

Welcome to the Public Information Centre for The City of London Dingman Creek Environmental Assessment Master Plan for Stage 1 Lands



Public Information Centre

Wednesday
June 19, 2019

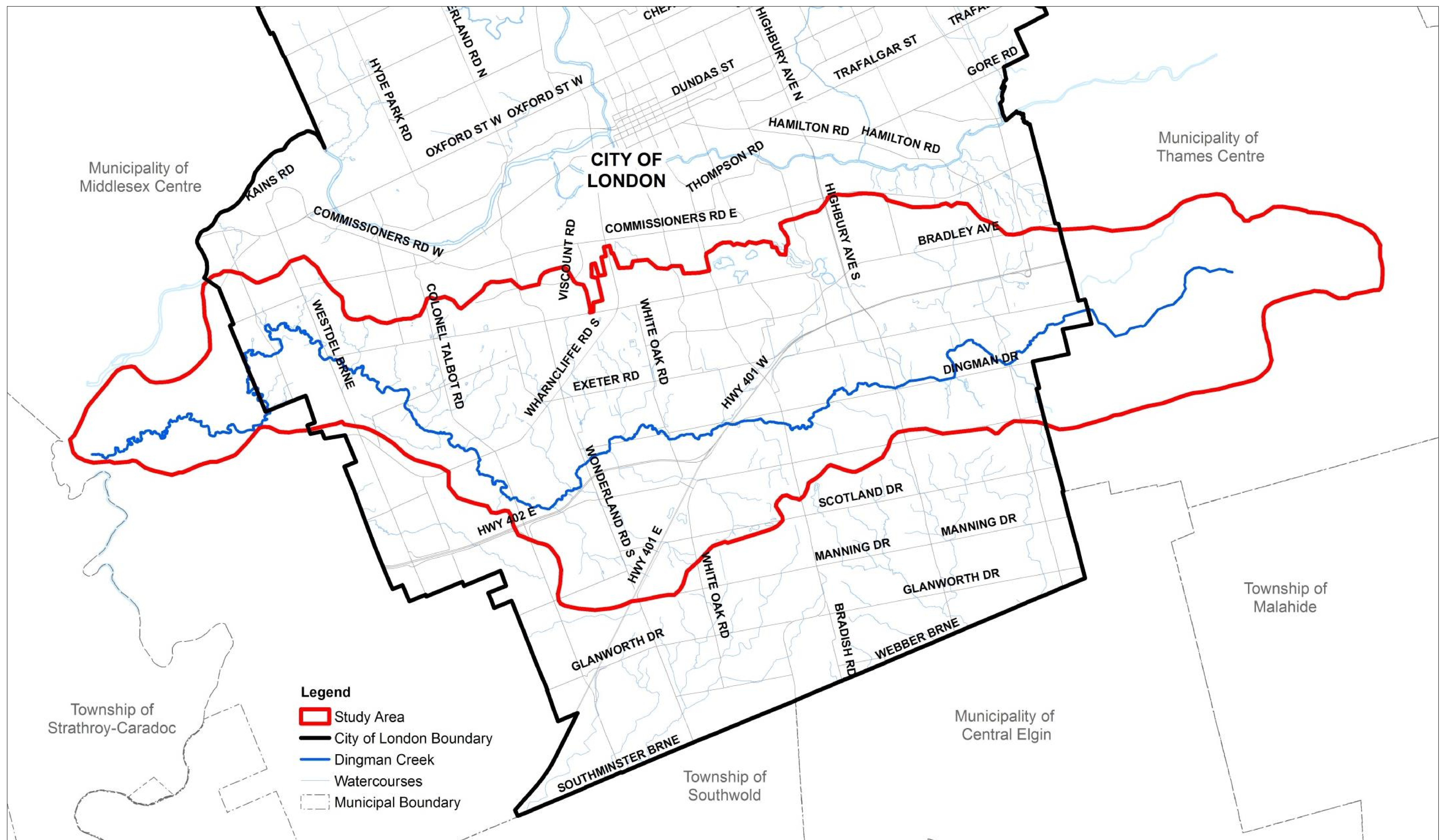
6-8pm

Bostwick Community
Centre

501 Southdale Road West
London, On



Study Area



The Dingman Creek subwatershed is outlined in red, above. The headwaters originate in the Municipality of Thames Centre. Approximately 74% of the subwatershed is located within the City of London.

Study Purpose

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The City of London is conducting a stormwater servicing study of the Dingman Creek subwatershed (17,200 hectares). The purpose of the study is to develop solutions to facilitate future development while considering the impacts on water resources, including current and potential flooding, bank erosion, wildlife/aquatic habitat, and the natural heritage system.

The study will be carried out in two Stages. The first stage (this study) will fulfill Phases 1 and 2 of the Municipal Class Environmental Assessment (EA) process for lands which are currently slated for development (See Board #4).

The second stage will complete Schedule C requirements for these lands and address items on a Subwatershed Basis.

