

Welcome

to the

Frenchman's Bay Watersheds Stormwater Management Master Plan Update

Municipal Class Environmental Assessment Study

Public Open House

June 10, 2026

6:00-8:00pm

Chestnut Hill Developments Recreation Complex

O'Brien Room A & B

1867 Valley Farm Rd, Pickering, ON L1V 6K7



Project Overview

What is stormwater?

Stormwater is the rain and melted snow that flows off roofs, roads, and other hard surfaces.

What impacts does it have on the environment and communities?

Stormwater can carry pollutants such as sediment, nutrients, and debris into creeks and Frenchman's Bay, affecting water quality, aquatic habitat, and recreational use. During heavy rainfall, uncontrolled runoff can also lead to flooding and erosion.

What needs improvement?

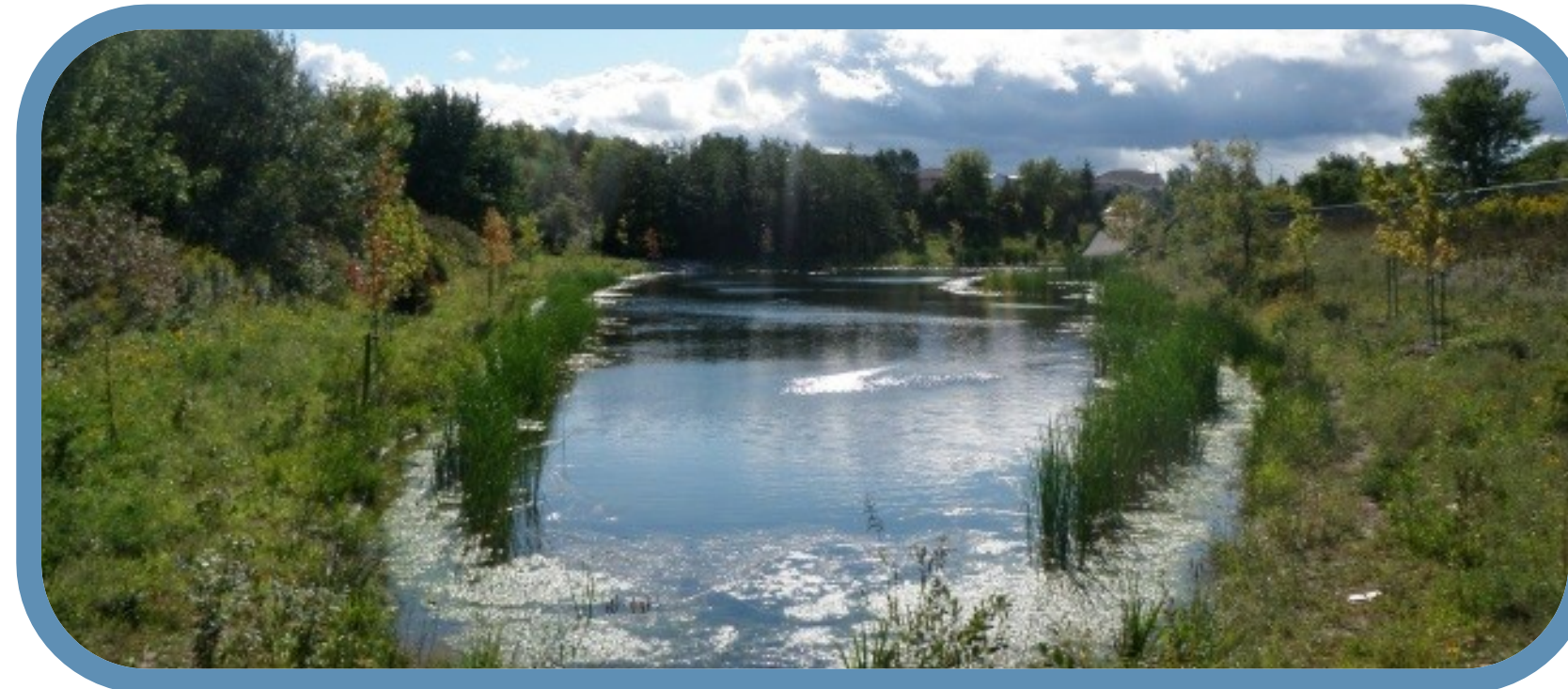
The Frenchman's Bay watersheds, located in the City of Pickering, is highly urbanized (>80%) and continues to grow, increasing pressure on the stormwater system. Existing conditions include flooding, erosion, and poor water quality, with limited improvement over time. An updated strategy is needed to better manage runoff, protect natural systems, and support future growth and climate change resilience.



