

City of Alcoa, Tennessee
NPDES Permit Tracking #: TNS075132
Small MS4 General Permit, Minimum Control Measure 5, Part 4.2.5
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 (MCM) 5, Part 4.2.5.1.d for the City of Alcoa 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 16 (Streets, Sidewalks, Drainage and Erosion Control), <i>Chapter 5 Stormwater 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 Alcoa Stormwater Utility Manual</i> (herein, policy manual) • the requirement for submittal and approval of a stormwater management plan as a condition of issuance of a building permit; • the applicability thresholds for stormwater quality and water quality buffer requirements for new developments and redevelopments; • requirements pertaining to adherence to the approved stormwater management plan during construction and for its resubmittal/reapproval for modifications to the design once approved; • requirements for a maintenance covenant for SCMs and water quality buffers to be recorded with the property’s deed; • the requirement to treat stormwater runoff from applicable developments (to design and construct SCMs) in accordance with the design standards and criteria specified in the policy manual; • the requirement to establish, manage, and maintain water quality buffers as set forth in the ordinance and policy manual, and specifications for buffer design and management; • the requirement to submit a professional engineer stamped as-built drawing indicating compliance with the approved design shown on the stormwater management plan. Release of the construction performance bond is contingent on provision of an accurate and complete as-built drawing; • right of entry for City staff to inspect for compliance with the ordinance; • requirements for property owner inspection and maintenance of SCMs, documentation of these activities, and retaining said documentation for at least three (3) years; • the authority to enforce compliance, with a myriad of graduated enforcement options including written requirements for corrective actions, notices of violation, stop work orders, forfeiture of performance bonds, suspension of City permits, court citations, civil penalties ranging from \$50 to \$5,000 per day, recovery of damages, and legal relief.

Policy Manual & Support Tools	<p>In support of the ordinance, the City’s policy manual, titled <i>City of Alcoa Stormwater Utility</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 Design Summary • a checklist of required elements for the WQMP and As-Built Design Summary • 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, with percentages of reduction for the City’s stormwater utility fee; • the requirement for third party confirmation of the % TSS removal efficiency for proprietary SCMs; • the requirement to use the SCM design specifications in the <i>Knox County Stormwater Management Manual</i>; • additional policies and guidance for water quality buffer design; and • policies for SCM inspection and maintenance, covenants, and disposal of contaminated sediments. <p>Additional support tools include:</p> <ul style="list-style-type: none"> • the <i>Stormwater Certification Form Stormwater Quality Facility</i> to be completed by the professional engineer in responsible charge and submitted with the As-Built Design Summary at the end of construction; • <i>City of Alcoa Street and Drainage - Construction Specifications</i>.
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Table 2. Procedures for Plans Review and Criteria for Approval (current program)

Program Element	Description
Plan Review and Approval	<p>Municipal Code Title 16 (Streets, Sidewalks, Drainage and Erosion Control), <i>Chapter 5 Stormwater Management</i> requires submittal and approval of a stormwater management plan for each applicable project. This is the design plan that must show compliance with the City’s requirements for 80% TSS Removal design standard and water quality buffers.</p> <p>Stormwater management plans are not approved by City plan reviewers unless they demonstrate compliance with the stormwater quality and water quality buffer requirements, in addition to other non-water quality related design requirements. So, the criteria for plan approval is adherence to City stormwater requirements.</p> <p>Approved stormwater management plans and approvals are documented in the City’s operations management and permitting software, Cityworks. Approved plans are also located on the City’s internal computer network.</p>

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

Program Element	Description
Site Inspections	<p>Municipal Code Title 16 (Streets, Sidewalks, Drainage and Erosion Control), <i>Chapter 5 Stormwater Management</i> provides right-of-entry to City staff for the purposes of site inspections and for enforcement (see Table 1) where non-compliance issues are present.</p> <p>The City requires certification of the constructed SCMs by the professional engineer in responsible charge via the <i>Stormwater Certification Form Stormwater Quality Facility</i> document that is required with the As-Built Design Summary.</p>

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

Program Element	Description
Plan Review and Approval	<p>Municipal Code Title 16 (Streets, Sidewalks, Drainage and Erosion Control), <i>Chapter 5 Stormwater 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.</p> <p>The City maintains an inventory of all public and private SCMs in Cityworks, which is used to track inspection and enforcement. Thus far, SCM inspections have been performed by the City. This policy and process will be re-examined for the future program (see Table 5).</p>

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, such as inspections of SCM construction. 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 16, and creation of a new, comprehensive (stormwater quality, quantity, and water quality buffers) stormwater design manual to replace design related elements of the current *Alcoa Stormwater Utility 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
Ordinance, Policies, Procedures, and Support Tools	<p>The City will perform a comprehensive codes review and assessment to determine the changes necessary to City ordinances, land development codes, programs, support tools and procedures to update the stormwater management program to meet the requirements of Part 4.2.5 of the small MS4 permit.</p> <p>Procedures to be examined include execution, documentation, and tracking of plan review, site inspection, and post-construction SCM inspection and maintenance.</p> <p>Municipal Code Title 16 (Streets, Sidewalks, Drainage and Erosion Control), <i>Chapter 5 Stormwater 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.</p> <p>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.</p> <p>Three draft versions of the ordinance and design manual will be produced and reviewed before finalization and adoption.</p>	<p>Codes Assessment: April 2023</p> <p>Draft 1 documents: August 2023</p> <p>Draft 2 documents: October 2023</p> <p>Draft 3 documents: January 2024</p> <p>Procedural changes will be identified and made throughout the above listed timeline.</p> <p>City Council adoption of final ordinance no later than September 1, 2024</p>