City of Ottawa Low Impact Development Policies and Framework

Photo: Sunnyside (Bioretention) Rain Garden Retrofit

February 26, 2026

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Outline

- Definitions
- Provincial Requirements
- City Policies and Programs
- City LID Framework
- Guidance Documents
- Questions

Photos: Carlingwood Library Permeable Pavement Parking Lot

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Definitions

Ref: Adapted from Figure 1, Natural Infrastructure Framework: Key Concepts, Definitions and Terms, CCME, 2021

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Definitions

- **Nature Based Solutions (NBS)** - Measures that protect, restore and sustainably manage natural or modified ecosystems, with the aim of maintaining or enhancing the services provided to human communities and benefits to biodiversity.
- **Green Infrastructure (GI)** - Natural and human-made (engineered) elements that provide ecological and hydrological functions and processes.
- **Low Impact Development (LID)** - A stormwater management strategy that seeks to mitigate the impacts of increased runoff and stormwater pollution by managing runoff as close to its source as possible
- **Best Management Practice (BMP)** - A practice or combination of practices that are determined to be the most technologically and economically feasible means of preventing or managing potential impacts.

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Provincial Requirements (CLI – ECA)

- Ministry of Environment, Conservation and Parks (MECP) Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) for a Municipal Stormwater Management System
- Draft Low Impact Development Stormwater Management Guidance Manual, MECP, January 2022.

Photo: Hemmingwood Way Bioretention

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Provincial Requirements (CLI – ECA)

Stormwater Performance Criteria (Table A.1)

- Water Balance, Water Quality, Erosion Control, Water Quantity, Flood Control, Construction Erosion and Sediment Control
  - Development Scenario: New development, redevelopment, infill development or conversion of a rural cross-section into an urban cross-section.
  - Retrofit Scenario: (1) a modification to the management of the existing infrastructure, (2) changes to major and minor systems, or (3) adding stormwater infrastructure, in an existing area on municipal right-of-way, municipal block, or easement.

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Provincial Requirements (CLI – ECA)

Runoff Volume Control Target Hierarchy

- Control is to be achieved using the Runoff Volume Control Target Hierarchy.

Maximum Extent Possible (MEP)

- Maximum achievable stormwater volume control through retention and LID filtration engineered/landscaped/technical stormwater practices, given the site constraints.

Site Constraints

- Table A.2 Stormwater Management Practices Site Constraints
- City of Ottawa Sewer Design Guidelines, Appendix 10
- Site constraints must be documented

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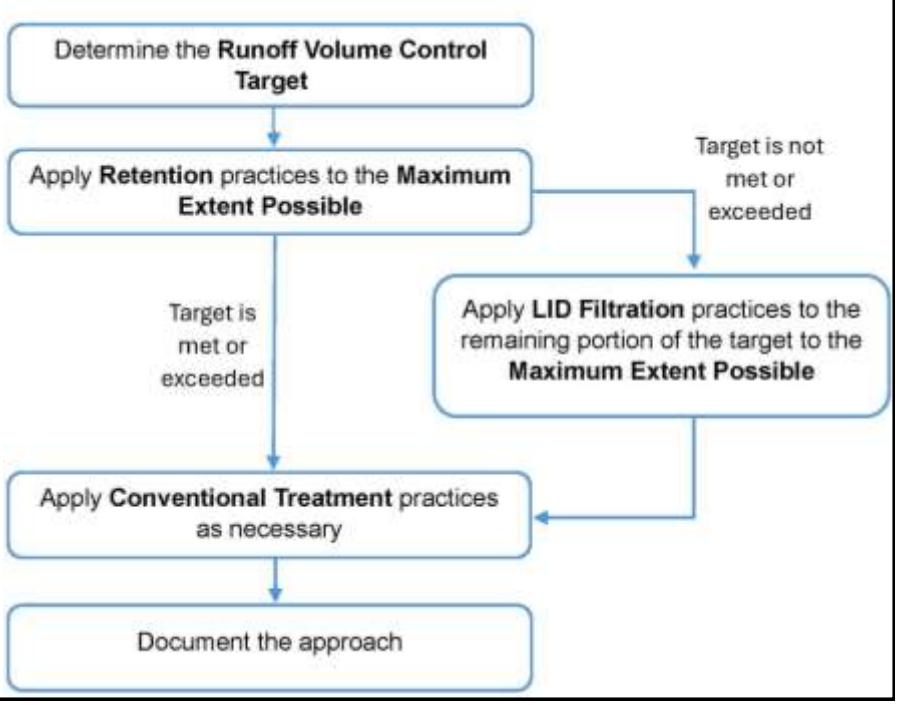
Provincial Requirements (CLI – ECA)