Stormwater Management Key Facts

Did you know?

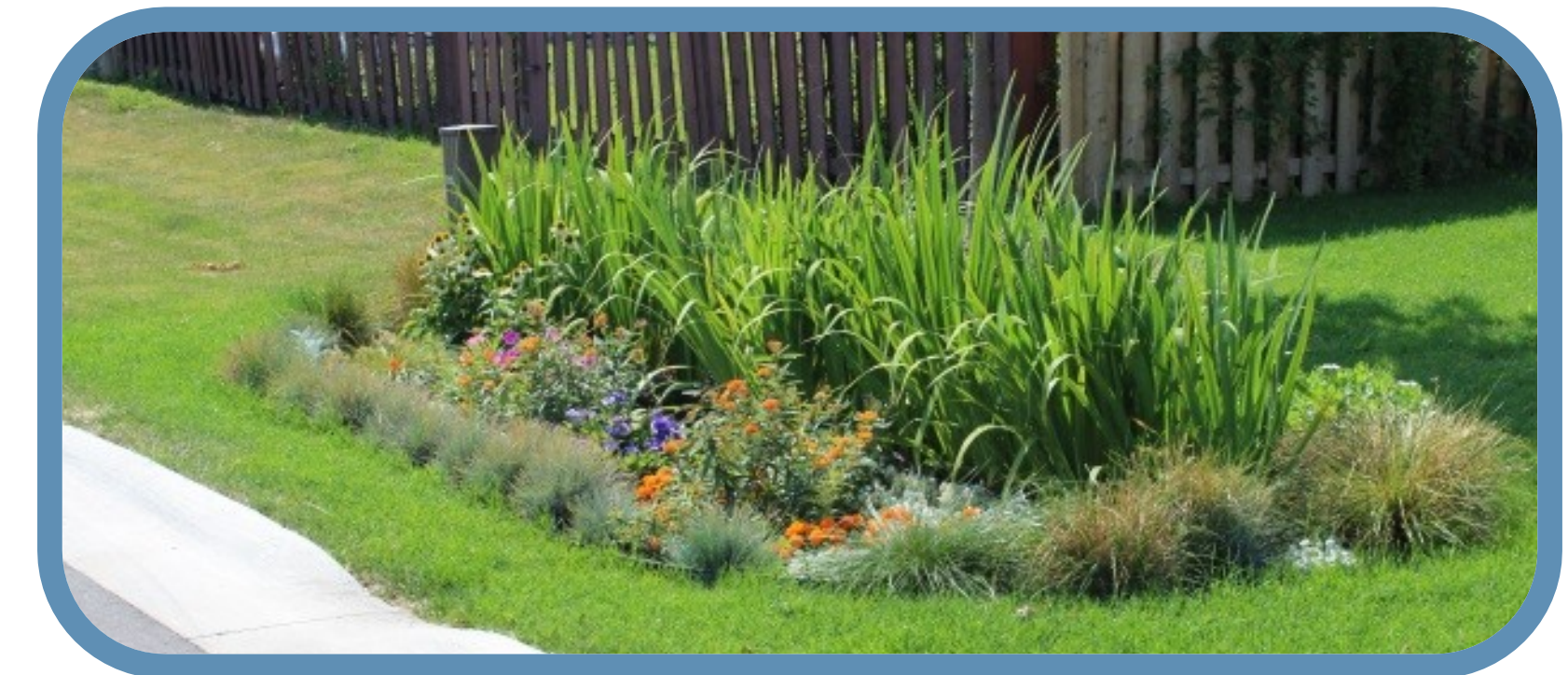
- The stormwater system includes catch basins, pipes, ditches, and treatment facilities.
- In the Frenchman's Bay Watersheds, stormwater flows through a system of pipes, ditches, and stormwater management facilities before discharging to streams and the bay.
- In general, types of stormwater treatment facilities include dry ponds, wet ponds, wetlands, subsurface storage, Low Impact Development, and Oil and Grit Separators. These facilities work to reduce pollution, flooding, and erosion.
- Modern stormwater management requires treatment before water is released to creeks, rivers, and lakes.



