



ENGINEERING DEPARTMENT MEMORANDUM

TO: MAYOR J. LEHMAN AND MEMBERS OF COUNCIL

FROM: R. SUTTON, P. ENG., DIRECTOR OF ENGINEERING

NOTED: R. FORWARD, MBA, M.SC., P. ENG., GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

**RE: DRAINAGE MASTER PLAN
PUBLIC INFORMATION CENTRE
(D27-ST)**

DATE: OCTOBER 23, 2017

The purpose of this Memorandum is to advise members of Council that the Engineering Department is undertaking a Drainage Master Plan under the Municipal Class Environmental Assessment (EA) Master Planning Process. The project will identify the existing drainage deficiencies and develop drainage solutions to address the deficiencies by reducing flooding, increasing public safety and identifying maintenance improvements throughout the City. The study area encompasses the entire City (excluding the Salem and Hewitt's Secondary Plan Areas, the Sophia Creek watershed and Mulcaster drainage area, which are covered under separate EAs currently underway).

This Public Information Center has been scheduled to advise of the progress being made on this study and the upcoming activities. In addition to advertising in the Barrie Examiner, the City's website and on the City's social media accounts, a letter will be sent to properties potentially impacted by or adjacent to one or more of the alternatives. To ensure that Council has the information at the same time as the public, this memorandum has been provided with a copy of the mail-out information.

The goal of this Public Information Centre is to collect feedback on the potential alternative solutions and to collect information about drainage deficiencies. Once a preliminary preferred alternative has been selected an additional Public Information Centre and associated mail-out will be carried out. This second Public Information Centre is scheduled for early spring 2018.

The draft documents, which contains details of the proposed alternatives, will be available in the Councillors' Lounge for review on October 22, 2017. A PDF version of the report is available on the City of Barrie web page at www.barrie.ca/eastudies then scrolling down to the Master Drainage Plan section.

If there are any questions, please contact Tom Reeve at extension 4465, or e-mail Tom.Reeve@barrie.ca.

CITY HALL
70 COLLIER STREET
TEL. (705) 739-4242
FAX. (705) 739-4247



P.O. BOX 400
BARRIE, ONTARIO
L4M 4T5

THE CORPORATION OF THE CITY OF BARRIE
Engineering Department
"Committed to Total Service Excellence"

October 23, 2017

File: D27-ST

To: All Area Owners/Occupants and Agencies

Re: **Drainage Master Plan**
Public Information Centre

The City of Barrie is undertaking a Drainage Master Plan under the Municipal Class Environmental Assessment Master Planning Process to identify and recommend solutions to municipal drainage and flooding issues across the City. This letter is to advise you of the progress being made on this study and upcoming activities.

The existing City drainage infrastructure in the study area consists of a combination of open channels, ditches, culverts, storm sewers, overland flow routes, stormwater management facilities, and Low Impact Development (LID) measures. Through this current study and past studies, a number of deficiencies in the drainage systems across the City have been identified.

A Public Information Centre has been scheduled for Thursday November 2, 2017 and you are invited to attend to review and provide comments on the proposed alternative solutions. A notice containing further information on the Public Information Centre is attached to this letter, along with a map of the study area. At the Public Information Centre, the project team will display the study progress to date and be available to discuss and respond to questions. There will also be an opportunity to provide feedback.

A comment sheet has also been attached to this letter which contains a list of the preliminary alternatives being considered to address drainage issues. The goal of this first round of consultation is to collect feedback on the contemplated alternatives and to provide an opportunity for you to share information about drainage system problems in your area.

You are being sent this letter because your property has been identified during preliminary work as potentially being impacted by or adjacent to one or more alternatives being considered.

More information about the study and the Public Information Centre can be found on the City's website. Go to www.barrie.ca/eastudies then select the project titled "Drainage Master Plan". A copy of the comment sheet used at the Public Information Centre will also be available on the website.

Should you have any questions or concerns, please feel free to contact Tom Reeve at 705-739-4220 ext. 4465 or email Tom.Reeve@barrie.ca.

Yours truly,

Tom Reeve, P. Eng.
Senior Infrastructure Planning Program Coordinator

TR/ar

Attachments

CITY OF BARRIE

Drainage Master Plan

NOTICE OF PUBLIC INFORMATION CENTRE

The City of Barrie is undertaking a Drainage Master Plan under the Municipal Class Environmental Assessment Master Planning Process to identify the existing drainage deficiencies, develop drainage solutions to address the deficiencies, reduce flooding, resolve public safety concerns and improve maintenance opportunities throughout the City. The study area encompasses the entire City (excluding the Salem and Hewitt's Secondary Plan Areas, and the Sophia Creek watershed and Mulcaster drainage area).

This Public Information Center is to advise you of the progress that has been made on this study and the upcoming activities.