Purpose of Tonight's Meeting

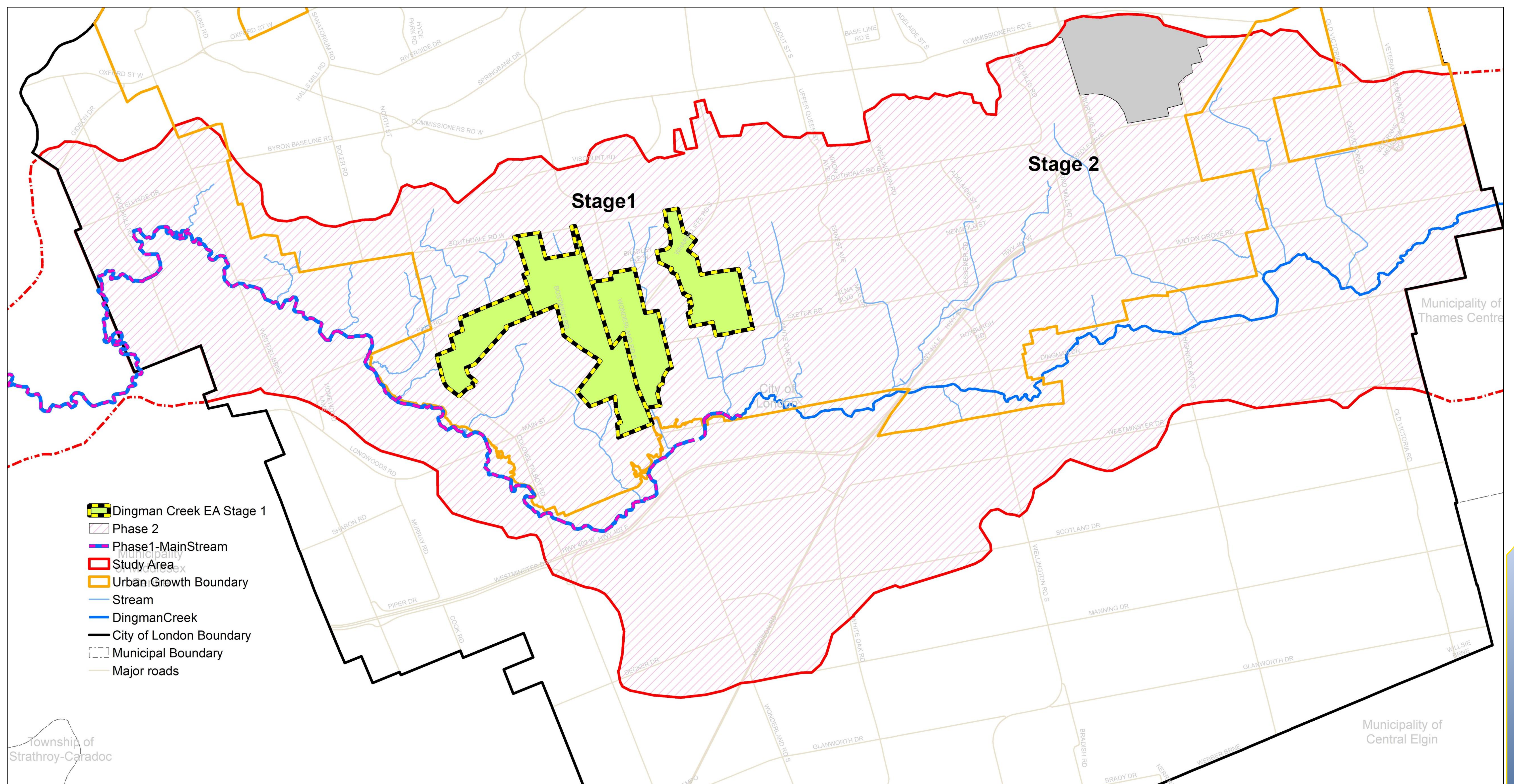
Tonight's Information Centre provides an opportunity for participants to review and evaluate information relating to:

- Alternative Subwatershed Management Strategies for Stage 1 Lands;
- The Evaluation Approach and Preferred Strategy; and
- Areas requiring Future Study in Stage 2.

The staff of the City of London and the members of the Project Team are available to answer any questions that you may have.



Dingman Creek Subwatershed Master Plan Limits



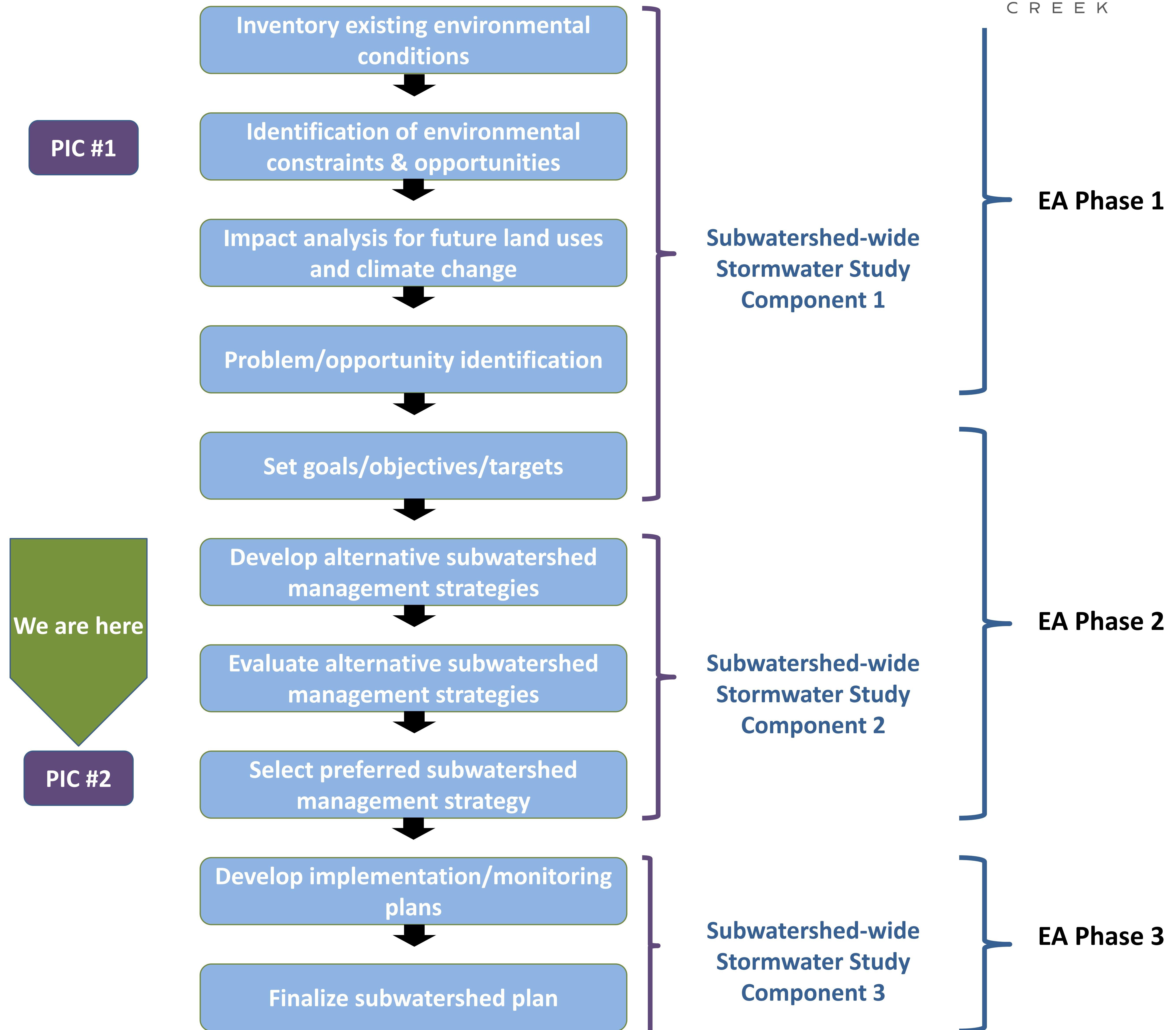
Master Plan/Environmental Assessment Process



