



CITY OF
COOKEVILLE
T E N N E S S E E



STORMWATER MANAGEMENT PROGRAM

Permit # TNS075256

Prepared By:

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August 30, 2024

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INTRODUCTION

The City of Cookeville is an operator of a Small Municipal Separate Storm Sewer System (MS4) which is authorized to discharge stormwater runoff into waters of the State of Tennessee under the National Pollution Discharge Elimination System (NPDES) Permit Number TNS000000 by submitting an NOI and following this Stormwater Management Program (SWMP). Appendix 1 contains a copy of the current MS4 General NPDES Permit.

NPDES Effective Date: September 1, 2022
NPDES Expiration Date: August 31, 2027

This Stormwater Management Program details how the City of Cookeville complies with the permit's requirements. The Section numbers correlate with Section 4 of the MS4 General NPDES Permit which is broken into subsections defining how the City of Cookeville complies with these requirements. It includes descriptions of Best Management Practices (BMPs), programs, and processes that the City of Cookeville has implemented for each of the stormwater control minimum measures. It also defines the measurable goals for each of the BMPs including the schedule for when the City of Cookeville will undertake each action required and the frequency of the action. Appendix 2 contains the Notice of Intent (NOI) prepared and submitted by the City of Cookeville in November 2022.

Implementation and enforcement of the BMPs contained in this Stormwater Management Program as well as compliance with the provisions of the permit with required reporting and monitoring, constitutes compliance with the standard for reducing pollutants to the maximum extent possible (MEP).

RESPONSIBLE PARTY

The City of Cookeville Stormwater Management Program is under the Public Works Department with the following program contacts:

Public Works Department
1115 East Spring Street
Cookeville, TN 38501
931-520-5249

Mary Beth Elrod, P.E. – Director of Public Works/Stormwater Manager
931-520-5247
melrod@cookeville-tn.gov

Carey Aitken, P.E. – Civil Engineer
931-520-5202
caitken@cookeville-tn.gov

ORDINANCES, GUIDELINES, AND POLICIES

The City of Cookeville has implemented and enforces the following ordinances, guidelines, and policies for our Stormwater Management Program requirements.

- Chapter 5 Erosion and Sediment Control Regulations Ordinance 2024 – Appendix 3
- Chapter 6 Control of Natural Drainage Systems Ordinance – Appendix 4
- Chapter 7 Stormwater Management Ordinance 2024 – Appendix 5
- Chapter 8 Riparian Buffer Zones Ordinance 2024 – Appendix 6

A link to these documents is included on our Stormwater Management webpage:

<https://www.cookeville-tn.gov/249/Stormwater-Management>

4.2 MINIMUM CONTROL MEASURES

The Stormwater Management Program (SWMP) for the City of Cookeville includes the following minimum control measures (MCMs).

- MCM 1 – Public Education and Outreach on Stormwater Impacts
- MCM 2 – Public Involvement and Participation
- MCM 3 – Illicit Discharge Detection and Elimination (IDDE)
- MCM 4 – Construction Site Stormwater Runoff Control
- MCM 5 – Post Construction/Permanent Stormwater Management in New Development and Redevelopment
- MCM 6 – Pollution Prevention/Good Housekeeping

Each of these MCMs have defined management measures that must be met and documented. These goals set by the MS4 General NPDES permit are reported annually in submission of an Annual Report.

4.2.1 PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

The City of Cookeville has developed and implements an education and outreach program that includes public education and outreach on stormwater impacts as a component of the SWMP. Appendix 7 contains the Public Information and Education (PIE) plan. The objective of this plan is to reduce or eliminate behaviors and practices that cause or contribute to the impacts of stormwater discharges on water bodies and the steps that can be taken to reduce pollutants to stormwater runoff. The PIE plan is designed to reach three major audiences (1) the public, (2) engineering and development community, and (3) City employees.

The management measures and measurable goals for this section are set and based on the current MS4 population.

City of Cookeville Population (US Census Estimate July 1, 2021): 35,138

The following table defines the BMPs for Public Education and Public Participation. Public activities as described in the PIE plan shall target these BMPs listed. The table also lists the minimum number of activities that are to be conducted per each reporting year based on the City of Cookeville having a population of 25,001 to 50,000.

MCM 1: Management Measure	Target Audience	Minimum # of Activities per reporting year
Awareness of the impacts on water quality	General Public	3
Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs	General Public	3
Awareness of the proper storage, use, and disposal of pesticides, herbicides, fertilizers, oil and other automotive-related fluids	General Public	3
Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.	General Public	3
Awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts	Engineering & Development Community	1
Awareness of the stormwater ordinances, regulations, and guidance materials related to construction phase water quality impacts	Engineering & Development Community	1
Awareness of water quality impacts from daily operations	City Employees	Train all responsible employees
Pollution Prevention and Good Housekeeping (see subpart 4.2.6)	City Employees	Train all responsible employees
The awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc.	City Employees	Train all responsible employees

4.2.2 PUBLIC INVOLVEMENT/PARTICIPATION

The City of Cookeville has developed and implements a program for public involvement and participation in our Stormwater Management Program (SWMP) as a requirement of the Small MS4 General Permit. The objective is to promote, publicize, and facilitate citizen’s participation in the development and implementation of the SWMP in order to reduce the discharges of pollutants to the maximum extent practicable. This program is designed to reach two major audiences: (1) the general public and (2) the commercial and industrial community.

The Public Information and Education (PIE) plan contained in Appendix 7 outlines some of the components required by this program. The following tables define the BMPs for Public

Involvement and Public Participation for this MCM. Public activities as described in the PIE plan shall target these BMPs listed.

MCM 2: Management Measure	Goal	Action Required
Provide Public Access to Stormwater Management Program records	Compile complete PDF of SWMP	Post on Stormwater Webpage or Provide Public Records Request
Develop and implement a formal public notice process	Complete formal public notice process	Continue to Post Public Notices to City's webpage and advertise in local paper annually
Provide mechanisms, procedures, and processes for public access to information on projects and receiving and considering comments from the public on those projects	Have 100% of construction site information accessible to public and considered all comments received from public	Provide link to Planning Commission Meetings. Consider opening Plan Review Meetings to public (Post meetings and Project Descriptions to Webpage 2 weeks prior to meeting and accept comments from the public through email, phone, and in-person prior to meeting)
Encourage and promote citizen reporting of illegal spillage, dumping, or otherwise disposal of materials into the MS4 storm sewer system	Develop and implement a public reporting system to facilitate and track public reports received	Continue to maintain Hotline and Citizen Request Tracker on Webpage and document the # of reports received

MCM 2: Management Measure	Target Audience	Minimum # of Activities per reporting year
Pollution Prevention	General Public	3
Impacts on water quality or local storm water management issues	General Public	3
Storage, use, and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, and fertilizers	General Public	3
Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.	General Public	3
Pollution Prevention	Commercial & Development Community	1
Impacts on water quality or local storm water management issues	Commercial & Development Community	1

4.2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

The City of Cookeville has developed, implements, and enforces a program to detect and eliminate illicit discharges into the storm sewer system as required by the Small MS4 General permit. The City’s Stormwater Ordinance as shown in Appendix 5 outlines and details the City’s illicit discharge regulations in Section 14-706 Illicit Discharges. Appendix 8 contains the Illicit Discharge Detection & Elimination (IDDE) Plan. The objective of this plan is to detect and eliminate illicit discharges to the maximum extent practicable (MEP). Appendix 9 contains the Enforcement Response Procedure (ERP) that is implemented as required based on the severity of illicit discharges that are identified.

MCM 3: Management Measure	Goal	Action Required
Storm Sewer Map	Continue to update mapping as new elements are identified	Provide location for Spatial Rest Service Outfall Map Layer
Identify and investigate the categories of non-stormwater discharges or flows if they are a significant contributor to pollutants to the MS4	<ul style="list-style-type: none"> - Maintain inventory of non-stormwater discharges or flows identified. - Investigate as an illicit discharge all identified non-stormwater discharges or flows 	Track and Report total # identified and total # investigated
Illicit Discharge reporting and investigations	<ul style="list-style-type: none"> - Track all potential illicit discharges reported, categorized by reporting source - Initiate 100% of all potential investigations within 7 days of receipt of complaint - Take action on 100% of all initial enforcement within 7 days of investigation on confirmed illicit discharges - Review 100% of all corrective action plans in accordance with procedures 	<ul style="list-style-type: none"> Track and Report # of discharges reported by public # of discharges reported by internal personnel # of potential discharges under investigation # of discharge investigations not investigated prior to 7 days of receipt # of illicit discharges ID'd # of corrective action plans received for confirmed illicit discharges
Educate employees, businesses, and general public concerning the hazards and damage to water quality associated with illegal dumping and connections to storm sewer and improper disposal of waste	See Goals as required in MCM 1 and MCM 2 and the PIE Plan.	See actions as outlined in the PIE Plan.

Encourage and promote citizen reporting of illegal spillage, dumping, or otherwise disposal of materials into the MS4 storm sewer system by developing and implementing a public reporting system	See Goals as required in MCM 1 and MCM 2 and the PIE Plan.	See actions as outlined in the PIE Plan.
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4.2.4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The City of Cookeville has developed, implements, and enforces a construction site stormwater runoff pollutant control program to reduce pollutants in any stormwater runoff within the city limits from construction activities as required by the small MS4 General Permit. Appendix 3 attached includes the Erosion and Sediment Control Ordinances and Policy. This ordinance is the regulatory mechanism for construction site runoff control and is updated to be consistent with the NPDES Construction General Permit (CGP) as attached in Appendix 10.

MCM 4: Management Measure	Goal	Action Required
Inventory of actively permitted public and private construction sites	Continue to maintain an up-to-date inventory	Track total # of active construction sites (priority and non-priority)
Construction Site Plans Reviews and Approvals	Establish polices and/or procedures for review and approval of all plans and review 100% of all new development and re-development projects	Track total # of new development/re-development projects reviewed
Mechanisms or plans for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those projects	See Goals as required in MCM 2 and the PIE Plan.	See actions as outlined in the PIE Plan.
Procedures for permittee inspectors to evaluate and document construction site compliance	Inspect a minimum of 10% of active non-priority construction sites	Track total # of active construction sites (priority and non-priority)
Priority Construction Activities	- Conduct Pre-Construction Meetings at 100% of Priority Construction Activities -Inspect 100% of all Priority Construction Activities at least once per calendar month	Track Total # of pre-construction meetings held Track Total # of active construction sites inspected (priority and non-priority)

4.2.5 POST CONSTRUCTION/PERMANENT STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND RE-DEVELOPMENT

PERMANENT STORMWATER MANAGEMENT PROGRAM

The City of Cookeville has developed, implements, and enforces a permanent stormwater management program to reduce pollutants in stormwater discharges through management practices, control techniques, systems design, and engineering practices implemented to the maximum extent practicable (MEP). The Stormwater Management Ordinance in Appendix 5 includes regulations in Section 14-704 for Stormwater System Design and Management Standards for permanent stormwater systems. Appendix 9 contains the Enforcement Response Procedure (ERP) that identifies sanctions to enforce compliance for this section.

PERMANENT STORMWATER STANDARDS

The City of Cookeville requires that new development and redevelopment projects to be designed to reduce pollutants to the MEP as required by the Small MS4 General Permit. For design purposes, total suspended solids (TSS) is used as the indicator for the reduction of pollutants. SCMs must be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project.

The current ordinance defines the water quality treatment volume (WQTV) or first flush volume as the 1-year, 24-hour design storm with the required quantity to be treated depending on the type of treatment provided for the proposed development or redevelopment.

The water quality treatment design storm is a 1-year, 24-hour storm event per the NOAA National Weather Service Atlas 14 data for Tennessee. The water quality treatment volume (WQTV) is a portion of the runoff generated from impervious surfaces at a new development or redevelopment project by the design storm as set forth below. SCMs must be designed, at a minimum, to achieve an overall treatment efficiency of 80% TSS removal from the WQTV. The quantity of the WQTV depends on the type of treatment provided as established in the following table:

Water Quality Treatment Volume and the Corresponding SCM Treatment Type for the 1-year, 24-hour design storm		
SCM Treatment Type	WQTV	Notes
Infiltration, evaporation, transpiration, and/or reuse	Runoff generated from the first 1 inch of the design storm	Examples include, but are not limited to, bioretention, stormwater wetlands, and infiltration systems
Biologically active filtration, with an underdrain	Runoff generated from the first 1.25 inches of the design storm	To achieve biologically active filtration, SCMs must provide minimum of 12 inches of internal water storage
Sand and gravel filtration, settling ponds, extended	Runoff generated from the first 2.5 inches of the design storm of the first 75% of the	Examples include, but are not limited to, sand filters, permeable pavers, and

detention ponds, and wet ponds	design storm, whichever is less	underground gravel detention systems. Ponds must provide forebays comprising a minimum of 10% of the total design volume. Existing regional detention ponds are not subject to the forebay requirement.
Hydrodynamic separation, baffle box settling, other flow-through manufactured treatment devices (MTDs), and treatment trains using MTDs	Maximum runoff generated from the entire design storm	Flow-through MTDs must provide an overall treatment efficiency of at least 80% TSS reduction.

Treatment Train Calculations:

1. Treatment trains using MTDs

Treatment trains using MTDs must provide an overall treatment efficiency of at least 80% TSS reduction utilizing the following formula:

$$R = A + B - (A \times B) / 100$$

- Where:
- R = total TSS percent removal from application of both SCMs
 - A = the TSS percent removal rate applicable to the first SCM
 - B = the TSS percent removal rate applicable to the second SCM

TSS removal rates for MTD must be evaluated using industry-wide standards. TSS removal rates for other SCMs must be from published reference literature.

2. Treatment trains not using MTDs

Treatment trains using infiltration, evaporation, transpiration, reuse, or biologically active filtration followed by sand or gravel filtration, settling ponds, extended detention ponds, or wet ponds may subtract the treated WQTV of the upstream SCMs from the WQTV of the downstream SCMs.

WATER QUALITY RIPARIAN BUFFERS

The City of Cookeville has developed and implements a set of requirements to establish, protect, and maintain permanent water quality riparian buffers to provide additional water quality treatment in riparian areas of new development and redevelopment projects that contain streams, wetlands, ponds, and lakes. Appendix 6 attached includes the Riparian Buffer Zones ordinance.

MAINTENANCE OF PERMANENT STORMWATER CONTROL MEASURE ASSETS

The City of Cookeville has developed and implements a program to require implementation of appropriate SCM maintenance procedures to sustain pollutant reduction efficiency for the life of the new development and redevelopment project. The Stormwater Management Ordinance in Appendix 5 includes regulations in Section 14-704 for Maintenance Easements and Maintenance Agreements for permanent SCMs.

MCM 5: Management Measure	Goal	Action Required
Develop and implement a set of requirements to establish, protect, and maintain permanent water quality riparian buffers	100% of projects must have the buffer as required by the permit (unless an alternative buffer is accepted per the permit requirements)	Track total # of projects that meet buffer requirements Track total # of projects approved with alternative width buffer
Develop, implement, and enforce policies for the submittal and review of plans for permanent SCMs	Establish polices and/or procedures for review and approval of all plans and review 100% of all new development and re-development projects	Track total # of new development/re-development projects reviewed
Develop, implement, and enforce policies and procedures for SCM installation verification	Verify that 100% of SCMs are installed per design specifications in accordance with approved plans within 90 days of installation	Track total # of sites verified Track total # of SCMs installed per plans
Establish and maintain adequate legal authority assigning SCM maintenance responsibility and personnel access to the SCM and provide for enforcement action	<ul style="list-style-type: none"> - Establish the legal authority to access SCMs and assigned maintenance responsibility for 100% of all SCMs -Enforce 100% of all SCMs that have not been properly maintained 	Track # of SCMs that have not been properly operated or maintained Track # of enforcement actions taken
Implement and maintain a system to inventory and track the status of all public and private SCMs	<ul style="list-style-type: none"> - Make system available to TDEC or members of the public - 100% of all SCMs must be included in inventory tracking system 	Track total # of requests for inventory 2025 Annual Report – submit the SCM inventory tracking system information as a geodatabase or as a file type that is generally accessible

4.2.6 POLLUTION PREVENTION/GOOD HOUSEKEEPING

The City of Cookeville has developed and implements an operation and maintenance program with employee training that has the ultimate goal of preventing or reducing pollutant runoff from the City's municipal operations. Appendix 11 contains the Standard Operation Procedures (SOPs) developed for each department identified as handling, generating, and/or storing materials which constitute a potential pollutant of concern for the MS4. The goal of these SOPs is to identify pollutants and prevent and/or reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The following table lists the municipal operations that are to be maintained to reduce the discharge of pollutants.

Municipal Operation	Included	Responsible Department/Parties
Streets, Roads, Highways	Yes	Public Works
Municipal Parking Lots	Yes	Public Works
Maintenance and Storage Yards	Yes	Public Works, Water/Sewer Department, Electric Department
Fleet or Maintenance shops with outdoor storage areas	Yes	Public Works
Salt/Sand storage locations	Yes	Public Works
Snow Disposal areas operated by the City	No	
Waste Disposal, Storage, and Transfer Stations	No	

The O&M program must include the following management practices at a minimum:

- a. Minimize or Prevent exposures of materials to Precipitation
- b. Good housekeeping
- c. Preventative maintenance
- d. Spill Prevention and Response
- e. Erosion and Sediment control
- f. Management of Runoff
- g. Control Measure Maintenance
- h. Facility Site Inspections (conducted at least once every 12 months)

An O&M Facility Plan does not need to be developed for a facility if it has either a no exposure certification for the discharge under the Tennessee Multi-Sector General Permit (TMSP) or the discharge is authorized under another NPDES permit, e.g. TMSP.

MCM 6: Management Measure	Goal	Action Required
Employee training program for employees responsible for municipal operations at facilities	See Goals as required in MCM 1 and MCM 2 and the PIE Plan.	See actions as outlined in the PIE Plan.
Develop and implement an O&M Facility Plan	All applicable Municipal operations must have an O&M Facility Plan	# of Municipal Operations Facilities # of Facilities without an O&M Plan
Facility Site Inspections	Conduct facility site inspections in accordance with the SWMP at all municipal operation facilities at least once every 12 months	# of Municipal Operations Facilities NOT inspected in previous 12 months

QUALIFYING LOCAL PROGRAM (QLP)

The City of Cookeville’s MS4 jurisdictional Stormwater Management Program is an approved Qualified Local Program (QLP) with TDEC and has met the QLP minimum program requirements related to stormwater discharges associated with construction activity. Construction activity within the City’s jurisdiction can obtain a notice of coverage from the City’s QLP to authorize the operator of the construction activity to discharge stormwater associated with construction activity under the NPDES Construction General Permit (CGP) without submittal of an NOI to TDEC.

As part of the minimum requirements for the QLP program, the City has implemented and maintains a construction site stormwater runoff control program. Appendix 3 attached includes the Erosion and Sediment Control Ordinances and Policy for this program. This ordinance is the regulatory mechanism for construction site runoff control and is updated to be consistent with the NPDES Construction General Permit (CGP) as attached in Appendix 10. Appendix 9 contains the Enforcement Response Procedure (ERP) that is implemented as required for enforcement of this program.

STORMWATER MONITORING AND PROGRAM EVALUATION

The City of Cookeville has developed and implemented a monitoring and assessment program that provides data and information to identify pollutant sources and aids in determining the effectiveness of the stormwater management program.

The City of Cookeville has chosen to perform monitoring in compliance with Option 1 monitoring as outlined in the Small MS4 General Permit.

Appendix 12 includes the monitoring plan for stream segments identified by TDEC as waters with unavailable parameters for siltation and/or nutrients. Appendix 13 includes the monitoring plan for stream segments identified by TDEC as waters with unavailable parameters for pathogens.

In addition to the above analytical monitoring program, the City has developed and implemented a non-analytical protocol for visual stream surveying as part of the stormwater management program. Appendix 14 includes the Protocol for Visual Stream Survey of Outfalls. The visual stream surveys and unavailable parameter inventories are performed on each stream segment within the City's jurisdiction with unavailable parameters for siltation, pathogens, and nutrients to identify and prioritize sources of these pollutants of concern.

Appendix 1

State of TN NPDES Permit Small MS4 General Permit (Effective September 1, 2022)



National Pollutant Discharge Elimination System (NPDES)

From

Small Municipal Separate Storm Sewer Systems

Permit Number TNS000000

issued by the
Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4, operators of small municipal separate storm sewer systems are authorized to discharge stormwater runoff into waters of the State of Tennessee in accordance with the various eligibility criteria, administrative procedures, program requirements, reporting requirements, etc. set forth herein

This permit shall become effective on: **September 1, 2022**

This permit shall expire on: **August 31, 2027**

Issuance date: **August 1, 2022**



for Jennifer Dodd
Director

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PART 1

1. COVERAGE UNDER THIS PERMIT

1.1. PERMIT AREA

This permit covers the entire State of Tennessee.

1.2. LIST OF THE DIVISION'S ENVIRONMENTAL FIELD OFFICES AND CORRESPONDING COUNTIES

EFO Name	Division of Water Resources Environmental Field Office Address ¹	List of Counties
Chattanooga	1301 Riverfront Parkway, Suite 206 Chattanooga, TN 37402 (423) 634-5745	Bledsoe, Bradley, Grundy, Hamilton, McMinn, Marion, Meigs, Polk, Rhea, Sequatchie
Columbia	1421 Hampshire Pike Columbia, TN 38401 (931) 380-3371	Bedford, Coffee, Franklin, Giles, Hickman, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Perry, Wayne
Cookeville	1221 South Willow Ave Cookeville, TN 38506 (931) 520-6688	Cannon, Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Trousdale, Van Buren, Warren, White
Jackson	1625 Hollywood Drive Jackson, TN 38305-2222 (731) 512-1300	Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, McNairy, Madison, Obion, Weakly
Johnson City	2305 Silverdale Rd Johnson City, TN 37601 (423) 854-5400	Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington
Knoxville	3711 Middlebrook Pike Knoxville, TN 37921 (865) 594-6035	Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union
Memphis	8383 Wolf Lake Drive Bartlett, TN 38133-4119 (901) 371-3000	Fayette, Hardeman, Shelby, Tipton

¹ Contact information is correct at the time of issuance. See the Department's webpage for changes <https://www.tn.gov/environment/contacts/about-field-offices.html>

EFO Name	Division of Water Resources Environmental Field Office Address ¹	List of Counties
Nashville	711 R.S. Gass Boulevard Nashville, TN 37216 (615) 687-7000	Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Williamson, Wilson
Nashville Central Office	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue 11 th Floor Nashville, TN 37243	Statewide

All Environmental Field Offices (EFOs) may be reached by telephone at the toll-free number 1-888-891-8332.

1.3. ELIGIBILITY

1.3.1. Authorization to Discharge

This permit authorizes discharges of stormwater from small municipal separate storm sewer systems (MS4s), as defined in [40 C.F.R.C.F.R. § 122.26\(b\)\(16\)](#). The permittee is authorized to discharge under the terms and conditions of this general permit if the permittee:

Operates a small MS4 within the permit area described in subpart 1.1;

Is not a “large” or “medium” MS4 as defined in [40 C.F.R. § 122.26\(b\)\(4\) or \(7\)](#);

Is located fully or partially within an urbanized area as determined by the latest [decennial census](#) by the [United States Census Bureau](#); or

Is designated for permit authorization by the Division of Water Resources (the Division) pursuant to [40 C.F.R. § 122.32](#); and

Submits a complete Notice of Intent ([NOI](#)) in accordance with part 2 of this permit and receive a Notice of Coverage (NOC).

1.3.2. Area of MS4 Authorized

Where a city, town, county, or non-traditional MS4 (such as a college or university) is covered under this permit, this permit covers all portions and areas operated



by the city, town, or non-traditional MS4. Where a county is covered under this permit, the permit covers the urbanized area of the county and any additional portions of the county, or the whole county, as shall be indicated on the Notice of Intent.

1.3.3. Types of Authorized Discharges

1.3.3.1. Stormwater Discharges

This permit authorizes stormwater discharges to waters of the state from the small MS4s identified in section 1.3.1, except as excluded in subpart 1.4.

1.3.3.2. Non-stormwater Discharges

The permittee is authorized to discharge the following non-stormwater sources provided that the permittee has not determined these sources to be significant contributors of pollutants to the MS4:

- Water line flushing
- Landscape irrigation
- Diverted stream² flows
- Rising ground waters
- Uncontaminated groundwater infiltration (Infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.)
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing

² "Stream" as defined by TCA 69-3-103(38) ("stream" means a surface water that is not a wet weather conveyance).

- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water
- Discharges or flows from firefighting activities.

1.4. LIMITATIONS ON COVERAGE

This permit does not authorize:

Discharges that are mixed with sources of non-stormwater unless such non-stormwater discharges are covered under an NPDES permit.

Permitted stormwater discharges associated with industrial activity as defined in [40 C.F.R. 122.26\(b\)\(14\)](#). Stormwater discharges from certain construction related industrial activities, as defined along with other construction activities in this permit, are excluded from this limitation.

Discharges not protective of aquatic or semi-aquatic threatened and endangered species, species deemed in need of management or special concern species - Discharges or discharge-related activities that are likely to jeopardize the continued existence of listed or proposed threatened or endangered aquatic species, or their critical habitat, under the Endangered Species Act (ESA), or other applicable state law or rule. Discharges or conducting discharge-related activities that will cause a prohibited “take” of federally listed aquatic species (as defined under Section 3 of the ESA and 50 C.F.R. §17.3) unless such take is authorized under Sections 7 or 10 of the ESA. Discharges or conducting discharge-related activities that will cause a prohibited “take” of state listed aquatic species³, unless such take is authorized under the provisions of T.C.A. § 70-8-106(e).

Discharges that would cause or contribute to an in-stream exceedance of water quality standards.

Discharges of stormwater-borne pollutants at levels that would be in violation of a specific wasteload allocation (WLA) applicable to MS4 permits and as defined in the implementation plan contained in an EPA approved or established Total Maximum Daily Load.

³ As defined in the Tennessee Wildlife Resources Commission Proclamation, Endangered or Threatened Aquatic Species, and in the Tennessee Wildlife Resources Commission Proclamation, Wildlife in Need of Management.

Discharges of materials resulting from a spill within the jurisdiction of the MS4, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges.

Discharges that do not comply with the Division's antidegradation policy for water quality standards, pursuant to the Rules of the Tennessee Department of Environment and Conservation (TDEC), [Subchapter 0400-40-03-.06](#), titled "Tennessee Antidegradation Statement."