Runoff Volume Control Target Hierarchy



Adapted from Figure 3.4, Draft Low Impact Development Stormwater Management Guidance Manual, MECP, January 2022.

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City Policies and Programs

- City Official Plan Policies (2.2.3, 4.1.3, 4.1.4, 4.7.1, 4.8.2)
- City Infrastructure Master Plan Policies (4.3.11)
- City Stormwater Retrofit Program – Ottawa River Action Plan (ORAP)

1. Use LIDs where feasible to control stormwater where stormwater management targets have been established and the concept is supported by the appropriate planning studies; and
2. Use LIDs where feasible to manage smaller, frequent rainfall events.

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City LID Framework

- City Infrastructure Master Plan (10.4)
  - Greenfield Development
  - Intensification and Redevelopment
  - Stormwater Retrofits

Photo: Senio Avenue Bioretention

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LID Framework – Greenfield Development

- Subwatershed level studies and/or Environmental Management Plans (EMP) to establish stormwater management targets.
- The MSS, supported by the EMP, is to prepare an LID concept plan that demonstrates how LID measures will be integrated with the overall land use and servicing plans to achieve applicable stormwater management targets.
- End of pipe infrastructure is to be sized with consideration given to the LID measures where the use of LIDs, as part of an overall stormwater concept, is feasible and supported by the appropriate planning study to meet established stormwater management targets.

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LID Framework – Intensification/Redevelopment

- Stormwater management targets and the requirement for LIDs are to be established based on planning studies, CLI ECA SWM criteria, SWM Retrofit Study criteria, and/or developer-led studies.

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LID Framework - SWM Retrofit

- The LID requirements and runoff volume control targets are to be provided through planned retrofit studies developed as part of the Stormwater Retrofit Program.
- Retrofit projects will be required to demonstrate how stormwater management criteria and runoff volume control targets would be met.
- Retrofit interim opportunities assessed for areas with no completed retrofit study available, on a case-by-case basis, as part of renewal or reconstruction (capital construction) projects.

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Guidance Documents

- City of Ottawa Sewer Design Guidelines
- Ministry of Environment, Conservation and Parks, Stormwater Management Planning and Design Manual (2003)
- Ministry of Environment , Conservation and Parks, Draft Low Impact Development Stormwater Management Guidance Manual (2022)
- Ministry of Environment, Conservation and Parks Consolidated Linear Infrastructure Environmental Compliance Approval for a Municipal Stormwater Management System

- City of Ottawa Low Impact Development Design Guidelines – In Progress

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Questions?

Photos: Glebe Avenue Stormwater Soil Cells

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LID Resources

- City Official Plan Policies (2.2.3, 4.1.3, 4.1.4, 4.7.1, 4.8.2)
- City Infrastructure Master Plan Policies (4.3.11)
- City of Ottawa Sewer Design Guidelines
- City of Ottawa Environmental Management Plan Terms of Reference
- City of Ottawa Master Servicing Study Terms of Reference
- City of Ottawa Water Budget Assessment Terms of Reference
- Ministry of Environment, Stormwater Management Planning and Design Manual (2003)
- Ministry of Environment , Conservation and Parks, Draft Low Impact Development Stormwater Management Guidance Manual (2022)
- Ministry of Environment, Conservation and Parks Consolidated Linear Infrastructure Environmental Compliance Approval for a Municipal Stormwater Management System
- STEP's Low Impact Development Stormwater Management Planning and Design Guide Wiki

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