

### **Background and Notes for Future Adopters**

The performance standards contained in this document were developed to assist municipalities in addressing the 2022 General Permit for Stormwater Discharges to Municipal Separate Storm Sewer Systems (MS4s), which applies to 30 municipalities in Maine.

An Ordinance Committee and Technical Expert Panel reviewed the elements contained in this document. A white paper describing the rationale for the content of this Maine Model Ordinance for Low Impact Development Strategies (Model Ordinance) is a companion to this document.

Text in black in this document reflects elements that the Authors and Technical Expert Panel agreed were important for implementation of Low Impact Development (LID) in Maine. During comment and reviews, it became apparent that not all elements will be appropriate for implementation in all MS4 municipalities. Therefore, the full Ordinance Committee was polled to assess what elements should be removed from this Model Ordinance, and any elements with a 2/3 majority of votes (one vote per municipality) to remove were removed or made to be optional. Even the resulting recommendations provided in black text may not be consistent with some municipal policies, strategies, or Comprehensive Plans.

Municipalities that elect to adopt elements of this Maine Model Ordinance for Low Impact Development Strategies should review its contents, determine if any elements are inconsistent with existing municipal policies, strategies, or Comprehensive Plans, and make appropriate modifications to their municipality's Model LID Ordinance that is submitted to Maine DEP.

On or before 9/1/2022, each permittee must submit to Maine DEP a Model LID Ordinance for stormwater management on new and Redevelopment sites in accordance with the General Permit for their community.

Maine DEP will post the Model LID Ordinance for public comments and approve it, with or without modifications, on or before 11/1/2022.

Then, MS4 communities must adopt an ordinance that is at least as stringent as the required elements of the Model LID Ordinance by 7/1/2024.

Because municipal ordinances are structured differently, with varying thresholds for development review, submittal requirements, and performance standards, this Maine Model Ordinance for Low Impact Development Strategies does not contain complete language for each section. Instead, it is anticipated the municipalities will embed the required elements in their own Subdivision and Site Plan Ordinances or Regulations. Municipalities may need to adjust some text to be consistent with their own ordinance language.

Throughout this Maine Model Ordinance for Low Impact Development Strategies, instructions to Adopters are contained in bounded text boxes in each section.

*Optional elements incorporating Maine Climate Council Recommendations or recommendations from other sources are shown in blue in italics. Municipalities may or may not incorporate these elements as they wish.*

*Some standard ordinance language is shown in green, also in italics. Municipalities may modify this language to conform to their own ordinances and procedures.*

# Maine Model Ordinance for Low Impact Development Strategies

Final Draft 7/11/2022



Credits: This model ordinance was prepared by SMPDC, CCSWCD, and Integrated Environmental Engineering, Inc. under award CZM NA21NOS4190082 to the Maine Coastal Program from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA or the Department of Commerce.

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## Section 1 Purpose

*The Purpose of this Maine Model Ordinance for Low Impact Development Strategies (the “Ordinance”) is to protect, maintain and enhance the public health, safety and general welfare by establishing minimum requirements and procedures to minimize the adverse effects of New Development and Redevelopment on the environment.*

## Section 2 Definitions

Note to Future Adopters: Review your Subdivision and Site Plan definitions for inclusion of the following definitions:

**Buffers** – Means all three kinds of buffers listed below unless a subset of the three is specifically called out:

- **Stormwater Vegetative Buffer** – a buffer constructed in accordance with Appendix F in Chapter 500 for the purposes of providing pollutant removal.
- **Shoreland Zoning Setback Buffer** – A buffer required by the municipal Shoreland Zoning Ordinance to protect a water of the State.
- **General Buffer** – a buffer required by the municipal ordinances to provide screening to parcels or developments from light, noise, other parcels, rubbish areas, or other areas.

**Chapter 500** – Means Chapter 500 of the Maine Department of Environmental Protection’s Rules (“Stormwater Management Rules”).