1.5. OBTAINING AUTHORIZATION

To be authorized to discharge stormwater from a small MS4, the entity that owns and operates the MS4 must submit an NOI (Electronic submittal is required via <https://forms.tdec.tn.gov/>) in accordance with part 2. The NOI must be signed and dated in accordance with subpart 7.11 of this permit.

If the Division notifies dischargers of other NOI form options that become available at a later date (e.g., differing platform or paper submission of forms), the permittee may take advantage of those options to satisfy the submittal requirements of part 2.

Dischargers who submit an NOI in accordance with the requirements of this permit are authorized to discharge stormwater from small MS4s under the terms and conditions of this permit as of the effective date of coverage given in the NOC. The Division may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information (see subpart 7.11).

Where the operator changes, or where a new operator is added after submittal of an NOI under part 2, a new NOI must be submitted in accordance with part 2 prior to the change or addition.

PART 2

2. NOTICE OF INTENT REQUIREMENTS

2.1. DEADLINES FOR NOTIFICATION

If the Division designates a municipality or nontraditional MS4 as a small MS4, the designee is required to submit a NOI to the Division within 180 days of notice. Existing permittees must submit an NOI within 90 days of the effective date of this permit.

The permittee is not prohibited from submitting an NOI after the dates provided above. If a late NOI is submitted, the authorization is only for discharges that occur after permit coverage is granted. The Division may take appropriate enforcement actions for any unpermitted discharges.

2.2. WHERE AND HOW TO SUBMIT NOTICE OF INTENT

2.2.1. Electronic Submittal

The NOI shall be submitted electronically via [MyTDEC Forms](#) and must conform to the signatory requirements in subpart 7.11. unless a waiver is granted in accordance with [40 C.F.R. 127.15](#) (see subpart 6.2).

MyTDEC Forms may be found at the following link
<https://forms.tdec.tn.gov/>

2.2.2. Hard Copy Option

Only after a waiver (see subpart 6.2) is approved by the Division, a hard copy of the NOI, signed in accordance with the signatory requirements of subpart 7.11 of this permit, may be mailed to the address shown in subpart 1.2 for the Nashville Central Office.

PART 3

3. SPECIAL CONDITIONS

3.1. DISCHARGES TO WATERBODIES WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS

Using the most current [303\(d\) list](#) published on the Division's website along with the [GIS mapping tool](#), the permittee must determine whether it discharges stormwater into streams with unavailable parameters (previously referred to as impaired streams) for nutrients, pathogens, siltation, or other parameters related to stormwater runoff from urbanized areas or to streams designated as Exceptional Tennessee Waters (ETW). The Stormwater Management Program (Stormwater Management Program) must include a description of the Best Management Practices (BMPs) the permittee will use to control discharges to such streams to the Maximum Extent Practicable (MEP). The Division may require a Corrective Action Plan (CAP) if discharges from the MS4 are determined to cause or contribute to an in-stream exceedance of water quality standards or may require the permittee to obtain coverage under an individual permit per subpart 7.16.

For waters with unavailable parameters, the permittee must determine whether a Total Maximum Daily Load (TMDL) has been established and approved by EPA. A list of [EPA-Approved TMDLs](#) as well as EPA-Established TMDLs for Tennessee waters can be found on the Division's website.

3.1.1. Discharges into Waterbodies with EPA-Approved or Established TMDLs

The permittee must implement stormwater pollutant reductions consistent with the assumptions and requirements of any applicable WLA(s) in TMDLs established or approved by EPA. If a TMDL is applicable, the Stormwater Management Program must include Best Management Practices (BMPs) specifically targeted to achieve the reductions prescribed by the [TMDL](#). The Stormwater Management Program must also contain a monitoring and/or evaluation component to assess the effectiveness of the BMPs in achieving the reductions, and overall compliance with the standard of the Maximum Extent Practicable (MEP). Monitoring can entail a number of activities, including but not limited to: outfall monitoring, instream monitoring or modeling. Monitoring requirements are further described in subpart 4.6 of this permit.

No later than 180 days following a newly approved or established [TMDL](#), the Stormwater Management Program must be revised to include BMPs specifically targeted to achieve the reductions prescribed by the TMDL.

3.1.2. Discharges to Waterbodies with Unavailable Parameters without [TMDLs](#)

For the discharge of nutrients, pathogens, siltation, or other parameters related to stormwater runoff from urbanized areas into a receiving water which has been identified according to subpart 3.1 as having unavailable parameters but not covered by a [TMDL](#), the permittee must document in its Stormwater Management Program how the BMPs will address the discharge of these pollutants. Compliance with this section shall be demonstrated through a monitoring component to assess the effectiveness of the BMPs in controlling the discharge of these pollutants. This component must also be included in the Stormwater Management Program. Monitoring can entail several activities including but not limited to: outfall monitoring, in-stream monitoring and/or modeling. Monitoring requirements are further described in subpart 4.6 of this permit.

3.2. CO-PERMITTEES AND COORDINATED PROGRAMS

3.2.1. Co-permittees

The MS4 jurisdiction may be covered under this general permit as a co-permittee with one or more other, neighboring MS4 jurisdictions. Co-permittees may submit an NOI at any time during the term of this permit.

3.2.2. Requirements in order to be permitted as co-permittees

- a. Responsible officials of each participating jurisdiction must sign and submit a single NOI that includes:
 1. A list of all co-permittees covered under the NOI;
 2. A description of where (on which co-permittee) the accountability falls (whole or in part) for each portion of the Stormwater Management Program (Stormwater Management Program). The description shall assign clear and distinct accountability to the co-permittees involved as to who is responsible for what permit compliance issues, who is to develop what portions of a Stormwater Management Program, and who is to implement what portions of the Stormwater Management Program; and
 3. Any necessary agreements, contracts, memorandums of understanding or other legal documents between co-permittees that govern the

implementation and operations of the Stormwater Management Program.

- b. Either multiple Minimum Control Measures (MCMs) in part must be developed, implemented, and enforced among all co-permittees or at least one MCM in whole must be developed, implemented, and enforced among all co-permittees; and
- c. Legal mechanisms (e.g. ordinances, resolutions etc.) for shared components must contain the same verbiage for those shared components.

3.2.3. Co-Permittee Liabilities

- a. Each co-permittee is individually liable for:
 1. Permit compliance for discharges within its legal jurisdiction;
 2. Implementing the six minimum measures (see subpart 4.2) in portions of the jurisdiction where it is the operator and in areas within its legal jurisdiction; and
 3. If any permit conditions are established for specific portions of the MS4, co-permittees need only comply with the permit conditions relating to those portions of the MS4 for which they are the operator.
- b. Each co-permittee is jointly liable for compliance with annual reporting requirements, except that a co-permittee is individually liable for any parts of the annual report that relate exclusively to portions of the MS4 where it is the operator.
- c. Co-permittees are jointly liable for permit compliance on portions of the MS4 as follows:
 1. Where operational or Stormwater Management Program implementation authority over portions of the MS4 has been transferred from one co-permittee to another in accordance with legally binding interagency agreements, both the owner and operator may be jointly liable for permit compliance on those portions of the MS4; and
 2. Where one or more co-permittees jointly own or operate a portion of the MS4, each owner/operator is jointly liable for compliance with permit conditions on the shared portion of the MS4.

3.2.4. Coordinated Programs

Implementation of one or more of the minimum control measures (MCMs) described in subpart 4.2 may be shared with another entity, or the entity may fully take over the measure. The permittee may rely on another entity only if:

- a. The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; and
- b. The other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is required. This obligation must be maintained as part of the description of the Stormwater Management Program. If the other entity agrees to report on the minimum measure, the permittee must supply the other entity with the reporting requirements contained in subpart 5 of this permit. If the other entity fails to implement the control measure on the permittee's behalf, then the permittee remains liable for any discharges due to that failure to implement.

PART 4

4. STORMWATER MANAGEMENT PROGRAM

4.1. REQUIREMENTS

The permittee must continue to develop, implement, and enforce a Stormwater Management Program (the Program) as described below and according to 40 C.F.R. §§ 122.30 – 122.37 to protect water quality and to satisfy the appropriate water quality requirements of the CWA. The Program shall include engineering methods, system design, control techniques and/or management practices appropriate for the control of pollutants of concern. The elements of the Program must be documented by the permittee in a Stormwater Management Program (Stormwater Management Program). The Program must be reviewed periodically in accordance with subpart 4.6.2. and in conjunction with the requirements found Parts 4 and 5 of this permit. Changes to the Program required by this permit must be completed within 180 days of the effective date of the notice of coverage unless otherwise specified. Changes to the Stormwater Management Program must be approved and documented according to subpart 4.4.

The Stormwater Management Program shall minimize the discharge of pollutants to the maximum extent practicable (MEP) and shall not cause or contribute to violations of State water quality criteria of the receiving streams in stormwater runoff the MS4 system.

The Stormwater Management Program must include the following information documented in a written plan for each of the program elements described in this part:

- a. A detailed written document(s) that describes in detail how the permittee intends to comply with the permit's requirements;
- b. A detailed narrative description of the BMPs, programs and processes that the permittee or other entity will implement for each of the stormwater control minimum measures;
- c. The measurable goals for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action;

- d. Identify by name, job title, or department those with the responsibility for implementing or coordinating the Program elements in the Stormwater Management Program; and
- e. Specific elements detailed in each subpart of this Part.

The Stormwater Management Program must include mechanism(s) for documenting and tracking compliance to this permit.

Implementation and enforcement of the BMPs consistent with the Stormwater Management Program as documented in the respective plans as well as compliance with provisions of this permit, including reporting and monitoring requirements, constitutes compliance with the standard of reducing pollutants to the MEP.

4.1.1. Newly Permitted MS4 Jurisdictions

Permittees that have not been previously covered under an MS4 permit must develop and fully implement the program within five years from the issuance date of this permit except for the following:

Permit requirement	Description	Implementation date
4.2.5.1d	Submit implementation plan for permanent stormwater management program	90 days from the Effective Date of this permit
4.2.5.5a	Within one year of obtaining initial permit coverage, newly permitted programs shall review local codes and ordinances using the EPA Water Quality Scorecard	A completed copy of the Scorecard shall be submitted with the subsequent annual report
4.6.1.1.2	<i>Only Required if Option 2 is selected.</i> A proposed alternate monitoring plan must be submitted to the Nashville Central Office at Water.Permits@tn.gov	24 months from the Effective Date on the Notice of Coverage
Legal Authority e.g. Ordinance Updates	All updates to the legal authority required by changes to this permit shall be fully implemented and adopted (as applicable)	As soon as possible in conjunction with the permanent stormwater legal authority (not to exceed 24 months from the Effective Date on the Notice of Coverage)
4.2.5	Implementation of permanent stormwater management program	Either the effective date of the notice of coverage or as specified in the implementation plan (not to exceed 24 months from the effective date of this permit)

4.1.2. Previously Permitted MS4 Jurisdictions

Renewing permittees shall continue to implement the existing program and all changes to the Stormwater Management Program and written documentation or "plans" required by this permit must be completed within 12 months of the effective date of the notice of coverage with the exception of the following:

Permit requirement	Description	Implementation date
Legal Authority e.g. Ordinance Updates	All updates to the legal authority required by changes to this permit shall be fully implemented and adopted (as applicable)	As soon as possible in conjunction with the permanent stormwater legal authority (not to exceed 24 months from the effective date of this permit)
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of the NPDES general permit for construction stormwater runoff effective October 1, 2021.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 24 months from the effective date of this permit
4.2.4	Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of NPDES general permit for construction stormwater runoff with an effective date after September 30, 2026.	Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 18 months of the effective date of the NPDES general permit for construction stormwater runoff
4.2.5	Implementation of permanent stormwater management program	Either the effective date of the notice of coverage or as specified in the implementation plan (not to exceed 24 months from the effective date of this permit)
4.2.5.1d	Submit Implementation plan for permanent stormwater management program	90 days from the Effective Date of this permit
4.6.1.1.2	Only Required if Option 2 is selected. A proposed alternate monitoring plan must be submitted to the Nashville Central Office at Water.Permits@tn.gov	24 months from the Effective Date of this permit

Compliance schedules, once established, remain in effect regardless of new permit cycles, unless specifically indicated by the Division.

4.2. MINIMUM CONTROL MEASURES

The Stormwater Management Program shall include the following minimum control measures:

4.2.1. Public Education and Outreach on Stormwater Impacts

Permittees shall develop and implement an education and outreach program that includes public education and outreach on stormwater impacts as a component of the stormwater management program. The objective of this program is to reduce or eliminate behaviors and practices that cause or contribute to the impacts of stormwater discharges on water bodies and the steps that the audiences can take to reduce pollutants in stormwater runoff to the maximum extent practicable. This program will be designed to reach three major audiences, (1) the public (4.2.1.1), (2) engineering and development community (4.2.1.2), and (3) employees (4.2.1.3). The program shall include the following at a minimum:

The Public Information and Education (PIE) plan shall include:

- a. Specific public information/education activities that are designed to meet the management measure;
- b. Identification of job categories and applicable management measures for employee education (see subpart 4.2.1.3);
- c. Schedule/calendar of events for each year; and
- d. Methodology to evaluate components to assess overall effectiveness and the need for improvement.

4.2.1.1. Public

Management Measure:

Conduct activities as described in the PIE plan targeted to address the following issues:

- a. General awareness of the impacts on water quality;
- b. Awareness of the importance of maintenance activities for operators of permanent Best Management Practices (BMPs)/Stormwater Control Measures (SCMs);
- c. Awareness of the proper storage, use, and disposal of pesticides, herbicides, fertilizers oil and other automotive-related fluids; and
- d. Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

Measurable Goals		Annual Report Requirement
Permittees must conduct and/or sponsor a minimum number of activities (as identified below) that address each of issues identified under "management measures" every reporting year.		- Total Number of activities conducted
MS4 Population at NOI submittal	Minimum Number of activities conducted	Provide the details of each activity including: description; date; management measures addressed; specifically targeted audience and; approximate number of that audience that was reached.
Population ≤10,000	Per 5 year permit term 2	
10,001 ≤ Population ≤25,000	Per each reporting year 1	For sponsored activities only: Identify if the event sponsored monetarily or as a donation in kind
25,001 ≤ Population ≤ 50,000	Per each reporting year 3	
Population greater than or equal to 50,001	Per each reporting year 6	

4.2.1.2. Engineering and Development Community

Management Measure:

Conduct activities as described in the PIE plan targeted to address the following issues:

- a. Awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts; and
- b. Awareness of stormwater ordinances, regulations, and guidance materials related to construction phase water quality impacts.

Measurable Goals		Annual Report Requirement
Permittees must conduct or sponsor a minimum number of activities (as identified below) that address each of issues identified under "management measures" every reporting year.		- Total Number of activities conducted
MS4 Population at NOI submittal	Minimum Number of activities conducted	Provide the details of each activity including: description; date; management measures addressed; specifically targeted audience and;
Population ≤10,000	Per 5 year permit term 1	

Measurable Goals		Annual Report Requirement
10,001 ≤ Population ≤ 25,000	Per 5 year permit term 2	approximate number of that audience that was reached.
25,001 ≤ Population ≤ 50,000	Per each reporting year 1	
Population greater than or equal to 50,001	Per each reporting year 2	

4.2.1.3. Employees

The target audience for municipal, county, educational (college or university), military, and other public employees is dependent on job function and duty location.

Management Measure:

Conduct activities as described in the PIE plan targeted to address the following issues:

- a. Awareness of water quality impacts from daily operations;
- b. Pollution Prevention and Good Housekeeping (see subpart 4.2.6); and
- c. The awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc.(see subpart 4.2.3e)

Measurable Goals	Annual Report Requirement
Permittees must educate all employees as identified by job category in the PIE plan. New employees must be trained within six months of their employment or movement into an applicable job category. All responsible employees must receive training and/or retraining within the permit term. to address the issues identified under "management measures"	<ul style="list-style-type: none"> - For employees that are new to the MS4 or new to the job category: provide the total number of employees NOT educated in accordance with the PIE plan within 6 months - For existing employees: provide the total number of employees NOT educated in accordance with the PIE plan within the permit term.

4.2.2. Public Involvement/Participation

Permittees must develop and implement a program for public involvement and participation as a component of the stormwater management program. The objective is to promote, publicize, and facilitate citizen's participation in the development and implementation of the stormwater management program in order to reduce the discharge of pollutants to the maximum extent practicable. This program will be designed to reach two major audiences: (1) the general public (4.2.2.1), and (2) the commercial and industrial community (4.2.2.2). This program must include the following at a minimum:

- a. Specific public involvement/participation activities that are designed to meet the management measures;
- b. Schedule/calendar of events for each year;
- c. Methodology to evaluate components to assess overall effectiveness and the need for improvement;
- d. A mechanism for citizen reporting of illegal spillage, dumping, or otherwise illicit disposal of materials into the MS4 system;
- e. Publicity plan for public involvement and participation opportunities by methods designed to reach the intended audience;
- f. Permittees shall create opportunities for the public to participate in the decision-making processes for developing, implementing, and updating the Stormwater Management Program;
- g. Mechanisms, procedures, and processes for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new development and redevelopment projects (See subpart 4.2.4);
- h. Develop and implement a public notice process in accordance with subpart 4.4.1; and
- i. Permittees shall track and maintain records of public involvement and participation opportunities.

Management Measure	Measurable Goals	Annual Report Requirement
<p>Provide public access to the Stormwater Management Program records, including a written description of the Stormwater Management Program, available to the public at reasonable times during regular business hours</p>	<p>Make written description of Stormwater Management Program (e.g. plans) Either</p> <ul style="list-style-type: none"> - Available on the MS4's webpage Or - (For MS4 without webpage) make available through the MS4's public records review process 	<p>Provide the web address for the Stormwater Management Program plan documentation</p> <p>or</p> <p>Provide a brief description of the public records request process</p>
<p>Develop and implement a formal public notice process including</p> <ul style="list-style-type: none"> - documenting and responding to public comments - mechanism to identify major modification to the Stormwater Management Program that require a formal public notice process (see subpart 4.4.1) 	<p>Prior to the Second annual report due date complete the formal public notice process for the entire Stormwater Management Program including response to comments. For subsequent years, formal public notice is required only when major changes (see subpart 4.4.1) are made to the Stormwater Management Program</p>	<ul style="list-style-type: none"> - For years when the program <u>is</u> required to be formally placed on public notice, a copy of the public notice and response to comments shall be submitted with the annual report. Or - For years when the program <u>is not</u> formally placed on public notice, indicate as such in the annual report.
<p>Mechanisms, procedures, and processes for public access to information on projects and receiving and considering</p>	<ul style="list-style-type: none"> - Information for 100% of all construction site projects (see subpart 4.2.4) is accessible to the public 	<p>Yes/No Is information for all construction site projects accessible to the public?</p>

<p>comments from the public on those projects. See subpart 4.2.4</p>	<p>- 100% of all comments from the public construction site projects (see subpart 4.2.4) are considered in accordance with the Stormwater Management Program</p>	<p>- # of comments received from the public on construction site projects</p> <p>- Yes/No Are all comments from the public on construction site projects considered?</p>
<p>Encourage and promote citizen reporting of illegal spillage, dumping, or otherwise disposal of materials into the MS4 storm sewer system (see subpart 4.2.3)</p>	<p>Develop and implement a public reporting system e.g. a hotline (see subpart 4.2.3) to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system.</p>	<p>- The number of reports received from the public</p>

4.2.2.1. General Public

Management Measure:

Conduct activities as described in the plan targeted to address the following issues:

- a. Pollution Prevention ;
- b. Impacts on water quality or local stormwater management issues;
- c. Storage, use, and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, and fertilizers use; and
- d. Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

Measurable Goals		Annual Report Requirement
Permittees must conduct and/or sponsor a minimum number of activities (as identified below) that address each of issues identified under “management measures” every reporting year.		- Total Number of activities conducted Provide the details of each activity including: - description; - date; - management measures addressed; - specifically targeted audience and; - approximate number of that audience that was reached. For sponsored activities only: - Identify if the event sponsored monetarily or as a donation in kind
MS4 Population at NOI submittal	Minimum Number of activities conducted each reporting year	
Population ≤10,000	Per 5 year permit term 2	
10,001 ≤ Population ≤25,000	Per each reporting year 1	
25,001 ≤ Population ≤ 50,000	Per each reporting year 3	
Population greater than or equal to 50,001	Per each reporting year 6	

4.2.2.2. Commercial and Development Community

Management Measure:

Conduct activities as described in the plan targeted to address the following issues:

- a. Pollution Prevention; and
- b. Impacts on water quality or local stormwater management issues.

Measurable Goals		Annual Report Requirement
Permittees must conduct or sponsor a minimum number of activities (as identified below) that address each of issues identified under "management measures" every reporting year.		- Total Number of activities conducted Provide the details of each activity including:
MS4 Population at NOI submittal	Minimum Number of activities conducted each reporting year	- description; - date; - management measures addressed; - specifically targeted audience and; - approximate number of that audience that was reached.
Population ≤10,000	Per 5 year permit term 1	
10,001 ≤ Population ≤25,000	Per 5 year permit term 2	
25,001 ≤ Population ≤ 50,000	Per each reporting year 1	
Population greater than or equal to 50,001	Per each reporting year 2	

4.2.3. Illicit Discharge Detection and Elimination (IDDE)

Permittee must develop, implement, and enforce a program to detect and eliminate illicit discharges into the storm sewer system. Stormwater discharges listed in subpart 1.3.3.2 above are excluded from the effective prohibition against non-stormwater and need only be addressed where they are identified as significant sources of pollutants to waters of the state. The objective is to detect and eliminate illicit discharges to the maximum extent practicable. This program must include the following at a minimum:

- a. Develop, if not already completed, a storm sewer system map, (see subpart 4.2.3.1 for minimum map requirements);
- b. To the extent allowable under State, Tribal, or local law, effectively prohibit, through ordinance or other regulatory mechanism⁴, non-stormwater discharges (unless allowed by sub-section 1.3.3.2) into the storm sewer system and implement appropriate enforcement response plan (ERP) (see subpart 4.5);
- c. Develop and implement a program to detect, investigate, and address non-stormwater discharges, including illegal dumping, to the system. This includes standard procedures and forms to be followed to investigate illicit discharges throughout the MS4 jurisdiction. This must include:
 1. Procedures for locating priority areas likely to have illicit discharges.
 2. Procedures for tracing the source of an illicit discharge.
 3. Procedures for removing the source of the discharge.
 4. Procedures for tracking, investigating, and addressing potential illicit discharges and confirmed Illicit discharges. The results of all illicit discharge investigations shall be individually tracked and documented and include the name of Owner/Operator, locations, description of findings, dates, times, parameters and sampling results, discharge source, description of enforcement action(s) including referrals to other agencies, the date the illicit discharge was resolved, and any other pertinent information.
 5. The permittee shall specify the timeframe for initiating complaint investigations within the ERP, but not to exceed seven (7) calendar days from the receipt of the complaint.

⁴ Other regulatory mechanism may include: statute, law, rule, ordinance, permit, contract, order, or similar means.

6. Initial enforcement actions (including referrals to other regulatory agencies with appropriate jurisdiction) shall be taken within seven (7) calendar days of the investigation on confirmed illicit discharges in accordance with the ERP.
 7. Confirmed illicit discharges shall be eliminated as soon as practicable. If the elimination of the confirmed illicit discharge will take more than fourteen (14) calendar days (from owner/operator's notification of confirmed illicit discharge) a corrective action plan to eliminate identified illicit discharges shall be developed by the owner/operator of the source of the illicit discharge in concurrence with the MS4. The ERP shall include remedies to address failures by the owner/operator to complete the corrective action plan and eliminate the illicit discharge.
 8.

If the responsible party or source of a confirmed illicit discharge cannot be identified after a comprehensive investigation in accordance with all stormwater management program IDDE investigation and tracing procedures, the illicit discharge shall be referred to the Division within fourteen calendar days of completing the investigation. All records and documentation of the investigation will be provided to the Division in the referral. Referrals shall be made to the local environmental field office identified in subpart 1.2.
- d. Address the following categories of non-stormwater discharges or flows (*i.e.*, illicit discharges) only if the permittee identifies them as a significant contributor of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration (as defined at [40 C.F.R. 35.2005\(b\)\(20\)](#)), uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water(including tunnel cleaning) (discharges or flows from firefighting activities are excluded from the effective prohibition against non-stormwater and need only be addressed where they are identified as significant sources of pollutants to waters);

- e. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. The educational training for public employees as identified by job category in the PIE plan shall be tracked for each employee (see subpart 4.2.1.1; and
- f. The permittee shall develop a mechanism for the public to report (e.g., via hotline or website), suspected illicit discharges.(See subpart 4.2.2.1).

Management Measure	Measurable Goals	Annual Report Requirement
Storm sewer map that contains all required data elements found in subpart 4.2.3.1	Continue to update mapping as new elements are identified.	Provide location for Spatial Rest Service Outfall Map Layer Or Submit the geodatabase/shapefile Or submit a copy of the system map
Identify and investigate the categories of non-stormwater discharges or flows (as indicated in subpart 4.2.3) only if the permittee identifies them as a significant contributor of pollutants to the MS4.	Maintain an inventory of non-stormwater discharges or flows (as indicated in subpart 4.2.3) that the permittee identified as a significant contributor of pollutants to the MS4.	- # of non-stormwater discharges or flows identified as a significant contributor of pollutants to the MS4 - Total # of non-stormwater discharges or flows investigated
	Investigate as an illicit discharge all non-stormwater discharges or flows (as indicated in subpart 4.2.3) that the permittee identified as a significant contributor of pollutants to the MS4	- Yes/No Were all non-stormwater discharges or flows identified as a significant contributor of pollutants to the MS4 investigated?

Management Measure	Measurable Goals	Annual Report Requirement
Illicit discharge reporting and investigations	- track all potential illicit discharges reported, categorized by reporting source	- The number of potential illicit discharges reported by the public
		- The number of potential illicit discharges reported by internal personnel
	- Initiate 100% of all potential Illicit discharges investigations within 7 days of the receipt of the complaint.	- Total number of potential Illicit discharges reported (from any source) that are under investigation at the time of the annual report
		-Yes/No Were all potential illicit discharges investigated within 7 days of receipt?
	- 100% of all Initial enforcement actions shall be taken within seven (7) calendar days of the investigation on confirmed illicit discharges	-# of identified illicit discharges
		- Yes/No Were all initial enforcement actions on confirmed illicit discharges taken within seven (7) calendar days of the investigation?
- 100% of all corrective action plans are reviewed in accordance with procedures	- # of corrective actions plans received for confirmed illicit discharges.	

