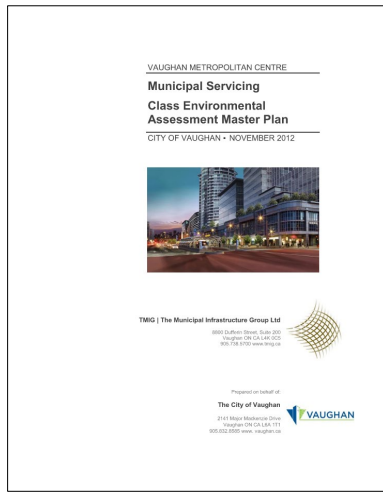


Exfiltration Trench



Wet Pond

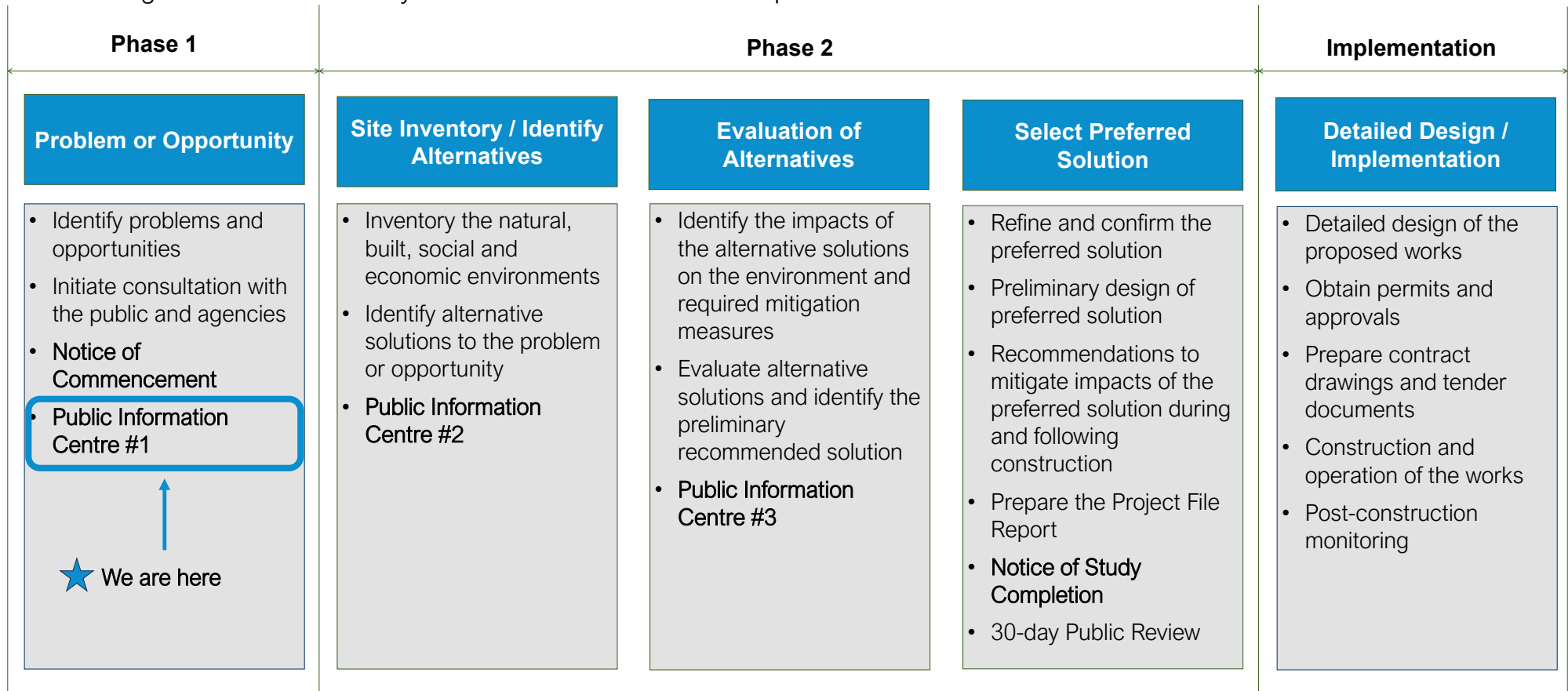
Background



2012	2017 - 2021	2020+	2024+
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	VMC Secondary Plan Update	Larger SWM ponds to meet SWM criteria and account for expansion areas, through the Integrated Urban Water Plan – VMC Functional Servicing Strategy Report