The Master Plan Stormwater Study is being carried out in two Stages, and will satisfy Phases 1, 2, and 3 of the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment Act (Class EA) process.

This will involve a process of problem/opportunity identification, evaluation of alternative solutions, and selection of a preferred solution. Stakeholder consultation is an important part of the EA process and a key component of the study.

Consultation with Stakeholders, the Public, and Agencies



Environmental Assessment Problem Statement

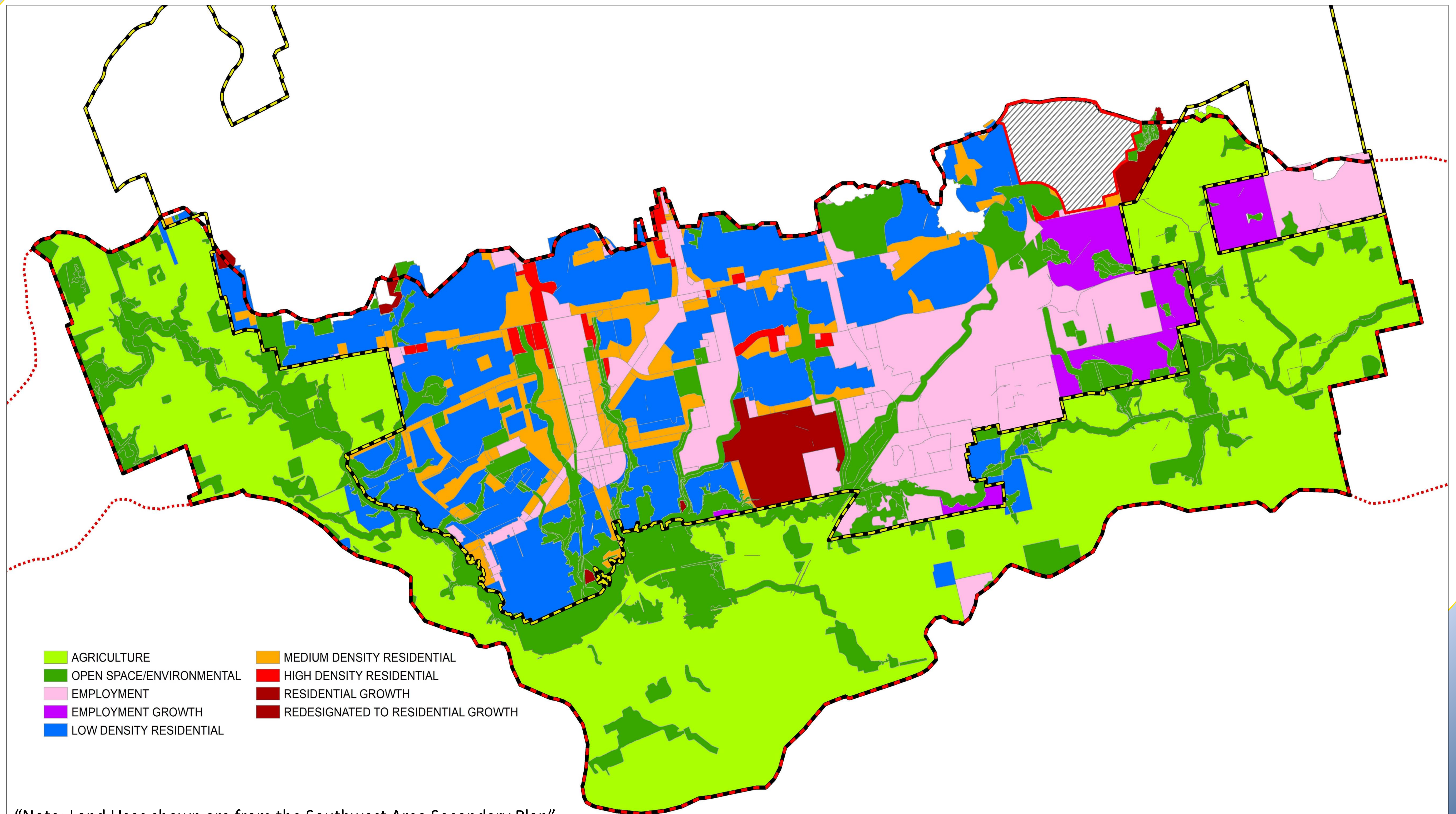
Problem Statement

The Dingman Creek Subwatershed (DCS) suffers from poor water quality, a lack of wildlife habitat, loss of trees and vegetation, as well as flooding and erosion issues. Sustainable growth within the Urban Growth Boundary of the DCS is a City of London priority. To maintain, enhance, and restore the DCS, the City needs a comprehensive plan to support both environmental and development goals. This plan must:

- Build on the 1995 and 2005 Dingman Creek Subwatershed Studies and be consistent with the goals and objectives of the Official Plan and Southwest Area Secondary Plan;
- Meet the targets established in the Environmental Compliance Approval (ECA); and
- Create a “complete corridor” that provides a continuous natural area for the movement of water, wildlife, and people.