Management Measure	Measurable Goals	Annual Report Requirement
		- Yes/No Were all corrective actions plans reviewed in accordance with established procedures?
As indicated in the PIE plan, the permittee must educate public employees, businesses, and the general public concerning the hazards and damage to water quality associated with illegal dumping and connections to the storm sewer, and the improper disposal of waste.	The Measurable Goals and Annual Reporting requirements for this management measures are located in subparts 4.2.1.1 & 4.2.1.3	
As indicated in the Public Involvement/Participate MCM (see subpart 4.2.2), the permittee must Encourage and promote citizen reporting of illegal spillage, dumping, or otherwise disposal of materials into the MS4 storm sewer system by developing and implementing a public reporting system e.g. hotline.	The Measurable Goals and Annual Reporting requirements for this management measures are located in subpart 4.2.2	

4.2.3.1. MS4 Storm System Map Requirements

- a. MS4 Outfalls;
- b. Inputs into the storm sewer collection system, such as the inlets, catch basins, drop structures, flow(s) from adjacent MS4s or other defined contributing points to the storm sewershed of that outfall;
- c. Direction of stormwater flow through the system; and

d. Receiving streams.

(The TDEC-DWR GIS layer maybe used in lieu of permittee developing their own receiving stream layer. TDEC rest services can be found at https://tdeconline.tn.gov/arcgis/rest/services/DWR_Public/MapServer)

4.2.4. Construction Site Stormwater Runoff Control

Permittees must develop, implement, and enforce a construction site stormwater runoff pollutant control program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must include the following at a minimum:

- a. An ordinance or other regulatory mechanism to require erosion prevention and sediment controls (EPSC), as well as sanctions to enforce compliance. The enforcement sanctions must be identified in an ERP as indicated in subpart 4.5.
 1. Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of the NPDES general permit for construction stormwater runoff (CGP, TNR100000) effective October 1, 2021, must be completed within 24 months of the effective date of this permit.
 2. Modifications to ordinance or other regulatory mechanism for construction site runoff pollutant control program consistent with requirements of the NPDES general permit for construction stormwater runoff (CGP, TNR100000) effective after **September 30, 2026**, must be completed within 18 months of the effective date of the subsequent CGP, TNR100000 with an effective after September 30, 2026, modifications to ordinances or other regulatory mechanisms for construction site runoff control must be effective and implemented within 18 months of the effective date of a Tennessee Construction General Permit (CGP, TNR100000);
- b. Requirements for construction site operators to implement appropriate erosion prevention and sediment control best management practices (BMPs). The permittee's EPSC BMPs shall be consistent with those described in the [TDEC EPSC Handbook](#);

- c. Requirements for design storm for all waters as well as special conditions for unavailable parameters waters or exceptional Tennessee waters must be consistent with those of the current Tennessee Construction General Permit (TNR100000);
- d. An inventory of actively permitted public and private construction sites that result in a total land disturbance as defined in subpart 4.2.4. The inventory must be updated as new development and redevelopment projects are permitted and completed. The inventory must contain relevant contact information for each new development and redevelopment project (e.g., tracking number, name, address, phone, etc.), the size of the new development and redevelopment project and area of disturbance, whether the new development and redevelopment project has submitted for permit coverage under the Tennessee Construction General Permit (TNR100000), and the date the permittee approved the construction site plan. The permittee must make this inventory available to TDEC upon request;
- e. Requirements for construction site operators to control wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites within the jurisdiction to avoid adverse impacts to water quality;
- f. Specific procedures for construction site plan (including erosion prevention and sediment controls) review and approval (or denial) which incorporate consideration of potential water quality impacts. The procedures must include an evaluation of plan completeness, and overall BMP effectiveness;
- g. Mechanisms or plans for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new development and redevelopment projects;
- h. Procedures for permittee inspectors to evaluate and document construction site compliance. These procedures, as required in subpart 4.5, must include specific enforcement steps to ensure construction operators maintain compliance with the permittee's construction program requirements. At a minimum 10% of all non-priority construction activities must be inspected at least once during the reporting period;
- i. Requirements for permittee inspectors who conduct inspections of construction sites must maintain certification under the Tennessee Fundamentals of Erosion Prevention and Sediment Control, Level 1 (or

equivalent such as Tennessee Registered Engineer, Landscape Architect, or Certified Professional in Erosion and Sediment Control). Construction site plan reviewers must receive a certificate of completion from the Tennessee Erosion Prevention and Sediment Control Design Course, Level 2 (or equivalent such as Tennessee Registered Engineer, Landscape Architect, or Certified Professional in Erosion and Sediment Control). It is recommended that permittee construction staff receive training under both courses; and

- j. Priority construction activity shall be at a minimum, those construction activities discharging directly into, or immediately upstream of, waters the state recognized as unavailable condition for siltation or Exceptional Tennessee Waters.

Requirements for all priority construction activities must include:

- Pre-construction meetings with construction-site operators for priority construction activities;
- Inspections by the permittee of priority construction sites at least once per calendar month; and
- Documentation of procedures, including related meetings and inspections.

Management Measure	Measurable Goals	Annual Report Requirement
Regulatory mechanism are required to be consistent with the currently effective Tennessee Construction General Permit (CGP, TNR100000). Note: This reporting element won't be seen in the annual report until after the subsequent CGP has been issued.	NPDES general permit for construction stormwater runoff with an effective after September 30, 2026, modifications to ordinances or other regulatory mechanisms for construction site runoff control must be effective and implemented within 18 months of the effective date of a Tennessee Construction General Permit (CGP, TNR100000);	Identify if the regulatory mechanisms for construction site runoff control have been updated to be consistent with CGP and are effective & implemented within 18 months of the effective date of the subsequent CGP

Management Measure	Measurable Goals	Annual Report Requirement
An inventory of actively permitted public and private construction sites that result in a total land disturbance as defined in subpart 4.2.4.d	Maintain an up-to-date inventory with all information identified subpart 4.2.4.d	-total number of active construction activities
		Total number of active non-priority construction activities with incomplete inventory information
Construction site plans review and approval	Establish policies and/or procedures for review and approval (or denial) of all plans and review 100% of all new development and redevelopment projects accordingly	- Total number of new development and redevelopment projects reviewed in accordance with established policies and procedures
		- Yes/No Were all new development and redevelopment projects reviewed in accordance with the established policy and procedure?
Mechanisms or plans for public access to information on new development and redevelopment projects and receiving and considering comments from the public on those new development and redevelopment projects.	The Measurable Goals and Annual Reporting requirements for this management measures are implemented Public Involvement MCM and reported under subpart 4.2.2	
Procedures for permittee inspectors to evaluate and document construction site compliance.	Inspect a minimum of 10% of active non-priority construction sites in accordance	- Total number of active non-priority construction activities

Management Measure	Measurable Goals	Annual Report Requirement
	with Stormwater Management Program	- Yes/No Were all non-priority active construction activities inspections conducted accordance with Stormwater Management Program
Priority construction activities;	-Conduct Pre-construction meetings at 100% of Priority Construction Activities	- Total Number of Priority Construction Activities
	- Inspect 100% of all of Priority Construction Activities at least once per calendar month	- Yes/No Did all Priority Construction Activities that have Pre-Construction meetings? - Yes/No Were all priority Construction Activities inspected at least once per calendar month?

4.2.5. Post-Construction/Permanent Stormwater Management in New Development and Redevelopment

Permits issued to entities that operate a municipal separate storm sewer system (MS4) shall include the following to manage post-construction stormwater at all new development and redevelopment projects that disturb one acre or more of land, or less than one acre if part of a larger common plan of development, and discharge into the permittee’s MS4:

4.2.5.1. Permanent Stormwater Management Program.

- a. The permittee shall develop and implement a permanent stormwater management program to reduce pollutants in stormwater discharges

through management practices, control techniques, and systems, design, and engineering practices implemented to the maximum extent practicable (MEP), as set forth herein.

- b. The permanent stormwater management program shall include plans review, site inspections, and a means to ensure that permanent stormwater control measures (SCMs) are adequately operated and maintained.
- c. The permittee must develop and implement, and modify as necessary, an ordinance or other regulatory mechanism to address permanent stormwater management at new development and redevelopment projects.
- d. The permittee must submit an implementation plan for its permanent stormwater management program not later than 90 days after the effective date of the first new or revised permit issued after the effective date of Tennessee Rule *0400-40-10-.04*. The implementation plan shall include a brief description of the main components of the permittee's permanent stormwater management program, which should include: codes and ordinance development and implementation; procedures for plans review and criteria for approval; procedures for conducting and tracking site inspections; and SCM operation and maintenance policies. The implementation plan shall also include a timeline to develop and implement the program. If the permittee has implemented a permanent stormwater management program that complies with all requirements of the new or revised permit, the permittee may submit an implementation plan explaining how its program complies and identifying any new or modified elements of its program. The schedule must indicate completion as soon as feasible but no later than 24 months from the effective date of the first permit issued after the effective date of Tennessee Rule *0400-40-10-.04*. Further, if implementation will take longer than 12 months, the plan must include interim milestones. Implementation plans must be submitted to the Division.

4.2.5.2. Permanent Stormwater Standards

- a. The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the MEP, as set forth herein. Compliance with permanent stormwater standards for new development and redevelopment projects

is determined by designing and installing SCMs as established by Tennessee Rule 0400-40-10-.04 and complying with other requirements of Tennessee Rule 0400-40-10-.04. For design purposes, total suspended solids (TSS) may be used as the indicator for the reduction of pollutants.

- b. SCMs must be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the new development or redevelopment project. The permittee shall identify a suite of SCMs to be used in various situations. Information relevant to identified SCMs should be made readily available. Application of innovative SCMs is encouraged. If the permittee decides to significantly limit the number of SCM options, it must be documented in the stormwater management program how the performance standards of Tennessee Rule 0400-40-10-.04 can be met with the limited set of control measures that are allowed.
- c. The water quality treatment design storm is a 1-year, 24-hour storm event as defined by Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent. The water quality treatment volume (WQTV) is a portion of the runoff generated from impervious surfaces at a new development or redevelopment project by the design storm, as set forth below. Uncontaminated roof runoff may be excluded from the WQTV.⁵ SCMs must be designed, at a minimum, to achieve an overall treatment efficiency of 80% TSS removal from the WQTV. The quantity of the WQTV depends on the type of treatment provided, as established in the following table:

⁵ Roof runoff should be presumed to be contaminated. Roof runoff that has been demonstrated to be uncontaminated may be excluded from the WQTV, however permittees are not required to provide an exclusion to the WQTV for roof runoff.

Water Quality Treatment Volume and the Corresponding SCM Treatment Type for the 1-year, 24-hour design storm		
SCM Treatment Type	WQTV	Notes
infiltration, evaporation, transpiration, and/or reuse	runoff generated from the first 1 inch of the design storm	Examples include, but are not limited to, bioretention, stormwater wetlands, and infiltration systems.
biologically active filtration, with an underdrain	runoff generated from the first 1.25 inches of the design storm	To achieve biologically active filtration, SCMs must provide minimum of 12 inches of internal water storage.
sand or gravel filtration, settling ponds, extended detention ponds, and wet ponds	runoff generated from the first 2.5 inches of the design storm or the first 75% of the design storm, whichever is less	Examples include, but are not limited to, sand filters, permeable pavers, and underground gravel detention systems. Ponds must provide forebays comprising a minimum of 10% of the total design volume. Existing regional detention ponds are not subject to the forebay requirement.
hydrodynamic separation, baffle box settling, other flow-through manufactured treatment devices (MTDs), and treatment trains using MTDs	maximum runoff generated from the entire design storm	Flow-through MTDs must provide an overall treatment efficiency of at least 80% TSS reduction. Refer to 4.2.5.20

Treatment Train Calculations

1. Treatment trains using MTDs.

Treatment trains using MTDs must provide an overall treatment efficiency of at least 80% TSS reduction utilizing the following formula:

The calculation:

$$R = A + B - (A \times B) / 100$$

Where:

R = total TSS percent removal from application of both SCMs,
A = the TSS percent removal rate applicable to the first SCM, and
B = the TSS percent removal rate applicable to the second SCM.

TSS removal rates for MTD must be evaluated using industry-wide standards.
TSS removal rates for other SCMs must be from published reference literature.

2. Treatment trains not using MTDs.

Treatment trains using infiltration, evaporation, transpiration, reuse, or biologically active filtration followed by sand or gravel filtration, settling ponds, extended detention ponds or wet ponds may subtract the treated WQTV of the upstream SCMs from the WQTV of the downstream SCMs.

The permittee may also develop a mitigation program and/or system of payment into a public stormwater fund as described in subpart 4.2.5.3

The permanent stormwater management program may allow for a reduction of the WQTV for a new development or redevelopment project up to 20% for any one of the following conditions, and up to a total maximum of 50% for a combination of the following conditions:

1. Redevelopment projects (including, but not limited to, brownfield redevelopment);
2. Vertical density (floor to area ratio of at least 2, or at least 18 units per acre); and
3. Incentives as identified by the permittee, submitted to the Division, and approved by the Division in writing, and documented as part of the stormwater management program.

4.2.5.3. Stormwater Mitigation and Public Stormwater Fund

- a. A permittee may choose to develop an offsite mitigation program or payment in lieu into a public stormwater fund, or both, to offset the portion of the WQTV that cannot be treated on site to the MEP. The program must ensure that off-site stormwater mitigation will be accomplished within the

same USGS 12-digit hydrologic unit code watershed as the new development or redevelopment project, if practicable, and will treat a minimum of 1.5 times the portion of the WQTV not treated on site. The permittee may identify priority areas within the watershed in which stormwater mitigation projects are to be completed. The program must have a mitigation project approval procedure, and all projects must meet all requirements in this permit. Procedures and requirements in the offsite mitigation and payment in lieu programs should be documented as part of the stormwater management program and available for review.

- b. If the permittee allows payment into a public stormwater fund, the permittee assumes responsibility to provide the required mitigation projects. The public stormwater fund should be used to fund public mitigation projects. The payment amount into a public stormwater fund must be sufficient to design, install, and maintain the stormwater mitigation measures.

4.2.5.4. Water Quality Riparian Buffers

Permittees shall develop and implement a set of requirements to establish, protect, and maintain permanent water quality riparian buffers to provide additional water quality treatment in riparian areas of new development and redevelopment projects that contain streams, including wetlands, ponds, and lakes. Riparian buffers must meet the following minimum standards:

- a. Stormwater discharges should enter the water quality riparian buffer as sheet flow, not as concentrated flow, where site conditions allow.

Water quality riparian buffers must have the following minimum widths, unless site-specific conditions necessitate alternative widths, as described in 4.2.5.40:

	Average buffer width (feet)	Minimum buffer width (feet)	Notes
Waters with available parameters for siltation or habitat alteration or unassessed waters	30	15	The criteria for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than the required minimum width at any measured location. If the new development or redevelopment site encompasses both sides of a stream, buffer averaging can be applied to both
Exceptional Tennessee Waters or waters with unavailable parameters for siltation or habitat alteration	60	30	

			sides, but must be applied independently.
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The predominant vegetation within the minimum buffer width area should be trees. The remaining riparian buffers may be composed of herbaceous cover or infiltration-based SCMs.

Permittees may establish permissible land uses or activities within the buffer, such as biking and walking trails, infiltration-based SCMs, selective landscaping, habitat improvement, road and utility crossings, or other limited uses as determined by the permittee. The permittee must have a process to review proposed activities within buffers to ensure the pollutant removal function of the buffer will be retained. Trails constructed within the buffer should prevent or minimize the generation of pollutants. If trails are constructed from impervious materials, runoff must either be directed to infiltration-based SCMs or the buffer width must be increased by the width of the trail.

Permittees may authorize alternative buffer widths for new development and redevelopment projects where averaged water quality riparian buffers cannot be fully implemented on-site. In order to allow alternative widths, the permittee must develop and apply criteria for determining the circumstances under which required buffer widths cannot be achieved based on the type of project, existing land use, and physical conditions that restrict the use of water quality riparian buffers. Any such procedures and criteria for alternative buffer widths must ensure that implementing full buffer widths would be impracticable and that the maximum practicable buffer widths are required. Procedures and criteria for alternative buffer widths must be submitted to the Division, approved by the Division in writing, and documented as a part of the stormwater management program.

Water quality riparian buffer widths are measured from the top of bank also referred to as the "ordinary high-water mark."

Ordinances and local requirements adopted prior to November 13, 2018, and that mandate minimum 30-foot water quality riparian buffers for drainage areas less than one square mile, and minimum 60-foot water quality riparian buffers for drainage areas of greater than one square mile (with provisions for buffer averaging down to a minimum 30-foot width), are deemed to satisfy the conditions of this paragraph.

4.2.5.5. Codes and Ordinances Review and Update

- a. Within one year of obtaining initial permit coverage, newly permitted programs shall review local codes and ordinances using the EPA Water Quality Scorecard⁶. A completed copy of the Scorecard shall be submitted with the subsequent annual report. Permittees who have completed and submitted the Scorecard in the past are not required to repeat this review.

Newly permitted programs shall update codes and ordinances or other legal instruments as necessary to comply with the permit within 24 months of coverage under this permit. Current permittees shall continue to implement the existing permanent stormwater management program and update legal instruments according to the compliance schedule in subpart 4.2.5.1d

4.2.5.6. Development Project Plan Review, Approval, and Enforcement

The permittee shall develop and implement project plan review, approval, and enforcement procedures applicable, at a minimum, to all new development and redevelopment projects, which shall include:

Procedures for review and approval of site plans, including inter-departmental consultations and a re-submittal process when modifications to the project require changes to an approved site design plan;

A plans review process that requires SCMs to be properly designed, installed, and maintained to meet the performance standards established in Tennessee Rule 0400-40-10-04. The process must also include incentives adopted by the permittee as authorized by subpart 4.2.5.2, if any, along with water quality buffers as required by subpart 4.2.5.4; and

A verification process to document that SCMs have been installed per design specifications within 90 days of installation. Verification shall include submission of as-built plans to the permittee, permittee inspection, or inspection by a qualified design professional. The verification process shall include enforcement procedures to bring noncompliant projects into compliance, which shall be detailed in the enforcement response plan.

⁶ <https://www.epa.gov/smartgrowth/water-quality-scorecard>

4.2.5.7. Maintenance of Permanent Stormwater Control Measure Assets

Permanent SCMs, including SCMs used at mitigation projects, must be installed, implemented, and maintained to meet the performance standards of subpart 4.2.5.2, and provide full treatment capacity within 72 hours following the end of the preceding rain event.

The permittee must develop and implement a program to require implementation of appropriate SCM maintenance procedures to sustain pollutant reduction efficiency for the life of the new development or redevelopment project. All procedures, reports, and documentation must be maintained as part of the stormwater management program. The program must include at a minimum:

1. The development and documentation of maintenance and inspection procedures and frequencies for approved SCMs, which shall require all SCMs to be inspected at least once every five years by the permittee, a licensed professional engineer, a licensed landscape architect, or other qualified professional familiar with applicable SCM design and maintenance requirements;
2. The development and documentation of the procedure the permittee will use to verify that SCMs are being inspected and maintained including any written reports from the responsible party;
3. A clear, documented, legally binding agreement assigning SCM maintenance responsibility to the owner/operator, a third party, or the permittee as appropriate. For SCMs designed to manage stormwater from multiple properties, appropriate deed restrictions shall be recorded; and
4. An allowance or agreement for permittee personnel to access the SCMs for inspections and provide for enforcement action for failure to maintain SCMs according to agreement.

4.2.5.8. Inventory and Tracking of Permanent Stormwater Control Measure Assets

- a. Existing permittees must continue to implement and maintain a system to inventory and track the status of all public and private SCMs installed on new

development and redevelopment projects. New permittees must implement the system within 24 months of coverage.

- b. The inventory and tracking system must be a searchable database, either paper or electronic, that retrieves SCM information by location or other similar identification. The system must be made available to the Division or to members of the public upon request. Other than the basic information of location and project identification, the system should include information and records the permittee will use to demonstrate that SCMs are properly maintained, including but not limited to:
 1. A brief description of the type of SCM and basic design characteristics;
 2. The responsible party contact information;
 3. Inspection schedules (both permittee and responsible party);
 4. A brief description of or reference to maintenance procedures and frequency;
 5. Photographs of the installed SCMs; and
 6. Maintenance and inspection records.

4.2.5.9. Management Measures, Goals and Annual Report Requirements

Management Measure	Measurable Goals	Annual Report Requirement⁷
Stormwater Mitigation and Public Stormwater Fund as outlined in subpart 4.2.5.3 (note this management measure is only required if the permittee has developed such a fund)	100% of all mitigation projects must be completed	- Brief status description status description of Stormwater Mitigation and Public Stormwater Fund
		- # of uncompleted mitigation projects at the end of the previous reporting period
		- # of mitigation projects completed during the reporting period
		-# of uncompleted Projects at the end of the current reporting period
		- # of uncompleted projects at the end of the reporting period that began more than 24 months prior to the end of the reporting period
	100% of all mitigation projects in the Stormwater Mitigation and Public Stormwater Fund are completely funded	- \$ in Public Stormwater Fund at the end of the reporting period

⁷ Annual reporting identified in this section will begin with the first annual report due after completion of the implementation plan in 4.2.5.1d but no later than 24 months from the effective date of the permit.

Management Measure	Measurable Goals	Annual Report Requirement ⁷
		- # of uncompleted projects due to lack of funds
Develop and implement a set of requirements to establish, protect, and maintain permanent water quality riparian buffers	-100% of projects must have the buffer as required by subpart 4.2.5.4	-Yes/No Did all of the projects approved meet the buffer requirements of subpart 4.2.5.4?
	If applicable: -100% of projects with permanent alternative buffer widths must be in accordance with the procedures and criteria approved by the Division	-# of project approved with alternative width Buffer
		- Date Alternative buffer width procedures and criteria most recently approved by Division
Complete Code and Ordinance Review in accordance with subpart 4.2.5.5a (New Permittees Only)	EPA Water Quality Scorecard must be completed and submitted within one year of the effective date on the notice of coverage	A completed copy of the Scorecard shall be submitted with the subsequent annual report. (Note: this is a one-time requirement)
Develop, implement, and enforce policies and procedures for the submittal and review of plans as required by 4.2.5.60	Establish policies and/or procedures for review and approval (or denial) of all plans and review all new development and redevelopment projects accordingly	- Total number of all new development and redevelopment projects reviewed
		- Number of new development and redevelopment projects reviewed in accordance with the established policy and procedure

Management Measure	Measurable Goals	Annual Report Requirement⁷
Develop, implement, and enforce policies and procedures for SCM Installation verification as required by subpart 4.2.5.60	Verify that 100% of SCMs are installed per design specifications in accordance with approved plan within 90 days of installation	- Total number of sites verified
		- Yes/No Were all SCMs are installed per design specifications in accordance with approved plan within 90 days of installation
Establish and maintain adequate legal authority assigning SCM maintenance responsibility and personnel access to the SCM and provide for enforcement action as required by subpart 4.2.5.70	The permittee must have the legal authority to access SCMs and assigned maintenance responsibility for 100% of all SCMs	Yes/No Does the permittee have adequate legal authority as required by 4.2.5.7 for all SCMs installed?
	The permittee must enforce as directed in the appropriate legal authority, for 100% of all SCMs that have not been properly maintained	# of SCMs that have not been properly operated or maintained
		Yes/No Have enforcement actions been taken in accordance with the appropriate legal authority or ERP?
Implement and maintain a system to inventory and track the status of all public and private SCMs as required by subpart 4.2.5.8	The system must be made available to the Division or members of the public upon request.	Total number of requests for inventory
		- Yes/No Are all SCMs in the inventory tracking system?
	100% of all SCMs must be included in the inventory tracking system with complete information	- Yes/No Do all SCMs in the inventory tracking system have complete information?

Management Measure	Measurable Goals	Annual Report Requirement ⁷
		<p>Beginning in the year 3 (2025) annual report submit the SCM inventory tracking system information as a geodatabase or as a file type that is generally accessible e.g. excel, csv, xml, or division supplied EDD, etc.</p> <p>note: - Files may be submitted in a manner approved by the division.</p>

4.2.6. Pollution Prevention/Good Housekeeping

The permittee must develop and implement an operation and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

4.2.6.1. Employee Training

This program must include an employee training program for employees responsible for municipal operations at facilities within the jurisdiction of the permittee that handle, generate, and/or store materials which constitute a potential pollutant of concern for MS4s. The goal of the training program should be to identify pollutants and prevent and/or reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The program must identify all applicable job categories for training and include these job categories and associated training management measures in the PIE plan (see subpart 4.2.1.b.). New employees must be trained within six months of their employment or movement into an applicable job category. All responsible employees must receive training and/or retraining within the permit term. (note: management measures, measurable goals and annual reporting requirements are in 4.2.1.3)

4.2.6.2. Operation and Maintenance (O&M) Program

The permittee must develop an operation and maintenance (O&M) program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained to reduce the discharge of pollutants from the MS4 for each of the following municipal operations as applicable:

- a. streets, roads, highways;
- b. municipal parking lots;
- c. maintenance and storage yards;
- d. fleet or maintenance shops with outdoor storage areas;
- e. salt/sand storage locations;
- f. snow disposal areas operated by the permittee; and
- g. waste disposal, storage, and transfer stations.

(note: see subpart 4.2.5 for requirements specific to SCMs)

The O&M program must include the following management practices at a minimum:

- a. Minimize or Prevent Exposures of Materials to Precipitation;
- b. Good Housekeeping;
- c. Preventative Maintenance;
- d. Spill Prevention and Response;
- e. Erosion and Sediment Control;
- f. Management of Runoff;
- g. Control Measure Maintenance; and
- h. Facility Site Inspections (conducted at least once every 12 months).

An O&M Facility Plan for each applicable municipal facility shall be developed and implement and must include the following at a minimum:

- a. Inventory of management practices on site;
- b. Procedures and documentation for the implementation of the management practices on site; and
- c. Maintenance Procedures and Frequencies for each Stormwater Control Measure (or type of SCM).

The permittee must keep record of the implementation of the management practices and document the record keeping requirements in the O&M Plan.

An O&M Facility Plan does not need to be developed for a facility if the permittee has either a no exposure certification for the discharge under the Tennessee Multi-Sector General Permit (TMSP) or the discharge is authorized under another NPDES permit, e.g. TMSP.