Stormwater management ponds collect and store stormwater to reduce flooding and erosion by slowing the release of water to nearby creeks.



Low Impact Development is a design practice that mimics natural water cycles. It helps water to soak into the soil, where it can be filtered by soil and/or absorbed by plants.



Oil and Grit Separators are underground devices that are attached to storm sewer pipes. They remove sediment and debris, and separate oil and grease.

Study Process & Timeline

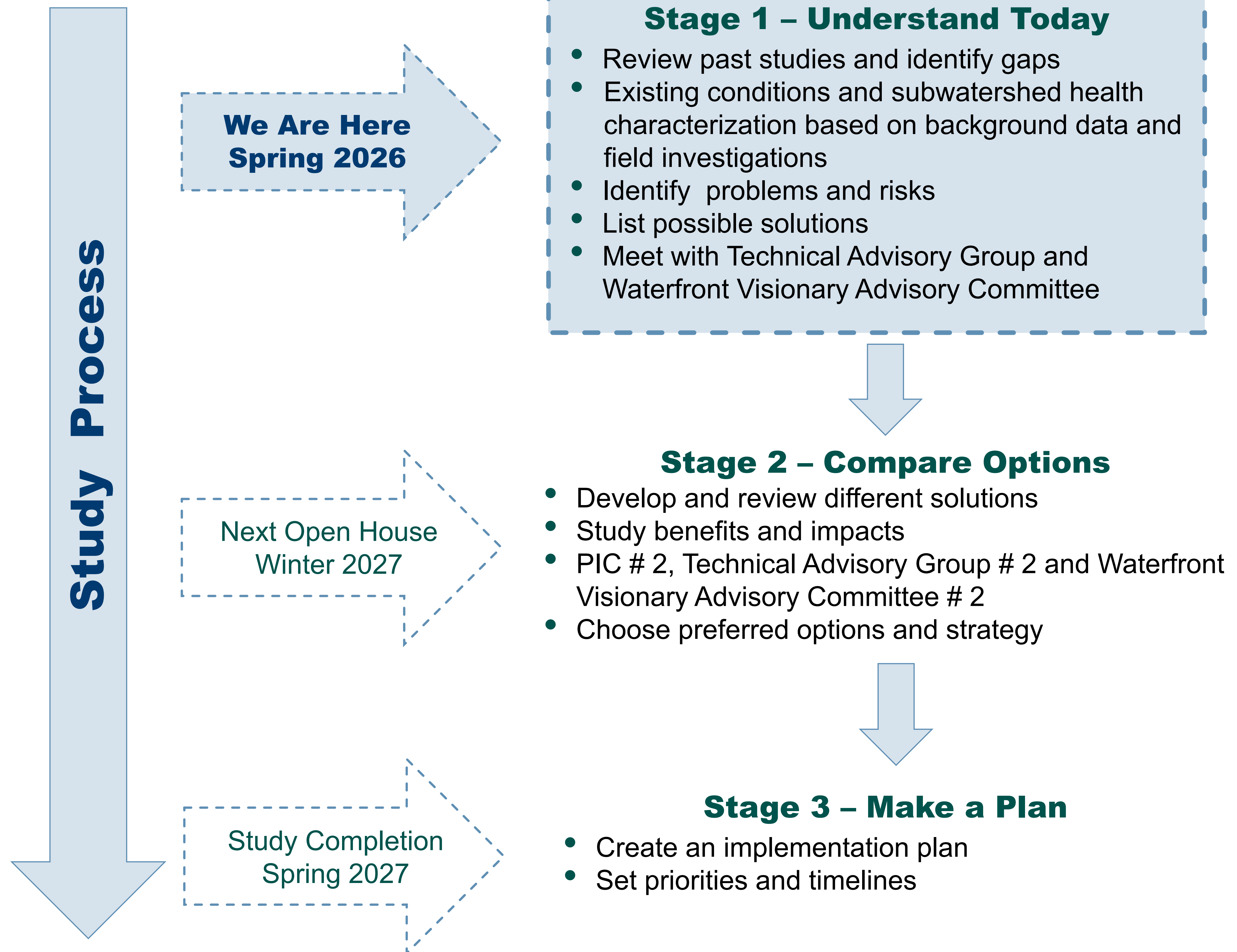
Where are we in the study process and when will you see us next?