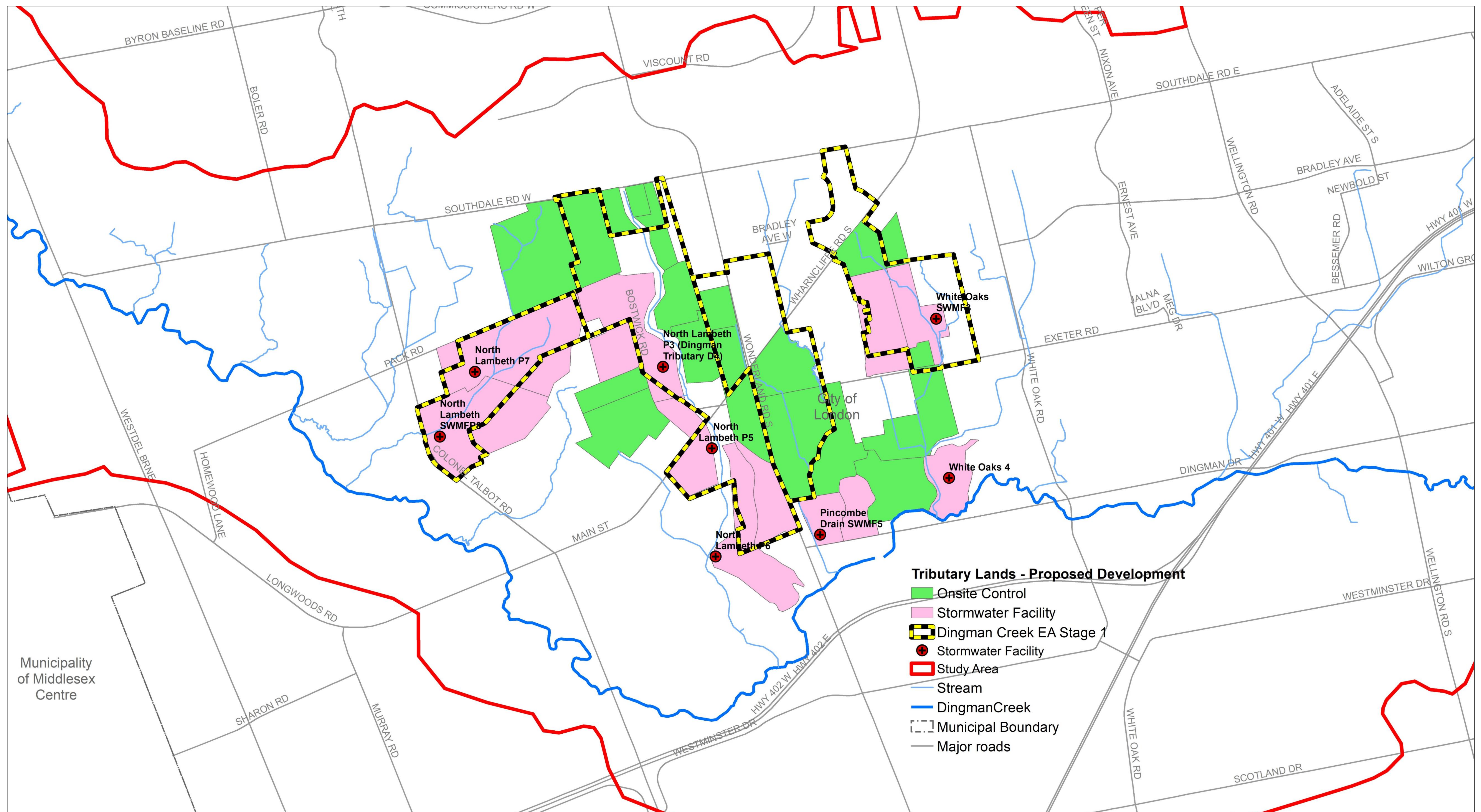
Note: The Dingman Creek Environmental Assessment will not delay construction of draft approved subdivisions.

Proposed Land Uses



"Note: Land Uses shown are from the Southwest Area Secondary Plan"

Location of Proposed Stormwater Management Facilities - Stage 1 Lands



Existing Conditions – Stormwater Management

Objectives

- Define the number and type of existing Storm Water Management facilities within the Dingman Creek watershed

Study Tasks

Based on information provided by the city:

- The location, type, size of the facilities were defined, and
- The defined stormwater facilities were used as inputs into the PCSWMM model

Findings

- There are a total number of 27 stormwater management within Dingman Creek.
- 19 facilities provide water quality, erosion and flood control
- 3 ponds provide erosion and flood control
- 5 ponds provide flood control

The location and type of facilities are shown on Board 16.



Alternative Subwatershed Strategies

Alternative subwatershed strategies include a series of measures which, if implemented, will result in protection, enhancement, or restoration of existing environmental conditions.

Evaluation of Alternative Subwatershed Strategies is an integral part of both the Subwatershed Planning process as well as the Environmental Assessment process.

The following boards define the alternative subwatershed strategies that were considered. It should be noted that other measures are required as part of the Official Plan process or other regulatory processes. These measures may also be included as part of the overall Subwatershed Strategy.

For this project, four (4) Alternative Subwatershed Strategies have been established. They are:

1. Do nothing
2. Traditional SWM Strategy (end-of-pipe only)
3. Low Impact Development (LID) Strategy
4. Combined Traditional & LID



Example of a Low Impact Development feature (Bioswale)

Alternative Subwatershed Strategy 1: Do Nothing

The Municipal Class Environmental Assessment process requires that the “Do Nothing” alternative be considered.

For the “Do Nothing” alternative, no new stormwater strategies or facilities would be implemented as part of future development.

Existing stormwater systems would remain as-is. These facilities would be operated and maintained as per current programs.