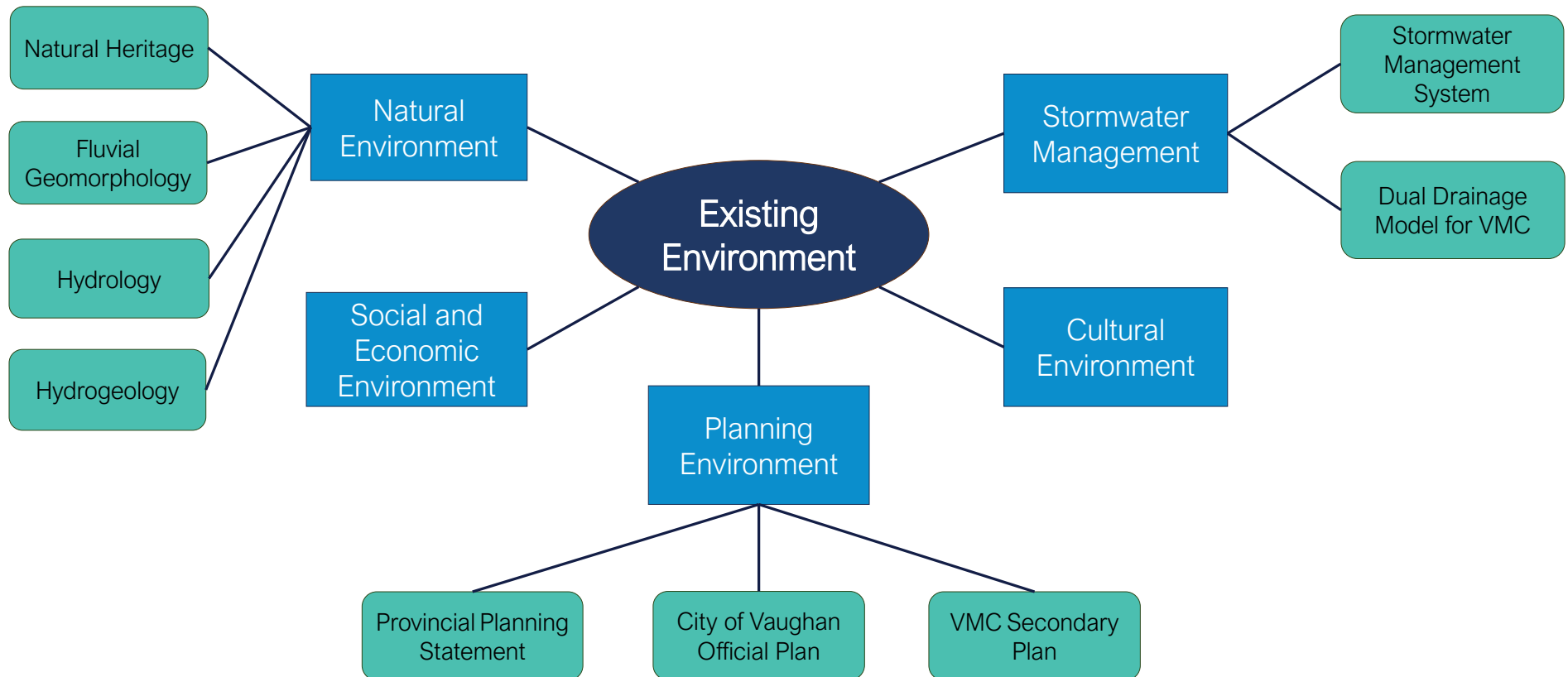
Municipal Class Environmental Assessment Process

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.