**Chapter 502** - Means Chapter 502 of the Maine Department of Environmental Protection’s Rules (“Direct Watersheds of Lakes Most at Risk from New Development, and Urban Impaired Streams”).

**Climate Resilient Northeast Native Vegetation** – Means plants identified as native to the Northeast as identified by the Northeast Regional Invasive Species & Climate Change (RISCC) Network or a Maine Licensed Landscape Architect.

**Common Plan of Development or Sale** - Means a “subdivision” as defined in Title 30-A M.R.S. §§ 4401 *et seq.* (the Maine Subdivision statute) and in \_\_\_\_\_ of the Municipality’s code of ordinances.

**Note:** Common Plan of Dev. Or Sale is same definition as MS4 General Permit.

§§ 4401.4 "Subdivision" means the division of a tract or parcel of land into 3 or more lots within any 5-year period that begins on or after September 23, 1971. This definition applies whether the division is accomplished by sale, lease, development, buildings or otherwise. The term "subdivision" also includes the division of a new structure or structures on a tract or parcel of land into 3 or more dwelling units within a 5-year period, the construction or placement of 3 or more dwelling units on a single tract or parcel of land and the division of an existing structure or structures previously used for commercial or industrial use into 3 or more dwelling units within a 5-year period.

**Construction Activity** – Means any activity on a Site that results in Disturbed Area.

**Discharge** - Means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants to the Waters of the State, other than groundwater.

**Disturbed Area** - Means all land areas of a Site that are stripped, graded, grubbed, filled, or excavated at any time during the site preparation or removing vegetation for, or construction of, a Project. Cutting of trees, without grubbing, stump removal, disturbance, or exposure of soil is not considered Disturbed Area. Disturbed Area does not include routine maintenance but does include Redevelopment and new Impervious Areas. “Routine maintenance” is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Paving impervious gravel surfaces provided that an applicant or permittee can prove the original line and grade and hydraulic capacity shall be maintained and original purpose of the gravel surface remains the same is considered routine maintenance. Replacement of a building is not considered routine maintenance of the building and is therefore considered Disturbed Area.

**Note:** Disturbed Area definition is from the MS4 General Permit plus addition of the last sentence to ensure that Redevelopment Projects removing buildings take into account that area as Disturbed Area.

**Drainageway** – Means the same as “Drainageway” defined in Chapter 500

**General Permit** – Means the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) approved October 15, 2020, and modified November 23, 2021, and any amendment or renewal thereof.

**High Intensity Soil Survey** – Means a Class A survey defined by the March 2009 Guidelines for Maine Certified Soil Scientist for Soil Identification and Mapping, prepared by the Maine Association of Professional Soil Scientists.

**High Permeability Soils** – Means hydrologic soil groups A or B as determined by on-site soil testing by a certified soil scientist using a High Intensity Soil Survey.

**Impervious Area** - Means the total area of a Parcel covered with a low-permeability material that is highly resistant to infiltration by water, such as asphalt, concrete, or rooftop, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability. Common Impervious Areas include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and macadam or other surfaces which similarly impede the natural infiltration

Note: this definition is the same as Chapter 500 definition of Impervious Area except Chapter 500 has a sentence at the end was removed, saying that the DEP can exclude Pervious pavement from calculation of Impervious Area was modified.

of stormwater. Pervious pavement, pervious pavers, pervious concrete, and under drained artificial turf fields are all considered impervious. *For the purpose of determining whether a Site exceeds the Impervious Area thresholds requiring conformance to LID performance standards, the municipality may exclude these from calculation of Impervious Area if these are designed to be infiltration Stormwater Treatment Measures.*

**Lot** – Means the same as it is defined under the Municipality’s zoning ordinance.

**Low Impact Development (LID)** - Means a broad approach to site planning that preserves natural resources, processes, and habitat, 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.