Management Measure	Measurable Goals	Annual Report Requirement
Employee training program for employees responsible for municipal operations at facilities	The Measurable Goals and Annual Reporting requirements for this management measures are implemented Public Education MCM and reported under subpart 4.2.1	
Develop and implement an O&M Facility Plan	All applicable Municipal operations must have an O&M Facility Plan	- # Municipal Operations Facilities
		Yes/No Do all Municipal Operations Facilities have a O&M Facility Plan?

Management Measure	Measurable Goals	Annual Report Requirement
Facility Site Inspections	Conduct a facility site inspection in accordance with the Stormwater Management Program at all municipal operation facilities at least once every 12 months	- # Municipal Operations Facilities NOT inspected in accordance with the Stormwater Management Program in the previous 12 months

4.3. QUALIFYING TRIBE, STATE OR LOCAL PROGRAM (QLP)

A QLP is a MS4 jurisdictional Stormwater Management Program that has been approved by the Division as having met the QLP minimum program requirements related to stormwater discharges associated with construction activity. If a construction activity is within the jurisdiction of and has obtained a notice of coverage from a QLP, the operator of the construction activity is authorized to discharge stormwater associated with construction activity under [General NPDES Permit for Discharges of Stormwater Associated with Construction Activities \(CGP\)](#) Permit without submittal of an NOI to the Division. Additional information, including QLP minimum requirements and application procedures, can be obtained from the local EFO or TDEC's [stormwater QLP program website](#).

4.3.1. QLP Application

An application form is required to be submitted when an operator of a Tennessee NPDES Municipal Separate Storm Sewer System (MS4) is applying for approval as a QLP related to stormwater discharges associated with construction activity.

The application must:

- a. Contain a completed signed (in accordance with 7.11) application form (CN-1374) (located on the [stormwater QLP program website](#));
- b. Contain as an attachment Construction stormwater ordinance or regulatory mechanism for violations, including civil penalties and procedures. Note: Indicate the portions of the ordinance or regulatory mechanism that are directly relevant to your application;
- c. Contain as an attachment SWPPP/EPSC plan review and approval procedures;
- d. Contain as an attachment Construction site tracking and inventory procedures;
- e. Contain as an attachment Copies of Level I & II Certifications for appropriate staff (or equivalent);
- f. Contain as an attachment Construction site compliance inspection and documentation procedures;
- g. Contain as an attachment Enforcement Response Plan; and
- h. Contain as an attachment Public Information/Public Input Process;
- i. Existing authorized MS4 Qualified Local Programs shall submit required documentation to TDEC electronically as a part of the MS4 NOI; or
- j. MS4s requesting QLP authorization shall submit required documentation to TDEC electronically to water.permits@tn.gov.

4.3.2. QLP Minimum Program Requirements

- a. Regulated MS4s must implement and maintain a construction site stormwater runoff control program that addresses stormwater runoff from construction activities, as identified in sub-section 4.2.4 of this permit;
- b. Legal authority, procedures, and processes to require construction site operators to prepare and submit an NOI, and related comprehensive SWPPP, as identified in Section 3 (SWPPP Requirements) of the CGP;
- c. Coordinate with the Division on confirming water resource inventory;
- d. Specific procedures (including tracking) for SWPPP review utilizing form Tennessee Municipal Construction Stormwater Project Review Checklist (CN-1440) (located on the [stormwater QLP program website](#)); approval, and NOC issuance; and
- e. Requirements for construction site operators to perform inspections and site assessments as identified in the CGP.

4.3.3. QLP Site Reporting Requirements

The QLP program must also include a system for reporting to the Division, information related to construction sites authorized by the QLP. This report is due quarterly as follows:

Quarter	Report Due
January-March	April 15 of that year
April- June	July 15 of that year
July-September	August 15 of that year
October-December	April 15 of that year

Minimum Data Reporting Elements

- a. QLP tracking number
- b. QLP MS4 Jurisdiction
- c. Project Name
- d. Responsible Party, e.g. permittee
- e. Complete Street Address
- f. Site Description
- g. County
- h. Latitude (decimal degrees)
- i. Longitude (decimal degrees)
- j. Estimated Start Date
- k. Estimated End Date
- l. Acres Disturbed
- m. Total Acres

- n. Receiving Water
- o. Status (Pending, Active, Terminated)

This report shall be submitted in a spreadsheet format to Water.Permits@tn.gov or through the Division's electronic reporting portal MyTDEC Forms (when available) at <https://forms.tdec.tn.gov/>.

4.4. STORMWATER MANAGEMENT PROGRAM MODIFICATION

4.4.1. Program Modification

Permittees may modify the Stormwater Management Program during the life of the permit in accordance with the following:

4.4.1.1. Minor Modifications

Minor Modification are required to be reported in accordance with 4.2.2. These changes **do not require** a formal public notice.

- a. Modifications that add, but neither subtract nor replace, components, controls, or requirements to the Stormwater Management Program may be made by the permittee at any time. A description of the modification shall be included in the subsequent Annual Report.
- b. Correct typographical errors
- c. Increase in Monitoring
- d. Remove an outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.
- e. Modifications that replace an ineffective or infeasible BMP, or SCM which is specifically identified in the Stormwater Management Program along with an alternate BMP or SCM, may be made by the permittee at any time. A description of the replacement BMP or SCM shall be included in the subsequent Annual Report along with the following information:
 - An analysis of why the former BMP was ineffective or infeasible;
 - Expectations on the effectiveness of the replacement BMP or SCM;
 - and
 - An analysis, if applicable, of why the replacement BMP or SCM will ensure the optimization of equipment use.

- f. Addition of Facilities covered under this permit.

4.4.1.2. Major Modifications

Major Modifications are required to be reported in accordance with subpart 4.2.2. These are changes that **do require** a formal public notice. The Stormwater Management Program Plan shall include a description of the formal public notice process for the MS4 program.

The documentation made available for comment in the formal public notice process shall include the written plans required by Part 4 of this permit. Individual facility O&M Plans, work instructions, written procedures, or other such documentation are not required to be available for public comment during the formal public notice process described in the Stormwater Management Program Plan.

The formal public notice process described in this subpart is not applicable to the adoption process of any legal authorities.

TDEC-DWR shall be included in the distribution list at water.permits@tn.gov. Comments or objections made by the Division on the modifications must be addressed before the changes can be implemented.

- a. Modifications that subtract BMPs, SCMs, components, controls, or requirements of the Stormwater Management Program may not be made by the permittee unless it can be clearly demonstrated that with the elimination of this component, the Stormwater Management Program will continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream. In the case where this type of modification is appropriate, the permittee may make the required modification and shall include in the subsequent Annual Report a description of the component which has been eliminated along with the following information:

An analysis of why the component was ineffective or infeasible; and
A detailed explanation of why, with the elimination of this component, the Stormwater Management Program will continue to achieve a reduction in pollutants to the MEP and shall not cause or contribute to violations of State water quality standards in the receiving stream.

Management Measure	Measurable Goals	Annual Report Requirement
Identify Modifications as Minor or Major in accordance with the permit and report as required.	Report all Minor and Major Modifications to Stormwater Management Program as required	<ul style="list-style-type: none"> - Identify if any changes were made to each program element Yes/No - Include a description of the modification(s) made under 4.4.1.1a - Include a description of the modification(s) made under 4.4.1.1e - Include a description of the modification(s) made under 4.4.1.1f - Include a description of the modification(s) made under 4.4.1.2a

4.4.2. Transfer of Ownership, Operational Authority, or Responsibility

The permittee must implement the Stormwater Management Program in any new areas added to the MS4 as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented within one year.

Within 90 days of a transfer of ownership, operational authority, or responsibility for Stormwater Management Program implementation, the permittee must have a plan for implementing the Stormwater Management Program in any newly added areas. The plan may include schedules for implementation. Information on newly annexed areas and any resulting updates required to the Stormwater Management Program must be included in the annual report.

4.5. ENFORCEMENT

4.5.1. Enforcement Response Plan

The permittee must develop and implement an enforcement response plan (ERP). The written plan must set out the permittee's potential responses to violations and address repeat violations through progressive enforcement as needed to achieve compliance. The permittee must have the legal ability to employ progressive enforcement actions as described below (or their functional equivalent for non-traditional MS4 jurisdictions), and to escalate enforcement responses where necessary to address persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm.

- a. Verbal Warnings – At a minimum, verbal warnings should be as specific as possible to the nature of the violation and be documented.
- b. Written Notice of Violation – Written notices stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
- c. Citations or Administrative Orders – These actions indicate when the permittee will assess monetary penalties, which may include civil and administrative penalties.
- d. Stop Work Orders – These actions have the authority to require activities at a facility to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.
- e. Withholding of Plan Approvals or Other Authorizations – Where a facility is in non-compliance, the ERP may address how the permittee's approval process affecting the facility's ability to discharge to the MS4 can be used to abate the violation.
- f. Civil Penalties - The permittee must have the authority for the maximum penalties per day for each day of violation as specified in TCA 68-221-1106.
- g. Additional Measures – The permittee may also use other escalated measures provided under local legal authorities. The permittee may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the bond or directly billing the responsible party to pay for work and materials.

4.5.2. NPDES Permit Referrals

For those new development and redevelopment projects subject to the TNR100000 (the NPDES general permit for stormwater discharges from construction activity) or industrial facilities subject to TNR050000 (the NPDES general permit for stormwater discharges from industrial activity), the permittee must comply with the following:

a. If the permittee becomes aware that a construction activity or an industrial activity is discharging to an MS4 in violation of an NPDES permit or is discharging to the MS4 and does not have the required permit, the permittee shall notify the appropriate EFO of the situation as soon as possible. Provide as much of the information below as possible so that the Division may investigate and take appropriate enforcement action. The permittee may also pursue enforcement under the illicit discharge program, if applicable.

- New development and redevelopment project or industrial facility location;
- Name of owner or operator;
- Estimated new development and redevelopment project size or type of industrial activity (including Standard Industrial Classification (SIC) code if known); and
- Records of communication with the owner or operator regarding filing requirements.

b. If the permittee has not been able, through its enforcement mechanisms and protocol, to bring an NPDES-permitted discharge into compliance with the permittee's stormwater- and water pollution-related ordinances, then the permittee must notify TDEC, at the local EFO, of this situation. In making such referrals, the permittee must provide, at a minimum, the following:

- New development and redevelopment project or industrial facility location;
- Name of owner or operator;
- Estimated new development and redevelopment project size or type of industrial activity (including Standard Industrial Classification (SIC) code if known);
- Records of communication with the owner or operator regarding the violation, including at least two follow-up inspections, two warning letters or notices of violation, and any response from the owner or operator.

4.5.3. Enforcement Tracking

The permittee must track instances of non-compliance either in paper files or electronically. The enforcement case documentation must include, at a minimum, the following:

- Name of owner/operator;
- Location of new development and redevelopment project or industrial facility;
- Description of violation;
- Required schedule for returning to compliance;
- Description of enforcement response used, including escalated responses if repeat violations occur or violations are not resolved in a timely manner;
- Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.);
- Any referrals to different departments or agencies; and
- Date violation was resolved.

4.5.4. Requirements for Chronic Violators

The permittee must identify chronic violators of any Stormwater Management Program component and reduce the rate of noncompliance recidivism. The permittee must track the violations, apply incentives and/or disincentives, and increase the inspection frequency at the operator's sites. If corrective actions are not taken, the permittee shall pursue progressive enforcement and, if need be, perform the necessary work and assess against the owner/operator the costs incurred for repairs.

4.5.5. Annual Report Requirements

Annual Report - Summary of Enforcement Actions Requirement	
Enforcement Action Type	Total Number of Enforcement Actions Taken
Verbal Warnings	# Enforcement Actions Taken
Written Notice of Violation	# Enforcement Actions Taken
Citations or Administrative Orders	# Enforcement Actions Taken
Stop Work Orders	# Enforcement Actions Taken
Withholding of Plan Approvals or Other Authorizations	# Enforcement Actions Taken
Civil Penalties	# Civil Penalties Assessed
Additional Measures	# Enforcement Actions Taken

4.6. STORMWATER MONITORING AND PROGRAM EVALUATION

4.6.1. Monitoring Program, Sampling Requirements and Reporting

4.6.1.1. Monitoring

Permittees shall develop and implement a monitoring and assessment program that provides data and information to identify pollutant sources and aids in determining the effectiveness of the stormwater management program. A description of this program must be included in the Stormwater Management Program. The monitoring and assessment program must be designed to meet the following objectives:

- a. Assess compliance with this permit;
- b. Measure the effectiveness of the permittee's stormwater management program;
- c. Evaluate stormwater impacts to the receiving waters;
- d. Identify sources of specific pollutants, including nutrients, pathogens, siltation, or other parameters related to stormwater discharges from the MS4 System: and
- e. Gather data to inform program decisions and prioritization of future activities related to the protection of water quality and identify corrective actions.

The permittee shall perform monitoring in compliance with the requirements in Option 1 below or develop a jurisdiction-specific monitoring plan in compliance with the objectives in Option 2 below. Regardless of the option chosen, at a minimum the permittee shall perform monitoring as prescribed for stream segments subject to [EPA approved TMDLs](#) for streams with unavailable parameters for nutrients, pathogens, or siltation as applicable to MS4 jurisdictions.

4.6.1.1.1. Option 1

The permittee shall perform analytical monitoring as a part of its Stormwater Management Program within the MS4 program area.

For stream segments identified by the Division as waters with unavailable parameters for siltation and/or nutrients, biological stream sampling and habitat assessment must be performed utilizing the Semi-Quantitative Single Habitat (SQSH) Method (see subpart 4.6.1.3) as identified in the Division's most current version of the Quality System Standard Operating Procedure for Macroinvertebrate Stream Survey. At least one sample per stream segment must

be collected, with all segments within the MS4 jurisdiction sampled in a five-year period i.e. no more than 5 years between samples in a segment.

For stream segments identified by the Division as waters with unavailable parameters for pathogens, bacteriological stream sampling must be performed utilizing methods identified in the Division's most current version of the Quality System Standard Operating Procedure for Chemical and Bacteriological Sampling of Surface Water. Monitoring shall include the collection of five samples within a thirty-day period (to establish a geometric mean) and be performed during the summer (March through November). Corresponding flow measurement is recommended but not required. At least one series of five samples per stream segment must be collected, with all segments within the MS4 jurisdiction sampled in a five-year period.

Visual Stream Surveys and Unavailable Parameter Inventories must be performed on each stream segment within the MS4 jurisdiction with unavailable parameters for siltation, pathogens, and nutrients to identify and prioritize sources of these pollutants of concern. At a minimum, a visual stream survey must be performed immediately upstream and downstream of each MS4 outfall that discharges into that stream segment. All stream segments with unavailable parameters in the permitted jurisdiction must be surveyed once every five-year period.

Permittees shall develop and implement visual stream survey protocols in the Stormwater Management Program. The permittee must:

- a. Adopt existing survey protocols such as the ones available through the Natural Resources Conservation Service, State of Maryland Department of Natural Resources, and/or the State of Tennessee Habitat Assessment Protocol and related Stream Survey Field Sheets (See Subpart 8.3 for links to referenced protocols); or
- b. Develop their own protocol which must address the following at a minimum:
 1. Training, Safety, and Private Property Access;
 2. Equipment and Logistics;
 3. Recordkeeping and photo documentation;
 4. Scoring Mechanism;
 5. Visual Survey Assessment elements:
 - i. Channel Condition
 - ii. Hydrologic Alteration
 - iii. Bank Condition
 - iv. Riparian Area Condition

- v. Canopy Cover
- vi. Water Appearance
- vii. Nutrient Enrichment
- viii. Animal Or Human Waste Presence
- ix. Pools
- x. Barriers
- xi. Fish Habitat Complexity
- xii. Invertebrate Habitat
- xiii. Invertebrate Community
- xiv. Riffle Embeddedness
- xv. Other as defined by the permittee

For the purpose of complying with subpart, the permittee is only required to monitor the stream segments that were designated as unavailable conditions for nutrients, pathogens, and siltation by the Division upon the effective date of this permit.

4.6.1.1.2. Option 2

The permittee may develop a jurisdiction-specific monitoring plan as an alternative to the plan identified in Option 1 (subpart 4.6.1.1.1). The jurisdiction-specific monitoring plan must be designed to meet, at a minimum, the objectives of 4.6.1.1a-**Error! Reference source not found.:**

When developing the alternative monitoring plan, the permittee must examine and consider a variety of factors, including, but not limited to, land use conditions, stream status/characteristics, and utilization of monitoring results. The alternate plan must contain:

- a. A justification for the stream selection(s);
- b. Identification and source determination of pollutant(s) of concern;
- c. Monitoring details;
- d. Records requirements;
- e. Description of how MS4 will evaluate stormwater impacts to receiving waters;
- f. Description of how data will be gathered to inform program decisions and prioritization of future activities related to the protection of water quality;
- g. Acknowledgement that division protocols (identified above in Option 1) will be used for instream monitoring or alternative protocols for division approval; and
- h. Provisions for an administratively continued small MS4 general permit.

A proposed Option 2 plan must be submitted to the Nashville Central Office to Water.Permits@tn.gov within 24 months of the effective date of this permit for review and authorization. The permittee must submit any revisions requested by the division within 30 days of being notified. The plan must be implemented upon written authorization and completed by the end of the permit cycle.

4.6.1.2. Sampling Methods and Procedures

4.6.1.2.1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature of the monitored discharge or the receiving stream.

4.6.1.2.2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.

Unless otherwise noted in the permit, all pollutant parameters shall be determined using sufficiently sensitive methods in Title 40 C.F.R. § 136, as amended, and promulgated pursuant to Section 304 (h) of the Act. The chosen methods must be sufficiently sensitive as required in state rule 0400-40-03-.05(8).

When there is no analytical method that has been approved under 40 C.F.R. §136 or required under 40 C.F.R. chapter I, subchapter N or O, and a specific method is not otherwise required by the Director, the permittee may use any suitable method but shall provide a description of the method. When selecting a suitable method, factors such as a method's precision, accuracy, or resolution must be considered when assessing the performance of the method.

4.6.1.3. Semi-Quantitative Single Habitat (SQSH) Reporting

Appropriate habitat assessment and stream survey workbooks (also known as Electronic Data Deliverable or EDDs) will be completed concurrent with each biological survey. The High Gradient worksheet will be used in conjunction with riffle kick collections and the Low Gradient worksheet will be used in conjunction with rooted bank collections.

Two electronic Excel workbooks titled *Field Stream Survey* and *Habitat Sheets and Macroinvertebrate Taxa Report* should be used to report complete taxa lists as well as habitat assessments and field survey sheets, including chemical/physical

parameters recorded during the biosurvey. The worksheets can be downloaded from the TDEC publications website TDEC Water Quality Reports and Publications and looking under Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys.

The completed workbooks, also known as Electronic Data Deliverable or EDDs, shall be attached to the annual report.

4.6.1.4. Annual Report Requirements for Monitoring Program

Management Measure	Measurable Goals	Annual Report Requirement
Perform monitoring in accordance with Stormwater Management Program	<p>Option 1 - Perform monitoring specified in 4.6.1.1.1 for the stream segments that were designated as unavailable conditions for nutrients, pathogens, and siltation by the Division upon the effective date of this permit.</p> <p>Or</p> <p>Option 2 - Perform monitoring in accordance with the approved Option 2 monitoring plan</p>	<p>- Yes / No</p> <p>Monitoring for the reporting year has been performed in accordance with either 4.6.1.1.1 (Option 1) or 4.6.1.1.2 (Option 2)</p> <p>- Provide a summary of monitoring results</p> <p>- Upload a copy of all monitoring data. Where available the EDD Forms developed by the Division shall be submitted.</p>

4.6.2. Stormwater Management Program Evaluation

The permittee shall conduct an annual evaluation of the Stormwater Management Program to evaluate compliance with the terms and conditions of the permit, including the effectiveness of the BMPs, components, or controls of its stormwater management program, and the status of achieving the measurable requirements in the permit.

Management Measure	Measurable Goals	Annual Report Requirement
Conduct an annual evaluation of the current Stormwater Management Program for every reporting period	Summarize evaluation results	- Narrative Description
	Identify modifications or replacement of an ineffective activity/control measure/component/BMP.	Narrative Description
	Summarize the assessment results, and any modifications and improvements scheduled to be implemented in the next reporting period to improve the program or remedy deficiencies or weaknesses	Narrative Description
MCM Status Determination	Indicate compliance status for each of the six MCMs (subpart 4.2) and the Monitoring Program (subpart 4.6.1.1	Compliant with Permit Requirements? Yes/No If no (Please provide more details)

4.7. LEGAL AUTHORITY

To the extent allowed by law, each permittee shall ensure legal authority to reduce the discharge of pollutants to the maximum extent practicable (MEP) from those portions of the MS4 Area over which it has jurisdiction. This legal authority may be a combination of statute, law, rule, ordinance, resolution, permit, contract, order, or interjurisdictional agreements between permittees with adequate existing legal authority to:

- a. Prohibit non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
- b. Require erosion and sediment controls, as well as sanctions to ensure compliance;
- c. Address post-construction/permanent stormwater runoff from new development and redevelopment projects;
- d. Obtain remedies for noncompliance, seek injunctive relief, seek, or assess penalties and enact the enforcement response plan as required in subpart 4.5;
- e. Require compliance with conditions in ordinance, permits, contract, orders, or other legal authority; and
- f. Conduct all inspection, surveillance, and monitoring activities necessary to determine compliance with the conditions of this permit.

4.7.1. Annual Report Requirements for Legal Authority

Legal Authority	Annual Report Requirement
<p>Provide a signed solicitor’s certification statement that:</p> <ul style="list-style-type: none"> - Contains the name of the attorney(s) - Confirms that the permittee has the adequate authority (or functional equivalent for non-traditional MS4s) to carry out the Stormwater Management Program (Stormwater Management Program) as described - Lists the documents (such as Ordinance, Rules, Regulations, codes, interjurisdictional agreements, or any other document) that give the permittee that authority - Specifies the document and location of the specific authorities required by subpart 4.7a-f <p>note: For non-traditional MS4, the legal authority for some elements may be inherent as a legal entity and not in a standalone document.</p>	<p>The initial solicitor’s statement will be required in the 2024 annual report for existing permittees and in the third annual report for new permittees. If modifications are made to the legal authority that necessitate a new evaluation by a solicitor, a new certification statement must be submitted.</p>

PART 5

5. ANNUAL REPORT

5.1. ANNUAL REPORTING PERIOD, DUE DATE AND SIGNATORY REQUIREMENT

- a. The Annual Report shall cover the period beginning on July 1st and ending on June 30th;
- b. The Annual Report shall be due on September 30th after the end of the reporting period.;
- c. The permittee shall sign and certify the Annual Report in accordance with subpart 7.11.; and
- d. The annual report shall be submitted electronically through MyTDEC Forms <https://forms.tdec.tn.gov/> see subpart 6.

5.2. ANNUAL REPORT REQUIREMENTS

Annual Report Required Information
- All reporting elements as indicated in the permit including the information noted in the " Annual Report Requirement " column of the tables in Part 4 of the permit, information noted in narrative format.
-
- The status of compliance with permit terms and conditions;
- Notice that the permittee is relying on another governmental entity to satisfy some of the permit obligations (if applicable); and
- Any other data specifically requested by the Division to substantiate statements and conclusions reached in the Annual Reports.

PART 6

6. RETENTION, ACCESSIBILITY, AND SUBMISSION OF RECORDS

6.1. RECORDS RETENTION

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, Stormwater Management Program documentation including but not limited to policies, procedures, forms, checklists, correspondence, records, etc., reports required by this permit, records of all data used to complete the NOI and the Notice of Termination (NOT) for a period of at least three years. This period may be extended by written request of the Director.

6.2. ELECTRONIC SUBMISSION OF DOCUMENTS

This permit requires the submission of forms developed by the Director in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permit coverage. The Director may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40. Electronic submission is required when available unless waived by the Commissioner in accordance with 40 C.F.R. § 127.15.

In the event of large-scale emergencies and/or prolonged electronic reporting system outages, an episodic electronic reporting waiver may be granted by the Commissioner in accordance with 40 C.F.R. § 127.15. A request for a deadline extension or episodic electronic reporting waiver should be submitted to DWRWater.Compliance@tn.gov, in compliance with the Federal NPDES Electronic Reporting Rule.

If an episodic electronic reporting waiver is granted, reports with wet-ink original signatures shall be mailed to the following address:

STATE OF TENNESSEE -DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT UNIT
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

For purposes of determining compliance with this permit, data provided to the Division electronically is legally equivalent to data submitted on signed and certified forms. A copy must be retained for the permittee's files.

PART 7

7. STANDARD PERMIT CONDITIONS

7.1. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Tennessee Water Quality Control Act (TWQCA) and is grounds for an enforcement action, permit termination, revocation and reissuance, modification; or for denial of a permit renewal application.

7.2. PENALTIES

Pursuant to T.C.A. § 69-3-115 of The Tennessee Water Quality Control Act of 1977, as amended:

- a. Any person who violates an effluent standard or limitation or a water quality standard established under this part (T.C.A. § 69-3-101, et. seq.); violates the terms or conditions of this permit; fails to complete a filing requirement; fails to allow or perform an entry, inspection, monitoring or reporting requirement; violates a final determination or order of the board, panel or commissioner; or violates any other provision of this part or any rule or regulation promulgated by the board, is subject to a civil penalty of up to ten thousand dollars (\$10,000) per day for each day during which the act or omission continues or occurs.
- b. Any person unlawfully polluting the waters of the state or violating or failing, neglecting, or refusing to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class C misdemeanor. Each day upon which such violation occurs constitutes a separate offense.
- c. Any person who willfully and knowingly falsifies any records, information, plans, specifications, or other data required by the board or the commissioner, or who willfully and knowingly pollutes the waters of the state, or willfully fails, neglects or refuses to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class E felony and shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) or incarceration, or both.



7.3. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the discharger from civil or criminal penalties for noncompliance. Notwithstanding this permit, the discharger shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the discharger to conduct stormwater discharge activities in a manner such that public or private nuisances or health hazards will not be created. Furthermore, nothing in this permit shall be construed to preclude the State of Tennessee from any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the Federal Water Pollution Control Act.

7.4. FALSIFYING RESULTS AND/OR REPORTS

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in § 69-3-115 of the Tennessee Water Quality Control Act.

7.5. LIABILITY UNDER STATE LAW

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable local, state, or federal law.

