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Municipal Climate Adaptation Guidance Series: Subdivision Ordinances

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This guidance document consists of model language that can make local subdivision ordinances and regulations more responsive to the growing need for climate resiliency. As a convenience to the user, the model language is presented as revisions to the Model Subdivision Regulations for Use by Maine Planning Boards***. The revisions focus on stormwater management, and include a general standard (10.12.C) which allows a choice between a conventional and an alternative approach to the management of stormwater for smaller project. The specific standards for the alternative approach, known as "Low-Impact Development" (LID), are provided as an appendix (Appendix U).***

It is expected that the LID standards will provide water quality treatment, erosion control, and flood mitigation sufficient to protect downstream properties and receiving waters from development impacts, however, a municipality may wish to tailor these standards to better address known concerns in the community.

Revise Section ***10.12 Stormwater Management****, paragraphs A and B to read as follows:*

A. Subdivisions that require a state permit under the Site Location of Development Act or the Stormwater Management Law shall comply with the standards of Department of Environmental Protection Rule Chapter 500 (Stormwater Management Regulations).

B. Applications for subdivisions that are not subject to paragraph A, above, shall comply with one of the following:

1. The standards of Department of Environmental Protection Rule 500 (Stormwater Management Regulations); or

2. The Low Impact Development Standards of *Appendix U*.

Add ***Appendix U*** *as follows:*

Appendix U: Low-Impact Development (LID) Standards

1. Applicability.

Applications for subdivisions subject to Section 10.12.B of this ordinance that do not satisfy the standards of Department of Environmental Protection Rule Chapter 500 (Stormwater Management Regulations) must satisfy the following General Standards (Section 2) and either the Basic Lot Standards (Section 3) or the Alternative Lot Standards (Section 4). Refer to Definitions (Section 5) for the specific meaning of terms found in this Appendix.

2. General Standards

A. All LID Practices used to meet these Low Impact Development Standards shall be:

1. Designed by a Maine-licensed professional engineer in accordance with the Maine LID Guidance Manual;
2. Maintained in perpetuity in accordance with an approved Operation and Maintenance Plan; and
3. Modified or replaced only if the standards continue to be met, as determined by Codes Enforcement Officer. (The CEO may require the owner to provide documentation from a Maine-licensed professional engineer demonstrating that the standards will continue to be met after the proposed changes.)

B. Roads The following standards apply to roads within a subdivision:

1. Maximum paved width: 22 feet
2. Must be drained by roadside swales

C. Inside Great Pond Watersheds Applications for subdivisions located wholly or partly within the watershed of a Great Pond and which, within that watershed, propose, a) the creation of five or more lots or dwelling units within a five-year period; or, b) 800 or more linear feet of new or upgraded driveways or streets; shall also include a stormwater management plan, prepared by a Maine licensed professional engineer, demonstrating that development within the watershed is in compliance with the standards of the Department of Environmental Protection Phosphorus Design Manual (Maine Stormwater Best Management Practices, vol. II).

D. The capacity of on- and off-site systems and channels must be sufficient to carry post-development flows without adverse effects such as flooding, soil erosion and damage to vegetation, on adjacent and downstream properties, streets and shoreland areas. Design, permitting and installation of any on- and off-site improvements necessary to increase carrying capacities or mitigate adverse effects shall be the responsibility of the applicant.

3. Basic Lot Standards

A. Outside Sensitive Watersheds The following standards apply to lots and portions of lots located outside a Sensitive Watershed Area:

1. Single and Two-Family Residential Lots:
   a. Maximum Disturbed Area: 15,000 square feet or 75% of lot area, whichever is less
   b. Maximum Impervious Surface: 7,500 square feet
   c. Minimum width of Vegetated Buffer:
      1. Forest vegetation: 35 feet
      2. Meadow vegetation: 50 feet

2. Residential Lots with Multi-Family (3 or more) Dwellings:
   a. Maximum Disturbed Area: 43,560 square feet.

b. Maximum Impervious Area: 15,000 square feet
c. Minimum Undisturbed Natural Area: 15 % of lot area
d. Natural Vegetated Buffer
1. Minimum width: 60 feet.
2. Level spreader required if length of runoff flow path to buffer from:
a. Impervious Area exceeds 60 feet.
b. Pervious Area exceeds 100 feet.

