

**TO:** Maine Department of Environmental Protection (DEP)

**FROM:** Tom Milligan, City Engineer, City of Biddeford  
Thomas Poirier, Director of Community Development, Town of Gorham  
Patrick Fox, Public Works Director, City of Saco  
Angela Blanchette, Town Engineer, Town of Scarborough  
Lynn Leavitt, Sustainability Coordinator, City of Westbrook

**DATE:** September 1, 2022

**RE:** Model Ordinance in Compliance with Requirements of the MEPDES Permit  
MER041000, ME WDL W009170-5Y-E-M General Permit (MS4 General  
Permit)

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The municipalities of Biddeford, Gorham, Saco, Scarborough, and Westbrook collaborated to draft the enclosed model Low Impact Development (LID) ordinance that incorporates the required LID standards outlined in the 2022 MS4 General Permit. Each of our communities has vetted this model ordinance and determined that it balances LID concepts with our existing Comprehensive Plans, ordinances, and development review processes.

This model ordinance represents the minimum standards that each community will meet. Over the coming years, each community will undertake a public ordinance review process. We anticipate that the model language will be revised through this process, but the minimum standards will be maintained or strengthened.

We look forward to providing any additional information needed to facilitate your review of the ordinance. Please find our contact information below:

- City of Biddeford: Tom Milligan, City Engineer: [tom.milligan@Biddefordmaine.org](mailto:tom.milligan@Biddefordmaine.org) / 207-284-9118
  - Town of Gorham: Thomas Poirier, Community Development Director: [tpoirier@gorham.me.us](mailto:tpoirier@gorham.me.us) / 207-222-1620
  - City of Saco: Patrick Fox, Public Works Director: [pfox@sacomaine.org](mailto:pfox@sacomaine.org) / 207-284-6641
  - Town of Scarborough: Angela Blanchette, Town Engineer: [ablanchette@scarboroughmaine.org](mailto:ablanchette@scarboroughmaine.org) / 207-730-4043
  - City of Westbrook: Lynn Leavitt, Sustainability Coordinator: [LLeavitt@westbrook.me.us](mailto:LLeavitt@westbrook.me.us) / 207-854-0660
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## **Storm Water Ordinance** **Chapter 3 – Low Impact Development (LID)**

### **SECTION 1 – PURPOSE (OPTIONAL LANGUAGE FOR STAND ALONE ORDINANCE SECTION)**

The purpose of Low Impact Development (LID) is to protect, maintain and enhance the public health, safety, and general welfare by establishing requirements and procedures to minimize the adverse effects of development and redevelopment on the environment.

LID is a broad approach to site planning that preserves natural resources, processes, and habitats, defines what portions of the site are suitable for development, and then utilizes Stormwater Treatment Measures to manage runoff from the proposed developed impervious areas.

In LID, Stormwater Treatment Measures using natural processes such as vegetated buffers are given preference over constructed treatment Stormwater Treatment Measures. The goals of LID are to minimize the environmental impacts of the development.

This Low Impact Development (LID) Chapter was incorporated into the municipal ordinance to comply with the Section 2.5.1 requirements of the Town's 2022 General Permit for Stormwater Discharges to Municipal Separate Storm Sewer Systems (MS4s).

### **SECTION 2 – APPLICABILITY**

If a proposed development or redevelopment project is in the municipalities' Maine DEP Regulated Urbanized Area and meets the following threshold, it is subject to the LID requirements outlined in this Chapter:

- Projects that disturb  $\geq$  1.0-acres
- Projects that disturb  $<$  1.0 acre that are part of a larger common plan or development or sale that cumulatively exceeds 1.0 acre of disturbance

### **SECTION 3 – REQUIRED LOW IMPACT DEVELOPMENT (LID) PERFORMANCE STANDARDS**

1. Protect Natural Drainage Systems
2. Minimize the Reduction in Time of Concentration (Tc Path)
3. Minimize Impervious Areas & Minimize Effects of Impervious Areas
4. Minimize Soil Compaction/Disturbance
5. Maximize Landscaping That Encourages Runoff Retention

### **SECTION 4 – SUBMITTAL REQUIREMENTS**

For proposed development & redevelopment projects subject to this Chapter per Section 2, the following must be submitted by a State of Maine Licensed Professional Engineer (PE) to clearly demonstrate that Low Impact Development (LID) strategies were implemented throughout the design process:

The 'LID Submittal Checklist' (Table 1) within this Chapter outlining in detail what LID design elements were utilized in the project and/or why elements could not be incorporated into the project.