7.6. CONTINUATION OF EXPIRED GENERAL PERMIT

This permit will continue to be in full force and effect for discharges that were authorized prior to expiration until the new general permit is issued. If a small MS4 was granted permit coverage under this permit, it will automatically remain authorized by this permit until the earliest of:

- a. Issuance of a Notice of Coverage under a reissued general permit following timely and appropriate submittal of a complete and accurate NOI requesting authorization to discharge under the reissued permit; or
- b. Issuance or denial of an individual permit for the MS4's discharges, if the small MS4 submitted a complete application for an individual permit at least 180 days prior to expiration of this general permit or within the timeframe for submitting an NOI established by the reissued permit.



If the MS4 operator does not submit a timely NOI requesting authorization to discharge under the reissued permit or a timely application for an individual permit, authorization under this permit will terminate on the due date for the NOI under the reissued permit unless otherwise specified in the reissued permit.

7.7. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

7.8. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

7.9. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Division or an authorized representative of the Division, within a time specified by the Division, any information that the Division may request to determine compliance with this permit or other information relevant to the protection of the waters of the state. The permittee shall also furnish to the Division, upon request, copies of records required to be kept by this permit.

7.10. OTHER INFORMATION

When the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, it shall promptly submit such facts or information.

7.11. SIGNATORY REQUIREMENTS

All Notices of Intent, reports, certifications, or information submitted to the Division, or that this permit requires be maintained by the permittee shall be signed, dated, and certified as follows:

7.11.1. Signatory Requirements for an NOI

The [NOI](#) shall be signed as follows:

- a. For a corporation: by a responsible corporate officer. For the purpose of this subpart, a responsible corporate officer means:
 1. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 2. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal, or other public facility: by either a principal executive officer or ranking elected official. For purposes of this subpart, a principal executive officer of a Federal agency includes:
 1. the chief executive officer of the agency, or
 2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

NOTE: The Division does not require specific assignments or delegations of authority to responsible corporate officers. The Division will presume that these officers have the requisite authority to sign permit applications unless the entity has notified the [Director](#) to the contrary. Procedures governing authority to sign permit applications may provide for assignment or delegation to applicable positions rather than to specific individuals.

7.11.2. Signatory Requirements for Reports and Other Information

All reports required by the permit or information submitted to the Director shall be signed by a person designated in subpart 7.11.1 of this permit or a duly authorized representative of such person, if:

The representative so authorized is responsible for the overall operation of the facility from which the discharge originated, e.g., a plant manager, superintendent, or person of equivalent responsibility;

The authorization is made in writing by the person designated under subpart 7.11.1; and

The written authorization is submitted to the Director.

Any changes in the written authorization submitted to the Director under subpart 7.11.2 which occur after the issuance of a permit shall be reported to the Director by submitting a copy of a new written authorization which meets the requirements of 7.11.1 and 7.11.2 of this subpart.

7.11.3. Certification Statement

Any person signing any document under subpart 7.11.1 or 7.11.2 of this permit shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

7.11.4. Changes to Authorization

If an authorization under subpart 7.11.1 or 7.11.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the MS4, a new authorization satisfying the requirement of 7.11.2 must be submitted to the Division prior to⁸ or together with any reports, information, or NOIs to be signed by an authorized representative.

7.12. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to Section 311 of the Clean Water Act or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

⁸ Authorizations may need to be submitted prior to NOIs or reports submitted electronically in order for that individual to be granted appropriate electronic access.

7.13. MONITORING, RECORDS AND REPORTING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurements;
- The date analyses were performed;
- The individual(s) who performed the analyses;
- The laboratory where the analyses were performed;
- The analytical techniques or methods used; and
- The results of such analyses.

Monitoring results shall be conducted according to test procedures approved under 40 C.F.R. part 136.

7.14. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges; nor does it authorize any injury to private property, any invasion of personal rights or any infringement of federal, state or local laws or regulations. The issuance of this permit does not authorize trespassing or discharges of stormwater or non-stormwater across private property.

7.15. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

7.16. INDIVIDUAL PERMITS

7.16.1. Required Individual Permit Coverage

The Director may require any person covered by this permit to apply for and obtain an individual NPDES permit or an alternative NPDES general permit to

ensure adequate protection of designated uses of a receiving stream. Any interested person may petition the Director in writing to take action under this paragraph but must include in their petition the justification for such an action. Where the Director requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the Director shall notify the discharger in writing that an individual permit application is required. This notification will include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application and a statement that coverage under this general permit shall terminate upon the effective date of an individual NPDES permit; or denial of coverage under an individual permit.

7.16.2. Permittee-Requested Individual Permit Coverage

Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. Any discharger that knowingly cannot abide by the terms and conditions of this permit must apply for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 C.F.R. 122.21(f)⁹ and 40 C.F.R. §122.33(b)(2)(i) as well as reasons supporting the request.

7.16.3. General Permit Termination

When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the discharger is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is terminated on the date of such denial, unless otherwise specified by the Director.

7.17. OTHER, NON-STORMWATER, PROGRAM REQUIREMENTS

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

⁹ The requirements of 40 CFR 122.21(f) can be met by submitting EPA Application Form 1 (<https://www.epa.gov/npdes/npdes-application-forms>)



7.18. PROPER OPERATION AND MAINTENANCE

The permittee shall, at all times, properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

7.19. INSPECTION AND ENTRY

The permittee shall allow authorized representatives of the Environmental Protection Agency, the Director or an authorized representative of the Commissioner of TDEC, upon the presentation of credentials and other documents as may be required by law to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the Director.

7.20. PERMIT ACTIONS

This permit may be issued, modified, revoked, reissued or terminated for cause in accordance with this permit and the applicable requirements of T.C.A. § 69-3-108. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7.21. ANTICIPATED NONCOMPLIANCE

The permittee must give advance notice to the Division of any planned changes in the permitted small MS4 or activity which may result in noncompliance with this permit.

7.22. PLANNED CHANGES

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility is considered a new source as defined in Rule 0400-40-05-.02; or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.

PART 8

8. DEFINITIONS AND ACRONYMS

8.1. DEFINITIONS

Annually	For the purposes of this permit, annually is defined as a frequency of once every 12 months beginning on July 1 st .
ARAP	<p>Aquatic Resource Alteration Permit</p> <p>Persons who wish to make an alteration to a stream, river, lake or wetland must first obtain a water quality permit. Physical alterations to properties of waters of the state require an ARAP or a §401 Water Quality Certification (§401 certification). Examples of stream alterations that require a permit from the Division include:</p> <ul style="list-style-type: none"> • Dredging, excavation, channel widening, or straightening • Bank sloping; stabilization • Channel relocation • Water diversions or withdrawals • Dams, weirs, dikes, levees or other similar structures • Flooding, excavating, draining and/or filling a wetland • Road and utility crossings • Structural fill <p>General ARAPs are developed and maintained by the Division to provide a streamlined, expedited means of authorizing projects that singularly or cumulatively propose minor impacts to water resources.</p>
BMP	<p>Best Management Practices (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures; and practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage. BMPs include source control practices (non-structural BMPs) and engineered structures designed to treat runoff.</p> <p><u>Structural BMPs</u> are facilities that help prevent pollutants in stormwater runoff from leaving the site.</p>

	<u>Non-structural BMPs</u> are techniques, activities and processes that reduce pollutants at the source.
borrow pit	Borrow Pit is an excavation from which erodible material (typically <u>soil</u>) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.
buffer zone	Buffer Zone or Water Quality Riparian Buffer is a permanent strip of natural perennial vegetation, adjacent to a <u>stream</u> , river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing risk of any potential <u>sediments</u> , nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters
calendar day	A calendar day is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight-to-midnight time period.
clearing	Clearing refers to removal of vegetation and disturbance of <u>soil</u> prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities. Clearing, grading and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams or power lines for sight distance or other maintenance and/or safety concerns, or cold planing, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal <u>stormwater</u> NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state <u>stormwater</u> NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (<u>T.C.A. 69-3-101 et seq.</u>).
commencement	Commencement of construction: the initial disturbance of <u>soils</u> associated with clearing, grading, excavating or other construction activities.
common plan	Common plan of development or sale is broadly defined as any announcement or documentation (including a sign, public

	notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design) or physical demarcation (including boundary signs, lot stakes, surveyor markings) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators .
control measure	Control measure refers to any Best Management Practice (BMP) or other method used to prevent or reduce the discharge of pollutants to waters of the state.
CWA	CWA means the Clean Water Act of 1977 or the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.)
director	Director means the director, or authorized representative, of the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation.
Design Storm	Design storm is a 1-year, 24-hour storm event as defined by Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent. The estimated design rainfall amounts, for any return period interval (i.e., 1,-yr, 2-yr, 5-yr, 25-yr, etc.,) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the data available at https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html .
de minimis	De Minimis is degradation of a small magnitude, as provided in this paragraph: (a) Discharges and withdrawals: 1. Subject to the limitation in part 3 of this subparagraph, a single discharge other than those from new domestic wastewater sources will be considered de minimis if it uses less than five percent of the available assimilative capacity for the substance being discharged. 2. Subject to the limitation in part 3 of this subparagraph, a single water withdrawal will be considered de minimis if it removes less than five percent of the 7Q10 flow of the stream .

	<p>3. If more than one activity described in part 1 or 2 of this subparagraph has been authorized in a segment and the total of the authorized and proposed impacts uses no more than 10% of the assimilative capacity, or 7Q10 low flow, they are presumed to be de minimis. Where the total of the authorized and proposed impacts uses 10% of the assimilative capacity, or 7Q10 low flow, additional degradation may only be treated as de minimis if the Division finds on a scientific basis that the additional degradation has an insignificant effect on the resource.</p> <p>(b) Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the Division finds that the impacts, individually and cumulatively, are offset by impact minimization and/or in-system mitigation, provided however, in Outstanding National Resource Waters (ONRWs) the mitigation must occur within the ONRW.</p>
discharge of a pollutant	Discharge or discharge of a pollutant refers to the addition of pollutants to waters from a source.
disturbed area	Disturbed area means the total area presented as part of the development (and/or of a larger common plan of development) subject to being cleared, graded, grubbed, filled or excavated during the life of the development. The area cannot be limited to only the portion of the total area that the site-wide owner/developer initially disturbs through the process of various land clearing activities or in the construction of roadways, sewers, drainfields, and water utilities, stormwater drainage structures, etc., to make the property marketable.
division	Division means the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation
ecoregion	An ecoregion is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.
Electronic Data Deliverable	An Electronic Data Deliverable is an electronic mechanism to transfer monitoring results to the division to allow for the data to be integrated into the Division database for use.
exceptional waters	Exceptional Tennessee Waters are surface waters designated by the Division as having the characteristics set forth at Tennessee Rules, Chapter 0400-40-03-.06(4).

	<p>Characteristics include waters within parks or refuges; scenic rivers; waters with threatened or endangered species; waters that provide specialized recreational opportunities; waters within areas designated as lands unsuitable for mining; waters with naturally reproducing trout; waters with exceptional biological diversity and other waters with outstanding ecological or recreational value.</p>
<p>permanent stabilization</p>	<p>Permanent Stabilization means that all soil disturbing activities at the site have been completed and one of the three following criteria is met:</p> <ol style="list-style-type: none"> (1) A perennial, preferably native, vegetative cover with a uniform (i.e., evenly distributed, without large bare areas) density of at least 70 percent has been established on all unpaved areas and areas not covered by permanent structures, and all slopes and channels have been permanently stabilized against erosion. (2) Equivalent permanent stabilization measures such as the use of riprap; permanent geotextiles; hardened surface materials including concrete, asphalt, gabion baskets or Reno mattresses have been employed. (3) For construction projects on land used for agricultural or silvicultural purposes, permanent stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.
<p>improved sinkhole</p>	<p>Improved sinkhole is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under the Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures and crevices, such as those commonly associated with weathering of limestone.</p>
<p>Level 1</p>	<p>Level 1 - Fundamentals of Erosion Prevention and Sediment Control training and certification program administered by University of Tennessee Water Resources Research Center (https://tnepsc.org/index.asp). The Fundamentals course is a foundation-building course intended for individuals involved in land-disturbing activities covered by the Construction General Permit. The course aims to build a working knowledge of erosion and sedimentation processes and practices and is intended for:</p>

	<p>site inspectors, inspection and enforcement personnel from all levels of government, plan preparers and reviewers, and designers and engineers. Topics include: Construction General Permit and related SWPPP requirements; function, installation, limitations, inspection and maintenance of Best Management Practices; roles of local officials and state government agencies involved in the permitting process; and basic hydrologic and erosion processes. Upon successful completion of a Course Certification Exam, the participant receives a Level 1 TNEPSC certificate. The Level 1 certificate is valid for three full years following the year that the certificate was issued. To meet the requirement for Level 1 certified staff, TDOT may develop and administer an approved equivalent Level1 training and certification program as provided in the TDOT individual MS4 Permit. The equivalent TDOT Level 1 certification is valid only for TDOT staff and for projects where TDOT is the primary site operator.</p>
Level 2	<p>Level 2 - Design Principles for Erosion Prevention and Sediment Control for Construction Sites training and certification program administered by University of Tennessee Water Resources Research Center (https://tnepsc.org/index.asp). It is an advanced 2-day workshop designed for engineers and other professionals who have completed the prerequisite Level 1 course. The Level 2 Design workshop provides the general tools needed for developing an acceptable, working SWPPP. Topics discussed in the course include: hydrologic methods for determining peak flows; principles of soil erosion, scouring and sediment transport processes, including practice examples for preventing erosion; and open channel principles and practices for designing a stable channel, including use and examples of riprap, blankets and matting, and vegetation; stormwater control requirements and design; sedimentation principles; and temporary sediment basin design requirements, and detailed examples. The Level 2 Design workshop provides a Certificate of Completion after attending both days and successfully completing the take-home exam.</p>
linear project	<p>Linear Project is a land disturbing activity as conducted by an underground/overhead utility or highway department, including, but not limited to, any cable line or wire for the</p>

	transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any cable line or wire for communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas and borrow/spoil sites associated with the linear project. Land disturbance specific to the development of residential and commercial subdivisions or high-rise structures is not considered a linear project.
measurable degradation	Measurable Degradation , as used in the context of discharges or withdrawals, means changes in parameters of waters that are of sufficient magnitude to be detectable by the best available instrumentation or laboratory analyses.
monitoring	Monitoring refers to tracking or measuring activities, progress, results, etc., and can refer to non-analytical monitoring for pollutants by means other than 40 C.F.R. § 136 (and other than state- or federally-established protocols in the case of biological monitoring and assessments), such as visually or by qualitative tools that provide comparative values or rough estimates.
month	Month or Monthly refers to calendar months.
MS4	“Municipal Separate Storm Sewer System” or “MS4” is defined in 40 C.F.R. §122.26(b)(8) to mean a conveyance or system of conveyances (e.g., roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that are: <ul style="list-style-type: none"> a) owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

	<p>b) designed or used for collecting or conveying stormwater;</p> <p>c) not a combined sewer; and</p> <p>d) not part of a Publicly Owned Treatment Works (POTW) as defined in 40 C.F.R. §122.2.</p>
operator	Operator means any person who owns, leases, operates, controls, or supervises a source
point source (or outfall)	Point source means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include introduction of pollutants from non-point source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, forest lands or return flows from irrigated agriculture or agricultural stormwater runoff. In short, outfall is a point where runoff leaves the site as a concentrated flow in a discrete conveyance. Phrase “point source” and term “outfall” are used interchangeably in this general permit, and can be considered synonyms.
pollutant	Pollutant means sewage, industrial wastes, or other wastes.
QLP	<p>Qualifying State, Tribal, or local erosion and sediment control program is one that includes, as defined in 40 C.F.R. 122.44(s):</p> <ul style="list-style-type: none"> a) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices. b) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. c) Requirements for construction site operators to develop and implement a stormwater pollution prevention plan. A stormwater pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance

	<p>procedures, inspection procedures and identification of non-stormwater discharges.</p> <p>d) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.</p>
QLP Status	Pending – NOI/SWPPP has been received but final approval or notice of coverage has not been issued
	Active- Permit coverage is active
	Terminated – Site has been stabilized and permit coverage is terminated
quarter	A quarter is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.
rainfall	A rainfall event is defined as any occurrence of rain preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.
registered engineer or licensed professional engineer	Registered Engineer and Registered Landscape Architect An engineer or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code Annotated, to practice in Tennessee.
runoff coefficient	Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff. Runoff coefficient is also defined as the ratio of the amount of water that is not absorbed by the surface to the total amount of water that falls during a rainstorm.
sediment	Sediment means solid material, both inorganic (mineral) and organic, that is in suspension, is being transported; or has been moved from the site of origin by wind, water, gravity or ice as a product of erosion.
sediment basin	Sediment basin A temporary basin consisting of an embankment constructed across a wet weather conveyance, an excavation that creates a basin or by a combination of both. A sediment basin typically consists of a forebay cell, dam, impoundment, permanent pool, primary spillway, secondary or emergency spillway and surface dewatering

	device. The size and shape of the basin depends on the location, size of drainage area, incoming runoff volume and peak flow, soil type and particle size, land cover, and receiving stream classification (i.e., waters with unavailable parameters, Exceptional TN Waters, or waters with available parameters).
sedimentation	Sedimentation means the action or process of forming or depositing sediment.
Significant Contributor	Significant Contributor is defined as a source of pollutants where the volume, concentration, or mass of a pollutant in a stormwater discharge can cause or threaten to cause pollution, contamination, or nuisance that adversely impact human health or the environment and cause or contribute to a violation of any applicable water quality standards for receiving water.
soil	Soil or Topsoil means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.
steep slope	Steep Slope or Steep Grade means a natural or created slope of 35% grade or greater. Designers of sites with steep slopes must pay attention to stormwater management in the SWPPP to engineer runoff around or over a steep slope so as not to erode the slope. In addition, site managers should focus on erosion prevention on the slopes and stabilize the slopes as soon as practicable to prevent slope failure or sediment discharges from the project.
stormwater	Stormwater means rainfall runoff, snow melt runoff, and surface runoff and drainage.
Stormwater Management Plan	A Stormwater Management Plan is a written compilation of the elements of the Stormwater Management Program. It is considered a single document, even though it actually consists of separate stand- alone components.
Stormwater Management Program	Stormwater Management Program refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.
Stormwater control measure (SCM)	Stormwater control measure or SCM means permanent practices and measures designed to reduce the discharge of pollutants from new development projects or redevelopment projects.
stream	A Stream is a surface water that is not a wet weather conveyance. Therefore, as used in this permit, "stream" includes lakes, wetlands and other non-linear surface waters.

<p>construction stormwater</p>	<p>Stormwater associated with industrial activity is defined in 40 C.F.R. 122.26(b)(14) and incorporated here by reference. Most relevant to this permit is 40 C.F.R. 122.26(b)(14)(x), which relates to construction activity including clearing, grading, filling and excavation activities, including borrow pits containing erodible material. Disturbance of soil for the purpose of crop production is exempt from permit requirements, but stormwater discharges from agriculture-related activities that involve construction of structures (e.g., barn construction, road construction, pond construction) are considered associated with industrial activity. Maintenance to the original line and grade, hydraulic capacity; or to the original purpose of the facility (e.g., re-clearing, minor excavation performed around an existing structure necessary for maintenance or repair and repaving of an existing road) is not considered a construction activity for the purpose of this permit.</p>
<p>discharge-related activities</p>	<p>Stormwater discharge-related activities means activities that cause, contribute to or result in point source stormwater pollutant discharges. These activities may include excavation, site development, grading and other surface disturbance activities; and activities to control stormwater including the siting, construction and operation of best management practices (BMPs).</p>
<p>SWPPP</p>	<p>Stormwater Pollution Prevention Plan is a written site-specific plan required by this permit that includes a narrative pollution prevention plan and graphical erosion and sediment control plan. In its basic form, the plan contains a site map, a description of construction activities that could introduce pollutants to stormwater runoff, a description of measures or practices to control these pollutants, and erosion and sediment control plans and specifications. It must be prepared and submitted before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMPs) must be designed, installed and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the Tennessee Erosion and Sediment Control Handbook.</p>
<p>take</p>	<p>Take of an endangered species means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct.</p>

<p>the handbook</p>	<p>Tennessee Erosion and Sediment Control Handbook is a guidance issued by the Division of Water Resources for the purpose of developing Stormwater Pollution Prevention Plans and Erosion and Sediment Control Plans required by the TNCGP.</p> <p>The handbook is designed to provide information to planners, developers, engineers and contractors on the proper selection, installation and maintenance of BMPs. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state.</p>
<p>temporary stabilization</p>	<p>Temporary stabilization is achieved when vegetation or non-erodible surface has been established on the area of disturbance and construction activity has temporarily ceased. Under certain conditions, temporary stabilization is required when construction activities temporarily cease. However, if future construction activity is planned, permit coverage continues.</p>
<p>TMDL</p>	<p>Total maximum daily load (TMDL) means the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background (40 C.F.R. 130.2(I)). TMDL is a study that quantifies the amount of a pollutant in a stream, identifies the sources of the pollutant and recommends regulatory or other actions that may need to be taken in order for the stream to cease being polluted. TMDLs can also be described by the following equation:</p> <p>TMDL = sum of nonpoint sources (LA)+ sum of point sources (WLA)+ margin of safety</p> <p>A list of completed TMDLs that have been approved by EPA can be found at our web site: https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/tennessee-s-total-maximum-daily-load--tmdl--program.html</p>
<p>treatment chemicals</p>	<p>Treatment chemicals are polymers, flocculants or other chemicals used to reduce turbidity in stormwater discharges by chemically bonding to suspended silts and other soil materials and causing them to bind together and settle out. Common examples of anionic treatment chemicals are chitosan and anionic PAM.</p>

turbidity	Turbidity is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air.
waste site	Waste site is an area where material from a construction site is disposed of. When the material is erodible, such as soil, the site must be treated as a construction site.
waters or waters of the state	Waters (or waters of the state) means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
unavailable parameters	Waters with unavailable parameters means any segment of surface waters that has been identified by the Division as failing to support one or more classified uses. Unavailable parameters exist where water quality is at, or fails to meet, the levels specified in water quality criteria in Rule 0400-40-03-.03, even if caused by natural conditions. In the case of a criterion that is a single response variable or is derived from measurement of multiple response variables, the unavailable parameters shall be the agents causing water quality to be at or failing to meet the levels specified in criteria. Resources to be used in making this determination include biennial compilations of impaired waters, databases of assessment information, updated GIS coverages (https://tdeconline.tn.gov/dwr/), and the results of recent field surveys. GIS coverages of the streams and lakes not meeting water quality standards, plus the biennial list of waters with unavailable parameters, can be found at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html .
Water quality riparian buffer	"Water quality riparian buffer" means a permanent strip of natural perennial vegetation adjacent to a stream, river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing the risk of any potential sediments, nutrients, or other pollutants reaching adjacent surface waters and to

	further prevent negative water quality impacts by providing canopy over adjacent waters.
week	A one-week period is a synonym of a calendar-week ; typically, a period from Sunday through Saturday.
wet weather conveyance	Wet weather conveyances are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that meet the following: <ul style="list-style-type: none"> a) The conveyance carries flow only in direct response to precipitation runoff in its immediate locality. b) The conveyance's channels are at all times above the groundwater table. c) The flow carried by the conveyance is not suitable for drinking water supplies. d) Hydrological and biological analyses indicate that, due to naturally occurring ephemeral or low flow under normal weather conditions, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Tennessee Rules, Chapter 0400-40-3-.04(3)).