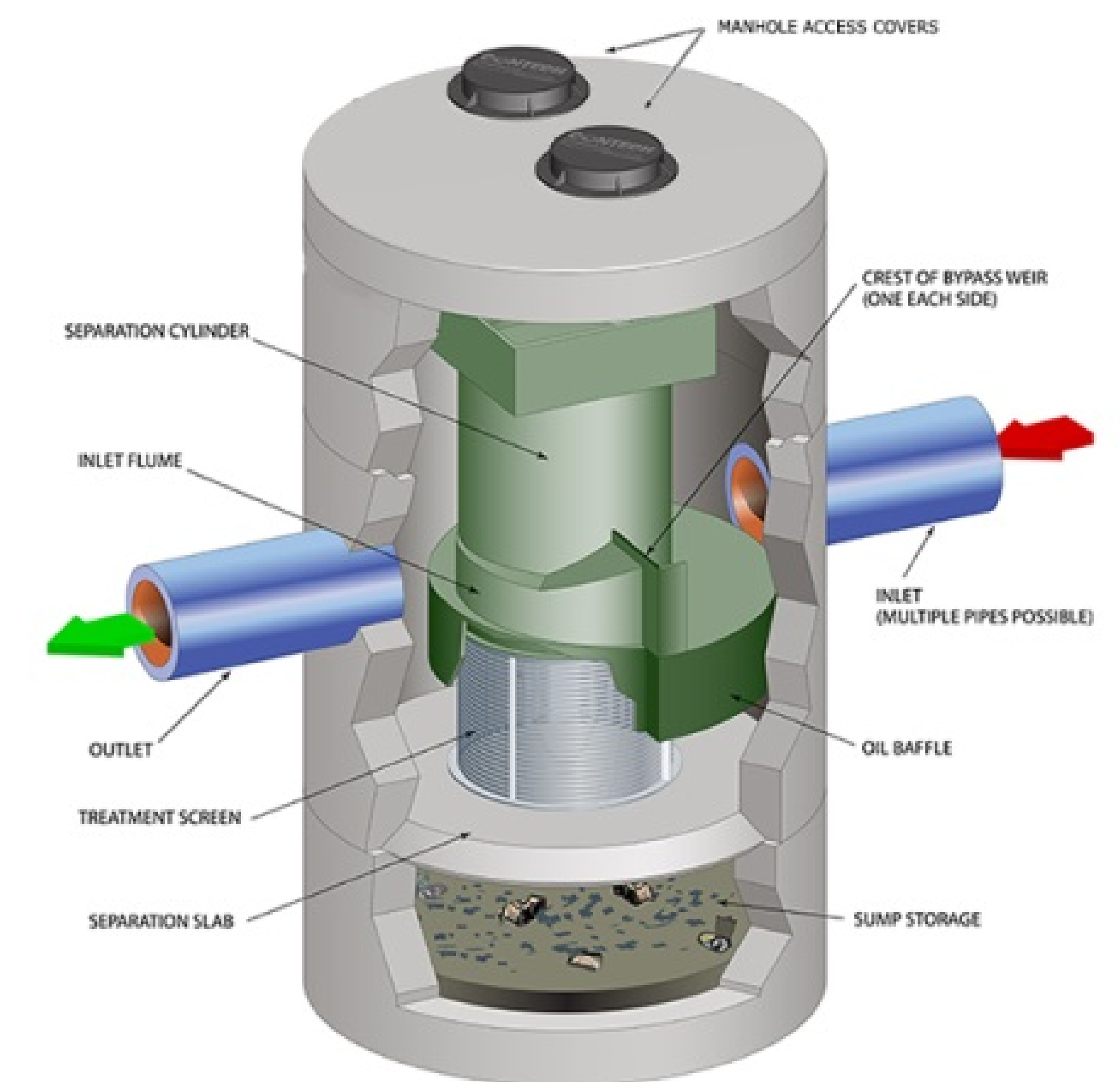


Dingman Creek

Alternative Subwatershed Strategy 2: Conventional SWM Strategy

Conventional stormwater management focuses on controlling peak flows, reducing sediment loading and mitigating erosion. This strategy uses engineered treatment devices and end-of-pipe facilities such as:

- Stormwater Management Ponds
- Oil and Grit Separators



Oil and Grit Separator (Source: Imbrium)



Stormwater Management Facilities

Alternative Subwatershed Strategy 3: Low Impact Development (LID) Strategy

LID is an approach to managing stormwater by treating runoff at its source, as a resource to be managed and protected. The emphasis of LID is to maintain the existing pre-development water balance through the use of source (lot level) and conveyance (roadway) measures.

LID practices include rain gardens, bioswales, bioretention facilities, perforated pipes, rainwater harvesting and infiltration galleries.