### **SECTION 5 – SUBMITTAL REVIEW & CONFORMANCE**

The Reviewing Authority will analyze the existing site and the applicant's proposed design to determine whether the required LID measures were implemented to the Maximum Extent Practicable (MEP).

In order to demonstrate that LID measures were utilized to the Maximum Extent Practicable (MEP), the applicant's Section 4 submittal items must clearly demonstrate:

1. How applicable LID measures were implemented
2. Reasoning why some LID measures could not be implemented into the project due to:
  - a. Technical infeasibility, or
  - b. Site-specific characteristics.

**TABLE 1 – LID PERFORMANCE STANDARDS SUBMITTAL CHECKLIST**

**DIRECTIONS**

- Projects meeting the applicable threshold limit listed in Section 2 are required to implement LID performance standards within the planning & design stages of the project.
- Per the submittal requirements listed in Section 4, applicants must fill out the following table and provide evidence of how each individual LID performance standard was accounted for.
- If a specific LID performance standard cannot be implemented, the applicant must provide detailed explanation. Please utilize additional space/paper for responses as needed.
- Reviewing Authority may approve alternative Design Methods that can be demonstrated to be equivalent or better than the Design Methods stated below.

#	LID PERFORMANCE STANDARDS	TYPICAL DESIGN METHODS TO ACHIEVE LID PERFORMANCE STANDARD (BUT NOT LIMITED TO)	<u>REQUIRED APPLICANT RESPONSE</u> HOW WAS THIS LID PERFORMANCE STANDARD IMPLEMENTED OR TAKEN INTO CONSIDERATION DURING PROJECT DESIGN?
1	Protect Natural Drainage Systems	a) Maintain a minimum 25’ buffer on all natural water resources including intermittent channels b) Utilize Maine Stream Smart Principles for proposed stream crossings c) Utilize natural flow patterns for the post-construction drainage system	
2	Minimize Reduction of Time of Concentration (Tc Path)	a) Break up or disconnect the flow of runoff over impervious surfaces via vegetated buffers b) Maximize routing storm runoff on the non-impervious surface vs. within underground piping c) Increase flow lengths or the surface roughness of the flow path (i.e., vegetated open channels) d) Detain flows onsite	
3	Minimize Impervious Areas & Minimize Effect of Impervious Areas	a) Go vertical with multi-story buildings and parking garages b) Utilize pervious ground treatments c) Minimize the number of proposed parking spaces d) Minimize the length/and widths of proposed roads and driveways e) Minimize connected impervious areas by treating at the source. Direct runoff from roadways and parking areas into water quality treatment buffers & BMPs (i.e., grassed underdrained soil filters, bioretention facilities, etc.)	

		<ul style="list-style-type: none"> <li>f) Limit post-development runoff rates to predevelopment runoff rates via on-site detention systems</li> <li>g) Infiltrate as much roof runoff as standards allow.</li> </ul>	
4	Minimize Soil Compaction/Disturbance	<ul style="list-style-type: none"> <li>a) Minimize construction window/site clearing</li> <li>b) Prohibit heavy equipment on vegetated areas once topsoil is placed</li> <li>c) Rototill all areas to be revegetated</li> </ul>	
5	Maximize Landscaping That Encourages Runoff Retention	<ul style="list-style-type: none"> <li>a) Propose low-maintenance Maine native plant species</li> <li>b) Minimize lawns and maximize vegetated buffers</li> <li>c) Utilize 4" minimum quality topsoil with high organic content or clean compost material</li> </ul>	