8.2. ACRONYMS AND ABBREVIATIONS

1Q10	–	1-day minimum, 10-year recurrence interval
BDL	–	below detection limit
BOD ₅	–	five-day biochemical oxygen demand
CBOD ₅	–	five-day carbonaceous biochemical oxygen demand
CEI	–	compliance evaluation inspection
C.F.R.	–	code of federal regulations
CFS	–	cubic feet per second
D.O.	–	dissolved oxygen
<i>E. coli</i>	–	<i>Escherichia coli</i>
EDD	–	<i>Electronic Data Deliverable</i>
EPA	–	Environmental Protection Agency
EFO	–	environmental field office
GPM	–	gallons per minute
LB (lb)	–	pound
MDL	–	method detection limit
MGD	–	million gallons per day
mg/L	–	milligrams per liter
ML	–	minimum level of quantification

- mL - milliliter
- NPDES - national pollutant discharge elimination system
- POTW - publicly owned treatment works
- SCM - Stormwater Control Measure
- TCA - Tennessee code annotated
- TDEC - Tennessee Department of Environment and Conservation
- TMDL - total maximum daily load
- TSS - total suspended solids



8.3. RESOURCES, HYPERLINKS, AND WEB PAGES

Clean Water Act NPDES Electronic Reporting (eReporting) Information

<https://www.epa.gov/compliance/npdes-ereporting>

Construction General Permit Information

<https://www.tn.gov/content/tn/environment/permit-permits/water-permits1/npdes-permits1/npdes-stormwater-permitting-program/npdes-stormwater-construction-permit.html>

Electronic Code of Federal Regulations (eC.F.R.), Title 40 (40 C.F.R. § 1 through § 1099)

https://www.ecfr.gov/cgi-bin/text-idx?SID=75202eb5d09974cab585afeea981220b&mc=true&tpl=/ecfrbrowse/Title40/40chapt_erl.tpl

Electronic Reporting (NetDMR) Waiver Request

<https://www.tn.gov/environment/program-areas/wr-water-resources/netdmr-and-electronic-reporting/e-report-waiver.html>

Low Flow Statistics Tools: A How-To Handbook for NPDES Permit Writers (EPA)

https://www.epa.gov/sites/production/files/2018-11/documents/low_flow_stats_tools_handbook.pdf

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA)

https://www.epa.gov/sites/production/files/2015-08/documents/acute-freshwater-and-marine-wet-manual_2002.pdf

Municipal Boundaries

<https://comptroller.tn.gov/office-functions/pa/gisredistricting/municipal-boundaries.html>

MyTDEC Forms

<https://forms.tdec.tn.gov/>

National Resources Conservation Service – National Biology Handbook Part 614 Stream Visual Assessment Protocol Version 2

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1043252.pdf

NetDMR, MyTDEC Forms, & Electronic Reporting Information

<https://www.tn.gov/environment/program-areas/wr-water-resources/netdmr-and-electronic-reporting.html>

NPDES Compliance Inspection Manual (EPA)

<https://www.epa.gov/sites/production/files/2017-01/documents/npdesinspect.pdf>

NPDES Electronic Reporting Rule

<https://www.federalregister.gov/documents/2015/10/22/2015-24954/national-pollutant-discharge-elimination-system-mpdes-electronic-reporting-rule>

Qualifying Local Program Information

<https://www.tn.gov/environment/permit-permits/water-permits1/npdes-permits1/npdes-stormwater-permitting-program/tennessee-qualifying-local-program.html>

Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys (QSSOP)

https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/DWR-PAS-P-01-Quality_System_SOP_for_Macroinvertebrate_Stream_Surveys-122821.pdf

Quality System Standard Operating Procedure for Chemical and Bacteriological Sampling of Surface Water

<https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/dwr-wqp-p-01-qssop-chem-bac-082918-update-2022-jan.pdf>

Rules of the TN Department of Environment and Conservation, Chapter 0400-40

<https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40.htm>

Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA)

https://www.epa.gov/sites/production/files/2015-08/documents/short-term-chronic-freshwater-wet-manual_2002.pdf

State of Maryland Stream Corridor Assessment Survey SCA Survey Protocols

<https://dnr.maryland.gov/streams/Publications/SCAProtocols.pdf>

TDEC Final Policy and Guidance Documents

<https://www.tn.gov/environment/about-tdec/policy-and-guidance-documents/boe-final-guidance-documents.html>

TDEC Water Quality Rules, Reports, and Publications including EDD spreadsheets and instructions for Macroinvertebrate Stream Surveys

<https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html>

(Related Stream Survey Field Sheets)

https://www.tn.gov/content/dam/tn/environment/water/watershed-planning/wr_wpu_pub_stream-survey-habitat-5.0.xlsx

Technical Support Document for Water Quality-based Toxics Control (EPA)

<https://www3.epa.gov/npdes/pubs/owm0264.pdf>

Tennessee Erosion and Sediment Control Handbook

<https://tnepsc.org/handbook.asp>

Tennessee Fundamentals of Erosion Prevention and Sediment Control, (Level 1)
And Tennessee Erosion Prevention and Sediment Control Design Course (Level 2)

<https://tnstormwatertraining.org/index.asp>

Tennessee Nutrient Reduction Framework

https://www.tn.gov/content/dam/tn/environment/water/tmdl-program/wr-ws_tennessee-draft-nutrient-reduction-framework_030315.pdf

Tennessee Plant Optimization Program (TNPOP)

<https://www.tn.gov/environment/program-areas/wr-water-resources/tn-plant-optimization-programs/tnpop.html>

Tennessee Water Resources Data and Map Viewers

<https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html>

USGS StreamStats

https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools?qt-science_center_objects=0#qt-science_center_objects

USGS SWToolbox

<https://www.usgs.gov/software/swtoolbox-software-information>

RATIONALE

Small MS4 General Permit
NPDES Permit No. TNS000000
Date: 3/22/2022
Permit Writer: Ariel Wessel-Fuss

1. CURRENT PERMIT STATUS

Permit Type:	MS4
Classification:	General
Issuance Date:	30-Sep-16
Expiration Date:	30-Sep-21
Effective Date:	1-Oct-16

2. COVERAGE

3. AREA OF MS4 AUTHORIZED

For city or town, the MS4 program is to be implemented and enforced within the municipal boundaries. Once an area is annexed into the municipality, the newly annexed area will become part of the MS4 automatically. A new NOI is not required. For identification of municipal boundaries, the Division primarily rely on the maps maintained by Geographic Services department in the Division of Property Assessments with the Tennessee Comptroller's office. Similarly, for non-traditional MS4 (such as a university) this permit covers all portions and automatically includes any property acquired.

A county permittee must indicate on the NOI if the MS4 program applies to the entire county or only the urbanized areas (excluding municipalities or non-traditional MS4s). If the permittee's program covers the entire county, the county boundaries minus the municipalities or non-traditional MS4s will be the area of the MS4. If the county permittee indicates the MS4 covers the only the urbanized area of the county, the Division will utilize the urbanized area census maps for boundary identification.

When an area is annexed or de-annexed, it is possible that the MS4 authority shifts from one entity to another. The Division encourages communication between the entities to provide appropriate support for transition and to consult

their attorneys for the need of an interjurisdictional agreement during the transition.

3.1. LIMITATIONS ON COVERAGE

Approved TMDLs have corresponding language to subpart 1.40 of this permit. This language is typically in section 9.2.2. of the TMDL. Generally, the TMDL states (in part): *These [MS4] permits typically require the development and implementation of a Storm water Management Plan (SWMP) that will reduce the discharge of pollutants to the "maximum extent practicable" and not cause or contribute to violations of state water quality standards. A monitoring component to assess the effectiveness of BMPs is also typically included in the SWMP. Regulated MS4s that maintain compliance with the provisions of their NPDES permits are considered to be consistent with the assumptions and requirements of the WLAs of this TMDL.*

In practice, the language of subpart 1.40 of this permit and the corresponding language of the current TMDLs means that if the permittee is in compliance with the NPDES MS4 permit the permittee is meeting its obligations under the TMDL. The Division does not plan at this time to alter this methodology. However, permittees are encouraged to engage and review proposed TMDLs during the respective public notice periods.

3.2. PERMIT TERM

The permit will be issued for a 5 year term.

4. CO-PERMITTEES AND COORDINATED PROGRAMS

40 CFR 122.35

The section on co-permittees was expanded to better detail during the NOI submittal the accountability for each permittee. This is help ensure both the Division and the co-permittees clearly understand which entity is responsible for each component of the SWMP. Similarly, the language was added for verbiage of the legal mechanisms to prevent the confusion that can occur when multiple MS4 who share responsibility of a program element have differing legal authority.

A requirement to have either one shared MCM or partial sharing of multiple MCMs was added to avoid a loophole where multiple MS4s apply as co-permittees and operate their programs separately.



40 CFR 122.35(a)(3) states that EPA encourages the permittee to enter into a legally binding agreement with that entity if the permittee wants to minimize any uncertainty about compliance with the permit.

5. STORM WATER MANAGEMENT PROGRAM (SWMP)

5.1. TERMINOLOGY

In general conversation as well as previous permits, the terms Storm Water Management Program and Storm Water Management Plan with both using the acronym SWMP have been used almost interchangeably. While in conversations this interchanging of words is not typically an issue, it has caused some confusion with the permit. Therefore, this permit will use SWMP to mean Storm Water Management Program.

The Storm Water Management Program is a set of related measures, projects, plans, activities, and documentation that is managed in a coordinated manner under a structure that allows for the delivery of outcomes/goals. It may be helpful to think of the SWMP documentation as a 3-ring binder. The table of contents for this binder would be very similar to the headings of this permit. Each minimum control measure (MCM) would constitute its own section developed by the permittee to meet the permit requirements. This section could include a plan (document) that describes in detail how the permittee intends to comply with the permit requirements for that MCM. It could also include items like a tracking mechanism, standard operating procedures, policies, or standardized forms such as an inspection form. This 3-ring binder isn't a program unless it is implemented. The SWMP must also include the legal authority to implement and enforce the activities described in the documentation. Additionally, the permittee must not only implement the SWMP but show evidence of implementation as well. So next, let's assume that 3 ring binder is on top of a filing cabinet. A staff member makes a copy of the inspection form from the binder and reviews the inspection procedure. Upon returning from the inspection, the staff member logs the inspection in a tracking mechanism then sends a notice of violation (NOV) in accordance with the enforcement response plan. The completed inspection form and a copy of the NOV are stored in the filing cabinet as records. The documents in the 3-ring binder and the filing cabinet along with the inspection and enforcement activities collectively exemplifies how the term SWMP is used in this permit. The above is for example purposes. The permittee has enormous flexibility to incorporate various technologies into its SWMP such as GIS, databases, or electronic data management systems. It is important to clarify that the broader SWMP may include subprograms like the IDDE program etc.



5.2. NEW PERMITTEES

Tennessee Rule 0400-40-10-.04 allows for implementation of the permanent stormwater management program no more than twenty-four (24) months to implement fully implement the program. In order to establish a clear requirement of fully implementation, new permittees will have 24 months to implement fully the entirety of the MS4 program. The EPA scorecard is required within 12 months and the implementation plan within 90 days. As this time frame is established by the permanent stormwater rule, it will remain the same.

5.3. EXISTING PERMITTEES

Tennessee Rule 0400-40-10-.04 allows for implementation of the permanent stormwater management program no more than 24 months to implement fully implement the program although some MS4s. in order to avoid confusion with numerous implementation due dates and allow the MS4s to make all required changes to the legal authority at once, existing permittees will have 24 months to fully implement all changes to the legal authority required by this permit. All other changes with the exception of permanent stormwater requirements will be fully implemented within 180 days.

5.4. SHELBY COUNTY SMALL MS4S

On January 19, 2017, the Division entered into a settlement agreement with the Shelby County Small MS4s (Town of Arlington, City of Bartlett, Town of Collierville, City of Germantown, City of Lakeland, City of Millington, and Shelby County). This agreement authorized the Shelby County Small MS4s to continue to implement their current (as of the date of the settlement) programs to reduce the discharge of pollutants in stormwater from new development and redevelopment sites, but to postpone implementation of subpart 4.2.5 (permanent stormwater management at dew development and redevelopment sites until the date when the City of Memphis is required to implement equivalent specific measures. This settlement agreement is still in effect. Therefore, for the Shelby County Small MS4s will be required to implement subpart 4.2.5 and its associated requirements found in subparts 4.5 and 4.7 at the same time, i.e. due date as the City of Memphis.

5.5. QLP PROGRAM

The previous permit period acted as a pilot for the QLP program. As a result, QLP program language has been expanded to clarify minimum program and specialized reporting requirements.



For the purposes of this requirement “*Coordinate with the Division on confirming water resource inventory*”, Coordination includes stream and/or wetland determination report, a TDEC DWR HD/Wetland concurrence letter, ARAP Requirements, ETW, Siltation, and T&E species present. See the Tennessee municipal Construction Stormwater Project Review Checklist (CN-1440) on the QLP Website.

QLP Status meaning:

-Pending: (NOI/SWPPP has been received but final approval or notice of coverage has not been issued.)

-Active: (Permit coverage is active.)

-Terminated:(site has been stabilized and permit coverage is terminated)

5.6. SWMP MODIFICATION

40 CFR 122.63

40 CFR 122.34(d)

Clarified this section to better delineated between Minor and Major modifications. This section clarified the requirements of modification as it relates to the public involvement/participation MCM. The public notice plan does not have to be a separate document from the plan required in the Public Participation MCM. They can be combined.

The permittee is encouraged to request a determination from the Division of a modification if it is unclear as to the classification of a minor or major modification. The best practice will be to public notice changes if there is any doubt as to if it is minor or major modification.

5.7. LEGAL AUTHORITY

40 CFR 122.34(b)(3)-(4)

40 CFR 122.26(d)(2)(i)

What constitutes legal authority has in the past caused much confusion. The proposed permit outlines the required elements of the legal authority in its own sub-part that were previously embedded in various locations of the 2016 permit. While some requirements may be in two places, the legal authority section is intended to list the requirements for clarity. Additionally, language was added aligning more closely with 40 CFR 122.26(d)(2)(i) which is the basis for the best management practice.

Simply coping and pasting the elements listed in the legal authority subpart is not sufficient to be able to legally implement and enforce the stormwater management program. Additionally, the new permanent stormwater rules require codes and ordinances be updated.

The determination of adequate legal authority is complex in itself. A few of the comments made during the rulemaking process illustrated a misunderstanding of legal authority. For example:

Comment 27. Regarding Rule 0400-40-10-.04(1)(d), the permittee has regulatory authority over municipal separate storm sewer system but does not have such authority over private stormwater control measures. Therefore, an implementation plan for a permanent stormwater management program can only be applicable to the municipal separate storm sewer system.

Response: The permittee has regulatory authority over new private SCMs that it permits and is required by these rules to adopt ordinances or other regulatory mechanisms to implement that authority.

As such this proposed permit includes specific reporting requirements for the annual report. A solicitor's (attorney's) statement attesting that the MS4 has the legal authority to implement and enforce the SWMP is to be submitted. While many municipalities have staff attorney that review ordinances routinely, some municipalities contract out these reviews. Municipalities may wish to contact the Municipal Technical Advisory Service (MTAS) or County Technical Assistance Service (CTAS).

The Division recognizes that non-traditional MS4s may not have the ability for codes or ordinances. These MS4s can implement their "legal authority" through other legally binding mechanisms such as contracts, agreements, or other binding mechanism.

5.8. STORMWATER MONITORING AND PROGRAM EVALUATION

40 CFR 122.34(d)(1)

The monitoring section has been moved from its own part to the SWMP and paired with the program evaluation component since the intent of the monitoring program is to provide data and information for the evaluation of program effectiveness. Additionally, habitat alteration has been removed from the list of unavailable conditions that require monitoring to be consistent with the CGP.



When the 2016 permit was administratively continued it caused confusion regarding the monitoring that needed to occur during this period. While the Division fully intends to issue subsequent permits in a timely manner to avoid this issue altogether, language was added to option 1 “no more than 5 years between samples in a segment” and option 2 “provisions for an administratively continued small MS4 general permit” to clarify the requirement.

The 2016 permit introduced the “option 2” jurisdiction specific monitoring plan. As such, it was broadly designed. This seemed to prevent some MS4 from taking the opportunity it provided for MS4s. The proposed permit provides more specific requirements primarily based on lessons learned. These changes are intended to provide more structure to option 2 clarifying the expectation while still providing the maximum flexibility in designing their monitoring program.

From Chapter 8 of EPA’s MS4 Permit guide (EPA 833-R-10-001) https://www3.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf: *Without clear monitoring objectives and a detailed monitoring plan, it will be difficult for permittees and permitting authorities to evaluate the effectiveness of the municipal stormwater program. There are numerous factors that should be examined while setting up the water quality monitoring portion of the comprehensive program. Understanding and considering climatic conditions such as precipitation patterns, temperature, and seasonal variations will ensure the study design will collect data that are representative of typical storms in the area and that sampling occurs during times of the year when it is most logical to do so. Acknowledging the different types of land uses within the area will also help the permittee to prioritize monitoring efforts based on the areas most likely to be impacted by stormwater. The type of waterbody monitored must also be considered when selecting sampling locations since pollutants behave differently depending on the environment thereby impacting sampling protocols. For example, sampling in a freshwater lake involves different protocols than monitoring in a tidally influenced river or a first order stream. Waterbody type can also influence the data results and conclusions (e.g. freshwater wetlands typically have high denitrification rates that will likely impact the results of nitrate sampling).*

5.9. UNAVAILABLE CONDITIONS

Wherever the permit specifies terms or conditions related to unavailable parameters, the permittee can locate those streams using the latest approved 303d list located on our website <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html> under Water Quality Assessment Publications. Please note the 303d list for 2022 is expected to be approved during the public notice period of this proposed permit.

6. MINIMUM CONTROL MEASURES

40 CFR 122.34(b)

The written plan for each Minimum Control Measure (MCM) of the SWMP should outline the details for the required components e.g. the bulleted list after “This program must include the following at a minimum” as well as the management measures and goal e.g. the table.

The Measurable Goals Table format has been incorporated into the proposed permit to better delineate the measure, goals, and Annual Report Requirements. This layout is intended to provide clarity to the reporting requirements. It is important to note, that the permittee is expected to maintain documentation supporting the implementation of the goals.

6.1. PUBLIC EDUCATION AND OUTREACH

40 CFR 122.34(b)(1)

Management measures in this section have been clarified from the previous permit to better implement the requirements of 40 C.F.R. §122.34(b)(1).

In certain areas known as for illicit discharges, the permittee should focus education on the particular pollutant(s) of concern and address outreach to those communities. Permittees are encouraged to emphasize the water quality improvement aspect of education programs and document related or expected water quality improvements.

The PIE plan is required to include a methodology for review of this component. The evaluation methods could include but not be limited to: direct evaluations/observations, surveys, tracking the number of attendees, interviews, review of media clippings, or tracking the number of stormwater related calls, emails, and letters received.

When determining the target audience for employees, the stationed location and the duties of the job classification should be evaluated. The employees working in the municipal facilities covered under MCM should certainly be included in the PIE plan. However, municipalities are encouraged to evaluate all job functions. For example, education for administrative staff that interact with the public may be beneficial to not only internal communication of issues, but also provide an educational opportunity for the citizen as well.

The MCM uses the term “sponsor”. An MS4 may sponsor an activity either monetarily or as a donation in kind, i.e. goods, services, or time.

The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest, or trade organizations, or other MS4s. The public education program should inform individuals and households about the steps they can take to reduce stormwater pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting, and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes. EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the permit require the permittee to tailor the public education program, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. In addition, EPA recommends that the permit require that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. The permit should encourage the permittee to tailor the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

6.2. PUBLIC INVOLVEMENT/PARTICIPATION

40 CFR 122.34(b)(2)

40 CFR 122.34(d)(2)

The overlapping nature of the public education and public involvement MCMs has led to a merging of these two MCMs. In order to meet the federal eReporting requirements the proposed permit provides more specificity regarding the target participants and subject. While the public education MCM requirements have remained consistent with the previous permit, the proposed permit provides more specificity for public participation. Additional requirements have been



added regarding public access of the SWMP to better meet the requirements of 40 C.F.R. §122.34(b)(2). This permit requires that the SWMP be placed on public notice prior to the second annual report. This is not intended to be an annual requirement as the section also requires a formal public notice process to be developed which identifies what modifications to the SWMP require public notice. Additional direction on Minor and Major modifications is found in subpart 4.4.1.

Potential Activities for the Public:

- a. Pollution Prevention
 - Storm Drain Marking
 - Pet Waste Management
 - Recycling
 - Trash Management
 - Vehicle Washing
 - Water Conservation
 - Residential Yard Waste Management (e.g., onsite reuse of leaves and grass clippings)
 - Cleanup Events
 - Planting Community Rain Garden
- b. Impacts on water quality or local stormwater management issues

Construction Sites

Infrastructure Maintenance

Smart Growth

Green Infrastructure/Better Site Design/Low Impact

Riparian Corridor Protection/Restoration

Wetland Protection

Citizen Stream Monitoring

- c. Storage, use, and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, and fertilizers
 - Household Hazardous Waste Disposal
 - Storm Drain Marking
 - Pesticide, herbicide, and Fertilizer Application
 - Recycling
- d. Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.
- e. Illicit Discharge Detection and Elimination public workshop, citizen committee meetings

Potential Activities for the Commercial/Industrial Community:

Pollution Prevention

- Storm Drain Marking
- Recycling

- Trash Management
- Vehicle Washing
- Water Conservation
- Pesticide or Fertilizer application (e.g., onsite reuse of leaves and grass clippings)
- Cleanup Events
- Suppling materials for a Community Rain Garden

Impacts on water quality or local stormwater management issues

Construction Sites

Infrastructure Maintenance

Smart Growth

Green Infrastructure/Better Site Design/Low Impact

Riparian Corridor Protection/Restoration

Wetland Protection

Citizen Stream Monitoring

EPA recommends that the permit include provisions addressing the need for the public to be included in developing, implementing, and reviewing the stormwater management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

There is an additional recordkeeping requirement in 40 CFR 122.34(d)(2) related to public involvement which has been incorporated into the MCM rather than a standalone permit condition. "The permit must require the permittee to make records, including a written description of the stormwater management program, available to the public at reasonable times during regular business hours (see § 122.7 for confidentiality provision). (The permittee may assess a reasonable charge for copying. The permit may allow the permittee to require a member of the public to provide advance notice.)" It is important to note that traditional MS4 i.e. state, county and municipal are subject to the Tennessee Open Records Act (T.C.A. § 10-7). Non-traditional MS4s should contact their attorney for information.

6.3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

40 CFR 122.34(b)(3)

Documentation of illicit discharges is particularly important for the permittee since an illicit discharge triggers a corrective action and enforcement. Documentation such as reports, responses, correspondence, and resolutions shall be maintained.

The term “hot-spot” has been replaced with “priority areas” to better align with the language of the Federal rule.

The Illicit Discharge Detection and Elimination (IDDE) educational/training requirement for public employees requires tracking to ensure that all applicable employees are properly trained. If the MS4 tracks this as part of a personnel record, it should be able to provide evidence of training as requested while protecting confidential information.

The requirement *“Identify and investigate the categories of non-stormwater discharges or flows (as indicated in subpart 4.2.3) only if the permittee identifies them as a significant contributor of pollutants to the MS4.”* is a specific subset of all IDDE investigations.

The section has been updated to include a slightly more detailed list for the storm sewer system map. The intent is to move towards standardizing the geospatial reporting requirements. Although not every system in the state is currently utilizing geospatial system mapping, it is rapidly becoming practicable for all systems. This is especially true since current funding sources such as the American Rescue Plan can be used by counties and municipalities to develop these system maps.

The permittee should initiate a cooperative effort to develop a set of guidelines and procedures that local responders will follow to minimize damaging effects that spill response activities might have on water resources. It may be beneficial for the stormwater system mapping to be shared with EMS officials if it is easily accessible.

EPA recommends that the plan to detect and address illicit discharges include the following four components: procedures for locating priority areas likely to have illicit discharges; procedures for tracing the source of an illicit discharge; procedures for removing the source of the discharge; and procedures for program evaluation and assessment. EPA also recommends that the permittee to

visually screen outfalls during dry weather and conduct field tests of selected pollutants as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

6.4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

40 CFR 122.34(b)(4)

The requirement for receipt and consideration of information submitted by the public is located in subpart 4.2.2. The permittee may use various forms of public communication and electronic communication is encouraged. In many MS4, the Engineering and Planning department (or equivalent) may already have a public notice process and a means to incorporate comments. While those processes may need to be modified to ensure adequate coverage of MS4 related concerns, the permittee is encouraged to utilize existing processes and procedures to streamline and simplify communication with the public.

To clarify the requirement for “ordinances or other regulatory mechanisms for construction site runoff control must be effective and implemented within 12 months of the reissuance of a CGP” is not referring to the 2021 CGP, but the subsequent permit.

One management measure refers to “... effective and implemented ...” The term “effective” in this sub-part is meant to indicate that the legal authority has been fully adopted and is “in effect”.

The proposed permit requires the MS4 to inspect 10% of non-priority construction sites during the reporting period and priority construction sites monthly. While the latter requirement was in the previous permit, the inspect 10% of non-priority construction requirement was added to the proposed permit to quantify (i.e. measure) the permit condition.

The % Priority Construction Activities inspected at a frequency of less than once per calendar month calculation should take into consideration the fact that construction site projects are starting and stopping. For example, if a Priority Construction Activity is stabilized and complete during month 8 of the reporting period and inspections were completed each of those 8 calendar months, this would be counted as meeting the objective of the requirement.

The permittee may define additional priority criteria to expand the priority construction program.

EPA recommends examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance. EPA recommends that the procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water quality. EPA also recommends that the permit require the permittee to provide appropriate educational and training measures for construction site operators and require stormwater pollution prevention plans for construction sites within the MS4's jurisdiction that discharge into the system. See [§ 122.44\(s\)](#).

6.5. POST-CONSTRUCTION/PERMANENT STORM WATER MANAGEMENT

40 CFR 122.34(b)(5)
0400-40-10-.04

This permit incorporates the newly adopted rules for post-construction/permanent stormwater management. As such, this control measure is formatted slightly differently than the others. Sections 4.2.5.1 through 4.2.5.8 are copied from Tennessee Rule 0400-40-10-.04 with slight editing to clarify references. Tennessee Rule 0400-40-10-.04 establishes what constitutes Maximum Extent Practicable (MEP) for this control measure.

Section 4.2.5.9 establishes how the elements of MEP will be measured and reported in the annual report. It is important to note some reporting elements won't be required in the annual report until the implementation plan is completed.

The rule requires updated legal instruments for post-construction/permanent stormwater management. The Division recognizes that non-traditional MS4s may not have the ability for codes or ordinances. These MS4s can implement their "legal authority" through other legally binding mechanisms such as contracts, agreements, or other binding mechanism.



6.6. POLLUTION PREVENTION/GOOD HOUSEKEEPING

6.6.1. General

40 CFR 122.34(b)(6)

While the previous permit was clear in the types of municipal operations covered under this MCM, it did not provide specific management practices for the implementation of this measure. Therefore, the proposed permit includes specific management measures. While specific management measures are listed, the permittee still has the flexibility to refine those measures in their SWMP. For example, the permittee may define what constitutes Good Housekeeping for all municipal operations or based on the different types of facilities.

Additionally, the previous permit required “all maintenance activities must be documented, with methods such as photos, maintenance logs, and/or contractor invoices”. This requirement has been replaced with “the permittee must keep records of the implementation of the management practices and document the record keeping requirements in the O&M Program.” In the O&M Program documentation, the permittee should specify what type of records should be maintained for each type of management practices. For example, preventative maintenance log or a daily task tracker for good housekeeping. The records provide evidence of program implementation.

Guidance for developing Operation and Maintenance Plans

<https://www.epa.gov/system/files/documents/2021-11/bmp-municipal-facilities-management.pdf>

<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-pollution-prevention-and-good>

https://www.epa.gov/sites/default/files/2015-11/documents/guidance_document.pdf

Examples of sources of pollutants of concern materials may include, but are not limited to, lubricants, fuels, sand, gravel, soil, salt, pesticide, fertilizer, garbage, trash, clippings, vehicles, equipment, and other wastes.

If the MS4 tracks this as part of a personnel record, it should be able to provide evidence of training as requested while protecting confidential information.

When determining the target audience for employees, the stationed location and the duties of the job classification should be evaluated. Permittees are encouraged to evaluate all job functions.

The language “the permittee must consider ways to evaluate new flood management projects and assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices” has been removed from the permit. While the Division encourages communication with flood control agencies on water quality impacts, flood control requirements are managed through FEMA programs in Tennessee. Additionally, this language was moved to the guidance section of the federal rule.

Guidance for NPDES permitting authorities and regulated small MS4s: EPA recommends that the permit address the following: Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural stormwater controls to reduce floatables and other pollutants discharged from the separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the permittee, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices. Operation and maintenance should be an integral component of all stormwater management programs. This measure is intended to improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

6.6.2. Tennessee Multi Sector Permit

The proposed permit includes the following exclusion to an O&M Facility Plan, “An O&M Facility Plan does not need to be developed for a facility if the permittee has either a no exposure certification for the discharge under the Tennessee Multi-Sector General Permit (TMSP) or the discharge is authorized under another NPDES permit e.g TMSP.”