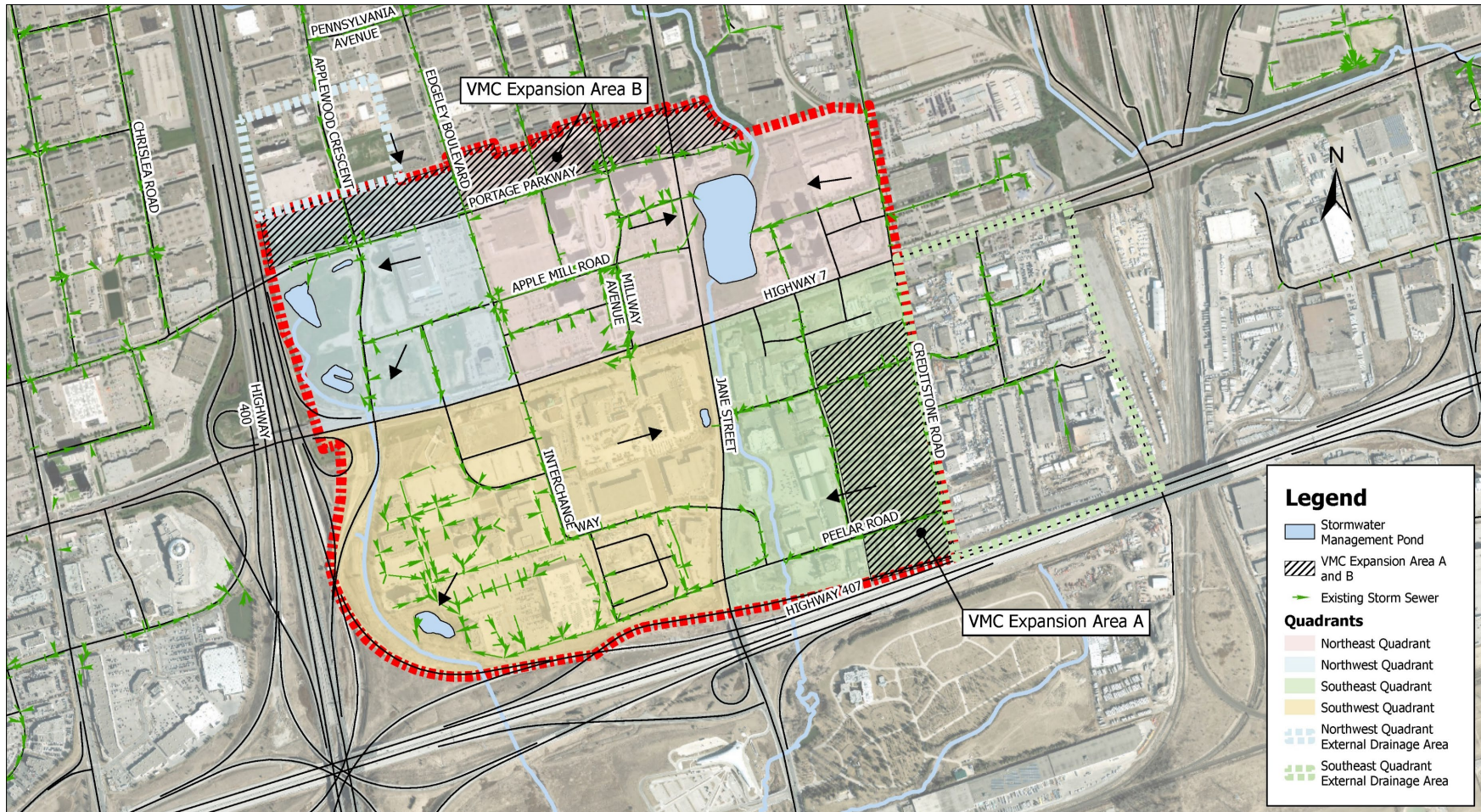
Environmental Investigations

A number of recent studies, including the City's June 2024 Integrated Urban Water Plan, provide detailed information on stormwater management, fluvial geomorphology, natural heritage, hydrology, hydrogeology, archaeology, and cultural heritage in the study area. The ongoing VMC Secondary Plan Update provides information on current and future land use conditions. This current MCEA considers and builds upon the information from these plans and studies.