**Maine Licensed Landscape Architect** – Means a person who has an active Landscape Architect license from the Maine Board of Licensure for Architects, Landscape Architects, and Interior Designers.

**Maine Native Vegetation** – Means vegetation including grass seed mixtures, identified as native to Maine from lists maintained by: US Department of Agriculture Hardiness Zones by the Maine Cooperative Extension, Wild Seed Project, Regional Soil and Water Conservation District, Maine YardScaping Program, or a Maine Licensed Landscape Architect.

**Municipal Separate Storm Sewer Systems (MS4)** - Means a conveyance or system of conveyances designed or used for collecting or conveying Stormwater (other than a publicly owned treatment works (POTW), as defined at 40 CFR 122.2, or a combined sewer), including, but not limited to, roads with drainage systems, municipal roads, catch basins, curbs, gutters, ditches, human-made channels or storm drains owned or operated by any municipality, sewer or sewage district, Maine Department of Transportation (MDOT), Maine Turnpike Authority (MTA), State agency or Federal agency or other public entity that Discharges to Waters of the State other than groundwater.

**Municipality** – Means the City/Town of \_\_\_\_\_.

**New Development** – Means the same as “New Development or Construction” defined in the General Permit.

The General Permit defines “New Development or Construction” as follows: “New Development or Construction” means activity undertaken to develop property, including but not limited to: the construction of buildings, parking lots, roads and other new impervious surfaces; landscaping; and other activities that disturb land areas. New Development or Construction does not include Redevelopment or maintenance. Permitted municipalities may define New Development more stringently.)

**Parcel** – Means the same as "Tract or parcel of land" as defined at 30 M.R.S. §4401.6 *et seq.* (or alternately, the municipality may reference their own definition of parcel).

§4401.6 Tract or Parcel of land means all contiguous land in the same ownership, except that lands located on opposite sides of a public or private road are considered each a separate tract or parcel of land unless the road was established by the owner of land on both sides of the road after September 22, 1971.

**Permitting Authority** - Means the Code Enforcement Officer, Building Inspector, Planning Board, or other official or body authorized by State law or the Municipality’s ordinances to approve Development or Redevelopment of Sites.

**Project** – Means Construction Activity undertaken for New Development or Redevelopment, both as defined in the General Permit, located on a Site that will Discharge Stormwater to a Small MS4 located partially or entirely within the Urbanized Area.

**Protected Natural Resource** - Means coastal sand dunes, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, community public water system primary protection areas, great ponds, or rivers, streams or brooks as defined in the *Natural Resources Protection Act* at 38 M.R.S. §480-B.

**Redevelopment** – Means the same as “Redevelopment” defined in the General Permit.

The General Permit defines “Redevelopment” as follows: “Redevelopment” means an activity, not including maintenance, undertaken to redevelop or otherwise improve property in which the newly developed area is located within the same footprint as the existing developed area.

**Regulated Small MS4** - Means any Small MS4 authorized by the most recent, in-force General Permit or the general permits for the Discharge of Stormwater from MDOT and MTA Small MS4s or state or federally owned or operated Small MS4s including all those located partially or entirely within the Urbanized Area.

**Runoff** – Means the part of precipitation from rain or melting ice and snow that flows across a surface as sheet flow, shallow concentrated flow or in Drainageways.

**Rural Areas** – Means those zones or districts designated as follows on the municipal zoning map:  
\_\_\_\_\_.

**Small MS4** - Means any MS4 that is not already covered by the Phase I MS4 stormwater program including municipally owned or operated storm sewer systems, state, or federally owned systems, such as colleges, universities, prisons, military bases and facilities, and transportation entities such as MDOT and MTA road systems and facilities. See also 40 CFR 122.26(b)(16).

**Significant and Essential Wildlife Habitats** – Means the areas identified as Significant or Essential Habitats of endangered or threatened species as identified by the Maine Department of Inland Fisheries and Wildlife either on the Beginning with Habitat viewer or in consultation with the Maine Department of Inland Fisheries and Wildlife.

