

**Notice
of
Proposed Change**

**Metropolitan Government
of Nashville and Davidson County**

METRO WATER SERVICES

Date November 16, 2020 Division: Stormwater & Development Services CM-SW05

Proposed Change:

Metro Water Services (MWS) is revising Volumes 1, 2, 4, and 5 of the Metro Nashville Stormwater Management Manual (SWMM) to clarify and improve our policies, to align with FEMA requirements, and to update our Green Infrastructure Practices (GIP) specifications.

The proposed revised documents may be viewed at <https://www.nashville.gov/Water-Services/Developers/Stormwater-Review/2020-Draft-Stormwater-Management-Manual.aspx>.

Highlights of Proposed Changes:

Volume 1, Regulations:

- Updated all references of 100-year storm event to 1-percent-annual-chance flood event to align with FEMA language.
- Elevated Buildings updated to “Enclosures” with additional minimum criteria requirements, including a non-conversion agreement.
- Specifications added for the design, construction, and location of Accessory Structures, or garages and limited storage structures, located within the special flood hazard area.
- Conduit Capacity design section updated to note all stormwater infrastructure within right-of-ways shall be reinforced concrete. Corrugated metal pipe (CMP) shall be allowed for private or temporary applications only.
- Requirement added for permanent Stormwater Control Measure (SCM) signs.
- The 5-year requirement for professional inspection of SCMs was removed.
- Table 6-3 “Permissible Buffer Impacts and Conditions for Approval” updated for all permissible activities including trails, water dependent structures, sidewalks, culvert/pipe extensions, road and driveway crossings, bank stabilization or channel restoration, underground utility lines, drainage system outfalls, and mowing/maintenance for regulated residential infill.
- Allowance added for MWS to require additional or prescribed treatment for known sources of pollutants such as dog parks. These areas must also be indicated on site plans and should not route directly to the storm system or community waters.
- Opportunity added for a project that cannot meet water quality standards may, as an alternative, be eligible to pay into a Public Stormwater Quality Project Fund.
- Sites must analyze the impact of their development from their site to downstream infrastructure of sufficient capacity and design, construct, and finance any required drainage improvements.
- Definition of regulated residential infill updated to included common plan of development and to clarify that “regulated residential infill shall include individual or multiple single-family and two-family structures.”
- Declaration of Restrictions and Covenants added for Single Family Residential Infill.

- Significant Redevelopment definition narrowed.

Volume 2:

- New Intensity-Depth-Duration (IDF) Curve and associated table added. The precipitation frequency estimates were obtained from NOAA Atlas 14, Precipitation-Frequency Atlas of the United States (Volume 2, Version 3).

Volume 5, Low Impact Development (LID) Manual:

- Required infiltration testing for volumetric practices.
- Maintenance buffer around green infrastructure practices (GIPs) to enable long term performance.
- No longer requiring pretreatment for secondary GIPs in a series.
- No infiltrative green infrastructure practices in the floodplain.
- Modified pretreatment practices for Infiltration Trenches.
- Limiting vertical constraints for Bioretention to 50% of perimeter.
- Permeable Pavement underdrain spacing to be determined by design engineer.
- Require certification by Landscape Architects for plantings.
- Material specifications for GIPs moving toward state and federal standards.
- Runoff reduction value adjustments for various green infrastructure practices.
- Removal of Downspout Disconnect from specifications.
- Adjusted Curve Number can only be utilized when infiltration rates are greater than 0.5 in/hr.
- Forebay volume is exclusive. The required 15% forebay volume will not be counted toward the total required treatment volume.
- Increased contributing drainage area to a maximum 3:1 ratio to the permeable pavement surface area for Level 1 and 2 Permeable Pavement.
- New Standard Drawings for certain GIPs.

Summary of Known Effects of the Proposed Change:

Volume 1:

The improved buffer impacts table will reduce the number of projects that need to request a variance before the Stormwater Management Committee. The revised definition of significant redevelopment will also decrease the number of projects that are required to provide water quality treatment. Plus, the availability of a Public Stormwater Quality Project Fund offers flexibility to the development community in meeting water quality regulations. Some of these changes were recently put into practice but are new to the SWMM.

The additional floodplain requirements for enclosures and accessory structures were needed to align our regulations with FEMA policy. They will require additional staff time and will place limits on structures that can be impacted by flooding. The non-conversion agreements will help keep citizens out of harm's way and in compliance with FEMA National Flood Insurance Program obligations. The new requirement for Single Family Residential Infill maintenance documents will be an additional expense to the development community and will add time to the review process. However, it is necessary to ensure that the stormwater control measures they install remain and are maintained/are functional over time.

The new downstream infrastructure requirements will ensure that runoff from new developments does not overwhelm existing stormwater infrastructure. The policy change clarifies the design criteria and gives developers a clearer basis for making financial decisions at the inception of

the project. The new downstream infrastructure policy may increase the cost of development and the time required for design and review.

Volume 5:

One of the more significant changes to the LID manual is that Metro Water Services will now require infiltration testing for infiltrative practices such as bioretention. It is already a required practice in many communities and will ensure that these measures function as designed. The testing will increase the cost of site design for those projects that are not already testing. Other changes will increase the area required for water quality practices such as requiring a maintenance buffer for access and not allowing the forebay volume to count towards the total water quality treatment volume. These revisions are designed to ensure the practices provide adequate treatment and that maintenance is performed.

The format for the green infrastructure specifications in the LID Manual has been revised to add consistency between practices and make them easier to use. We have increased the water quality credit for some practices and increased the area that permeable pavement can treat, which will make meeting our regulations easier. The pretreatment requirements for infiltration trenches have been modified and should increase their utilization. Standard Drawings for green infrastructure practices were also developed as part of this revision. They will add consistency in design and construction.

Notification/Transition:

This Notice of Proposed Change (CM-SW05) meets the requirements of the Change Management Plan and complies with the notification requirements.

The “Notice” is posted on the following MWS websites:

<http://www.nashville.gov/Water-Services.aspx>

<https://www.nashville.gov/Water-Services/Developers/Stormwater-Review/2020-Draft-Stormwater-Management-Manual.aspx>

The comment period regarding the proposed changes is a minimum of 30 days and will close on December 20, 2020. Comments will be reviewed, and proposed changes updated as appropriate.

Effective Date of Change: The updated SWMM will be released following approval by the Mayor. The changes will go into effect two months after approval.

Comments:

Please send written comments to:

Rebecca Dohn, Metro Water Services, 1607 County Hospital Road Bldg. A, Nashville, TN
37218

Or rebecca.dohn@nashville.gov