A Model Ordinance

for Low Impact Development Strategies for the City of Lewiston, Maine

8/18/2022

The following model ordinance shall serve as a basis for the City of Lewiston to adopt an ordinance or other regulatory mechanism to address Low Impact Development strategies as required in MCM 5 of the MS4 General Permit.

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**Section 1 Purpose**

The Purpose of this Model Ordinance for Low Impact Development Strategies (the “Model 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**

**Buffers** – Means the following buffers listed below :

* **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.

**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”).

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

**Discharge** - Discharge means the accidental or intentional injection, dumping, spilling, leaking, or placing of materials upon or into any land or waters.

**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.

**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 or verification of available soil mapping.

**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 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 City may exclude these from calculation of Impervious Area if these are designed to be infiltration Stormwater Treatment Measures.

**Lot** – Means a contiguous parcel of land in single ownership comprised of one (1) or more parcels described in deeds, plats or other legal documents recorded in the Androscoggin County Registry of Deeds.

**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 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.

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

**Permitting Authority** - Means the Code Enforcement Officer, Building Inspector, Planning Board, or other official or body authorized by State law or the City’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.

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.

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

**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 on the City 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 subdivision 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.

**Subdivision -** As defined in Title 30-A M.R.S. §§ 4401 et seq. (the Maine Subdivision statute)

**Suburban Areas** – Means those zones or districts designated on the City zoning map.

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

**Urban Areas** – Means those zones or districts designated on the City 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**

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

1. Disturbed Area of one or more acres of land, or
2. 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 subdivision that as approved or amended would create Disturbed Area of one acre or more.

**Section 4 Procedure**

See Appendix A of the Zoning and Land Use Code, Article XIII, Development Review and Standards.

**Section 5 Submission Requirements**

See Appendix A of the Zoning and Land Use Code, Article XIII, Development Review and Standards. In addition, the following will be required for applications for projects to which this Model Ordinance apply:

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 City for acceptance and operation,
* how they have prioritized protection of the sensitive areas from disturbance as required in Section 7, and
* a rationale for any waivers from performance standards (see Sections 7 and 10).

5.2 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
* Significant and Essential Wildlife Habitats
* High Permeability Soils
* Limits of disturbance
* Existing and proposed buffer areas
* Locations of snow storage areas
* Stormwater Treatment Measures to be used
* Predevelopment drainage areas, Drainageways and associated Time of Concentration
* Post-development drainage areas, Drainageways and associated Time of Concentration

5.3 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**

The Permitting Authority shall use the criteria found in Appendix A of the Zoning and Land Use Code, Article XIII, Section 4 for review of developments with the addition of:

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

**Section 7 Performance Standards**

The applicant shall address the following Low Impact Development standards 1 – 9, using the performance standards in the table below:

1. Minimize site clearing;
2. Protect natural drainage systems;
3. Minimize the decrease in time of concentration;
4. Minimize impervious area;
5. Minimize the effect of impervious area;
6. Minimize soil compaction;
7. Minimize lawns and maximize landscaping that encourages runoff retention;
8. Provide vegetated open-channel conveyance systems;
9. Stormwater Quality Treatment and Retention Requirements.