VMC Stormwater Management Quadrants

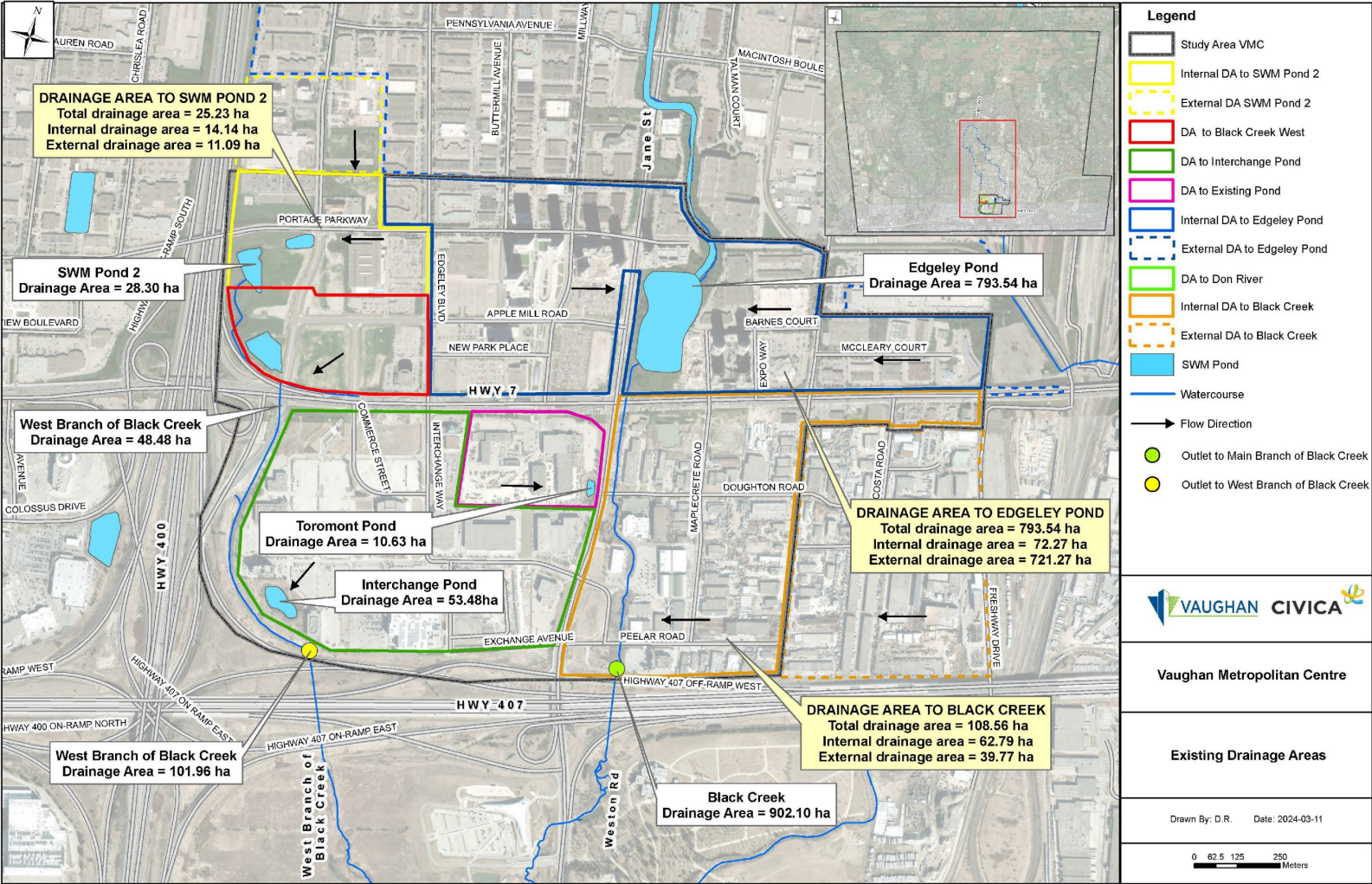
Stormwater runoff within the VMC is managed based on drainage boundaries. Drainage is split into four 'quadrants', which consist of the northeast, northwest, southeast and southwest.



DOWNTOWN

Existing Stormwater Management Ponds and Drainage Areas

The locations of the existing SWM facilities and the catchment areas draining to each facility were documented in the VMC Functional Servicing Strategy Report



Northeast Quadrant



Stormwater management for the northeast quadrant will be provided by the retrofit Edgeley Pond, which also integrates park amenities.