What is the Municipal Class Environmental Assessment (MCEA)?

The MCEA helps plan municipal infrastructure while protecting the environment. It provides:

- a way for the City to provide services which are economically and environmentally responsible;
- a process that is consistent and easily understood to help plan and complete infrastructure projects; and
- the flexibility to account for local concerns, such as the environmental setting, public interests, and project needs.

This study follows the requirements for master plans under Approach #2. This approach identifies Schedule B and C projects for future studies.



Goals & Objectives

Study Goal

Develop a short and long-range stormwater management strategy for the Frenchman’s Bay Watersheds (FBW) to improve stormwater infrastructure. This will support growth, comply with regulations, increase climate change resilience, and reduce risks to people, property, and the environment.

Do the goals & objectives align with your understanding of stormwater management in the Frenchman’s Bay Watersheds?

Place a dot sticker under your selection below

Yes	No	Unsure



Study Objectives

The study goals will be achieved through the following objectives:

- 1. Water Quality:** Maintain or improve water quality including in creeks and groundwater;
- 2. Water Quantity:** Reduce flooding risks to people and property,
- 3. Erosion:** Reduce the impacts of erosion along creeks and habitats;
- 4. Ecology:** Preserve and enrich natural features such as wetlands and watercourses
- 5. Infrastructure:** Maintain consistent service levels while improving infrastructure performance and efficiency.
- 6. Policy and Implementation:** Update City policies and programs to make sure all regulations are followed. Make sure stormwater management aligns with other City priorities.

The project will not involve the following:

- Recommendations for works in Frenchman’s Bay itself
- Recommendations for works on the Frenchman’s Bay shoreline

Project Need

The City completed the original Frenchman's Bay Stormwater Master Plan (FBWSWM) in 2009. An update is needed because of:

Planned Growth & Development

The Frenchman's Bay Watersheds (FBW) have about 50,000 residents and are over 80% urbanized. Continued growth in Pickering is increasing pressure on the system.

Climate Change

Climate change projections show that the City's stormwater infrastructure may be impacted by future climate impacts. The Master Plan will recommend improvements to help prepare for these changes.

New Policies & Funding

The update needs to incorporate recent studies, updated regulations, new technologies, and the work completed in recent years. Future priorities and funding must be considered.

Ongoing Watershed Issues

Water quality remains poor, with ongoing nutrient and sediment loading and little improvement since 2009. Flooding and erosion also persist in several tributaries, highlighting the need for updated stormwater management strategies.

Have you experienced stormwater or creeks management problems (e.g., flooding, water quality, erosion or drainage issues) in FBW? Where?