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| --- | --- | --- |
| **Performance Standard** | **LID Measure(s) addressed (shown only for informational purposes)** | **Where Standard Applies within Urbanized Area** |
| Prioritize the protection of the following sensitive areas as listed below (list highest priority first):   * + 1. Waters of the State and associated shoreland protection areas.     2. Protected Natural Resources     3. Predevelopment Drainageways     4. High Permeability Soils     5. Maine Native Vegetation and Climate Resilient Northeastern Native Vegetation in General Buffer areas and Shoreland Zoning Setback Buffer areas     6. Significant and Essential Wildlife Habitats   Note that the applicant will need to provide a description in their narrative of how they have prioritized these areas for protection from disturbance.  Exception: Accepted forestry practices (e.g. Maine Forest Service's *Best Management Practices for Forestry)*; removal of Maine Native Vegetation and that is diseased or in poor condition is allowed. | 1. Minimize Site Clearing 2. Protect Natural Drainage System 3. Minimize Impervious Area 4. Minimize Effect of Impervious Area 5. Minimize Soil Compaction | Rural, Suburban and Urban |
| 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. | 1. Minimize Site Clearing 2. Minimize Soil Compaction | Rural, Suburban and Urban |
| Stream Crossings for Waters of the State shall be designed in accordance with Maine Stream Smart Principles to preserve natural pre-development Drainageways.  Exception:  Stream Crossings over portions of streams that are artificially channelized are not subject to this standard. | 1. Protect natural Drainage System 2. Minimize Decrease in Time of Concentration | Rural, Suburban and Urban |
| Rural and Suburban Projects shall preserve the natural pre-development Drainageways on the Site  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. | 1. Protect Natural Drainage System 2. Minimize Decrease in Time of Concentration | Rural and Suburban |
| Projects that have a Disturbed Area of one acre of land or more shall include Stormwater Treatment Measures in 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:   * Individual Stormwater Treatment Measure may not treat more than one acre of Impervious Area * Vegetation used in Stormwater Treatment Measures shall be Maine Native Vegetation or Climate Resilient Northeastern Native Vegetation   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 City at a lower threshold. | 1. Protect Natural Drainage System 2. Minimize Effect of Impervious Area   7. Minimize Lawns and Maximize Landscaping that Encourages Runoff Retention.  9. Stormwater Quality Treatment and Retention Requirements | Rural, Suburban and Urban |
| Provide volume control on-site (through infiltration or storage) in accordance with the following:   * 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 * 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 * Stormwater Treatment Measures with liners may not be used to meet the volume requirement via storage. * 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.   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.  Exception: If any Uncontrolled Hazardous Substance Sites, Voluntary Response Action Program sites, RCRA Corrective Action sites, or Petroleum Remediation sites are on or adjacent to the Site, the Site does not need to meet the volume control standard.  Exception: Municipalities may allow infiltration on an alternate site within the same watershed in-lieu of on-site infiltration. | 1. Protect the Natural Drainage System 2. Minimize the Decrease in Time of Concentration 3. Minimize Effect of Impervious Area | Rural, Suburban and Urban |
| Minimize Impervious Area and the Effect of Impervious Area from road runoff:   * At least 70% of roadway Runoff shall be directed into a Stormwater Treatment Measure | 1. Minimize Impervious Area 2. Minimize Effect of Impervious Area | Rural, Suburban and Urban |
| Minimize Impervious Area from parking areas:   * Vehicle parking stall dimension standard: maximum of 9-foot x 18-foot stall   Exceptions for public safety, ADA, etc. | 1. Minimize Impervious Area | Rural, Suburban and Urban |
| Runoff from on-site roofs, sidewalks, and peak-use overflow parking Runoff shall be directed into Stormwater treatment Buffers or Stormwater Treatment Infiltration Measures. | 1. Minimize Effect of Impervious Area 2. Provide Vegetated Open-Channel Conveyance Systems | Rural, Suburban and Urban |
| Construction equipment movement, laydown areas and parking shall be restricted to the Disturbed Area.  Areas to be vegetated shall be tilled and the soils amended with organic matter as needed based on the results of soil tests. | 6. Minimize Soil Compaction | Rural, Suburban and Urban |
| Snow storage areas shall be depicted on site plans.  The location of snow storage areas in Stormwater Treatment Measures and Shoreland Zoning Setback Buffers shall be prohibited. | 1. Minimize Effect of Impervious Area | Rural, Suburban and Urban |

**Section 8 Enforcement**

It shall be unlawful for the Owner or their Representative to violate any provision of or to fail to comply with any of the requirements of this Model Ordinance. Whenever the City of Lewiston believes that a Person has violated this Model Ordinance, the City of Lewiston may enforce this Ordinance in accordance with 30-A M.R.S.A. § 4452.

(1) Notice of Violation. In addition to the provisions contained in Appendix A, Article V of this Code, whenever the City of Lewiston believes that a Person has violated this Model Ordinance, the City of Lewiston may order compliance with this Model Ordinance by written notice of violation to that Person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:

a. The abatement of violations, and the cessation of practices, or operations in violation of this Ordinance;

b. At the Owner’s expense, compliance with BMPs is required as a condition of approval of the New Development or Redevelopment, including the repair of Stormwater Management Facilities and/or the restoration of any affected property; and/or

c. The payment of fines, of the City’s remediation costs and of the City’s reasonable administrative costs and attorneys’ fees and costs.

If abatement of a violation or this Model Ordinance is required, the notice shall set forth a deadline within which such abatement, compliance, repair and/or restoration must be completed.

**Section 9 Severability and Conflicts**

The provisions of this Model Ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Model Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this Model Ordinance.

Where a provision of this Model Ordinance conflict with another provisions of the City Ordinance, the stricter language shall apply.

**Section 10 Waivers**

The Director of Public Works or his or her Designee may grant a waiver if they determine that the applicant has demonstrated equivalent water quality protection standards through the use of best management practices or low impact development strategies that provide an equivalent level of protection. Waivers may include exceptions identified in Section 7, Performance Standards)

**Section 11 Authority**

The City shall enact an ordinance or other regulatory mechanism that is as least as stringent as this Model 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 City as having a Regulated Small MS4; under this General Permit, listing as a Regulated Small MS4 necessitates enactment of elements of this Model Ordinance as part of the City’s Stormwater management program in order to satisfy the minimum control measures for Post Construction Stormwater Management in New Development and Redevelopment.