Bioretention



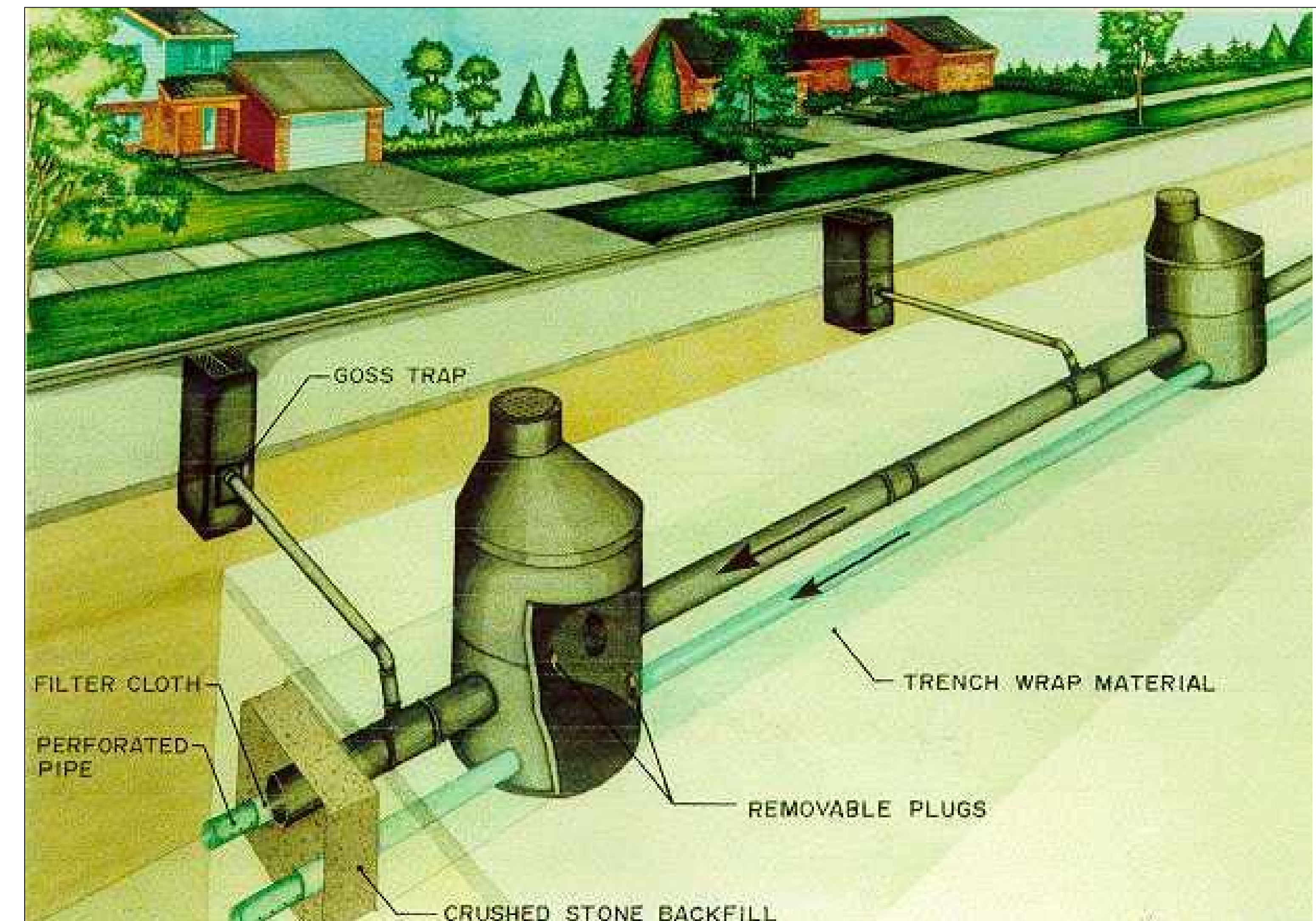
Perforated Pipes



Rain Garden

Alternative Subwatershed Strategy 4: Combined Conventional & LID

This strategy uses both source and conveyance based LID best management practices and end-of-pipe stormwater management facilities to provide a “treatment train” approach to stormwater management.



Schematic of Combined Conventional & LID System



Bioswale



Bioretention



Dry SWM Facility

Evaluation Assessment Criteria

Each of the Alternative Subwatershed Strategies were evaluated based on a set of criteria, as per the Municipal Class Environmental Assessment Process, together with a scoring system.

The criteria and scoring system are summarized below.

Evaluation Criteria

1. Natural Environment:

- Water quality
- Flooding
- Erosion
- Aquatic natural heritage
- Water balance

2. Economic

- Capital cost
- O & M costs
- Infrastructure Protection

3. Social

- Aesthetics/Recreation
- Integration with City/Agency Plans
- Compatibility with adjacent land uses
- Potential to increase private property land values

Scoring System

THE SCORING SYSTEM	
Score	Condition
4	Strategy maintains or improves existing conditions
3	↓
2	Strategy somewhat impacts existing conditions
1	↓
0	Strategy adversely impacts existing conditions