**Site** - Means the portion of a Lot, Parcel, or Common Plan of Development which is proposed for Construction Activity, including open space, Stormwater Treatment Measures, and Disturbed Area, subject to this Ordinance.

**Stormwater**- Means the part of precipitation including Runoff from rain or melting ice and snow that flows across the surface as sheet flow, shallow concentrated flow, or in Drainageways. “Stormwater” has the same meaning as “storm water”.

**Stream Crossing** - Means the mechanism by which any road, sidewalk, or other structural feature of a Site will cross or pass over or through a Water of the State which has a stream bank full width of 6 feet or less.

**Stream Crossing designed in accordance with Maine Stream Smart Principles** – Means a Stream Crossing designed by a Maine Professional Engineer who has completed the Maine Audubon Society Stream Smart Workshops (Parts I and II), which includes the standards recommended by that program’s stream span, elevation, slope and skew and substrate to promote passage of fish and other organisms and to limit road-damaging flows from extreme weather.

**Stormwater Treatment Measure** – Means a Stormwater management system or innovative treatment measure as described in Chapter 500 4.c.(3) Types of treatment measures allowed. These measures include wet ponds, vegetated soil filters, infiltration, buffers, or innovative treatment measures. For purposes of this Ordinance these are cumulatively referred to as Stormwater Treatment Measures, or individually referred to as Stormwater Treatment Wet Pond, Stormwater Treatment Vegetated Soil Filter, Stormwater Treatment Infiltration Measure, Stormwater Treatment Buffer, or Stormwater Treatment Innovative Measure.

**Suburban Areas** – Means those zones or districts designated as follows on the municipal zoning map:  
\_\_\_\_\_.



**Time of Concentration** – Means the same as “Time of concentration” defined in Chapter 500.

**Urban Areas** – Means those zones or districts designated as follows on the municipal zoning map:

**Urbanized Area** - Means the area of the Municipality so defined by the inclusive sum of the 2000 decennial census and the 2010 decennial census by the U.S. Census Bureau.

**Waters of the State** – See 38 M.R.S. §361-A (7).

### *Section 3 Applicability*

Note to Future Adopters: Thresholds may be updated by inserting the applicability thresholds into applicability sections for Site Plan and Subdivisions. If a municipality has a table of Land Uses, identifying when certain types of reviews are required, a line item should be added specifying that disturbance of one or more acres requires Site Plan review in either *all Zones (optional)* or in the Urbanized Area of the municipality.

The LID Performance Standards contained in Section 7 of this Ordinance apply to any Project for which an application for subdivision or site plan approval is filed with the Municipality on or after 7/1/2024, which results in:

- a. Disturbed Area of one or more acres of land, or
- b. Disturbed Area that is less than one acre of land if the Construction Activity creating Disturbed Area is less than one acre of land and is part of a larger Common Plan of Development or Sale that as approved or amended would create Disturbed Area of one acre or more, *or*
- c. *20,000 square feet or more of new Impervious Area in the watershed of an Urban Impaired Stream or a Lake Most at Risk, both of which are defined in Chapter 502, or*
- d. *5,000 square feet or more new Impervious Area regardless of total Disturbed Area.*

Notwithstanding other provisions in municipal ordinances or state law, requirements to plant “Maine Native Vegetation” or “Climate Resilient Northeast Native Vegetation” shall not be construed as a restriction on the rights of individuals to engage in agricultural practices that are legally protected by the Maine Agriculture Protection Act and the “Right to Food” provision in the Maine Constitution (Constitution, Art. I, §25).

## Section 4 Procedure

Note to Future Adopters: No procedure is provided for this Model Ordinance because municipalities will rely on their existing Subdivision and Site Plan procedures for review and approval.

## Section 5 Submission Requirements

Note to Future Adopters: Ensure the following elements are contained in your Subdivision and Site Plan submission lists where applicable.