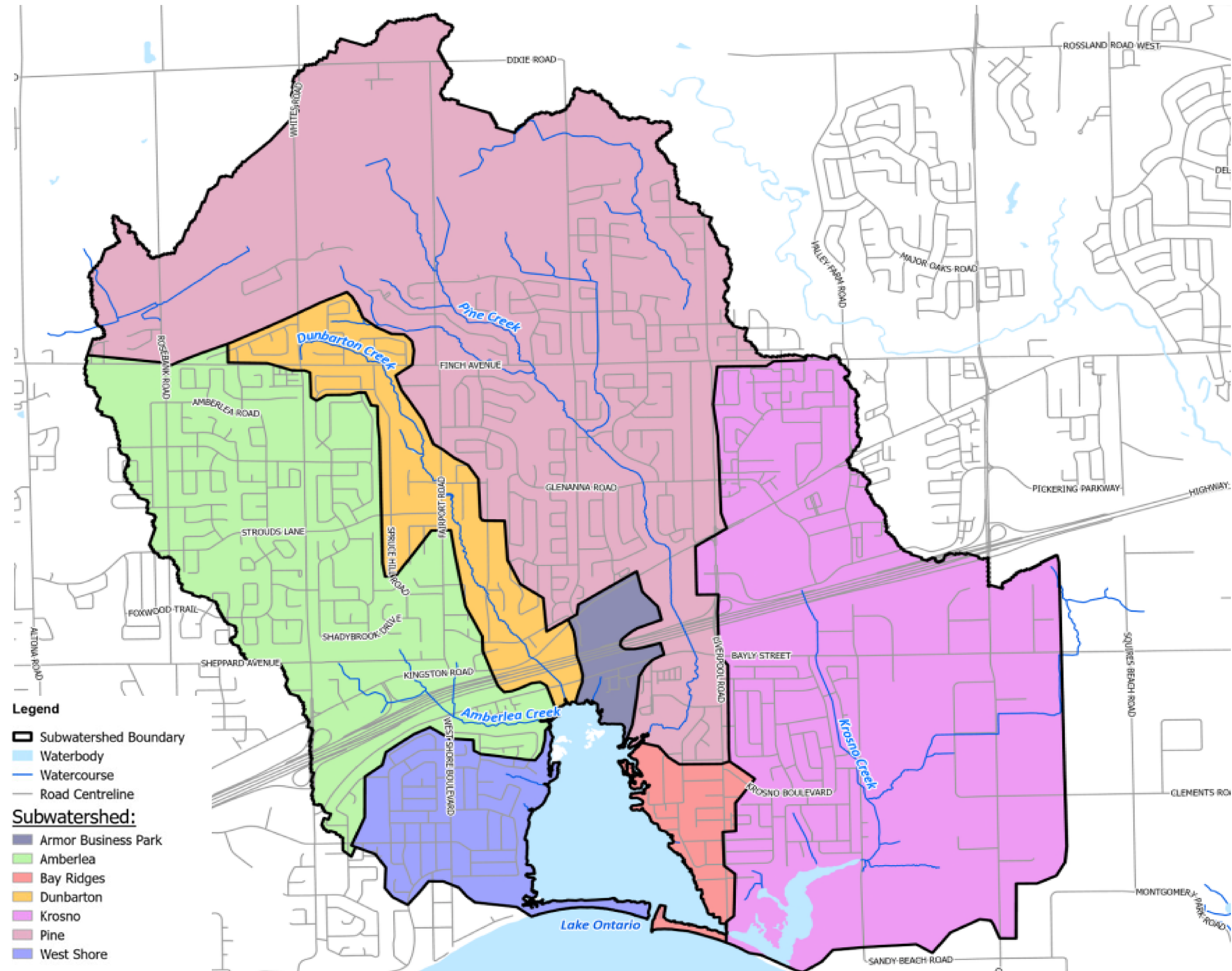
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Study Area

