

Did you know?

Grafton revised the Stormwater Management Bylaw and associated Stormwater Management Regulations in summer 2021 to comply with the Municipal Separate Storm Sewer System (MS4) permit requirements from EPA.

I. Will my project be affected by these revisions?

As in the previous Stormwater Management Bylaw and Regulations, requirements apply if your project causes land disturbance equal to or greater than **40,000 square feet** or **1,000 cubic yards**, or if your project is part of a larger common plan of development that meets or exceeds these thresholds. See the regulations for exemptions (e.g., agriculture, emergency storm sewer maintenance).

II. What's new in the revised bylaw and regulations?

- All stormwater best management practices (BMPs) shall be optimized to treat phosphorus and nitrogen (see Section III).
- Design shall meet the new, more stringent water quality performance standards (see Section IV).
- Low impact development site planning and design strategies shall be incorporated to the maximum extent practicable.
- BMPs on commercial or industrial sites shall:
 1. Incorporate designs that allow for shutdown and containment, where appropriate, to isolate the system in the event of an emergency spill or other unexpected event.
 2. If using infiltration, employ additional treatment prior to infiltration that removes the same amount of pollutant load that would be removed through biofiltration of the volume infiltrated.

Best Management Practice (BMP)

A stormwater BMP, or best management practice, is a structural, non-structural or managerial technique use to prevent and/or reduce stormwater volume, flows and pollutant loads.

III. How do I optimize BMPs for phosphorus and nitrogen removal?

- Minimize impervious surfaces and employ low impact development to reduce the need for structural BMPs.
- Use green infrastructure to manage and treat stormwater on site.
- Prioritize infiltration systems where site conditions allow.
- Distribute small BMPs throughout the site, which reduces nutrient loading more effectively than large BMPs that treat greater runoff depths from only a portion of the site.



IV. What are the new water quality performance standards?

- BMPs on **new development** must be designed to remove **90%** of the average annual total suspended solids (TSS) load and **60%** of the average annual total phosphorus (TP) load related to total post-construction impervious surface area.
- BMPs on **redevelopment** must be designed to remove **80%** of the average annual TSS load and **50%** of the average annual TP load related to total post-construction impervious surface area.

New development vs. redevelopment

One project site can contain portions of new development and redevelopment, each of which is held to its own respective water quality performance standards.

New development: Land disturbance on the portion of a site that is currently in a natural vegetated state and does not contain alteration by man-made activities.

Redevelopment: Land disturbance on the portion of a site with previously developed or altered land.

Also note, numerical water quality performance standards must be met on redeveloped land, even if that area includes untouched impervious cover (previous regulations required that these areas would be treated to the maximum extent practicable).

V. How can my project meet water quality standards?

- These requirements are to be achieved through one of the following methods:
 1. Install BMPs that meet the above pollutant removal percentages according to EPA Region 1's BMP Accounting and Tracking Tool (BATT) or the performance curves in the MS4 Permit's Appendix F Attachment 3. If your planned BMP is not addressed by these EPA tools, then any federally or state-approved BMP design guidance and/or performance standards may be used.
 2. Retain, through a combination of infiltration, reuse, and/or evaporation, a volume of runoff equal to or greater than:
 - » 1.0 inch x total post-construction impervious surface area on **new development**
 - » 0.8 inch x total post-construction impervious surface area on **redevelopment**
 3. Meet a combination of retention and treatment that achieves the above standards.
 4. For **redevelopment**, if standards cannot be met on site, meet the remaining pollutant removal percentages through offsite mitigation at a site within the same USGS HUC12 watershed.

Refer to Grafton's Stormwater Management Bylaw and Regulations for more information.