### 5.1 Project Narrative

*The applicant shall provide a Project narrative describing:*

- *the overall approach to Stormwater management at the Project Site,*
- *a listing of Stormwater Treatment Measures that will be in use, stating which will be maintained privately and which will be offered to the Municipality for acceptance and operation,*
- *how they have prioritized protection of the sensitive areas from disturbance as required in Section \_\_\_\_\_, and*
- *a rationale for any waivers from performance standards (see Sections 7 and 10).*

### 5.2 Project Contacts and Qualifications

*The applicant shall provide contact information (i.e., name, company if applicable, phone number, physical address, and email address) as described below:*

- Maine Licensed Landscape Architect
- Maine Certified Soil Scientist
- Maine Professional Engineer

### 5.3 Project Plans Contents

*The applicant shall submit Project Plans which shall consist of a graphic representation of the Site at a scale no smaller than 1 inch = 100 feet showing:*

- Waters of the State and their associated Shoreland Protection areas
- Protected Natural Resources
- Predevelopment drainage areas, Drainageways and associated Time of Concentration
- High Permeability Soils
- Maine Native and Climate-Resilient Northeastern Native Vegetation in General Buffer areas and Shoreland Zoning Buffer areas

- Significant and Essential Wildlife Habitats
- Limits of disturbance
- Post-development drainage areas, Drainageways and associated Time of Concentration
- Locations of snow storage areas
- Stormwater Treatment Measures to be used

#### *5.4 Submittals related to Infiltration Performance Standard*

*The applicant shall submit the following to permit review of the Project application under the LID Performance Standards for infiltration:*

- Information required by Chapter 500 Section (7)(D)(5)(c) Infiltration Submittals including a plan for use of de-icing materials, pesticides and fertilizers within the drainage area of any infiltration Stormwater Treatment Measures.
- Locations of any Maine Uncontrolled Hazardous Substance Sites, Maine Voluntary Response Action Program sites, federal Resource Conservation and Recovery Act (“RCRA”) Corrective Action sites, or Petroleum Remediation sites on or adjacent to the Site.

### *Section 6 Approval Standards*

Note to Future Adopters: The following text is suggested for inclusion in Findings of Fact to reflect that the LID Performance Standards have been reviewed and adhered to by the applicant. Note that this text is a simple paraphrasing of the intent of the Performance Standards.

*The Permitting Authority shall use the following criteria in reviewing applications for Projects for site plan/subdivision review and these criteria shall serve as minimum requirements for approval of the Site application:*

- *The proposed Project protects sensitive areas, provides on-site volume control, provides treatment of Stormwater, and minimizes Impervious Areas*

## Section 7 Performance Standards

Note to Future Adopters: Review the following elements for addition to your Subdivision and Site Plan Performance Standards under existing Stormwater Management Standards or create a new performance standard titled: Low Impact Development.

To show conformance to the MS4 General Permit Requirements, we have included information about which LID Measure from Table 1 Appendix F of the 2022 MS4 General Permit the performance standard addresses. To assist municipalities in applying these performance standards, we have identified whether the standard could apply to Rural, Urban or Suburban Areas. Municipalities may apply any given standard in an existing Zone for which it is appropriate. For example, the “Time of Concentration” standard may apply in RR1 and RR 2 areas, but not in one or more existing zones in downtown cities where impervious area is already at 100%. Similarly, municipalities may apply the “Rural Open Space” standard to their RR1 (or equivalent) zone and the “Suburban Open Space” standard to their RR2 (or equivalent) zone. It is intended that municipalities will determine which of the zones or districts shown on their zoning maps are included in each of the Rural, Urban or Suburban Area categories, and will list those in the Definitions in Section 2.

Regarding Maintenance of Stormwater Treatment Measures, MS4 communities maintain a Post-Construction Runoff Control Ordinance which automatically covers any Stormwater Treatment Measures required under the LID performance standards. Therefore, no Maintenance requirements are contained here. Non-MS4 communities implementing these LID strategies should also adopt the Post Construction Maintenance Ordinance.