The study is being completed in accordance with Approach #1 of the Master Planning Process outlined in the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, amended in 2007, 2011 and 2015). The Corporation has retained the consulting firm C.C. Tatham & Associates Ltd. to develop and evaluate various alternative solutions and to document the decision making process in the Drainage Master Plan. Alternative drainage solutions will be developed and evaluated based on their natural, physical, social, cultural, and economic impacts and the opportunities and constraints of the project.

The Public Information Centre has been scheduled as follows:

Date: Thursday November 2, 2017
Time: 4:00 p.m. to 8:00 p.m.
Location: Dorian Parker Centre – Sunnidale Park
227 Sunnidale Road, Barrie, ON L4M 3B9

All interested individuals and parties are invited to attend the Public Information Centre to view project information panels and provide comments regarding the proposed alternative solutions. City staff and representatives from the consultant firm will be available to discuss issues and concerns with members of the public. Comments collected in this process will be used to develop the preferred alternative solution.

A copy of the draft documents are available on the City of Barrie web page. Go to www.barrie.ca/eastudies then select the project titled "Drainage Master Plan". A comment sheet is also available which can be returned in person at the Public Information Centre or returned via mail or email. A hard copy of the documents are available for review at the following locations:

City of Barrie Legislative Services Branch 1 st Floor City Hall 70 Collier Street Barrie, ON L4M 4T5	City of Barrie Engineering Department 6 th Floor City Hall 70 Collier Street Barrie, ON L4M 4T5	Barrie Public Library Downtown Branch Information Desk 60 Worsley Street Barrie, ON L4M 1L6	Barrie Public Library Painswick Branch Information Desk 48 Dean Avenue Barrie, ON L4N 0C2
---	--	---	---

Should additional information be required or to be added to the project mailing list or to provide a comment sheet, please contact:

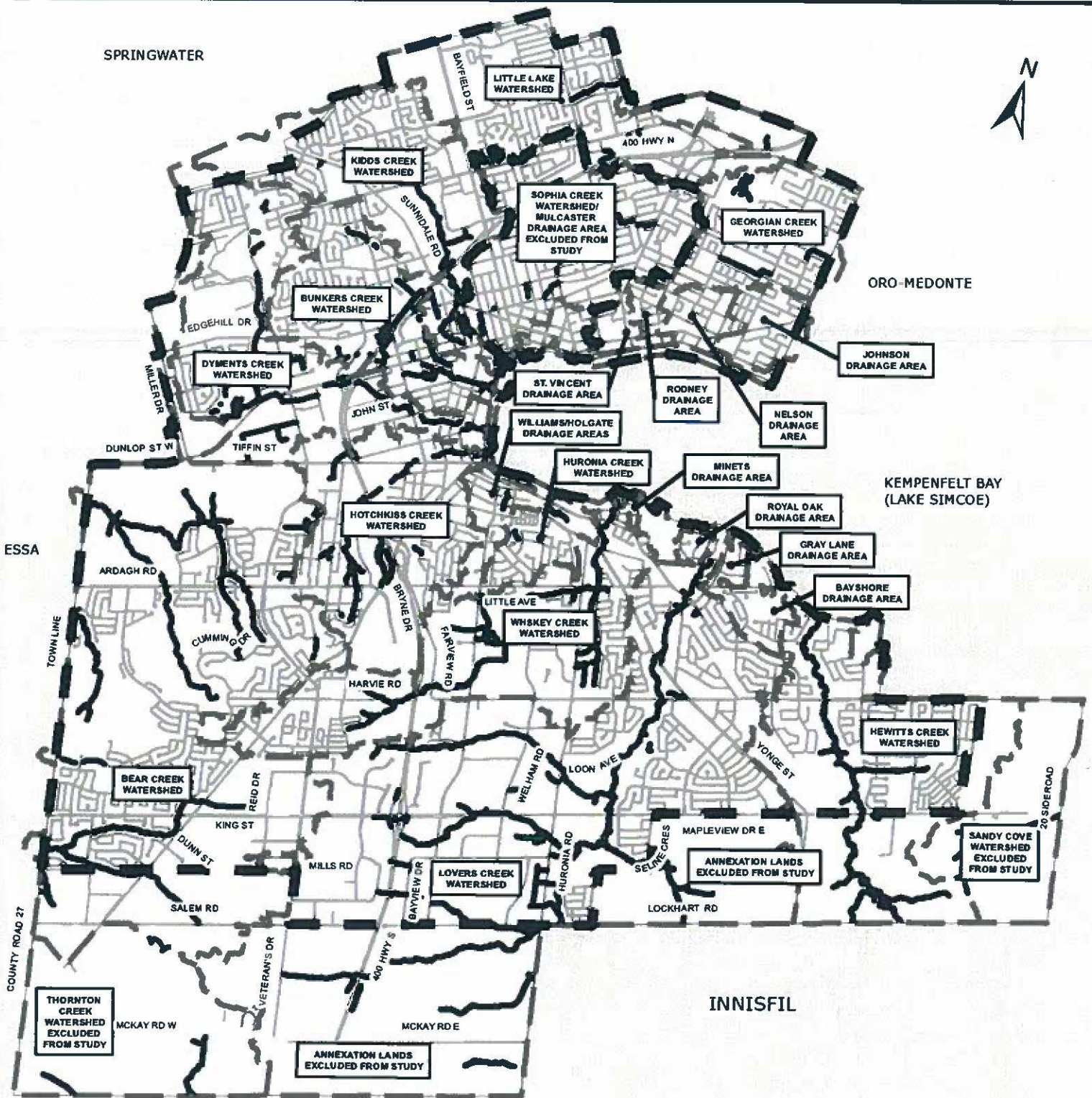
Mr. Tom Reeve
Senior Infrastructure Planning Program Coordinator
City of Barrie
70 Collier Street, 6th Floor
Barrie, ON L4M 4T5
Tel: (705) 739-4220 Ext. 4465
Fax: (705) 739-4247
Email: Tom.Reeve@barrie.ca

