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| TO: | CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 29, 2017 |
| FROM: | KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER |
| SUBJECT: | LOW IMPACT DEVELOPMENT STORMWATER MANAGEMENT GUIDANCE MANUAL (EBR REGISTRY NUMBER: 012-9080) |

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| RECOMMENDATION |
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That, on the recommendation of the Managing Director, Environmental and Engineering Services & City Engineer, this report **BE RECEIVED** for information.

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| PREVIOUS REPORTS PERTINENT TO THIS MATTER |
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None

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| 2015-2019 STRATEGIC PLAN |
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Low Impact Development (LID) stormwater principles align with the 2015 –Strategic Plan under the Building a Sustainable City strategic focus. Objectives aligned with LID include: 1B – Managing and improving our stormwater infrastructure and services; and 3E – Protecting our natural environment.

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| BACKGROUND |
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Purpose

The purpose of this report is to update Municipal Council on the actions of the Ontario Ministry of the Environment and Climate Change (MOECC) in developing a LID Guidance Manual and the City’s actions in consideration of the pending LID manual.

Context

Stormwater LID design is intended to treat stormwater at the source and mimic the natural environment by infiltrating, filtering, and storing urban runoff. LID design elements may include infiltration, bioretention (rain gardens and bioswales), and water re-use.

The ministry is developing a LID stormwater guidance manual to provide control targets and implementation practices. The proposed provincial low impact development guidelines would implement a runoff volume control target (RVCT) to reduce runoff volumes through infiltration, evapotranspiration and reuse. The new guidance manual is not intended to replace, but be used in conjunction with the existing “*Stormwater Management Planning and Design Manual*” (MOE, 2003).

Two background reports in support of the pending MOECC LID Guidance Manual were posted to the EBR Registry for a 30 day public review and comment period ending July 15, 2017.

DISCUSSION

City staff support the MOECC's initiative to update provincial stormwater implementation policy to include low impact develop targets. The implementation of LID stormwater policy aligns with the City's strategic plan focus of *Building a Sustainable City*. The following sections discuss EES Staff's EBR posting comments and provide details on various LID initiatives being completed in anticipation of the new MOECC LID requirements.

EBR Comment Overview

In response to the EBR's Low Impact Development Stormwater Management Guidance Manual posting, EES staff provided comments on the two posted documents. These comments are included in Appendix 'A'.

The first background document, titled "Jurisdictional Scan of Canadian, US and International Stormwater Management Volume Control Criteria Draft Final Report", reviews LID implementation in other jurisdictions and establishes a rationale for the development of LID targets in Ontario.

Submitted comments focused on ensuring the background review is comprehensive and balanced. Comments highlighted the need for the adoption of an RVCT to be adopted based on clear objectives, scientific evidence, observations and lessons learned from other jurisdictions.

The second report, "*Runoff Volume Control Targets for Ontario Final Report*" establishes province-wide LID control volume targets and the application of the control volume targets for new development, redevelopment, urban intensification, linear, and stormwater retrofit projects.

Comments in response to the second document highlighted concerns related to the adoption of the RVCT, implications related to the practicality of LID implementation as presented in the document, clarity in the proposed hierarchy of application and exemptions, consideration for design requirements, and anticipated costs.

Ongoing Low Impact Development Initiatives

In anticipation of provincial direction for LID stormwater controls, EES staff have led initiatives to develop the local understanding and knowledge of LID design and implementation.

In 2016, the EES staff began initiating LID based designs in select roadway reconstruction projects as part of the Infrastructure Renewal Program (IRP). Two roadway reconstruction projects, with construction currently underway, will include stormwater LID controls. Additional IRP projects to be constructed in 2018 have been identified to explore the potential for LID stormwater controls as part of the design process. LID design has been included in several City facility projects including Fire Station 11 and the Southwest Community Centre.

LID principles are also being incorporated into ongoing stormwater environmental assessments. The Hyde Park Community Storm Drainage and Stormwater Management Servicing Municipal Class Environmental Assessment Addendum will update a previously completed 2002 EA study with the goal of incorporating LID principles into the overall plan. The Dingman Creek Environmental Assessment is also currently underway and will provide a stormwater servicing plan for the lands within the

Southwest Area Secondary Plan. The Dingman Creek EA will directly align with the anticipated requirements of the new MOECC manual and will rely on LIDs as the primary method of providing stormwater servicing.

Stakeholder Engagement

The City has been engaging with stakeholders in anticipation of MOECC’s upcoming LID guidance document. The City has hosted LID information sessions for the local consultant and development community. The City has also engaged with other stakeholders (UTRCA, Utility Coordination Committee) and internal departments to introduce the forthcoming LID stormwater management approach. Additionally, EES staff participate as part of the Municipal Engineers Association (MEA) stakeholder review committee to provide comment as part of the public consultation process in the development of the MOECC LID guidance document.

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| CONCLUSIONS |
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City staff support the MOECC’s initiative to update provincial stormwater implementation policy to include low impact develop targets. Comments regarding the two documents posted on the EBR generally reflect the need to ensure the LID background review is comprehensive, provides scientific understanding, and lessons learned from other jurisdictions. Comments regarding the establishment and implementation of LID targets, focuses on the practicality and clarity set forth by the MOECC for new development, redevelopment, urban intensification, linear, and stormwater retrofit projects.

Acknowledgements:

This report was prepared within the Stormwater Engineering Division by Adrienne Sones, P.Eng., Environmental Services Engineer.

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| SUBMITTED BY: | REVIEWED AND CONCURRED BY: |
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| ASHLEY RAMMELOO, P. ENG. ACTING DIVISION MANAGER STORMWATER ENGINEERING | SCOTT MATHERS, MPA, P. ENG. DIRECTOR, WATER AND WASTEWATER |
| RECOMMENDED BY: | |
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| KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER | |

August 17, 2017

Attach: Appendix ‘A’ – Staff Comments to EBR Registry Number: 012-9080