B. Inside Sensitive Watersheds The following standards apply to lots and portions of lots located inside a Sensitive Watershed Area:

1. Single and Two-Family Residential Lot standards
a. Maximum Disturbed Area: 15,000 square feet or 60% of lot area, whichever is less
b. Maximum Impervious Surface: 7,500 square feet
c. Minimum Vegetated Buffer
1. Forest vegetation: 50 feet
2. Meadow vegetation: 75 feet

2. Multi-Family Residential Lot standards:
a. Maximum Disturbed Area: 43,560 square feet.
b. Maximum Impervious Surface: 15,000 square feet
c. Minimum Undisturbed Natural Area: 25 % of lot area
d. Natural Vegetated Buffer
1. Minimum width: 100 feet.
2. Level spreader required if length of runoff flow path across:
a. Impervious Area exceeds 60 feet.
b. Pervious Area exceeds 100 feet.

4. Alternative Lot standards

A. Outside Sensitive Watersheds The following standards apply to lots and portions of lots located outside a Sensitive Watershed Area:

1. Each Single or Two-Family Residential Lot shall include LID practices sufficient to treat a minimum of:
a. 0.5 inches of runoff from Impervious Area; and
b. 0.2 inches of runoff from Disturbed Pervious Areas.

2. Each Multi-Family Residential Lot shall include LID practices sufficient to treat a minimum of:
a. 0.5 inches of runoff from all Impervious Areas; and
b. 0.2 inches of runoff from all Disturbed Pervious Areas

B. Inside Sensitive Watersheds The following standards apply to lots or portions of lots located inside a Sensitive Watershed Area:

1. Each Single or Two-Family Residential Lot shall include LID practices sufficient to treat a minimum of:
   a. 1.0 inches of runoff from Impervious Areas; and
   b. 0.4 inches of runoff from Disturbed Pervious Areas.

2. Each Multi-Family Residential Lot shall include LID practices sufficient to treat a minimum of:
   a. 1.0 inches of runoff from all Impervious Area; and
   b. 0.4 inches of runoff from all Disturbed Pervious Areas

5. Definitions

Disturbed Area An area of land that has been subject to stripping, grading, grubbing, filling, excavating, vegetation removal and any other human action that causes a change in the position, location, or arrangement of soil, sand, rock, gravel or similar earth material.

Disturbed Pervious Area A Disturbed Area that remains pervious after the completion of a development project. Disturbed Pervious Area is defined to include lawns and other landscaped areas.

Impervious Area An area of land that is covered by a material or structure on or above the ground that prevents water from infiltrating through the underlying soil. Impervious Area is defined to include rooftops, paved sidewalks and patios, and paved, gravel and compacted dirt driveways, roads and parking areas.

LID Practices Built or naturally-occurring landscape features and systems that serve to store and remove pollutants from stormwater runoff flowing from a development project. LID Practices are described in the Maine LID Guidance Manual, and include: Buffer/filter strips, Underdrain soil filters, Dry wells, Permeable pavers, Rain barrels/cisterns, Stormwater planters, and Green roofs.

Landscaped area An area of land that has been disturbed and re-planted or covered with one or more of the following: lawn or other herbaceous plants, shrubs, trees, or mulch; but not including area that has reverted to a natural, vegetated condition. A field or meadow is considered landscaped if it is mowed more than twice per twelve month period.

Level Spreader A stormwater management and erosion control device designed to prevent the concentrated flow of stormwater runoff by releasing collected water evenly over a broad, level outlet edge onto gently sloping ground.

Natural Vegetated Buffer An LID Practice consisting of a strip of Undisturbed Natural Area located and configured so as to intercept the stormwater runoff from a development project.

Operation and Maintenance Plan A plan that defines the functional, financial and organizational mechanisms for the ongoing operation and maintenance of approved LID practices to ensure that they continue to function as designed.

Pervious Area An area of land that is not an Impervious Area.

Sensitive Watershed The watershed of a "Lake Most at Risk from New Development" or an "Urban Impaired Stream", as identified by the Maine Department of Environmental Protection in accordance with Chapter 502 of its rules.

Undisturbed Area Any area of land that is not a Disturbed Area.

Undisturbed Natural Area An Undisturbed Area with naturally-occurring vegetation. A Disturbed Area may be converted to an Undisturbed Natural Area through the implementation of an approved restoration and re-vegetation plan.

Vegetated Buffer An LID Practice consisting of a strip of non-lawn, vegetated Landscaped Area located and configured so as to intercept the stormwater runoff from a development project.