Performance Standard	LID Measure(s) addressed (shown only for informational purposes)	Where Standard Applies within Urbanized Area
<p>Prioritize the protection of the following sensitive areas as listed below (highest priority listed first) by not disturbing land in these areas:</p> <ul style="list-style-type: none"> <li>i. Waters of the State and associated shoreland protection areas.</li> <li>ii. Protected Natural Resources</li> <li>iii. Predevelopment Drainageways</li> <li>iv. High Permeability Soils</li> <li>v. Maine Native Vegetation and Climate Resilient Northeastern Native Vegetation in General Buffer areas and Shoreland Zoning Setback Buffer areas</li> <li>vi. Significant and Essential Wildlife Habitats</li> </ul>	<ol style="list-style-type: none"> <li>1. Minimize Site Clearing</li> <li>2. Protect Natural Drainage System</li> <li>4. Minimize Impervious Area</li> <li>5. Minimize Effect of Impervious Area</li> <li>6. Minimize Soil Compaction</li> </ol>	<p>Rural, Suburban and Urban</p>

<p>Note that the applicant will need to provide a description in their narrative of how they have prioritized these areas for protection from disturbance. These areas may be counted toward the open space requirements.</p> <p>Exception: Removal of Maine Native Vegetation and Climate Resilient Northeastern Native Vegetation that is diseased or in poor condition is allowed.</p>		
<p>Project Plans shall depict limits of disturbance. Limits of disturbance shall be established on-site prior to disturbance using flagging, fencing, signs or other means to provide a clear indication.</p>	<ol style="list-style-type: none"> <li>1. Minimize Site Clearing</li> <li>6. Minimize Soil Compaction</li> </ol>	<p>Rural, Suburban and Urban</p>
<p><i>Optional: Rural New Developments shall preserve at least 40% of the Site as open space and Suburban New Developments shall preserve 25% of the Site as open space.</i></p> <p><i>Exception: Municipalities may allow exceptions per their municipal ordinances. For example, applicants may be allowed to pay a fee-in-lieu which is dedicated to open space or may provide open space in an alternate locations within the same watershed.</i></p>	<ol style="list-style-type: none"> <li>1. Minimize Site Clearing</li> <li>4. Minimize Impervious Area</li> <li>7. Minimize Lawns and Maximize Landscaping that Encourages Runoff Retention.</li> </ol>	<p>Rural and Suburban</p>
<p>Stream Crossings for Waters of the State shall be designed in accordance with Maine Stream Smart Principles to preserve natural pre-development Drainageways.</p> <p>Exception: Stream Crossings over portions of streams that are artificially channelized are not subject to this standard.</p>	<ol style="list-style-type: none"> <li>2. Protect natural Drainage System</li> <li>3. Minimize Decrease in Time of Concentration</li> </ol>	<p>Rural, Suburban and Urban</p>
<p>Rural and Suburban Projects shall preserve the natural pre-development Drainageways on the Site by using the natural flow patterns and pathways for the post-construction drainage system.</p> <p>Exceptions are allowed if the Time of Concentration for a predevelopment Drainageway is the same as or shorter than the post-development Drainageway. Exception: The applicant may submit an “alternative analysis” which demonstrates that this performance standard is impracticable.</p>	<ol style="list-style-type: none"> <li>2. Protect Natural Drainage System</li> <li>3. Minimize Decrease in Time of Concentration</li> </ol>	<p>Rural and Suburban</p>
<p>Projects that have a Disturbed Area of one acre of land or more shall include Stormwater Treatment Measures in</p>	<ol style="list-style-type: none"> <li>2. Protect Natural Drainage System</li> </ol>	<p>Rural, Suburban and Urban</p>

