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Issuing Office: Office of Environmental Health & Safety **Policy Number:** FY21-EHS-001-01

Policy Name: Post-Construction Stormwater Management Requirements for New and Redevelopment Projects

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Purpose of Policy:

The purpose of this policy is to reduce the discharge of pollutants found in stormwater through the retention or treatment of stormwater after construction on new or redeveloped sites. This policy was developed as part of UMass Boston’s compliance with the NDPES Municipal Separate Storm Sewer System (MS4) permit.

Applicable to: All projects located on UMass Boston campus with construction activities or land alteration resulting in a total earth disturbance greater than 1 acre (or activities that are part of a larger common plan of development disturbing great than 1 acre).

Definitions¹:

Exempt projects: Roadway projects that include widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving projects.

Impervious Surface: Any surface that prevents or significantly impedes the infiltration of water into the underlying soil. This can include but is not limited to: roads, driveways, parking areas and other areas created using non porous material; buildings, rooftops, structures, artificial turf and compacted gravel or soil.

New development: Any construction activities or land alteration resulting in total earth disturbances greater than 1 acre (or activities that are part of a larger common plan of development disturbing greater than 1 acre) on an area that has not previously been developed to include impervious cover.

Redevelopment: Any construction, land alteration, or improvement of impervious surfaces resulting in total earth disturbances greater than 1 acre (or activities that are part of a

¹ Definitions are consistent with the Massachusetts Small MS4 General Permit.



Administration & Finance

Policy & Procedure

www.umb.edu/administration/finance/index.html

larger common plan of development disturbing greater than 1 acre) that does not meet the definition of new development.

Site: The extent of construction activities, including but not limited to the creation of new impervious cover and improvement of existing impervious cover.

Policy:

Exempt projects that are exclusively limited to maintenance and improvement of existing roadways are exempt from the water quality requirements of this policy discussed below but must improve existing conditions unless infeasible.

UMass Boston projects disturbing one or more acres of land will:

- Design in accordance with MA Stormwater Handbook,
- Meet the MS4 Permit's water quality requirements for new development and redevelopment projects listed below, and
- Incorporate low impact development site planning and design strategies, unless infeasible.

UMass Boston projects defined as new development under this policy will:

- Design BMPs to provide treatment for the Site's total post-construction impervious area. Treatment must provide an average annual pollutant removal equivalent to 90% of the average annual load of Total Suspended Solids (TSS) and 60% of the average annual load of Total Phosphorus (TP).
- Achieve that pollutant removal through one of the following methods:
 1. Design/install BMPs that together meet Site TSS and TP pollutant removal requirements based on the guidance in the MS4 Permit (e.g., EPA Region 1's BMP Accounting and Tracking Tool or MS4 Permit Attachment 3 to Appendix F); or
 2. Retain the volume of runoff equivalent to, or greater than, one (1.0) inch multiplied by the total post-construction impervious surface area on the new development Site; or
 3. Provide a combination of retention and treatment; or



Administration & Finance

Policy & Procedure

www.umb.edu/administration/finance/index.html

4. Utilize offsite mitigation that meets the above standards within the same USGS HUC12 watershed (i.e., off project Site but within the UMass Boston campus).

UMass Boston projects defined as redevelopment under this policy will:

- Design BMPs to provide treatment for the Site's total post-construction impervious area. Treatment must provide an average annual pollutant removal equivalent to 80% of the average annual load of TSS and 50% of the average annual load of TP.
- Achieve that pollutant removal through one of the following methods:
 1. Design/install BMPs that together meet Site TSS and TP pollutant removal requirements based on the guidance in the MS4 Permit (e.g., EPA Region 1's BMP Accounting and Tracking Tool or MS4 Permit Attachment 3 to Appendix F); or
 2. Retain the volume of runoff equivalent to, or greater than, 0.8 inches multiplied by the total post-construction impervious surface area on the redevelopment Site; or
 3. Provide a combination of retention and treatment; or
 4. Utilize offsite mitigation that meets the above standards within the same USGS HUC12 watershed (i.e., off project Site but within the UMass Boston campus).

Procedure:

UMass Boston requires contractors to provide the following documentation for each project demonstrating compliance with this policy:

- Pollutant calculations in accordance with the MS4 Permit:
 - TSS and TP loading for the overall project Site under post-construction conditions and to each BMP.
 - TSS and TP removal provided for the overall project Site and to each BMP (both percent reduction and annual load reduction in lb/yr) calculated for the post-construction impervious area using the BMP design storage volume and pollutant removal curves (i.e., percentages) consistent with MS4 permit guidance. TSS and TP removal is based on post-construction Site load and post-construction treatment provided by BMPs.



Administration & Finance

Policy & Procedure

www.umb.edu/administration/finance/index.html

- As-built drawings depicting all BMPs, both structural and non-structural, designed to manage the stormwater associated with the completed Site.

Oversight Department: Office of Environmental Health & Safety

Responsible Party within Department: Director of Environmental Health & Safety

Monitoring: UMass Boston will review project documentation as required above for consistency with this policy. UMass Boston reports compliance annually to EPA on this provision of UMass Boston's MS4 permit.

Authority: As an operator of a small MS4, UMass Boston is authorized by EPA to discharge in accordance with the conditions and requirements set forth in the Massachusetts Small MS4 General Permit.

Related Documents:

Massachusetts Small MS4 General Permit (Section 2.3.6)

<https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>

BMP Pollutant Removal Tools and Information

<https://www.epa.gov/npdes-permits/stormwater-tools-new-england#swbmp>