

**REGION OF PEEL**

**PUBLIC WORKS  
DESIGN,  
SPECIFICATIONS &  
PROCEDURES  
MANUAL**

**Stormwater  
Management Report**

PUBLIC WORKS  
STORMWATER MANAGEMENT REPORT TABLE OF CONTENTS

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## 1.0 Introduction

The following is meant as a guide for preparing and reviewing Stormwater Management Reports (SWMR) in the Region of Peel. Details and requirements of any analysis will vary based on the proposed land use, development size and location and what if any studies have previously been completed.

Regional municipal services are to be designed in conformance with the Region's current "Public Works (PW) Design, Specifications & Procedures Manual". All plans and reports are to be reviewed by the Region prior to construction of services. Such clearance shall not relieve the designer from primary responsibility for the design to meet all Federal, Provincial, Regional and Local Municipal requirements and/or codes. Please refer to Peel's Stormwater Design Criteria of the manual and the CLI ECA Storm Criteria for additional information.

## 2.0 Objectives and Rationale

The objective of a SWMR is to evaluate the effects of a proposed development on the stormwater drainage pattern, available capacity and how to manage rainwater/snowmelt. The report should be consistent with the Region's and local municipalities' design criteria and with conservation authority, provincial and federal regulations.

The Region of Peel has a Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA # 009-S701), for the Regional Municipality of Peel Stormwater Management System. Therefore, it is the Region's mandate that no external flows are permitted, outflow is discouraged during development or redevelopment of lands with existing drainage towards Region's ROW, and no new connections are made to Regional Roads. Development flows are to be directed to the Local Municipality's storm sewer system or watercourses, to the satisfaction of the Local Municipality, the Region of Peel, the local Conservation Authority and all other concerned departments and agencies. Where a storm connection to the Region's system is demonstrated as the only feasible outlet, the appropriate stormwater management criteria must be implemented on external lands to the Region's satisfaction.

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## 3.0 Report Requirements

For a SWMR to be considered complete, it shall include, but may not be limited to, the following:

1. Relevant Studies and Projects: Identification of overarching and/or existing studies and/or projects, such as Block Plan, Secondary Plan, Tertiary Plan, Master Environmental Servicing Plan, Environmental Assessment, Roads Construction project, etc., and an outline of the associated Stormwater Management Plan or Drainage Plan, and how proposed stormwater plan complies with the studies.
2. Schematic identifying the main watercourses, tributaries in the area and outfall locations
3. Design Criteria: Use and reference to the following:
  - a. Peel Public Works Stormwater Design Criteria and Procedural Manual, 2019; and
  - b. For development proposing connection to Region's Storm system, and/or proposing alterations to Region's stormwater system, in addition to the above: (i) CLI ECA SWM Criteria, and (ii) Design Criteria for Sanitary Sewers, Storm Sewers, and Forcemains for Alterations authorized under ECA
4. Required Drawings:
  - a. Drainage Area Plans: Existing and Proposed Drainage Area Plan. Identify any External Drainage Areas and their management under proposed plan. Show overland flow routes, flood lines, elevations. No grading will be permitted within any Region of Peel ROW to support adjacent developments.
  - b. Site Plan: subject property, including property area, pavement areas and building areas
  - c. Servicing Plan: includes but is not limited to minor and major systems, LID features, storage/detention features or areas, emergency spillways, 100 year ponding, ultimate outlet, proposed and existing services
5. Water Quantity: Satisfy requirements of Design Criteria. For areas of overland ponding to be utilized for water quantity storage, include Water

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Surface Elevation for the 100-year storm. Post development peak flow for each storm (from 2 year to 100 year) shall be equal to or less than pre-development flow. Region of Peel IDF curves shall be used for the peak flow analysis. For orifice diameters of 100mm or greater, an orifice tube shall be used. For smaller, a combination of orifice plate with orifice tube shall be used. Quantity Control storage shall be designed to control the flows associated with 24-h Chicago or 24-h SCS Type II distribution. Describe the infiltration, drainage, and detention techniques/methods used to satisfy the Water Quantity criteria. Include the statement "Post-development peak flows is equal to or less than Pre-development peak flows".

6. Water Quality: Satisfy requirements of Design Criteria. Include conceptual design, calculations, and analysis of SWM proposed to meet criteria. In accordance with the Region's CLI ECA and provincial standards, control (as per the Control Hierarchy described in MECP's LID Guidance Manual 2022) of the runoff from 90th percentile storm event (28mm) shall be achieved for quality control. Describe treatment train.
7. Erosion Control: Satisfy requirements of Design Criteria. 5mm retention at full build out is required and runoff is to be detained from a 25mm storm event over 24 to 48 hours
8. Water Balance: Satisfy requirements of Design Criteria.
9. Stormwater Outlet: Identify all potential stormwater outlets, and justification (including correspondence from relevant approving agencies) for the proposed outlet.
10. Endangered Species Requirements: For development proposing connection to Region's storm system, identification of whether the system drains into Endangered Species habitat. Identification of relevant mitigation measures for endangered species. See Water Quality criteria. Approval from relevant agencies for waiver of any thermal mitigation measures.
11. Stormwater Inspection and Maintenance: Inspection and Maintenance Plan for privately owned infrastructure. Letter signed by Owner committing to the implementation of the recommendations in the Inspection and Maintenance Plan, demonstrating that resources and budget have been set aside for the same.
12. Third Pipe Collection: Identification of how water from the third pipe collection/ foundation drains, etc., will be managed. These flows will not be

allowed into the Region's storm sewer system.

13.Erosion and Sediment Control: Submission of the ESC plan

14.Stamp and signature of a Professional Engineer on report and drawings.