<p>accordance with Chapter 500 Section 4.C General Standards, 4.C.(2) Treatment requirements, 4.C.(3) Types of treatment measures allowed, and 4.D Phosphorus standard (for lake watersheds only) and additionally:</p> <ul style="list-style-type: none"> <li>• Individual Stormwater Treatment Measure may not treat more than one acre of Impervious Area</li> <li>• Vegetation used in Stormwater Treatment Measures shall be Maine Native Vegetation or Climate Resilient Northeastern Native Vegetation</li> </ul> <p>Note that although Chapter 500 General Standards and Phosphorus standard have higher thresholds for developed and Impervious Area, these standards apply to sites within the Urbanized Area of the Municipality at a lower threshold.</p>	<ol style="list-style-type: none"> <li>5. Minimize Effect of Impervious Area</li> <li>7. Minimize Lawns and Maximize Landscaping that Encourages Runoff Retention.</li> <li>10. Stormwater Quality Treatment and Retention Requirements</li> </ol>	
<p>Infiltration Standard: Provide volume control on-site (through infiltration or storage) in accordance with the following:</p> <ul style="list-style-type: none"> <li>• Volume to be controlled = (total area of Impervious Area after New Development and Redevelopment – total area that existed before New Development and Redevelopment) x Rd</li> <li>• Where Rd is the groundwater recharge depth based on the USDA/NRCDS hydrologic soil group as follows: Rd = 0.40 inches or rain for type A soils, 0.25 inches of rain for type B soils, 0.10 inches of rain for type C soils and 0 for type D soils</li> <li>• Stormwater Treatment Measures with liners may not be used to meet the volume requirement via storage.</li> <li>• Restrictions and requirements identified in Sections D(2) through D(4) of Appendix D Infiltration basins, drywells, and subsurface fluid distribution systems; of Chapter 500 apply.</li> </ul> <p>Exception: For Sites in Rural and Suburban areas where infiltration will disrupt the preservation of the predevelopment Drainageways, an exception from the infiltration standard will be allowed.</p> <p>Exception: If any Uncontrolled Hazardous Substance Sites, Voluntary Response Action Program sites, RCRA Corrective Action sites, or Petroleum Remediation sites</p>	<ol style="list-style-type: none"> <li>2. Protect the Natural Drainage System</li> <li>3. Minimize the Decrease in Time of Concentration</li> <li>5. Minimize Effect of Impervious Area</li> </ol>	<p>Rural, Suburban and Urban</p>

<p>are on or adjacent to the Site, the Site does not need to meet the volume control standard.</p> <p>Exception: Municipalities may allow infiltration on an alternate site within the same watershed in-lieu of on-site infiltration.</p>		
<p>Minimize Impervious Area and the Effect of Impervious Area from road runoff:</p> <ul style="list-style-type: none"> <li>At least 70% of roadway Runoff shall be directed into a Stormwater Treatment Measure</li> </ul> <p><i>Optional:</i></p> <ul style="list-style-type: none"> <li><i>Dead-end streets shall be no longer than 1000 feet (Rural and Suburban Areas).</i></li> <li><i>Dead-end roads shall be constructed to provide a hammerhead (when less than 200 feet), or a tear drop cul-de-sac turn-around with a center that is vegetated, used for open space, and/or a Stormwater Treatment Measure as described below (Rural and Suburban Areas).</i></li> <li><i>Cul-de-sac roads shall be constructed with the center island used for Stormwater Treatment Measures or vegetation unless type A or B soils are present in the center, in which case this area should be used to promote natural infiltration on-site.</i></li> </ul>	<p>4. Minimize Impervious Area</p> <p>5. Minimize Effect of Impervious Area</p>	<p>Rural, Suburban and Urban</p>
<p>Minimize Impervious Area from parking areas:</p> <ul style="list-style-type: none"> <li>Vehicle parking stall dimension standard: maximum of 9-foot x 18-foot stall</li> </ul> <p>Exceptions for public safety</p> <p><i>Optional: (not fully developed as part of this ordinance) Establish "In-Lieu of" Parking programs with the following components:</i></p> <ul style="list-style-type: none"> <li><i>Fee in-lieu of parking</i></li> <li><i>Car-share in-lieu of parking</i></li> <li><i>Transit in-lieu</i></li> <li><i>Bike/pedestrian infrastructure improvements</i></li> </ul> <p><i>Note that the in-lieu program may optionally be tied to incentives, such as density or height bonuses.</i></p> <p><i>Establish shared parking provisions</i></p>	<p>4. Minimize Impervious Area</p>	<p>Rural, Suburban and Urban</p>