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



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

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Northwest Quadrant

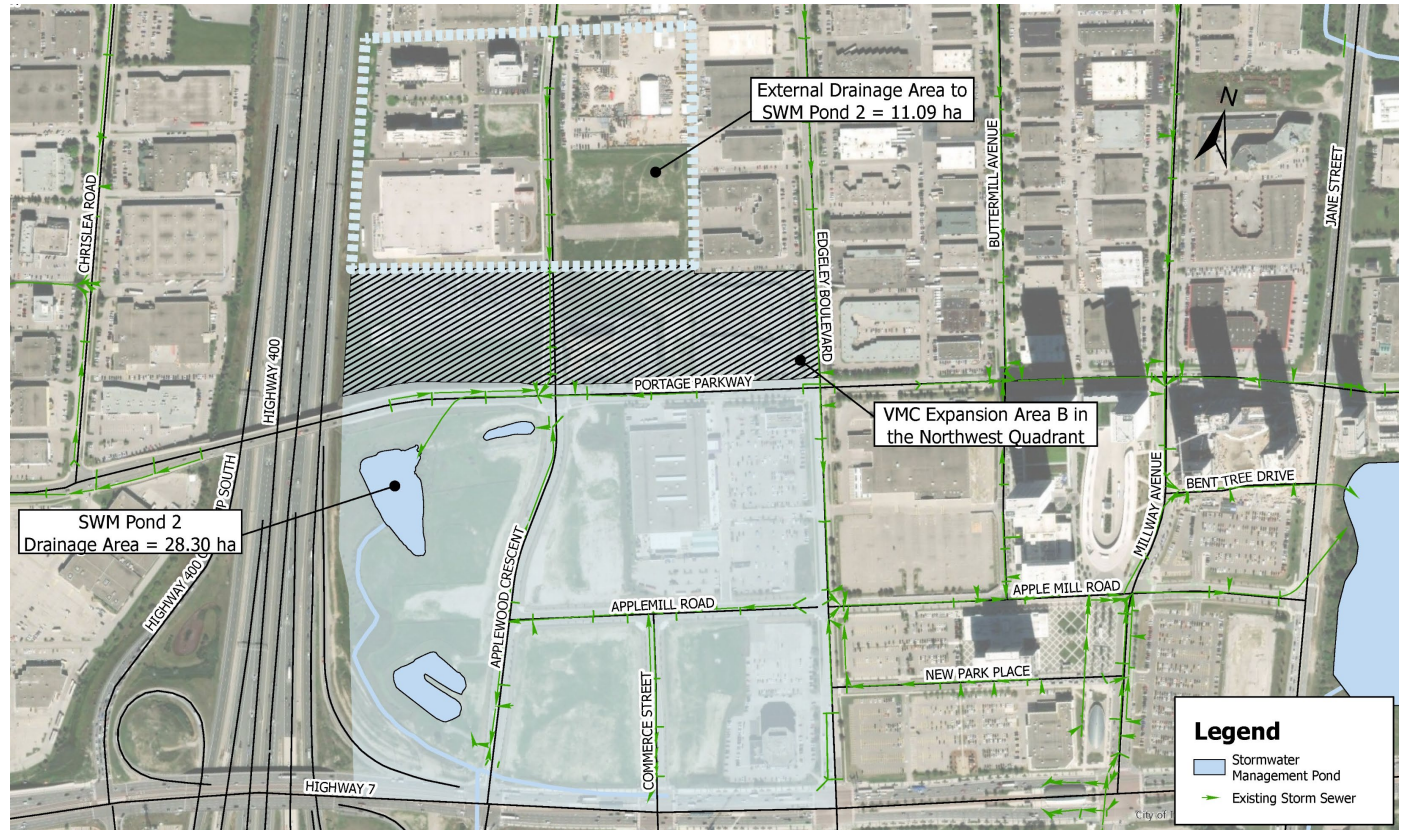
- The existing SWM ponds were constructed as a temporary solution to treat stormwater from the adjacent roadways. They require modifications to better integrate with future development in the quadrant and to treat the additional stormwater from Expansion Area B.
- Timing for SWM facility improvements will be identified during this study
- There are opportunities for underground SWM facilities to provide additional active parkland