For most facilities, the details in an O&M plan will be substantially similar to the SWPPP requirements found in the TMSP. As such, municipal facilities covered under the TMSP General Permit or a certification of no exposure will not be



required to develop or implement an O&M Plan. This will clarify the expectation in order to avoid a duplication of effort on behalf of the municipality or agency. To reiterate, any municipal facility that meets the requirements of section 1.2 of the TMSP are to obtain either TMSP Coverage or a certification of No Exposure. Subpart 4.2.6 of this permit applies to all other municipal facilities as identified as applicable.

7. ANNUAL REPORT

40 CFR 122.34(d)(3)
40 CFR 122.41

This permit requires a submittal of an annual report as described by Part 5. It is important to note that the individual elements of the report are identified throughout the permit typically in a table or narrative format. The annual report due September 30, 2022, will be submitted under the requirements of the 2016 permit. The annual report due September 30, 2023, will be the first annual report due under the proposed permit.

8. NOI

40 CFR 127

Part 0 establishes a provision for a waiver from electronic reporting. Many if not most of these municipalities are already reporting electronically through MyTDEC Forms for other reports. Therefore, the Division does not expect to receive or approve many (if any) waiver applications for traditional MS4s. Likewise, many of the non-traditional MS4s are colleges or universities which tend to have access to technology, so few, if any, waivers are expected from these permittees. The Division anticipates the waiver language in subpart 6.2 to rarely be used. However, the provision is necessary to allow for episodic waivers for reports in case the electronic system is down for prolonged periods of time.

Part 2 requires submittal of the required maps in the application electronically. The current preferred method is through a geo spatial REST service. However, since technology advances rapidly, an alternative submittal mechanism may be approved by the Division.

9. ELECTRONIC REPORTING

40 CFR 122.34(d)(3)
40 CFR 127

The [NPDES Electronic Reporting Rule \(eRule\)](#), which became effective on December 21, 2016, replaces most paper-based reporting requirements with electronic reporting requirements.

10. ANTIDegradation STATEMENT / WATER QUALITY STATUS

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter [0400-40-03-.06](#). It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act.

Streams across Tennessee may be identified as:

Outstanding Natural Resource Water (ONRW)

No new discharge or expansion will be allowed unless 1) existing ONRW water quality conditions will continue to be met or exceeded; or 2) no permanent degradation of water quality above the level of *de minimis* will be allowed.

These streams can be identified on our dataviewer at
https://dataviewers.tdec.tn.gov/pls/enf_reports/f?p=9034:34304:.....

Exceptional Tennessee Water

No permanent degradation of water quality above the level of *de minimis* will be allowed unless the applicant demonstrates to the Division that the degradation is for necessary economic or social development and will not interfere with or become injurious to any existing uses. The specific requirements for this demonstration are described in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-40-03-.06(4).

These streams can be identified on our dataviewer at
https://dataviewers.tdec.tn.gov/pls/enf_reports/f?p=9034:34304:.....

Available Conditions Waters (meeting designated uses)

These waters are fully supporting of its designated uses. The Division has maintained, and shall continue to assess, the water quality of the stream to assure that the water quality is adequate to protect the existing uses of the stream fully, and to assure that there shall be achieved the highest statutory and regulatory

requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

Unavailable Conditions Waters (assessed as needing additional pollution controls)
These waters partially/does not support(s) designated uses due to various causes from various sources.

These streams can be identified on our mapviewer at:
<https://tdeconline.tn.gov/dwr/>

Total Maximum Daily Loads (TMDLs) have been developed and approved and can be found on our website at:
<https://tdec.tn.gov/document-viewer/#/search/tmdl>

The proposed terms and conditions of this permit comply with the wasteload allocations of these TMDLs.

11. PERMIT TERM

This permit will be issued for a 5-year term.

**APPENDIX 1 –
NOTICE OF INTENT (NOI)**

Appendix 2

NPDES Small MS4 Notice of Intent (NOI) – City of Cookeville (Submitted November 30, 2022)

NPDES Small MS4 NOI

version 1.6

(Submission #: HPM-D2YE-R02AQ, version 1)

Digitally signed by:
Entrust Certification Authority - L1K
Date: 2022.11.22 14:53:45 -06:00
Reason: Copy Of Record
Location: Nashville, Tennessee



Details

Submission ID HPM-D2YE-R02AQ

MS4 Owner Name City of Cookeville

Form Input

General Information

Are any other operators of MS4s seeking coverage under this Notice of Intent

No

MS4 Ownership Type

City or Town

What is the estimated population of the MS4

35138

Name of Municipality or Organization

City of Cookeville

MS4 Responsible Official

Prefix

Mr.

First Name **Last Name**

James Mills

Title

City Manager

Name of MS4

City of Cookeville

Phone Type **Number** **Extension**

Business 9315205241

Email

jam@cookeville-tn.gov

Address

45 East Broad Street

Cookeville, TN 38501

County

Putnam

MS4 Program Manager

Prefix

Mrs.

First Name Last Name

Mary Beth Elrod

Title

Civil Engineer/Stormwater Manager

Company/Organization Name

City of Cookeville

Phone Type Number Extension

Business 9315205202

Email

melrod@cookeville-tn.gov

Address

1115 East Spring Street

Cookeville, TN 38501

Description Of Storm Sewer System

Is an electronic geospatial map of your system available?

Yes

If YES, provide a link to the REST Services:

https://gis.cookeville-tn.org/arcgis/rest/services/PublicWorks/PW_TDEC/MapServer

Summary Of Receiving Streams

Please Lookup Waterbody Using Mapping Tool

Using the GIS mapping tool linked below to list the receiving waterbodies to which your MS4 discharges, the 12 Digit Hydrologic Unit Code and the number of MS4 outfalls discharging into it.

[DWR Waterbodies Spatial Tool](#)

Streams with Unavailable Parameters

Use the most current EPA Approved List of Impaired and Threatened Waters linked below, along with the GIS mapping tool published on the division's web site, to determine whether stormwater from any part of the MS4 discharges into streams with unavailable parameters for nutrients, pathogens, siltation, or other.

[Water Quality Rules, Reports and Publications](#)

Exceptional Tennessee Waters (ETW)

Use the division's data viewer linked below to determine whether stormwater from any part of the MS4 discharges into Exceptional Tennessee Waters.

[TDEC Data viewer](#)

State or EPA Issued TMDL's

EPA-Approved TMDLs as well as EPA-Established TMDLs for Tennessee waters can be found on the division's web site at Tennessee's Total Maximum Daily Load (TMDL) Program (tn.gov). to determine whether stormwater from any part of the MS4 discharges into it.

[Tennessee's Total Maximum Daily Load \(TMDL\) Program \(tn.gov\)](#)

List waters and parameters

Receiving Water (Enter Source_FeatureID Value)	Number of Outfalls	Nutrients	Pathogens	Siltation	Other	ETW	TMDL	MS4 Jurisdiction
Bear Creek from Spring Creek to headwaters (TN05130106010_0300)	0	No	No	Yes	No	No	No	
Burtens Branch from underground connection to Pigeon Roost Creek to headwaters (downtown Cookeville) (TN05130108045_0440)	31	No	No	No	No	No	No	
Cane Creek from Lee Seminary Road to headwaters (TN05130108045_0150)	92	No	No	Yes	Yes	No	Yes	
East Blackburn Fork from Blackburn Fork to headwaters (TN05130106008_0200)	9	No	No	No	No	No	No	
Falling Water River from Pigeon Roost Creek to I-40 (TN05130108045_2000)	42	No	No	No	No	No	No	
Hudgens Creek from Falling Water River to headwaters (TN05130108045_0300)	33	No	Yes	Yes	Yes	No	Yes	
Little Creek from West Blackburn Fork to headwaters (TN05130106008_0310)	28	No	No	No	Yes	No	No	
Pigeon Roost Creek from Cookeville STP outfall to cave at mile 5 (TN05130108045_0450)	44	Yes	Yes	No	Yes	No	Yes	
Pigeon Roost Creek from Falling Water River to Cookeville STP outfall (mile 2) (TN05130108045_0400)	27	Yes	Yes	No	Yes	No	Yes	
Short Creek from underground connection to Pigeon Roost Creek to headwaters (downtown Cookeville) (TN05130108045_0420)	34	No	No	No	No	No	No	
Unnamed Trib to Pigeon Roost Creek from Pigeon Roost Creek to headwaters (small trib to east where Pigeon Roost Creek comes out of the cave) (TN05130108045_0460)	1	No	No	No	No	Yes	No	
Unnamed Tributary on east side of downtown Cookeville from underground connection to Pigeon Roost Creek to headwaters (TN05130108045_0430)	61	No	No	No	No	No	No	
Unnamed Tributary on west side of downtown Cookeville from underground connection to Pigeon Roost Creek to headwaters (TN05130108045_0410)	37	No	No	No	No	No	No	

MCM 1: Public Education and Outreach

Public Education

Target Audience	Management Measure	Delivery Method/Materials	MS4(s) Responsible for Implementation
General Public	Awareness of the impacts on water quality	The City has a dedicated webpage for our stormwater program for the public at https://www.cookeville-tn.gov/249/Stormwater-Management . Written brochures about Illicit Discharges, Landscaping, Gardening, Pest Control, Food Service Industry, Automotive Maintenance and Car Care, Heavy Equipment and Earth Moving Activities, Detention Pond Maintenance, Home Repair and Remodeling, Animal Waste, Swimming Pool Discharges are handed out at public events as well as used as targeted mailings to specific business types or individuals. Children's coloring books containing the same information as above are distributed at local events to educate children and parents about keeping storm water clean. The City partners with local clubs for sinkhole cleanups and tree plantings.	
General Public	Awareness of the importance of maintenance activities for operators of permanent BMPs/SCMs	Our website and written brochures as listed above help make the general public aware of the importance of maintenance activities for operators of permanent BMPs/SCMs and promotes them to be aware of permanent stormwater infrastructure in their area and report any concerns they may have to the City Stormwater Manager. The City provides educational opportunities for both the general public and the development community through community events and presentations with local schools, clubs, and organizations, etc. Particular training is based on the need and offers of assistance from other agencies but the City will continue to promote educational opportunities as they arise.	
General Public	Awareness on the proper storage, use, and disposal of pesticides, herbicides, fertilizers, oil and other automotive-related fluids	Our Landscaping, Gardening & Pest Control brochure targets soils, yard wastes, over watering, and garden chemicals such as fertilizers, pesticides and herbicides; with information on keeping the pollutants out of our water bodies, with alternatives to common chemicals and with proper disposal procedures for these pollutants. This brochure is targeted to homeowners, gardeners, landscapers and pest control companies. Our Automotive Maintenance & Car Care brochure targets oil, grease, antifreeze, asbestos, zinc, and organic compounds and metals from spilled fuels; with information on non-toxic cleaning products, spill response, automotive fluid disposition, vehicle washing practices, recycling of wastes, vehicle fueling practices and employee education. This brochure is targeted to gas stations, auto repair shops, auto body shops, car dealerships, fleet managers & fleet washing businesses.	
General Public	Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.	Our Food Service Industry brochure targets oil, grease, trash and cleaning chemicals; with information on minimizing wastes, recycling wastes, oil/water separators, and employee education. This brochure is targeted to restaurants, grocery/convenience stores, bakeries, food producers and distributors. All Mobile Food Units are required to submit a Spill Prevention Plan in order to receive an operating permit in the City. The Codes department works with the Stormwater Manager to monitor sanitary sewer connections and issues. The public can report illicit discharges to the Hotline.	

Target Audience	Management Measure	Delivery Method/Materials	MS4(s) Responsible for Implementation
Engineering & Development Community	Awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts	The City requires all developments within the City Limits to submit plats and plans for review and approval by all departments. Plat and Plan review meetings are held to review design to make sure all storm water ordinances are met. Plans are not approved for permitting until all comments are addressed. The Developers and Engineers are typically in attendance to these meetings and work one on one with the Stormwater Manager and other departments to meet all ordinances and regulations that the City requires. The City frequently works with developers and engineers during preliminary design to insure that plans are prepared per City ordinances from the beginning. Storm water maintenance agreements for permanent SCMs are required to be filed with the plat. A Detention Pond Maintenance brochure also is used to target commercial, industrial, and residential detention pond owners with information on proper maintenance of detention ponds and sand filters.	
Engineering & Development Community	Awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts	Pre-construction meetings are required with Developers and Contractors prior to Grading Permit being released on projects. Erosion control plans are reviewed for Construction BMPs and Permanent SCMs. Upon start of the work, inspectors visit the site once per month at a minimum. Operators are contacted for any deficiencies with followup times set. Operators are required to contact inspectors prior to backfill and install of permanent SCMs to verify proper sizes and connections per plans. Prior to release of permits and warranties operators must have all permanent SCMs cleaned of construction debris and site to 75% stabilization. Stormwater Maintenance Agreements are required to be recorded with the plat for permanent SCMs.	
Public Employees	Awareness of water quality impacts from daily operations	SOPs have been prepared for each department within the City that could impact water quality during their required duties. These focus on erosion and sediment control and spill prevention and reporting in daily work which includes roadway and utility installation and maintenance activities within the City limits. Level I TNEPSC training is encouraged for all employees with most departments having at least one certified employee on staff. Yearly training on Global SDS and Hazard Communication Standards is required for all employees.	
Public Employees	Pollution Prevention and Good Housekeeping (see Permit sub-part 4.2.6.)	In addition to the above noted requirements, the city has NPDES applicable permitting (e.g. TMSP Non-Exposure, CGP, etc.) for most of our facilities and operations. All City Departments that are applicable have either a no exposure certification for discharge under the TMSP General Permit or an NPDES permit covering their municipal operations.	
Public Employees	The awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc.	The Codes department works with the Stormwater Manager to monitor sanitary sewer connections and issues. The Stormwater Inspector and all other City inspectors work with the Stormwater Manger to report illicit connections/discharges, sanitary sewer spills, etc. in their daily site visits of existing and new developments.	

Are there additional education campaigns and audiences?

No

MCM 2: Public Involvement/Participation

Public Involvement

Participants	Management Measure	Delivery Method/Materials	MS4(s) Responsible for Implementation
General Public	Pollution Prevention	Since 2012 the City has partnered with local clubs to do at least 1-2 sinkhole cleanups annually to promote clean water and pollution prevention. The City has also partnered in Tree Plantings annually since 2011. We distribute Children's coloring books and brochures about keeping water clean and pollution prevention at local events annually. The City provides educational opportunities for both the general public and the development community through community events and presentations with local schools, clubs, and organizations, etc. Particular training is based on the need and offers of assistance from other agencies but the City will continue to promote educational opportunities as they arise.	
General Public	Impacts on water quality or local storm water management issues	The City has a hotline and webpage that the public is encouraged to call in and also email in to report problems with storm water within the City. These are reported to the Stormwater Manager and Inspector who then investigate and meet with the public to discuss the issues and provide education on maintenance they are required to do for stormwater management and also identify and perform maintenance to the City infrastructure as needed to remedy the issues that are reported. The City maintains a Rainy Day list of items and areas that need to be checked during rain events to make sure they are working properly.	
General Public	Storage, use, and disposal of household hazardous waste, automotive-related fluids, pesticides, herbicides, and fertilizers use	In addition to distributing targeted brochures, the City provides Residential Garbage Collection and through this program we provide information on where and how to properly dispose of household hazardous waste, automotive-related fluids, pesticides, herbicides, and fertilizers. Our Public Works Department manages the Garbage collection program answering public questions daily. Our website lists collection schedules, guidelines, and locations to take wastes that we do not collect which includes Hazardous Materials, Paints, Oils, and Medicines. The website also lists recycling center locations.	
General Public	Identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.	The City has a hotline and webpage that the public is encouraged to call in and also email in to report illicit connections/discharges, sanitary sewer issues, etc. These are reported to the Stormwater Manager and Inspector who then investigate and meet with Owners to remedy the situation. We also distribute targeted brochures during these investigations to help educate the public.	
Commercial & Development Community	Pollution Prevention	The City partners with local clubs, engineers, home builder associations, etc. in local events such as sinkhole cleanups, tree plantings, festivals, conferences, etc. to promote clean water and pollution prevention. We provide targeted brochures, handouts, Children's coloring books, etc. The Stormwater Manager also participates in TNSA events and conferences to keep in touch with others in the MS4 community.	
Commercial & Development Community	Impacts on water quality or local storm water management issues	By requiring that all developments within the City be subject to plan reviews to meet stormwater ordinances, the City stays in contact with the local development community about reducing the impacts on water quality and stormwater management issues. We encourage developers to involve the City early in the design of projects to address stormwater management. We meet with Homeowners Associations, Builders, Engineers, etc. as needed to discuss the design and long-term maintenance of stormwater facilities.	

Have you implemented additional public involvement/participation activities?

No

MCM 3: Illicit Discharge Detection & Elimination (IDDE)

1. Has an ordinance or other regulatory mechanism been established prohibiting non-stormwater discharges?

Yes

1a. Name of ordinance or other regulatory mechanism

14-706 (2) Illicit Discharges Ord. #004-06-11

1b. Effective date of adoption

6/11/2004

2. Has a written plan to detect, identify, and eliminate non-stormwater discharges been established and implemented to include all components of the permit?

Yes

2b. Effective date of adoption

6/11/2004

3. Has a storm sewer system map been developed to include the minimum mapping requirements?

Yes

3a. If Yes, provide most recent date of mapping of MS4 outfalls & receiving streams

7/30/2021

4. Does the MS4's PIE plan include procedures to inform public employees, businesses, and the general public of the hazards and damage to water quality associated with illegal dumping and connections to the storm sewer, and the improper disposal of waste?

Yes

5. Has a mechanism been developed for the public to report suspected illicit discharges?

Yes

If yes, list the mechanism (e.g., hotline number, website URL or other)

Hotline Number 931-520-5201

Website Link: <https://www.cookeville-tn.gov/RequestTracker.aspx>

MCM 4: Construction Site Stormwater Runoff Control

1. Has an ordinance or other regulatory mechanism been established to require erosion prevention and sediment controls (EPSCs) from construction activities that result in land disturbance of equal or greater than one acre or less than one acre if part of a larger common plan of development or sale, including sanctions to ensure compliance?

Yes

1a. Name of enforcement authority or other mechanism

Public Works Department

1b. Title/Code/Citation

Cookeville Municipal Code Title 14, Chapter 6, Control of Natural Drainage Systems and Chapter 5, EROSION AND SEDIMENT CONTROL REGULATIONS

1c. Effective date of adoption

1/1/2013

2. Have requirements for construction site operators to implement appropriate erosion and sediment control best management practices and control of waste at the construction site been established?

Yes

3. Have procedures for construction site plan (including erosion prevention and sediment controls) review and approval which incorporate consideration of potential water quality impacts been established?

Yes

4. Have mechanisms or plans for public access to information on projects and receiving and considering comments from the public on those projects been established?

No

5. Have procedures to inspect construction sites and take enforcement actions to correct noncompliance been established?

Yes

MCM 5: Post Construction/Permanent Stormwater Management in New Development and Redevelopment

1. Has an ordinance or other regulatory mechanism been established to address post construction runoff from new development and redevelopment projects that disturb one or more acres of land, or less than one acre if part of a larger common plan of development

Yes

1b. Effective date of adoption

6/11/2004

2. Does the SWMP include requirements to ensure long-term operation and maintenance of SCMs for controlling runoff from new development and redevelopment projects?

Yes

2b. If yes, provide effective date of adoption

6/11/2004

3. Does your program meet all the requirements of State Rule Chapter 0400-40-10?

Yes

3a. If Yes, attach your implementation plan if available.

[2022 Implementation Plan.pdf - 11/22/2022 02:31 PM](#)

Comment

NONE PROVIDED

MCM 6: Pollution Prevention/Good Housekeeping For Municipal Operations

1. Indicate if the MS4 has the municipal operations listed below

Municipal Operation	Included?	Responsible Department/Parties
Streets, roads, highways	Yes	Public Works Department
Parking lots	Yes	Public Works Department
Maintenance and storage yards	Yes	Public Works Department, Water/Sewer Department, Electric Department
Fleet or maintenance shops with outdoor storage areas	Yes	Public Works Department
Salt/sand storage locations	Yes	Public Works Department
Snow disposal areas operated by the permittee	No	
Waste disposal, storage, and transfer stations	No	

2. Has an employee training program for employees responsible for municipal operations at these facilities been developed?

Yes

3. Has an O&M Facility Plan developed and implemented for these facilities?

No

If No, please explain

The Public Works Department has a Non-Exposure Permit TNR 058886 under the TMSP. All applicable facilities and department's operations follow SOPs and are covered by NPDES permits such as CGP, TMSP, No-Exposure, etc.

Enforcement Response Plan (ERP)

Has an Enforcement Response Plan for all required program elements been established?

Yes

Effective date of adoption

06/11/2004

ERP Attachment

[ENFORCEMENT RESPONSE PROCEDURE\(2\).pdf - 11/22/2022 02:35 PM](#)

Comment

NONE PROVIDED

Stormwater Monitoring and Program Evaluation

Monitoring Program Type (see subpart 4.6 of the permit for details)

Option 1

Appendix 3

Chapter 5 Erosion and Sediment Control Regulations Ordinance 2024

CHAPTER 5

EROSION AND SEDIMENT CONTROL REGULATIONS

14-701. GENERAL PROVISIONS

14-702. GENERAL REQUIREMENTS

14-703. COMPLIANCE

14-704. FEES

14-705. WARRANTY OF IMPROVEMENTS REQUIRED

14-706. ADMINISTRATION

14-707. ENFORCEMENT

14-708. PENALTIES

14-709. APPEALS

14-710. EROSION AND SEDIMENT CONTROL POLICY

14-501. General Provisions.

(1) Purpose and scope. The purpose of these regulations is to protect, maintain and enhance the environment of the City of Cookeville and the public health, safety and general welfare of the citizens of the city, by minimizing the discharge of sediment and construction related waste into the municipal separate storm sewer system and waters of the state; and to maintain and improve the quality of the receiving waters into which stormwater runoff flows, including streams, rivers, lakes, ponds and wetlands; and to comply with the State of Tennessee National Pollutant Discharge Elimination System (NPDES) general permit for discharges from small municipal separate storm sewer systems.

(2) Compliance with other municipal codes and regulations. These regulations shall be used in compliance with and in conjunction with all other pertinent municipal codes, regulations and policies including the following:

- (a) Cookeville Municipal Code Title 14, Chapter 6, Control of Natural Drainage Systems; Chapter 7, Stormwater Management; Chapter 8 Riparian Buffer Zones.
- (b) Cookeville Zoning Code.
- (c) Cookeville Subdivision Regulations.
- (d) Cookeville Building Codes.
- (e) Cookeville Municipal Code Title 14, Chapter 5, Section 14-510

(3) Definitions. For the purpose of this chapter, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

- (a) “*Best Management Practices (BMP’s)*” means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to the municipal separate storm sewer system and waters of the state. This term also includes treatment requirements, operating procedures, and

practices to control plant site runoff, spillage, or leaks, sludge or waste disposal, or drainage from raw material storage.

- (b) “City” means the City of Cookeville, Tennessee.
- (c) “Clearing” (when used in the context of discharges associated with construction activity) means the removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities such as clearing of forested land for conversion to pasture. This term does not include the clearing of vegetation along roadways, highways, dams or power lines for sight distance or other maintenance or safety concerns, or cold planning, milling, or removal of concrete or bituminous asphalt roadway pavement surfaces.
- (d) “Commencement of Construction” or “Commencement of Land Disturbing Activities” means the initial disturbance of soils associated with clearing, grading or excavating activities or other construction activities.
- (e) “Construction” means any installation, building, placement or assembly of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.
- (f) “Construction Related Waste” means refuse or unused materials that result from construction activities. Construction related waste can include, but not be limited to, unused building and landscaping materials, chemicals, litter, sanitary waste, and concrete truck washout.
- (g) “Construction Support Activities” means activities which involve the use or operation of concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas or borrow areas provided all the following criteria are satisfied:
 - (1) the support activity is primarily related to a construction site that is subject to QLP Permit coverage or to a Grading Permit;
 - (2) the operator of the support activity is the same as the operator of the construction site;
 - (3) the support activity is not a commercial operation serving multiple unrelated construction projects by different operators;
 - (4) the support activity does not operate beyond the completion of the construction activity of the last construction project it supports; and
 - (5) the support activities, with appropriate erosion prevention and controls therefor, are identified and described in the stormwater pollution prevention plan.
- (h) “Development” means any manmade change to improved or unimproved property including, but not limited to, the construction of buildings or other structures, clearing, dredging, drilling operations, filling, grading, paving, excavation, or storage of equipment or materials.
- (i) “Erosion” means the removal of soil particles by the action of water, wind, ice or other agents, whether naturally occurring or acting in conjunction with or promoted by manmade activities or effects.
- (j) “Exceptional Tennessee Waters” means surface waters of the State of Tennessee that satisfy the characteristics of exception Tennessee waters as listed in Rule 0400-40-03-.06 of the official compilation - rules and regulations of the State of Tennessee.

- (k) “*Filling*” means any deposition or stockpiling of dirt, rock, stumps, or other natural or manmade solid waste material.
- (l) “*Grading*” means any excavation, filling (including fill placed in watercourses), or stockpiling of earth materials or any combination thereof, including the land in its excavated or filled condition.
- (m) “*Grading Permit*” means a permit issued by the city authorizing the commencement of land disturbing activities on a site smaller than one acre in size.
- (n) “*Land Disturbing Activity*” means any activity on a property that results in a change in the existing soil cover, whether vegetative or non-vegetative, or the existing soil topography. Land disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling and excavation.
- (o) “*Municipal Separate Storm Sewer System (MS4)*” means a conveyance or system of conveyances, including roads with drainage systems, streets, roads, catch basins, curbs, gutters, ditches, manmade channels, or storm drains, which are:
 - (1) Owned or operated by a state, county, city, town, district, association, or other public body created by or pursuant to state law having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity or a designated and approved management agency under section 208 of the federal Clean Water Act that discharges to waters of the state;
 - (2) Designed or used for collecting or conveying stormwater;
 - (3) Which is not a combined sewer; and
 - (4) Which is not part of a publicly owned treatment works (POTW) as defined by 40 C.F.R. § 122.2, as amended from time to time.
- (p) “*Owner or Operator*” means any person or entity associated with a construction project that meets either of the following two criteria:
 - (1) The person or entity has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications, typically the owner or developer of the project or a portion of the project who is considered the primary permittee; or
 - (2) The person or entity has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions, typically a contractor or a commercial builder who is hired by the primary permittee who is considered a secondary permittee.
- (q) “*Plan*” means a stormwater pollution prevention plan, or a small lot erosion and sediment control plan.
- (r) “*Priority Construction Activity*” means construction activities that discharge directly into or immediately upstream from waters the State recognizes as having unavailable parameters (for siltation or ~~habitat alteration~~) or Exceptional Tennessee Waters. A property is considered to have a direct discharge if stormwater runoff from the property does not cross any other property before entering the waters of the state.
- (s) “*Public Works Director*” means the Public Works Director of the city or his designee, who is responsible for the implementation of this article.

