

City of Maryville, Tennessee

NPDES Permit Tracking #: TNS075434

Small MS4 General Permit, Minimum Control Measure 5, Part 4.2.5.1.d

Post-Construction/Permanent Stormwater Management Implementation Plan

November 1, 2022

This document constitutes the Implementation Plan required by the State of Tennessee’s Small MS4 General Permit (TNS000000) Minimum Control Measure 5, Part 4.2.5.1.d for the City of Maryville, TN (City).

Current Permanent Stormwater Management Program

The City already has many of the program elements required by Part 4.2.5 of the small MS4 permit, including the requirement to meet the stormwater quality design standard of 80% total suspended solids (TSS) removal and requirements and standards for water quality buffers. **Tables 1 through 4** present highlights of the City’s current permanent stormwater management program relevant to Part 4.2.5 of the permit.

Table 1. Codes and Ordinance Development and Implementation (current program)

Program Element	Description
Ordinance	<p>The City regulates post-construction stormwater quality and water quality riparian buffers under Municipal Code Title 19 (Stormwater), <i>Chapter 7 Vegetated Buffer Zone and Stormwater Quality Management</i>. Relevant to Part 4.2.5 of the currently effective small MS4 permit, the ordinance establishes:</p> <ul style="list-style-type: none">• the authority to regulate stormwater quality and riparian buffers;• by reference, an enforceable policy manual titled <i>City of Maryville Policy Manual for Stormwater Quality Management</i>;• the requirement for submittal and approval of a Water Quality Management Plan (WQMP) as a condition of issuance of both grading and building permits;• requirements pertaining to adherence to the approved WQMP during construction and for its resubmittal/reapproval for modifications to the design included in the approved WQMP;• the requirement to treat stormwater runoff from applicable new developments and redevelopments (to design and construct stormwater control measures [SCMs]) in accordance with the design standards and criteria specified in the policy manual;• the requirement to establish, manage, maintain, and protect (during and after construction) water quality buffers as set forth in the ordinance and policy manual;• the requirement to submit an as-built drawing, including certification by the registered land surveyor as to the accuracy and completeness of the drawing, and certification by the professional engineer in responsible charge that the constructed condition of SCMs meet City water quality requirements. Final site/plat approval by the City is contingent on provision of an accurate as-built drawing and certifications;• right of entry for City staff to inspect for compliance with the ordinance;• the requirement for owners of SCMs and water quality buffers to inspect and maintain them and to document inspection and maintenance activities, maintaining said documentation for at least three (3) years;• the authority to order or perform corrective actions; and• enforcement options and graduated actions for non-compliance, including written requirements for corrective actions, notices of violation, stop work orders, suspension of City inspections, grading permits, and building permits, increased inspection frequencies, court citations, civil penalties ranging from \$50 to \$5,000 per day, and forfeiture of performance bonds.

Policy Manual	<p>In support of the ordinance, the City’s policy manual, titled <i>City of Maryville Policy Manual for Stormwater Quality Management</i>, establishes the design standards for stormwater quality and water quality buffers. Relevant to Part 4.2.5 of the effective small MS4 permit, it includes the following:</p> <ul style="list-style-type: none"> • policies for development and submittal and revision of the WQMP and as-built plan; • a checklist of required elements for the WQMP and as-built plan; • the requirement for an executed SCM maintenance covenant prior to issuance of grading and building permits; • establishment of 80% removal of total suspended solids (TSS) as the required design standard, the list of accepted SCMs and their % TSS removal efficiencies, the required equations and parameters to evaluate compliance, and permissible incentives to reduce the required treatment volume; • the requirement for third party confirmation of the % TSS removal efficiency for proprietary SCMs; • the requirement to use the <i>Knox County Stormwater Management Manual</i> for SCM design specifications; • requirements for water quality buffer design; and • policies for SCM inspection and maintenance, covenants, and disposal of contaminated sediments.
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Table 2. Procedures for Plans Review and Criteria for Approval (current program)

Program Element	Description
Plan Review and Approval	<ul style="list-style-type: none"> • Municipal Code Title 19 (Stormwater), <i>Chapter 7 Vegetated Buffer Zone and Stormwater Quality Management</i> requires submittal and approval of a WQMP, which is the design plan that must show compliance with the 80% TSS Removal design standard. • Criteria for WQMP approval is compliance with the 80% TSS removal design standard, as established in the ordinance and policy manual (see Table 1 above). WQMPs are not approved until they show proof of compliance with the design standard.