Dawn McAlpine
City Clerk/Director of Legislative & Court Services

R. Sutton, P. Eng.
Director of Engineering

Notice issued on October 26th, and October 28th, 2017.

SPRINGWATER



DISCLAIMER

The information contained in this drawing is solely for the use of the Corporation of the City of Barrie for the purpose for which it has been prepared and C.C. Tatham & Associates Ltd. undertakes no duty to or accepts any responsibility to any third party who may rely upon this drawing.

This drawing may not be used for any purpose other than that provided in the contract between the Corporation of the City of Barrie and C.C. Tatham & Associates Ltd. nor may any detail or element of this drawing be removed, reproduced, electronically stored or transmitted in any form without the express written consent of C.C. Tatham & Associates Ltd.

LEGEND

- ROADS
- WATERCOURSES
- WATERSHED BOUNDARY
- OVERALL STUDY AREA



C.C. Tatham & Associates Ltd.
Consulting Engineers
Collingwood Bracebridge Orillia Barrie

Barrie
NOT TO SCALE

DRAINAGE MASTER PLAN

FIGURE 1 - STUDY AREA LOCATION PLAN

DATE: OCTOBER 2017



**DRAINAGE MASTER PLAN
MASTER PLANNING PROCESS (APPROACH #1) – PHASES 1 & 2**

Public Information Centre
Thursday, November 2, 2017
4:00 p.m. to 8:00 p.m.
Dorian Parker Center, 227 Sunnidale Road, Barrie

COMMENT SHEET

Personal information on this form is collected under the authority of the Environmental Assessment Act, Chap. E18, Section 7, and will be used in the development of a Drainage Master Plan. Questions about this collection should be directed to the Director of Engineering, P.O. Box 400, 70 Collier Street, Barrie, Ontario, L4M 4T5, (705) 726-4242.

Please print all responses.

NAME OF RESPONDENT:

REPRESENTING (Agency, Municipality, Property Owner, Tenant, etc.):

ADDRESS (Including Postal Code & Telephone Number):

Street Address:

Unit/Apt:

Postal Code:

Telephone Number:

Email Address:

How long have you lived at this property?

The Opportunity Statement, which sets the framework for this Master Plan study, is as follows:

"Identify drainage deficiencies and recommend solutions to improve the storm drainage systems across the City of Barrie in consideration of impacts to the natural, social, physical, cultural and economic environments."

A PDF version of the Draft Drainage Master Plan for Public Information Centre #1 is available on the City of Barrie web page at the following link: www.barrie.ca/eastudies. A paper copy of the draft report is available for review at the following locations during regular business hours:

City of Barrie
Legislative Services Branch
City Hall, 1st Floor
70 Collier Street
Barrie, ON L4M 4T5

City of Barrie
Engineering
City Hall, 6th Floor
70 Collier Street
Barrie, ON L4M 4T5

Barrie Public Library
Downtown Branch
Information Desk
60 Worsley Street
Barrie, ON L4M 1L6

Barrie Public Library
Painswick Branch
Information Desk
48 Dean Avenue
Barrie, ON L4N 0C2

Questions about Existing Flooding and Drainage Issues:

Circle the answers that apply and add further explanation below if required:

Are you aware of any creeks or City storm drainage systems (pipes, drains) on your property? **Yes / No**

Are there any problems with the creek or City storm drainage systems on your property? **Yes / No / Not applicable.**

Have you ever had storm drainage from a creek or City storm drainage system damage your property? **Yes / No**

Have you ever noticed flooding on your street or a major road? **Yes / No**

Drainage Master Plan

November 2, 2017

Please list below any specific drainage concerns you have, and expand on the answers provided above:

Questions about Proposed Alternative Solutions:

Please select which of the following alternatives you feel best addresses the drainage problems, and generates the greatest positive impacts while producing the least negative impacts on the natural, physical, social, cultural, and economic environments. Please rate by recording either "1" (preferred) or "2" (not preferred) in each box.

