# Welcome

to the Lawrence Park Neighbourhood

Investigation of Basement Flooding (Area 20) &

Road Improvement Study

**Class Environmental Assessment** 

Public Information Centre

Please sign-in and help yourself to a feedback form.

City of Toronto and project consultants are on hand to answer your questions.





## Municipal Class Environmental Assessment Process

This study is being undertaken as a Schedule B project under the Municipal Class Environmental Assessment (EA) process. The flow chart illustrates the key steps to be undertaken as part of the EA process.







## Purpose of this Class EA

#### **Study Purpose**

The City of Toronto has initiated a Schedule B Municipal Class Environmental Assessment (EA) study to address issues relating to deteriorating road conditions, traffic, pedestrian safety, drainage problems and basement flooding in the Lawrence Park Neighbourhood (see map below). Measures that improve stormwater quality and reduce storm runoff will also be incorporated.

The study is being planned under the requirements set out in the Municipal Class Environmental Assessment (MCEA) document dated October 2000, amended in 2011. The MCEA process provides members of the public and interest groups with opportunities to provide input at key stages of the study. The study will:

- 1. Define the problem,
- 2. Evaluate alternative solutions,
- 3. Assess impacts of the preferred solutions, and
- 4. Identify measures to lessen any adverse impacts.

### **Objectives of Tonight's Meeting**

- introduce project to community, answer residents' questions, receive feedback
- describe the study area
- define any problems and opportunities
- present initial findings and collected data
- present results from questionnaire
- discuss next steps







## Lawrence Park Neighbourhood Stormwater Runoff, Basement and Surface Flooding



#### The Problem

Urban development has altered the natural way in which stormwater runoff enters the sewer systems and travels back to Lake Ontario/water bodies/sources.

#### Water Quality

During heavy and extreme wet weather events, stormwater (in the form of rain or snow) travels along roofs, gardens, driveways, collecting grease, dirt, oil, and other pollutants before entering our sewer systems. This results in degraded water quality conditions, which negatively impact aquatic habitat and wildlife.

#### **Basement and Surface Flooding**

Extreme storm events on May 12, 2000 and August 19, 2005 caused significant surface and basement flooding within the City. These storm events resulted in the flooding of many residents' homes, and damage to City infrastructure such as roads, bridges, culverts and sewers.

Study Area 20 is one of 34 areas in the Basement Flooding Work Plan approved by Council to address these drainage issues.





## **General Causes of Basement Flooding**



During normal rainfall events, the storm and sanitary sewer systems operate as designed. However, during extreme storms, the following takes place:

- Stormwater flow exceeds the storm sewer capacity and overloads the system;
- Directly connected roof drains, especially flat roofs, contribute significant volumes to the sewer system;
- Water remains on the surface and flows overland along roads;
- At low lying areas, water accumulates (ponds) and enters the sanitary sewer through manhole covers. This causes the sanitary sewers to surcharge and potentially back-up into the basement.

During these heavy rainfalls, the ground becomes extremely wet and water enters the sanitary system through cracks or broken pipes, cracked maintenance hole walls and loose joints underground. This contributes to back-up of the sanitary sewers.

Other potential factors causing sanitary sewer back-up include:

- Water entering the basement from the surface via window sills and reverse-slope driveways etc. and then through basement floor drains (connected to sanitary sewer);
- Downspouts and/or weeping tiles connected to the sanitary system, and
- Illegal cross-connection between sewer connections and street sewers (For example, storm connection connected to a sanitary sewer, or vice versa).







### Lawrence Park Neighbourhood Sewer Systems



Separated Sewer

SANITA SEWER

The Lawrence Park area is currently serviced by two types of sewer systems. The western portion of the area was originally serviced by a combined sewer system. Over the years the City undertook a program to remove a portion of the stormwater that was entering the system. This area is now serviced by a partially separated system.

The eastern part of the area is serviced by a combination of open ditches, driveway culverts and, in some areas, storm sewers (separated sewer).





## Wet Weather Flow Master Plan Overview

Toronto's Wet Weather Flow Master Plan (WWFMP) is a long-term plan to protect our environment and sustain healthy rivers, streams and other water bodies. Its aim is to recognize and utilize stormwater as a resource, and to reduce the adverse effects of stormwater.

The WWFMP sets out to accomplish objectives relating to:

- Lake, river and stream water quality;
- Water quantity;
- Natural areas and wildlife; and
- Drainage systems.

To meet these objectives, a 25-year plan has been developed to carry out studies and propose improvement projects that provide a solution to the adverse effects of stormwater. By implementing the projects identified in the WWFMP, the intent is to achieve the following benefits:

- Clean waterfront beaches that are healthy for swimming;
- Protect basements from flooding;
- Protect city infrastructure from stream erosion;
- Restore degraded local streams;
- Improve stream water quality;
- Reduce algae growth along the waterfronts and in streams; and
- Restore fish and wildlife habitat.