Underground SWM facility under construction
Gallanough Park, Vaughan



Park above underground SWM facility
Gallanough Park, Vaughan



Southwest Quadrant

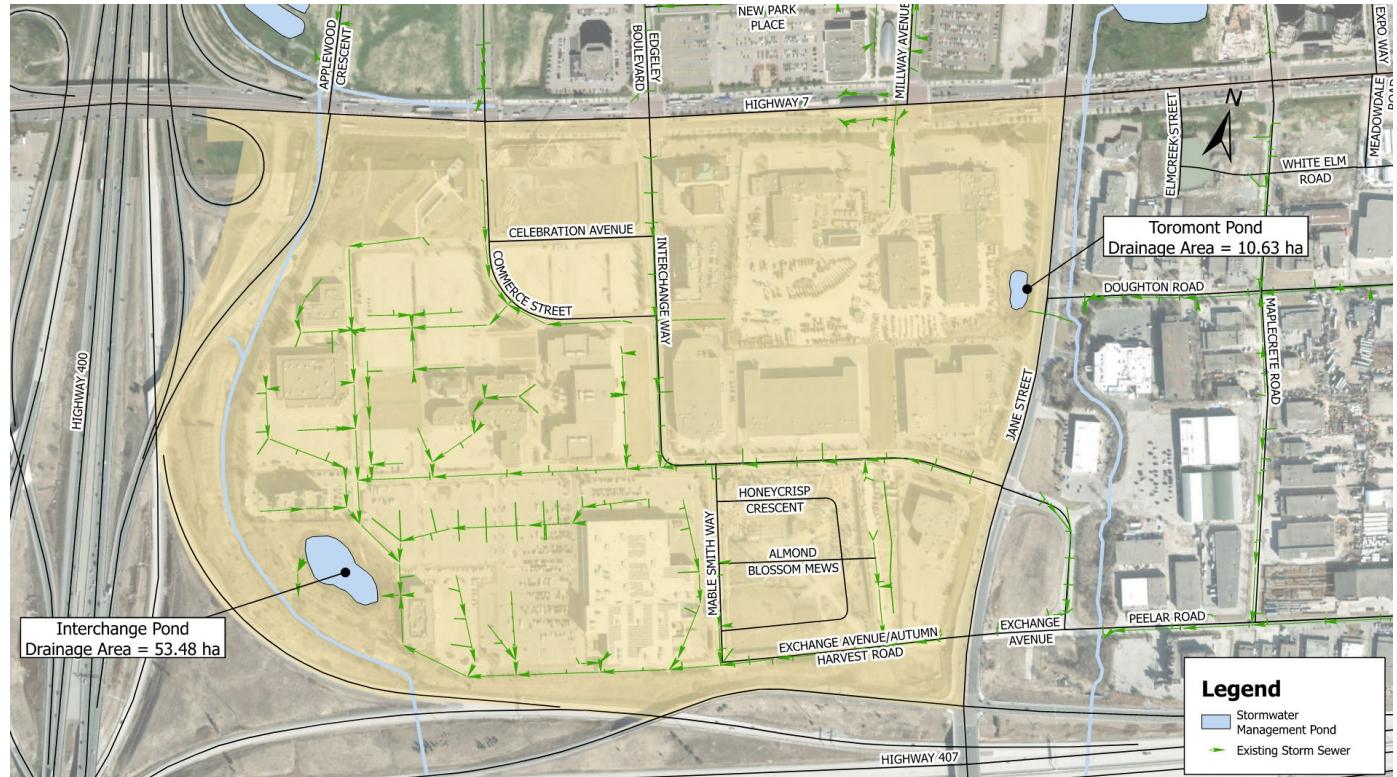
- The existing SWM Pond is not large enough to provide required runoff treatment and requires expansion
- Timing for SWM facility improvements will be identified during this study
- Coordination is required with the future Interchange Way overpass
- There are opportunities for underground SWM facilities to provide additional active parkland