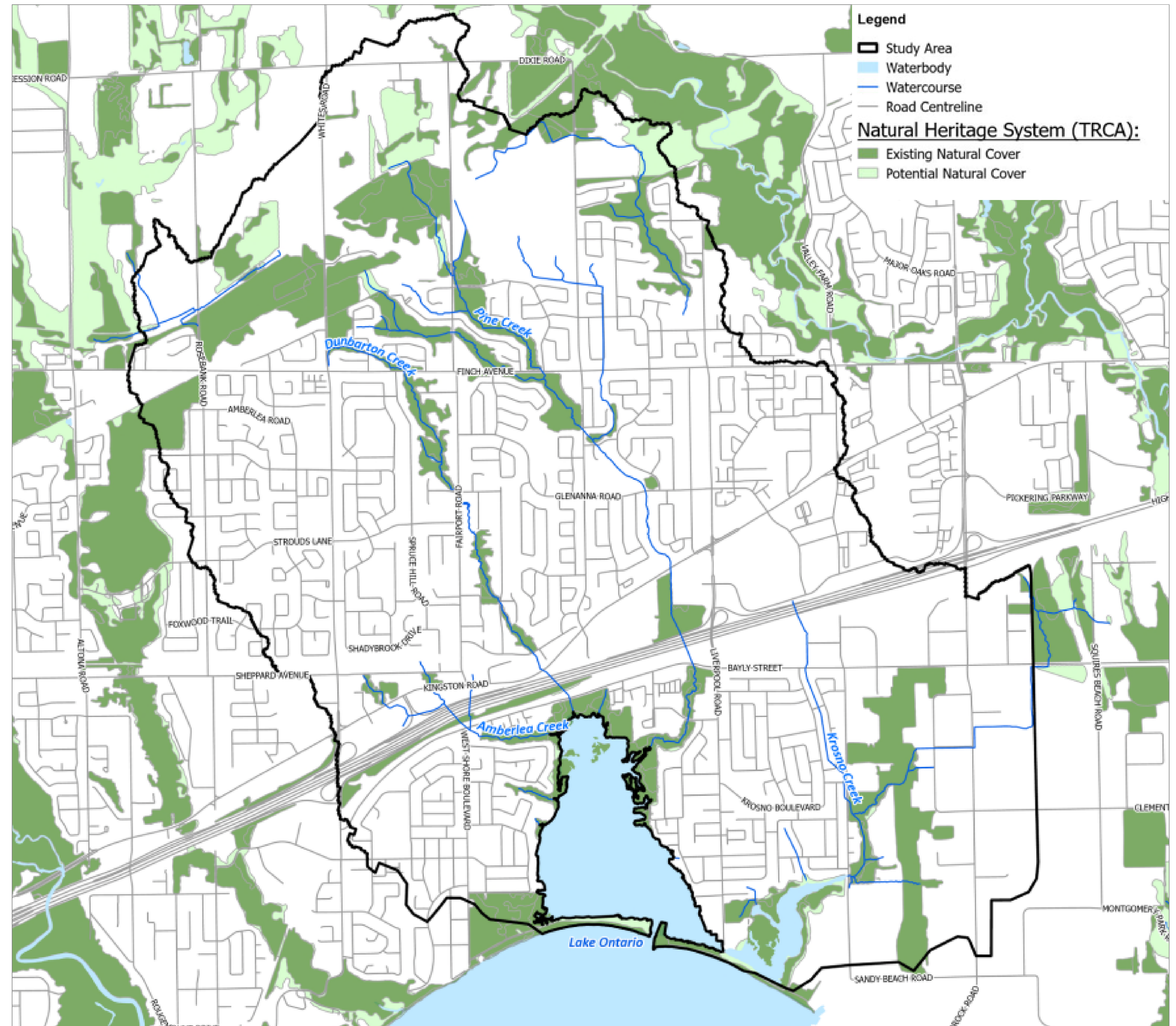
- The study area consists of the seven watersheds that drain into Frenchman's Bay and then to its outlet to Lake Ontario.
- A barrier beach separates the Bay from the Lake, with only a small 50 m entrance channel.
- It includes four main creeks:
 - **Amberlea Creek**
 - **Dunbarton Creek**
 - **Pine Creek**
 - **Krosno Creek**
- Three other subwatersheds drain to Frenchman's Bay but don't have significant creeks:
 - **Armor Business Park**
 - **West Shore**
 - **Bay Ridges**

The whole study area is in the jurisdiction of the Toronto and Region Conservation Authority.