## **Preliminary Roadway Assessment**

The following potential roadway system issues have been identified:

#### **Poor Pavement Conditions**

 Pavement cracking, spalling, and pot holes noted throughout the neighbourhood. The conditions are especially poor in the north-east portion (e.g. at Dawlish Avenue and Rochester Avenue east of Mildenhall Road)

#### Sight Line Problems (Lack of visibility to incoming traffic)

- The westbound traffic on Dawlish Avenue at Mount Pleasant Road does not have a good sight line to the approaching southbound traffic on Mount Pleasant. The intersection is not signalized and the traffic on Mount Pleasant Road approaches the intersection at a high speed.
- Sight line problems at other locations include skewed intersections along St. Ives Road

#### Lack of Pedestrian / Cycling Facilities

- A lack of sidewalks in the local streets within the neighbourhood, especially in the north-south direction
- No cycling facilities within the neighbourhood







### **Roadway Preliminary Assessment - Findings**

#### Narrow Road Right-of-Way

- A typical two lane roadway should be approximately 6.5 to 8.0 m, plus 1.5 to 2.0 m shoulders. The streets within the neighbourhood are generally narrower. For example, sections of St. Leonards Avenue east of Mount Pleasant, and Dawlish Avenue have a defined roadway width of less than 6.5m.
- Wide asphalt ditches on roadways and pedestrians on the road often reduce the available road width
- Any potential street improvements may impact private properties

#### **Street Parking**

• Street parking also reduces the available roadway to less than two lane widths, especially on Rochester, Mildenhall, Dawlish, and St. Leonards.





### Lawrence Park Neighbourhood – Traffic Operations

The following potential traffic operational issues have been identified:

- Speeding
- Traffic infiltration (the use of local streets as a through fare)
- A general concern for pedestrian safety and roadside safety
- Street parking

Approach to Traffic Analysis:

- Collision data of the past 6 years was analyzed to confirm frequency, locations, and types of accidents
- Turning movement counts were undertaken at the six signalized intersections that provide direct access into the neighbourhood
- Origin-Destination counts will be conducted to analyze the infiltration of traffic







### **Preliminary Assessment of Existing Traffic Conditions**



- The operations of the intersections, based on delays, queue lengths and times, and volumes, was analyzed using existing turning movement counts conducted in November 2012.
- The level of operation of an intersection is measured by its Level of Service (LOS), that ranges from "A" to "F" with LOS "A" being the best and LOS "E" the worst.

Legend

Signalized Intersection

LOS: Level of Service

#### **Traffic Preliminary Assessment – Collision Summary** • From January 2007 to March 2012, 572 collisions occurred RANLEIGH AVE within the study area. • There were no fatal collisions. 17% of the collisions resulted in RENCE AVE WES I AWRENCE AVE E. personal injury and 83% resulted in only property CHELTENHAM AVE damage. · The majority of collisions occurred between 7-9 am and ST LEONARDS AVE 4-6 pm. DAWLISH AVE Legend STRATHEDEN RD Intersection with Vehicular Collisions only ♦ Intersection with collisions involving BLYTHWOOD RD BLYTHWOOD RD pedestrians or cyclists Number of Collisions within last 6 Years BLYTH HILL RD 1-10 10-20 Over 20

## **Residents Responses to Questionnaires**

A questionnaire was distributed to all residents within the Lawrence Park Neighbourhood in late January. The submission deadline was February 28, 2013. Approximately 380 residents responded out to 2200 households (estimated). This response rate is considered high compared to other basement flooding studies in Toronto. The objective of the questionnaire was to gather input on flooding, road conditions, pedestrian safety, traffic issues, etc.

Provided on the following boards is a summary of the responses.

Lawrence Park Neighbourhood Road & Stormwater Management Study QUESTIONNAIRE Submit by February 28 - See details on back
The City of Toronto has initiated a Class Environmental Assessment (Class EA) study in the Lawrence Park neighbourhood to address issues related to road conditions, traffic and pedestrian safety. The study is also addressing stormwater management issues including road drainage, and surface and basement flooding.
A map of the study area is shown in Question #6. If you are within the study area, please take a few minutes to complete this voluntary questionnaire. Your answers will inform the study and help the study team get a better understanding of community perspectives on road and stormwater issues.
If you are outside of the study area, Canada Post unaddressed mail service has sent this package to you inadvertently. You do not need to fill out this questionnaire.
NOTE: To help answer any question, clearly illustrate and label your answers on the map (see Question #6) or use another sheet of paper.
This Questionnaire is available online www.toronto.ca/involved/projects/basement_flooding/sa_20.htm
** This information is not being collected and will not be used for claims or insurance purposes **
1. Please identify your street address Postal Code:
2. Please specify if the building at this address is a: Please check one answer     HOME: DETACHED DETACHED DOWNHOUSE MULTIPLE-STOREY     DEUSINESS     DSCHOOL     OTHER:
Please answer questions #3 to #6 based on all members of the household.         3. Is there a specific location(s) or section(s) of road that is often congested? If so, please identify location or section of the road.
<ol> <li>Are there specific locations (intersections or streets) within the study area that are unsafe for pedestrians, cyclists, and/or drivers? If yes, please be specific and explain why.</li> </ol>
<ol> <li>Please identify other opportunities to improve local roads through: traffic signage, sidewalks, pedestrian crosswalks, pedestrian shortcuts, sidewalk and street lighting, traffic calming, etc.</li> </ol>
Page 1 of 4 Submit by February 28 - See details on back





## **Basement and Surface Flooding Responses**







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## Basement and Surface Flooding Responses









## **Next Steps**

After this Public Information Centre the study team will consider verbal and written comments in order to refine the project problems and opportunities.

The next Public Information Centre (PIC #2) will be held in fall 2013. At PIC #2, alternatives to address the problems and opportunities will be presented, along with criteria to evaluate the alternatives. You will be notified of Public Information Centre #2.

For more information on this project, or to submit your comments or feedback, and, to be placed on our mailing list, please contact:

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