Please note that each of the alternatives listed below on their own will not resolve all the drainage issues within the City of Barrie. The alternative drainage solutions will be evaluated and a preferred alternative will be developed after the Public Information Centre in consideration of the feedback received on these comment sheets, and as part of the Public Information Centre process.

Existing Condition☐**Alternative 1A – "Do Nothing" Minor Drainage System / Alternative 1B – "Do Nothing" Major Drainage System**

The "Do Nothing" alternative allows for the consideration of not implementing any changes to the existing minor (storm pipes) or major (trunk sewers, creeks, overland flow routes) drainage system infrastructure within the study area. This alternative is being considered to provide a benchmark to gauge the natural, physical, social, cultural, and economic implications of the other alternatives.

Flow Reduction / Water Quality Improvements☐**Alternative 2A – Retrofit / New Storm Water Management Facilities (SWMF) for Quantity Control**

Retrofit, expand, and create new stormwater management facilities in the study area for the primary purpose of improving water quantity control, attenuate peak flows, and reduce downstream flooding. The improvements could have the secondary benefit of improving watershed water quality, promoting infiltration, and improving the water balance.

☐**Alternative 2B – Retrofit / New SWMF for Quality Control**

Retrofit, expand, and create new stormwater management facilities in the study area to improve watershed water quality, promote infiltration, and improve the water balance. The improvements will have an insignificant impact on peak flows and downstream flooding.

☐**Alternative 2C – Lot Level Low Impact Development (LID)**

LID is an innovative approach that mimics the natural movement of water in order to manage stormwater (rainwater and urban runoff) close to where it falls. LIDs infiltrate, filter, store, evaporate, and detain stormwater. These techniques are based on the principle of using stormwater as a resource. For this alternative, the City will promote the use of lot level LID measures on private property throughout the City through the use of rain barrels, construction of soakaway pits, and other LID features.

☐**Alternative 2D – Linear LID**

LID is an innovative approach that mimics the natural movement of water in order to manage stormwater (rainwater and urban runoff) close to where it falls. LIDs infiltrate, filter, store, evaporate, and detain stormwater. These techniques are based on the principle of using stormwater as a resource. Linear LID measures are being considered by the City for construction under local roadways, as part of road reconstruction projects.

☐**Alternative 2E – Centralized LID**

LID is an innovative approach that mimics the natural movement of water in order to manage stormwater (rainwater and urban runoff) close to where it falls. LIDs infiltrate, filter, store, evaporate, and detain stormwater. These techniques are based on the principle of using stormwater as a resource. Centralized LID measures are being considered for construction underground within existing parkland across the City.

☐ **Alternative 3A – Culvert / Watercourse / Major Drainage System Improvements (1 in 25 year storm event, or Master Drainage Plan Recommendations)**

Culvert, watercourse, and major drainage system improvements to reduce flooding along each creek in the City of Barrie up to and including the 1 in 25 year storm event, or as previously recommended by the watersheds existing Master Drainage Plan.

☐ Alternative 3B – Culvert / Watercourse / Major Drainage System Improvements (City Design Flood Frequency Criteria)

Culvert, watercourse, and major drainage system improvements to reduce flooding along each creek in the City of Barrie up to and including either the 1 in 50 year storm event (for local and collector roads) or the 1 in 100 year storm event (for arterial roads) in accordance with the City's current flood frequency design criteria.

Please list below any concerns or comments you have related to any of the alternative solutions:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Drainage Master Plan

November 2, 2017

Please rate your satisfaction with the level of detail of the information presented herein at the Public Information Centre, and provided on the City website (www.barrie.ca/eastudies).

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor (Much Improvement Required)	Marginal (Some Improvement Required)	Good	Very Good	Excellent

Please add a comment in support of your level of satisfaction below:

Do you wish to be informed of future Public Information Centers for the Drainage Master Plan, and of staff recommendations for the Preferred Alternative Solution?

☐ Yes ☐ No

Signature: _____ Date: _____

Please submit this comment sheet by **Thursday, November 16, 2017** to:

Mr. Tom Reeve, P. Eng. City of Barrie Engineering Department, 6 th floor 70 Collier Street, P.O. Box 400 Barrie, ON L4M 4T5	Tel: (705) 726-4220 ext. 4465 Fax: (705) 739-4243 E-mail: Tom.Reeve@barrie.ca
---	--

Thank you for your comments.