<p><i>Minimum parking requirements shall be based on reasonable parking needs instead of peak use, and maximum parking limits should be established for appropriate areas. Establish maximum parking requirements at current minimum standards.</i></p> <p><i>Reductions in parking volume requirements should consider presence of transit routes within ¼ mile, existing on-road parking, and transportation/parking demand management plan for Sites over a certain size.</i></p> <ul style="list-style-type: none"> <li>• <i>Commercial parking space size shall be a maximum 9-foot width and an 18-foot length with an allowance for reduction in length at a 1 to 1 ratio for available overhang (1 foot reduction allowed if 1 foot overhang possible).</i></li> <li>• <i>Parking lot travel aisles shall be a maximum of 22 feet wide.</i></li> </ul> <p><i>Require garages/under above building where appropriate, optionally tied to a density or height bonus</i></p>		
<p>Runoff from on-site roofs, sidewalks, and peak-use overflow parking Runoff shall be directed into Stormwater treatment Buffers or Stormwater Treatment Infiltration Measures.</p>	<p>5. Minimize Effect of Impervious Area 8. Provide Vegetated Open-Channel Conveyance Systems</p>	<p>Rural, Suburban and Urban</p>
<p>Construction equipment movement, laydown areas and parking shall be restricted to the Disturbed Area.</p> <p>Areas to be vegetated shall be tilled and the soils amended with organic matter as needed based on the results of soil tests.</p>	<p>6. Minimize Soil Compaction</p>	<p>Rural, Suburban and Urban</p>
<p>Snow storage areas shall be depicted on site plans.</p> <p>The location of snow storage areas in Stormwater Treatment Measures and Shoreland Zoning Setback Buffers shall be prohibited.</p>	<p>5. Minimize Effect of Impervious Area</p>	<p>Rural, Suburban and Urban</p>
<p><i>Optional Standard: Require the implementation of precipitation storage (e.g., cisterns or rain barrels) for later reuse for landscaping.</i></p>	<p>9. Rainwater Capture and Reuse</p>	<p>Rural, Suburban and Urban</p>



Note to Future Adopters: By embedding the performance standards into Site Plan and Subdivision Performance Standards, those ordinances' enforcement provisions, Severability and Conflicts and Waivers provisions will automatically cover the LID Performance Standards. No additional enforcement requirements need apply, so those provisions have not been included here.

## *Section 8 Enforcement*

## *Section 9 Severability and Conflicts*

## *Section 10 Waivers*

## *Section 11 Authority*

*The Municipality enacts the Ordinance for Low Impact Development Strategies provisions pursuant to Maine Constitution Art. VIII, Part Second, §1 and 30-A M.R.S. §§3001 et seq. (municipal home rule authority), 38 M.R.S. §413 (the Wastewater Discharge Law), 33 USC §§1251 et seq. (the Clean Water Act), and 40 CFR Part 122 (US Environmental Protection Agency's regulations governing the National Pollution Discharge Elimination System (NPDES)). The Maine Department of Environmental Protection, through its promulgation of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems has listed the Municipality as having a Regulated Small MS4; under this General Permit, listing as a Regulated Small MS4 necessitates enactment of elements of this Ordinance as part of the Municipality's Stormwater management program in order to satisfy the minimum control measures for Post Construction Stormwater Management in New Development and Redevelopment.*