Underground SWM facility under construction
Gallanough Park, Vaughan

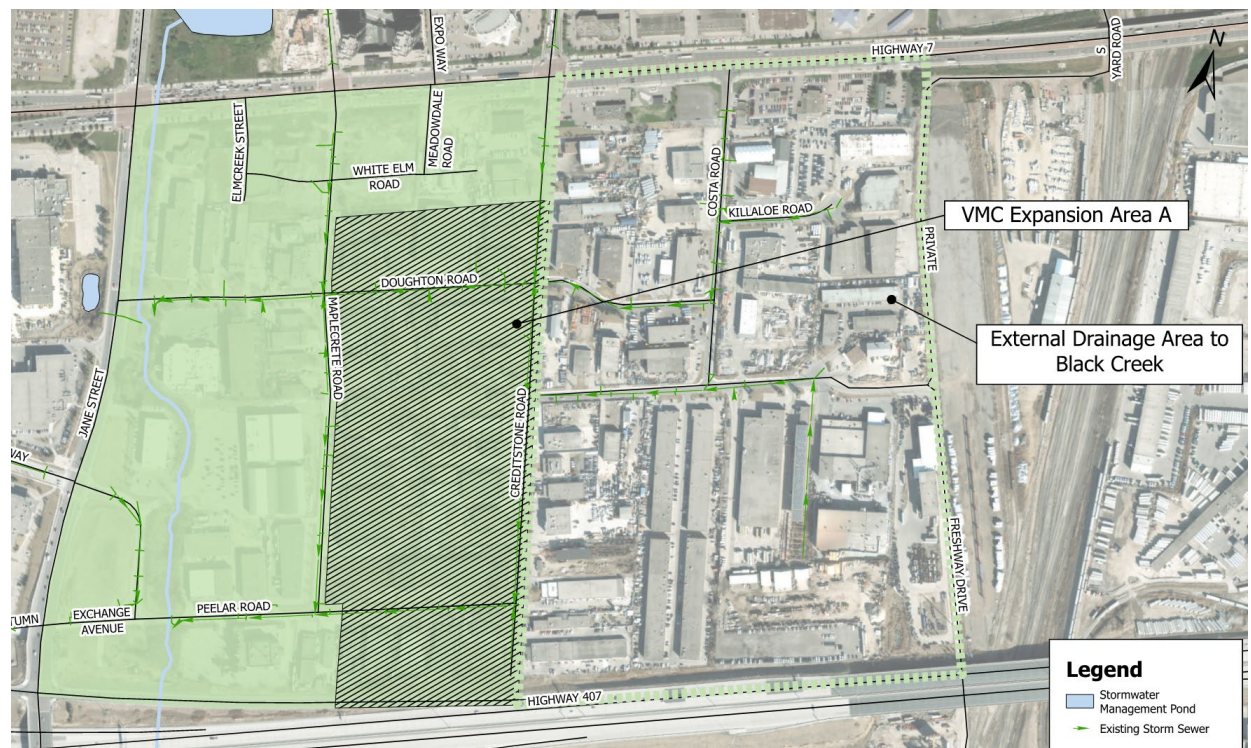


Park above underground SWM facility
Gallanough Park, Vaughan



Southeast Quadrant

- New SWM facilities are needed to treat runoff from planned development and new roadways in the Southeast Quadrant, including Expansion Area A
- Previous SWM studies and the Secondary Plan propose a new SWM facility south of Peelar Road. Implementation of a SWM facility in this location will require the City to acquire multiple properties
- The existing storm sewer systems drain east to west, to Black Creek. Significant infrastructure works would be needed to direct all stormwater from the quadrant to a single SWM facility south of Peelar Road
- Timing for new SWM facilities will be identified during this study, as well as the need for temporary SWM facilities until the ultimate end-of-pipe facility(s) can be implemented
- There are opportunities for underground SWM facilities to provide additional active parkland



Next Steps

After this Public Information Centre #1, the following activities will take place:

- Review comments received from the Notice of Study Commencement and PIC #1 and respond to comments
- Develop stormwater management alternatives for Northwest, Southwest and Southeast Quadrants
- Engage City departments, technical agencies, and impacted property owners regarding the stormwater management alternatives
- Hold PIC #2 in Q2 2025 to outline the stormwater management alternative solutions and PIC #3 in Q3 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 December 20, 2024.

Contact Information

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

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





Thank you!

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