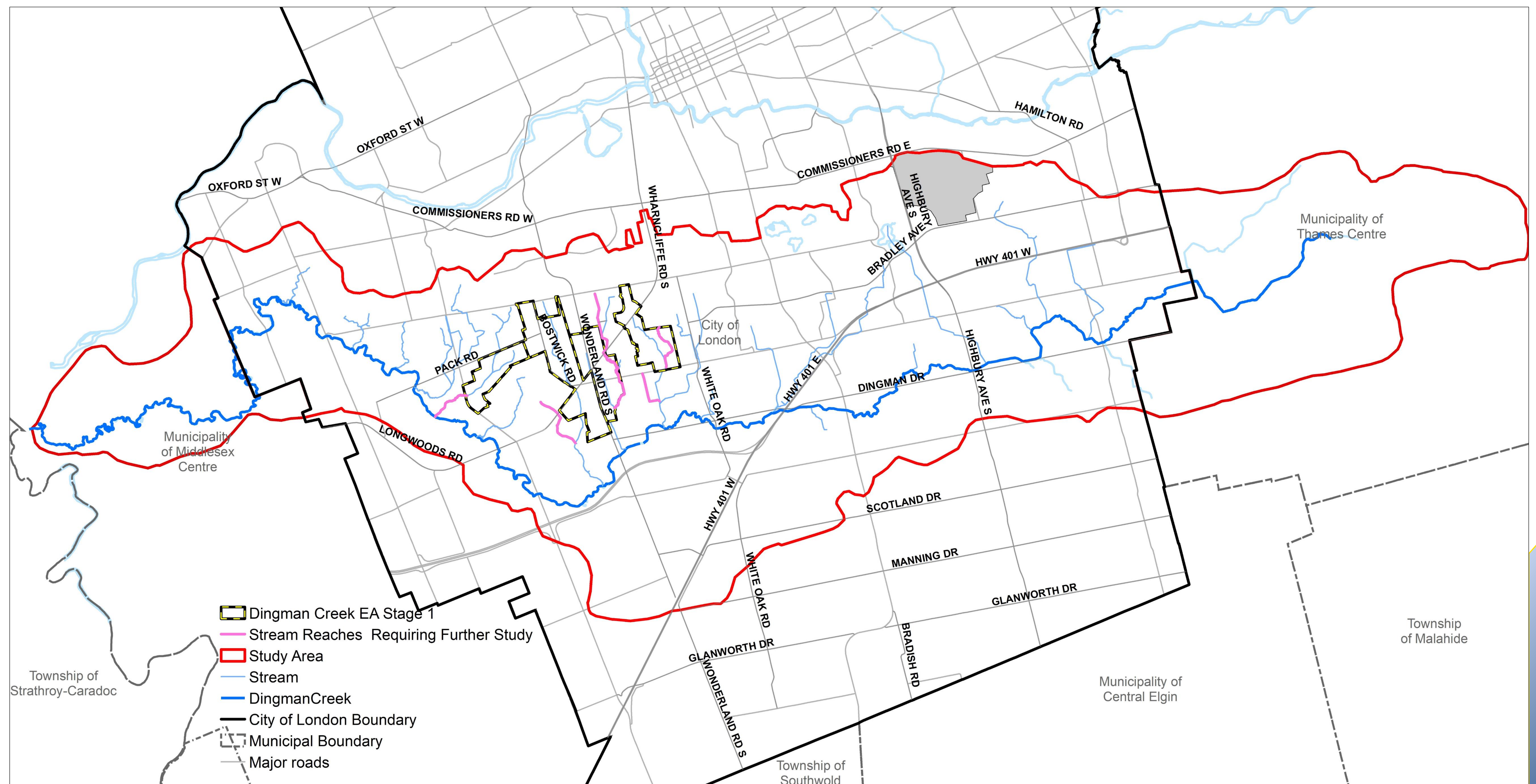
Evaluation of Strategies

Evaluation Criteria	Alternative #1 Do Nothing	Alternative #2 Traditional SWM Strategy (end-of-pipe only)	Alternative #3 Low Impact Development (LID) Strategy	Alternative #4 Combined Traditional & LID
1. Natural Environment (Score out of 33.3)	0.0	20.0	23.3	30.0
Potential to improve water quality based on existing water quality conditions and ability to provide required water quality as per the MECP requirements	0	3	3	3
Potential Impact on Flooding	0	3	2	4
Potential Impact on Erosion	0	2	3	4
Potential Impact on Aquatic Habitat	0	2	3	4
Potential Impact on Water Balance	0	0	3	3
2. Social (Score out of 33.3)	2.1	18.7	18.7	31.2
Aesthetics/Recreation	1	3	3	4
Integration with other City/Agency plans, policies and initiatives (programs)	0	2	2	4
Compatibility with adjacent land uses	0	2	2	4
Potential to increase private property values	0	2	2	3
3. Economic (Score out of 33.3)	22.2	19.4	19.4	16.7
Construction Costs	4	2	3	1
Long Term Operation and Maintenance Costs	4	2	3	1
Infrastructure Protection	0	3	1	4
Total Normalized Score (1+2+3: Score out of 100)	24.3	58.1	61.4	77.9

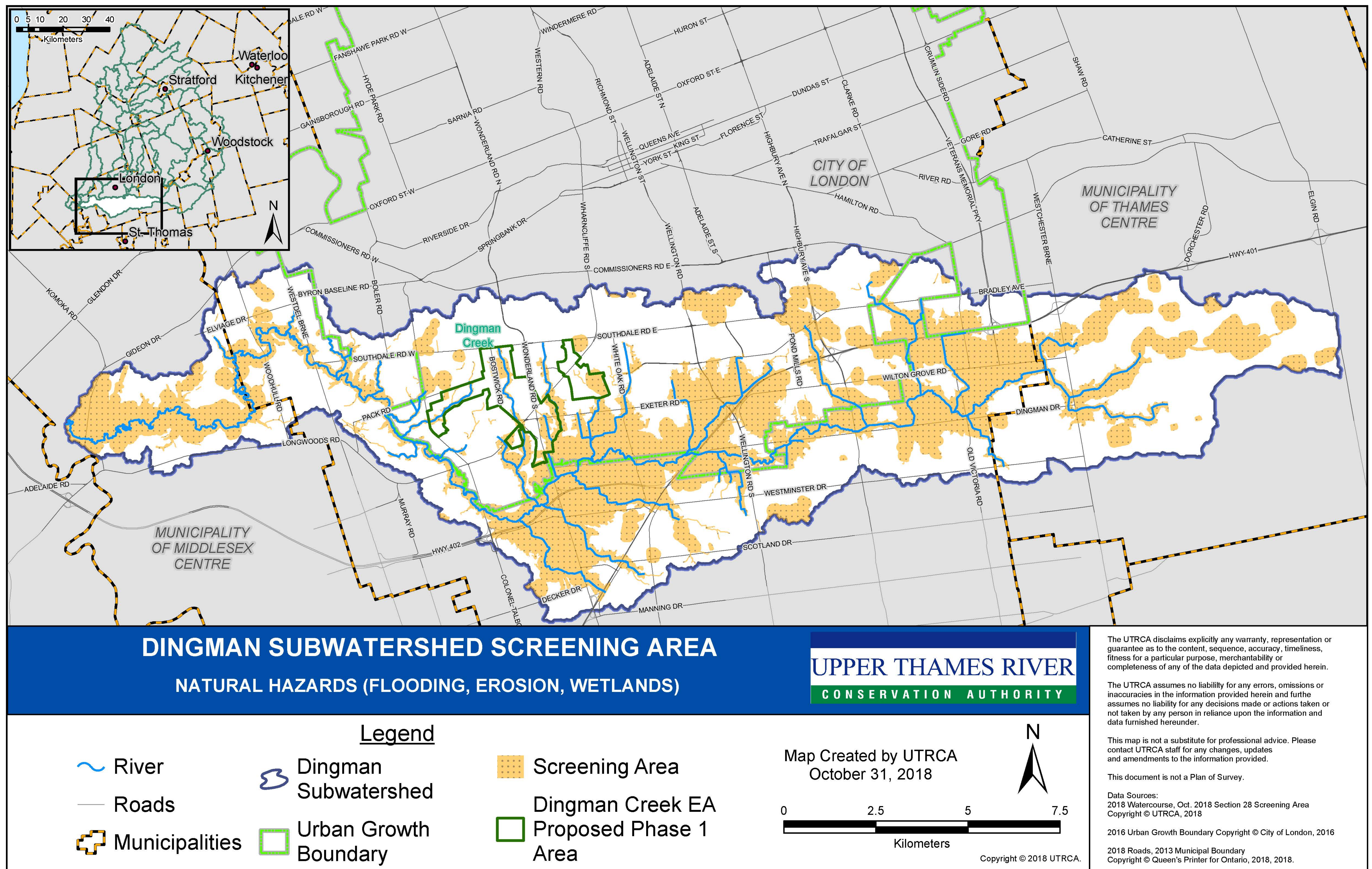
The preliminary Preferred Strategy is Alternative # 4 – Combined – Traditional & LID