Table 3. Procedures for Conducting and Tracking Site Inspections (current program)

Program Element	Description
Site Inspections	<ul style="list-style-type: none"> • Municipal Code Title 19 (Stormwater), <i>Chapter 7 Vegetated Buffer Zone and Stormwater Quality Management</i> provides right of entry to City staff for the purposes of site inspections and enforcement (see Table 1) where non-compliance issues are present. • Site inspections are documented in the City inspector’s logbook. The City may withhold final site/plot approval and/or issuance of the certificate of occupancy if SCMs are not constructed per the approved WQMP. • A final inspection of constructed SCMs is performed prior to final site/plan approval by the City. As-built drawings are required and kept digitally with a link to the City’s GIS maps.

Table 4. SCM Operation and Maintenance Policies (current program)

Program Element	Description
Inspection & Maintenance	<ul style="list-style-type: none"> • Municipal Code Title 19 (Stormwater), <i>Chapter 7 Vegetated Buffer Zone and Stormwater Quality Management</i> requires SCM owners to inspect and maintain SCMs to their full and intended function and provides right of entry to City staff to inspect SCMs and require corrective actions for non-compliance. • The City maintains an inventory of all public and private SCMs, which are inspected by the City and tracked in software called “MS4 Front”.

Future Permanent Stormwater Management Program

While the City’s current program already contains most of the program elements required in Part 4.2.5 of the currently effective small MS4 General Permit, there are several modifications required. Primarily, this is modification of the current calculation method to use the 80% TSS removal compliance approach required by the permit. Other, more minor program gaps will also need to be identified and resolved. The City has already taken steps to modify their program by entering into an agreement with a municipal stormwater consultant to assist with planning resolution strategies for program gaps, revision of Municipal Code Title 19, and creation of a new, comprehensive (stormwater quality, quantity, and water quality buffers) stormwater design manual to replace the current policy manual.

Table 5 conveys the milestones for update of the current program to comply with the requirements of Minimum Control Measure 5, Part 4.2.5 of the effective small MS4 permit. A timeline is shown in the right column of the table, showing that program updates will be completed by the permit required deadline of September 1, 2024. *Interim milestones shown between the dates of submittal of this NOI and September 1, 2024 are subject to change depending on the needs of program update activities.*

Table 5. Milestones to Update the Permanent Stormwater Program

Program Elements	Milestones	Milestone Dates
<p style="text-align: center;">Ordinance, Policies, Procedures, and Support Tools</p>	<ul style="list-style-type: none"> • The City will perform a comprehensive codes review and assessment to determine the changes necessary to City ordinances, land development codes, programs, and support tools and procedures to update the stormwater management program to meet the requirements of Part 4.2.5 of the small MS4 permit. • Procedures to be examined include execution, documentation, and tracking of plan review, site inspection, and post-construction SCM inspection and maintenance. • Municipal Code Title 19 (Stormwater), <i>Chapter 7 entitled Vegetated Buffer Zone and Stormwater Quality Management</i> will be revised as necessary to comply with permit conditions. Other City codes may also be revised to support the permit’s design standard and related incentives, or to support fee-in-lieu and/or office mitigation programs. • The current policy manual will be eliminated and replaced with a comprehensive (water quality and quantity) stormwater design manual. The design manual will establish the design standard, required calculations and WQMP/as-built plan elements, water quality buffer standards, and construction termination requirements. • Three draft versions of the ordinance and design manual will be produced and reviewed before finalization and adoption. 	<p style="text-align: center;">Codes Assessment: April 2023</p> <p style="text-align: center;">Draft 1 documents: August 2023</p> <p style="text-align: center;">Draft 2 documents: October 2023</p> <p style="text-align: center;">Draft 3 documents: January 2024</p> <p style="text-align: center;">Procedural changes will be made throughout the above listed timeline.</p> <p style="text-align: center;">City Council adoption of final ordinance no later than September 1, 2024</p>

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