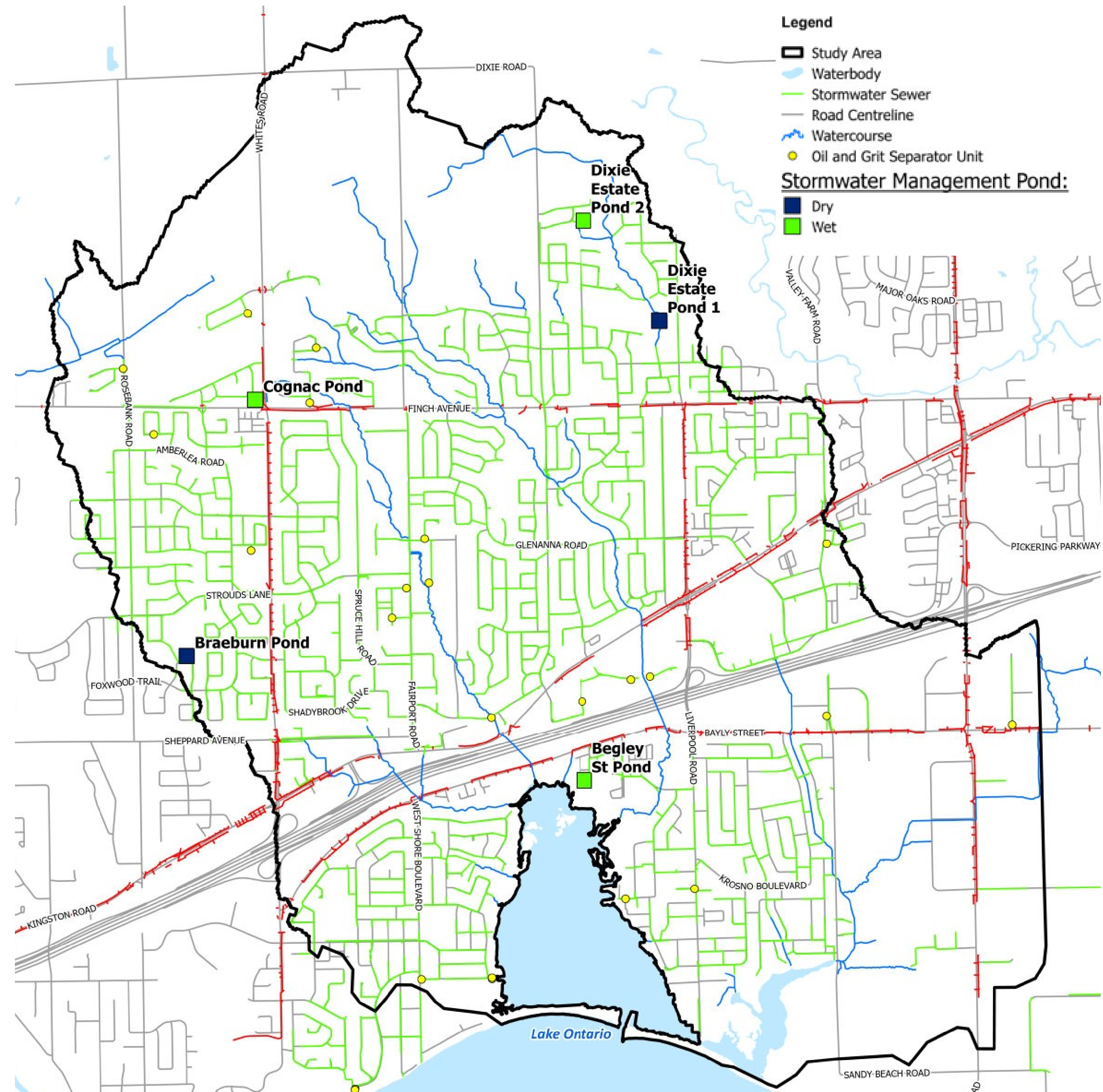
Natural Heritage System

- The watershed is highly urbanized, with lots of roads and buildings (only ~20% natural areas remain).
- Parks, natural areas, and creek corridors play an important role in reducing flooding and erosion.
- Effective stormwater management can help protect the remaining natural areas in the watersheds.