Flooding – Stage 1 Master Plan

The Upper Thames River Conservation Authority is in the process of updating the floodlines for Dingman Creek. Interim floodlines were developed as part of this study. Provided below are reaches within the Stage 1 study area where flooding concerns were identified. The second Stage of this study will refine the study findings and assess alternatives to reduce flooding.



Flooding – Phase 1 Findings



Dingman Creek “Screening Area” – Draft Hazard Lands

Dingman Creek Master Plan

Stage 1 Lands: Schedule B EAs

Tributary 12
(North Lambeth
P7/P8)

Thornicroft Drain

Pincombe Drain
SWM 4

White Oak SWM 3

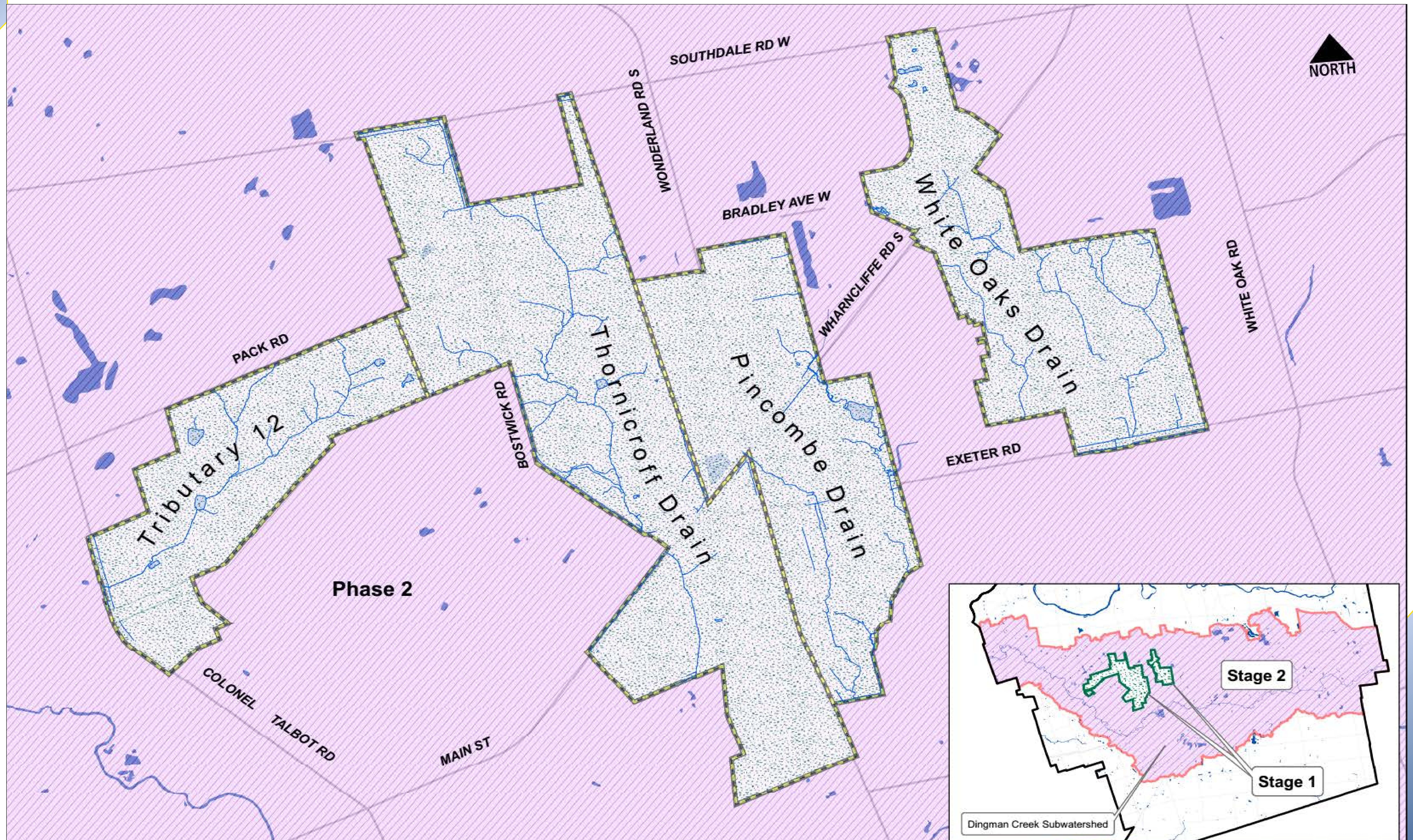
Stage 2 Lands: Schedule C EA

Complete
Corridor

Flood
Mitigation

Concurrent EAs to recommend stormwater infrastructure solutions.

Proposed Development Areas Stage 1 Lands



Next Steps

Summer 2019:

- Confirm the preferred stormwater management strategy for stage 1 Lands based on comments received
- Finalize the Master Plan document for Stage 1 Lands

Fall 2019

- Issue Master Plan report for 30-day public review period
- Initiate concurrent Schedule B and C Municipal Class EA studies to recommend stormwater infrastructure for proposed development areas,



Thank You for Participating!

After this Public Information Centre, the study team will consider verbal and written comments in order to refine tasks taken as part of the Environmental Assessment.

For more information on this project, please submit your comments or feedback, by July 14th to one of the following contacts:

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