Stormwater Management

- The City's stormwater system manages stormwater runoff. It helps to:
 - Improve water quality
 - Reduce flooding
 - Reduce erosion
 - Increase how much water soaks into the ground
- The majority of the storm sewer system is owned and operated by the City of Pickering. A smaller portion of the system is owned and operated by the Region of Durham, along with other privately owned storm sewer services.
- There are 5 existing stormwater management facilities in the study area. Much of the area was developed before modern stormwater standards, so controls are limited.
- Major infrastructure like Highway 401 and rail lines affects how water flows through the area



What stormwater measures are being considered?

End-of-Pipe

These are stormwater facilities at the end of the storm sewer system. These facilities reduce erosion, improve water quality, and reduce flooding. They include wet ponds, dry ponds, wetlands, and underground storage tanks.



Wetland



Wet Pond

Conveyance

Infrastructure & Control

Conveyance infrastructure moves stormwater away from its source. Sometimes it can help water soak into the ground. They can include traditional curb and gutter systems. They also include bioswales, grassed channels, and subsurface perforated pipe systems.



Bioswale



Perforated Pipe System

Source Control

Source controls help water soak into the ground. These can include green roofs, permeable pavement, soakaway pits, rain gardens (bioretention), rainwater harvesting, and downspout disconnection.



Downspout Disconnection



Bioretention

Stream Restoration

Restores natural systems to improve water quality, reduce erosion, and enhance habitat. The focus is on stream restoration and planting native vegetation.



In stream practices



Riparian Plantings

Operation & Maintenance

Includes infrastructure maintenance like storm sewer flushing, catch basin cleaning, street sweeping, leaf clearing and removal, erosion and sediment controls for construction, and general education and awareness.



Pollution Prevention

This reduces pollution generation. Certain municipal programs such as road salt management, protecting wells, and using good parks maintenance activities (reducing use of herbicides and pesticides) improve water quality.



What measures would you like to see in your community?

Place a dot sticker under your selection below

End-of-Pipe

Source Control

**Conveyance
Infrastructure &
Control**

**Stream
Restoration**

**Operation &
Maintenance**

**Pollution
Prevention**

Other (Please specify):

Place your thoughts on a sticky note and place below



What is considered when finding solutions?

Stormwater management solutions will be evaluated using four main criteria:

Physical & Natural Environment

- Water Quality
- Stream Geomorphology
- Aquatic Habitat
 - Fisheries
 - Wildlife
- Groundwater Resources

Economic

- Capital Costs
- Operations & Maintenance Costs
- Lifecycle Costs
- Ability to coordinate with other projects

Social & Cultural

- Visual Aesthetics
- Recreational Opportunities
- Cultural / Heritage Resources
- Health & Safety

Technical & Engineering

- Flood Control
- Erosion Control
- Access and constructability
- Ease of Implementation
- Operations & Maintenance

Which factors are most important to you?

Place a dot sticker under your selection below

Physical & Natural Environment

Economic

Social & Cultural

Technical & Engineering

Other

The results of this evaluation shall be presented to the public at the next public open house.

Have you seen approaches to managing stormwater and streams (in FBW or elsewhere) that seemed to work well?

Place your thoughts on a sticky note and place below

Would you recommend the City change any of its current practices? Why do you think they should be changed?

Place your thoughts on a sticky note and place below

Is there anything else you think the City should consider, or ask residents, about stormwater and creeks?

Place your thoughts on a sticky note and place below



Next Steps

Stage One

1. Data Collection and Field Investigations
2. Characterize existing conditions
3. Identify problems and risks
4. List possible solutions

Stage Two

1. Identify multiple solutions
2. Compare and evaluate solutions using criteria
3. Recommend final solutions
4. Share results at Public Open House #2

Stage Three

1. Create an Implementation plan
2. Finalize the Stormwater Management Master Plan

Project Contacts

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Have Your Say!

Share your feedback and experiences at
<https://www.pickering.ca/council-city-administration/plans-projects-and-studies/frenchmans-bay-watersheds-stormwater-management-master-plan/>