- (t) “*QLP Permit*” coverage means permit coverage under the State of Tennessee Construction General Permit issued by the city authorizing the commencement of land disturbing activities on a site larger than one acre in size. This permit coverage formerly would have been issued by the Tennessee Department of Environment and Conservation.
- (u) “*Section 404 Permit*” means a permit issued by the United States Army Corps of Engineers under Section 404 of the Federal Clean Water Act.
- (v) “*Sediment*” means solid material, either mineral or organic, that is in suspension, being transported, or has been moved from its site of origin by erosion.
- (w) “*Small Lot Erosion and Sediment Control Plan*” means the plan necessary for obtaining a Grading Permit issued by the City authorizing commencement of land disturbing activities on a site smaller than one acre. This plan is designed to eliminate or reduce erosion and off-site sedimentation from a site during construction activities.
- (x) “*State*” means the State of Tennessee or, where the context indicates, any state of the United States.
- (y) “*Stormwater Pollution Prevention Plan (SWPPP)*” means a written plan that includes appropriate site maps, identification of construction activities that could cause pollutants in the stormwater and a description of measures or practices to control these pollutants.
- (z) “*Subdivision*” means the division, subdivision, or re-subdivision of any lot or parcel of land as defined in the subdivision regulations of the city.
- (aa) “*Tennessee Erosion & Sediment Control Handbook*” or “*Handbook*” means the handbook bearing such title, as amended from time to time, published by the Tennessee Department of Environment and Conservation.
- (bb) “*Tennessee Construction General Permit*” means the “General NPDES Permit for Discharges of Stormwater Associated with Construction Activities, Permit No. TNR 100000” issued by the Tennessee Department of Environment and Conservation, as amended from time to time.
- (cc) “*TDEC*” means the Department of Environment and Conservation of the State of Tennessee.
- (dd) “*Transporting*” means any moving of earth materials from one place to another, other than such movement incidental to grading, as authorized by an approved plan.
- (ee) “*Waters*” or “*Waters of the State*” means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

(4) Compatibility. If any provision of these regulations or any other provision of law impose overlapping or contradictory requirements, or contain any restrictions covering any of the same subject matter, that provision which is more restrictive or imposes higher standards or requirements shall govern. These regulations do not relieve the applicant from provisions of any other applicable codes, ordinances or regulations not explicitly repealed by these regulations.

(5) Severability. If any section, subsection, sentence, clause, phrase, or portion of these regulations is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of these regulations.

(6) Permitting. The review and permitting of plans and specifications for clearing and/or earthwork is not intended as approval of the overall layout, structural design, grading procedures, situation control, engineer's reports or construction procedures. These responsibilities shall remain with and be those of the owner or his consultants.

(7) Disclaimer or liability. The issuance of either QLP permit coverage or a Grading Permit by the City of Cookeville signifies only that the applicant has met all the application requirements specified by these regulations, including the submittal of plans for permit purposes shall not mean that those plans have been checked in detail for technical competency. The developer and his design consultant shall remain totally responsible for the adequacy of the plans to protect neighboring properties, and the developer and his contractor shall be responsible for constructing the project in accordance with the plans.

These regulations are considered reasonable for regulatory purposes and shall not create a liability on the part of, or a cause of action against, the City of Cookeville or any officer or employee thereof for any damages that result from reliance on these regulations, or any administrative decision lawfully made thereunder.

14-502. General Requirements.

(1) Applicability

- (a) All land disturbing, construction or construction support activities that cause off site sedimentation or sediment discharges to the municipal separate storm sewer system or waters of the state shall be in violation of this ordinance.
- (b) No owner or operator of any property within the city shall commence land disturbing activities unless he has obtained all applicable federal, state and city permits.
- (c) The issuance of either QLP Permit coverage or a Grading Permit shall be conditioned upon the approval of all plan requirements, for the applicable permit, by the Public Works Director. The city shall serve as the plan approval agency only, and in no instance are its regulations construed as designing the stormwater pollution prevention plan or other stormwater systems.
- (d) No building permit shall be issued until the owner or operator has obtained either QLP Permit coverage or a Grading Permit and is in compliance with the permit, where the same is required by this article.
- (e) All land disturbing activities shall employ adequate erosion and sediment control best management practices.
- (f) Federal and state agencies (e.g., Tennessee Valley Authority and Tennessee Department of Transportation) are required by TDEC to obtain their Permit for stormwater runoff from construction sites from TDEC. In those instances, the federal and state agencies are required to obtain a Grading Permit (regardless of the size of the disturbed area) from the City of Cookeville as well as their Construction General Permit from TDEC so that City requirements and approvals are also met.

(2) Exemptions from plans submittal. The following activities shall not require submittal and approval of a stormwater pollution prevention plan, a small lot erosion and sediment control plan, or a Grading Permit:

- (a) For single family residence construction resulting in less than one acre of disturbed area a grading permit will not be required in addition to the Building Permit unless the proposed construction is part of a larger common plan of development. Such construction shall remain responsible for controlling erosion and for protecting adjacent properties and drainage facilities from sedimentation in accordance with these regulations.
- (b) Minor land disturbing activities such as home gardens and individual home landscaping, repairs or maintenance work that are less than one acre and are not part of a larger common plan of development;
- (c) Additions or modifications to existing, individual, single-family structures that are less than one acre and are not part of a larger common plan of development;
- (d) Emergency work to protect life, limb or property, and emergency repairs, provided that the land area disturbed shall be shaped and stabilized in accordance with the requirements of this article;
- (e) Existing nursery and agricultural operations conducted as a permitted main or accessory use;
- (f) State and federal projects subject to the submission requirements of TDEC; and
- (g) Public utility installations, less than one acre in disturbed area, as follows: lateral sanitary sewer lines, water lines, storm sewer lines, telephone lines, cable television lines, electrical lines and gas lines. Although exempt, public agencies are required to notify the public works department prior to starting any construction and to submit plans, if requested, to allow coordination with other activities.

(3) All other provisions of this article shall apply to the exemptions noted in subsection (2) above.

(4) Responsibility not waived. Although the activities listed in § 14-502 (2) may be undertaken without a permit, the persons conducting these excluded activities shall remain responsible for controlling erosion and for protecting adjacent properties and drainage facilities from sedimentation in accordance with the provisions of these regulations.

(5) Hazardous conditions must be rectified. Whenever the Building Official or the Public Works Director, or his designee, is made aware of and determines that any existing land condition or exposed surface created or caused by means of clearing, earthwork or other land disturbing activity has:

- (a) Become a hazard to life and limb;
- (b) Endangered property;
- (c) Affected the safety, use or stability of a public way or drainage channel, or
- (d) Caused erosion,

the owner, upon receipt of notice in writing from the Building Official or Public Works Director, or his designee, shall rectify or eliminate the stated hazardous condition within the time period specified therein to bring the property into conformance with the requirements with these regulations.

It shall be a violation of these regulations for the owner to fail to eliminate the hazardous condition within that time.

(6) Soil Engineering Report. A soil engineering report will be required if deemed necessary by the owner's architect, landscape architect, or civil engineer. A soil engineering report may also be required by either the Public Works Director or the Building Official.

This report will include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading.

(7) Engineering Geology Report. An engineering geology report shall be required if deemed necessary by the owner's architect, landscape architect or civil engineer. An engineering geology report may also be required by either the Public Works Director or the Building Official. This report will include adequate description of the geology of the site, conclusions and recommendations regarding the effect of geological conditions of the proposed development, and opinions and recommendations covering the adequacy of sites to be developed by the proposed grading.

(8) Federal and State Permits. Approval by the City of Cookeville does not relieve the applicant of responsibility for obtaining any permits required by the U.S. Army Corps of Engineers, Tennessee Department of Environment and Conservation – Division of Water Resources, Region IV of the U.S. Environmental Protection Agency, or by any other federal or state agencies.

Following is a non-inclusive list of permits that may be required:

(a) U.S. Army Corps of Engineers. Section 301 of the Clean Water Act prohibits the discharge of dredged or fill materials into waters of the United States unless the work has been previously authorized by a permit pursuant to Section 404 of the same Act. Placement of dredged or fill material below ordinary high water of any water in conjunction with drainage improvements (e.g., channel realignments, concrete slope paving) will require a Department of the Army permit prior to construction.

The placement of dredged or fill material or any grading activities within a wetland must also be in compliance with Section 404 of the Clean Water Act.

If a permit is required, approximately sixty (60) days would normally be required for permit processing. Depending on the nature and location of the work, it is possible that the work has been previously approved under authority of the nationwide permit and individual processing would not be required.

(b) Tennessee Department of Environment and Conservation – Division of Water Resources. In accordance with the Tennessee Water Quality Act, Tennessee Code Annotated, §69-3-108, any activity which alters a course or physical character of a stream, requires an Aquatic Resource Alteration Permit (ARAP). This permit is required for activities such as stream channelization, stream enlargement, dredging, or diversion in box culverts.

(9) Adoption of Standards.

(a) The design, installation, operation, maintenance, inspection, record keeping and reporting of construction site runoff best management practices intended for erosion prevention and the control of sediment and other construction related wastes or pollutants shall be

performed in accordance with the requirements of the Tennessee Construction General Permit that is effective at the time the stormwater pollution prevention plan is approved. Where the provisions of this section conflict or overlap with the Tennessee Construction General Permit or the Tennessee Erosion & Sediment Control Handbook, the regulation which is more restrictive or imposes higher standards or requirements shall prevail.

- (b) The City adopts as its erosion and sediment control design standards and best management practices manual the Tennessee Erosion & Sediment Control Handbook which is incorporated herein by reference. This handbook includes a list of acceptable BMPs, including the specific design performance criteria, operation, and maintenance requirements for each BMP.
- (c) The requirements set forth in the Tennessee Construction General Permit and in the handbook may be updated and expanded at the discretion of the Public Works Director, based on improvements in engineering, science, monitoring, and local maintenance experience.
- (d) Erosion and sediment control BMPs that are designed, constructed, and maintained in accordance with the BMP criteria set forth in the Tennessee Construction General Permit and the handbook shall be presumed to meet the minimum water quality performance standards required by the city.
- (e) Additional requirements for discharges into impaired or Exceptional Tennessee Waters that are set forth in the Tennessee Construction General Permit shall be implemented for all priority construction activities. The Public Works Director, at his discretion, may require BMPs that conform to a higher than minimum standard for priority construction activities, or for exceptional Tennessee waters or where deemed necessary.

(10) Stormwater Pollution Prevention Plan (SWPPP).

- (a) The SWPPP is required for obtaining QLP Permit coverage for sites with a disturbed area greater than one acre. A SWPPP shall present in detail the best management practices that will be employed to minimize erosion and control sedimentation.
- (b) The plan shall be sealed in accordance with the Tennessee Construction General Permit.
- (c) Best management practices presented in the plan shall conform to the requirements found in the Tennessee Erosion & Sediment Control Handbook, and shall meet or exceed the requirements of the Tennessee Construction General Permit.
- (d) The plan shall include measures to protect legally protected state or federally listed threatened or endangered aquatic fauna or flora or critical habitat (if applicable).
- (e) The plan submitted shall be subject to any additional requirements set forth in the city's subdivision regulations, zoning ordinance, erosion and sediment control policy and any other applicable city regulations.
- (f) Riparian buffer zones shall meet the requirements both in accordance with the Tennessee Construction General Permit and with the Buffer Zone Ordinance for the City of Cookeville.
- (g) Construction of the site in accordance with the approved plan must commence within one year from the approval date of the stormwater pollution prevention plan, or the stormwater pollution prevention plan will become null and void and the plan must be resubmitted for approval.
- (h) Stormwater pollution prevention plans shall include the components required by the Tennessee Construction General Permit and any other information deemed necessary by

the Public Works Director. See the Erosion and Sediment Control Policy for additional plan requirements.

(11) Small lot erosion and sediment control plan contents.

- (a) Land disturbing activities that affect less than one acre and are not exempt from obtaining a Grading Permit, shall submit and obtain approval of a small lot erosion and sediment control plan and obtain a Grading Permit prior to obtaining a building permit.
- (b) The plan shall include such information as may be required by the Public Works Director consistent with this article. See the Erosion and Sediment Control Policy for additional plan requirements.
- (c) The Public Works Director has the discretion to require a fully engineered stormwater pollution prevention plan.

14-503 Compliance.

(1) Conformity to approved plan.

- (a) The approved stormwater pollution prevention plan or the small lot erosion and sediment control plan shall be followed during the entire duration of the construction at the site.
- (b) The Public Works Director may require reports or records from the permittee or person responsible for carrying out the plan to ensure compliance.
- (c) No land disturbing activity shall be commenced without prior plan approval by the Public Works Director and the issuance of either QLP Permit coverage or a Grading Permit.
- (d) Priority construction activities shall not commence until after the owner or operator has attended a pre-construction meeting with the Public Works Director.

(2) Amendments to approved plans. The permittee shall modify and update the plan in accordance with the requirements of the Tennessee Construction General Permit.

(3) Maintenance.

- (a) Maintenance, site assessments, and inspections of the best management practices shall be implemented in the manner specified in the Tennessee Construction General Permit and the Tennessee Erosion & Sediment Control Handbook by qualified personnel that are provided by the owner or operator of the land disturbing activity.
- (b) The owner or operator shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the owner or operator to achieve compliance with this article. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by an owner or operator only when necessary to achieve compliance with this article.
- (c) Any inadequate control measures or control measures in disrepair shall be repaired, replaced, or modified, as may be necessary, in accordance with the inspection and maintenance timeframes set forth in the Tennessee Construction General Permit and the maintenance guidance provided in the Tennessee Erosion & Sediment Control Handbook.
- (d) If sediment escapes the permitted property, the permittee shall remove off-site accumulations in accordance with the requirements of the Tennessee Construction General Permit.

(e) Records shall be retained in accordance with the Tennessee Construction General Permit.

(4) Inspections by the City.

- (a) The City shall have the right to enter onto private property for the purposes of conducting unrestricted periodic inspections of all land disturbing activities to verify compliance with the approved plan.
- (b) The City shall have the right to enter onto private property for the purposes of investigating a suspected violation of this article.
- (c) Failure on the part of an owner or operator to allow such inspections by the City shall be cause for the issuance of a stop work order, withholding of a certificate of occupancy, and civil penalties.

14-504. Fees. Neither QLP Permit coverage or a Grading Permit shall be issued until the fee prescribed below has been paid, nor shall an amendment to a permit be released until the additional fee, due to an increase in the project size, is paid.

FEE PER ACRE OF PROJECT	
Project less than One Acre	\$50.00
Project more than One Acre but less than 5 Acres	\$250.00
Project more than 5 Acres but less than 50 Acres	\$1000.00
Project more than 50 Acres but less than 150 Acres	\$4,000.00
Project more than 150 Acres	\$7,500.00

Where work for which either QLP Permit coverage or a Grading Permit is required by these regulations is started prior to obtaining said permit, the fees herein specified shall be doubled, but the payment of such double fee shall not relieve any persons from fully complying with the requirements of these regulations in the execution of the work not from any penalties prescribed herein.

14-505. Warranty of improvements required.

- (1) For work requiring either QLP Permit coverage or a Grading Permit, the property owner shall submit to the Public Works Department a warranty of improvements to assure that the work is completed in accordance with the permitted plans and specifications. Said warranty of improvements shall be in the form of a letter of credit, redeemable at a bank located within the Cookeville city limits, or certified check.
- (2) At a minimum the warranty of improvements shall remain in force for one (1) year after the anticipated date of the completion of the installation of vegetation. The expiration date shall be specified in the warranty of improvements along with an exact description of the work being guaranteed.
- (3) The warranty of improvements for clearing operations only shall be in the amount of \$1,000.00 per acre for each acre or fraction thereof disturbed or affected by such operations.

- (4) The warranty of improvements for earthwork or clearing and earthwork operations shall be in the amount of \$3,000.00 per acre for each acre or fraction thereof disturbed or affected by such operations.
- (5) Additional surety, equal to double the amounts required in 14-505(3) and 14-505(4) herein, shall be required where clearing or earthwork is performed in areas designated as floodways, floodplains, sinkhole retention areas or if determined by the Public Works Director, the site is susceptible to landslides.

14-506. Administration.

- (1) Department of Public Works. This department is responsible for reviewing all plans submitted with applications for QLP Permit coverage, Grading Permits and for site inspections to insure compliance with these regulations. The plan review shall be conducted by the Director of Public Works or his designee, and site inspections will be conducted by the Public Works Director or his designee. Once the application has been approved the Public Works Department is responsible for collecting fees and warranty of improvements and issuing the permit.
- (2) Right of entry. The Public Works Director or any of his duly authorized representatives may enter upon the premises of any land located within the Cookeville, Tennessee city limits for the purpose of inspecting the site before, during, and after construction to determine compliance with these regulations.

14-507. Enforcement.

- (1) Enforcement authority. The Director of the Public Works Department (hereafter referred to as Director) or his designees shall have the authority to issue notices of violation and citations, and to impose the civil penalties to anyone that violates this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action. The director's enforcement authority includes the following sections as set forth in the City's Enforcement Response Plan (ERP).
- (2) Notifications of violation.
 - (a) Written Notice. Whenever the Director finds that any permittee or any other person has failed to comply with these regulations or a permit or order issued hereunder, the Director or his designee may serve upon such person written notice of the violation. Within the notice of violation will be a list of failures that have led to the violation and measures required to correct the deficiencies. Such measures might include repair of existing Best Management Practices (BMPs), installation of new/additional BMPs, containment of discharged materials, cleanup of said materials, and a timetable for meeting the goals.
 - (b) Consent Orders. The Director or his designee is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time

period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.

- (c) **Show Cause Hearing.** The Director may order a person who violates this ordinance or permit, or order issued hereunder, to show cause why a proposed enforcement action should not be taken. The hearing shall be before the Public Works Director. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered mail or certified mail (return receipt requested) at least ten (10) days prior to the hearing.
- (d) **Compliance Order.** When the Director or his designee finds that any person has violated or continues to violate this ordinance or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures, devices, be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and best management practices.
- (e) **Cease and Desist Orders.** When the Director finds that any person has violated or continues to violate this ordinance or any permit or order issued hereunder, the Director or his designee may issue an order to cease and desist all such violations and direct those persons in noncompliance to:
 - (1) Comply forthwith; or
 - (2) Take such appropriate remedial or preventative action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

14-508. Penalties.

- (1) **Violations.** Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the Public Works Department, shall be guilty of a civil offence.
- (2) **Penalties.** Under the authority provided in Tennessee Code Annotated §68-221-1106, the municipality declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the Public Works Department of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.
- (3) **Measuring civil penalties.** In assessing a civil penalty, the director of the Public Works Department may consider:
 - (a) The harm done to the public health or the environment;
 - (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - (c) The economic benefit gained by the violator;
 - (d) The amount of effort put forth by the violator to remedy this violation;

- (e) An unusual or extraordinary enforcement costs incurred by the municipality;
 - (f) The amount of penalty established by ordinance or resolution for specific categories or violations; and
 - (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
- (4) Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the municipality may recover:
- (a) All damages proximately caused by the violator to the municipality, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation.
 - (b) The costs of the municipality's maintenance of stormwater best management practices when the owner of such facilities fails to maintain them as required by this ordinance.
- (5) Other remedies. The municipality may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense of any such actions.
- (6) Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.
- (7) Referral to TDEC. In accordance with the City's Enforcement Response Plan and the NPDES Permit requirements, the Public Works Department may also notify TDEC of violations.

14-509. Appeals. Pursuant to Tennessee Code Annotated §68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the Board of Environmental Appeals.

- (1) Appeals to be in writing. The appeal shall be in writing and filed with the City Clerk within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.
- (2) Public hearing. Upon receipt of any appeal, the Board of Environmental Appeals shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days' notice by registered by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal.
- (3) Appealing decisions of the Board of Environmental Appeals. Any alleged violator may appeal a decision of the Board of Environmental Appeals pursuant to the provisions of Tennessee Code Annotated, Title 27, Chapter 8.

- (4) If a petition for review of such damage assessment or civil penalty is not filed within thirty (30) days after the damage assessment or civil penalty is served in any manner authorized by law, the violator shall be deemed to have consented to the damage assessment or civil penalty, and it shall become final.

14-510 Erosion and Sediment Control Policy

For Land Disturbing Activities Less Than One Acre

Grading Permit Application Required:

To obtain a Grading Permit the owner shall first file with the Public Works Department an application in writing on a form furnished for that purpose. Each applicant shall provide:

1. The names, addresses and telephone numbers of the owner or owners of the subject property.
2. The names, addresses and telephone numbers of the contractor and any subcontractor(s) who shall perform the land disturbing activity, and who shall implement the plans for erosion and sediment control.
3. The address of the subject property, and a map or plat of the property upon which the limits of the land disturbing activity is shown.
4. If required under these rules three (3) copies each of the grading/drainage plan and the erosion and sediment control plan shall be submitted with the application, see Plan Requirements.
5. A statement setting forth the nature, extent and purpose of the land disturbing activity, including the size of the area for which the permit shall be applicable, and a schedule for the starting and completion dates of the land disturbing activity.
6. A certification by the owner that prior to beginning any work he agrees to the following:
 - (a) Hold the City of Cookeville, its officers, agents and employees, harmless from any and all claims made against the City of Cookeville which arise out of any action or omission of the owner, contractor or subcontractor, or any of their officers, employees or agents, and any and all claims which result from any condition arising out of, created or maintained by the owner, contractor, or subcontractor or any of their officers, employees or agents.
 - (b) That no work, including clearing and/or earthwork shall be performed without first installing all temporary erosion control measures, unless approved by the Public Works Department.
 - (c) That the applicant has read the application and that all information contained therein is true and correct.
 - (d) That the applicant agrees to comply with all city ordinances and state laws regulating this construction.
 - (e) That the applicant is the owner or is authorized to act as the owner's agent for the described work.

For Land Disturbing Activities Greater Than One Acre

QLP Permit coverage Application Required:

To obtain coverage under the Construction General Permit through the QLP a Notice of Intent (NOI) application shall be required for any project that formerly would require a NPDES Construction General Permit as would have been available from the Tennessee Department of Environment and Conservation.

Each applicant shall provide:

1. Site or Project Name
2. Street address or location
3. Site description
4. County
5. QLP/MS4 Jurisdiction
6. Start date
7. Estimated end date
8. Latitude (dd°.dddd) and Longitude (dd°.dddd)
9. Acres disturbed
10. Total Acres
11. Information as to the presence of streams or wetlands adjacent to the construction site
12. Wetlands delineation report if wetlands are present
13. Aquatic Resource Alterations Permit (ARAP) number if relevant
14. Receiving waters name if known
15. Stormwater Pollution Prevention Plan (SWPPP)
16. Location Map
17. Site owner/Developer contact information
18. Owner/Developer Certification
19. Contractor Certification

QLP Permit applications must be accompanied by three (3) sets of grading/drainage plan and the erosion and sediment control plan. If a project involves clearing only, this requirement may be waived by the Public Works Department. See Plan Requirements for information on drawings required.

Standards:

1. The design, installation, operation, maintenance, inspection, record keeping and reporting of construction site runoff best management practices intended for erosion prevention and the control of sediment and other construction related wastes or pollutants shall be performed in accordance with the requirements of the Tennessee Construction General Permit that is effective at the time the stormwater pollution prevention plan is approved.
2. The City adopts as its erosion and sediment control design standards and best management practices manual the Tennessee Erosion & Sediment Control Handbook which is incorporated herein by reference. This handbook includes a list of acceptable

BMPs, including the specific design performance criteria, operation and maintenance requirements for each BMP.

3. The requirements set forth in the Tennessee Construction General Permit and in the handbook may be updated and expanded at the discretion of the Public Works Director, based on improvements in engineering, science, monitoring and local maintenance experience.
4. Erosion and sediment control BMPs that are designed, constructed and maintained in accordance with the BMP criteria set forth in the Tennessee Construction General Permit and the handbook shall be presumed to meet the minimum water quality performance standards required by the city.
5. Additional requirements for discharges into impaired or Exceptional Tennessee Waters that are set forth in the Tennessee Construction General Permit shall be implemented for all priority construction activities. The Public Works Director, in his discretion, may require BMPs that conform to a higher than minimum standard for priority construction activities, or for exceptional Tennessee waters or where deemed necessary.
6. The following certification signed by either the engineer or the surveyor regarding the presence or absence of water resources on the site:

CERTIFICATE OF PRESENCE OF WATER RESOURCES ON SITE

I hereby certify that to the best of my knowledge any and all on site water resources are located and identified on this plan. Water resources are defined as streams, ponds, wetlands, springs, reservoirs.

Date Signed

Engineer/Surveyor's Signature

Plan Requirements

QLP Permit coverage and Grading Permit applications must be accompanied by three (3) copies of grading/drainage plan and the erosion and sediment control plan. If a project involves clearing only, this requirement may be waived by the Public Works Department.

Plans will be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of these regulations and all relevant laws, ordinances and rules. The first sheet of each set of plans shall give the location and the name and address of the owner and the person by whom they were prepared. The plan shall be prepared by a professional engineer registered in the State of Tennessee.

Plans shall include the following information:

1. General vicinity of the proposed site

2. Property limits and accurate contours of the existing ground in two (2) foot intervals, and details of terrain and area drainage. Contour intervals other than two (2) feet may be approved by the Director of Public Works upon request should the reason for the exception have validity.
3. Proposed contours using the same contour interval as #2 above, as well as proposed drainage channels and related construction.
4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work together with a map showing the drainage area and the estimated runoff of the area served by any drains.
5. Location of any buildings or structures on the property where work is to be performed and the location of any buildings or structures on land of adjacent property owners which are within fifteen (15) feet of the property or which may be affected by the proposed grading operations.
6. All elevations must be stated in mean sea level datum and this fact indicated in a note on the plan sheet.
7. Areas of special flood hazard and/or sinkhole retention areas shall be shown on all site plans where applicable. Areas of special flood hazard shall be identified by the Flood Insurance Rate Maps for Putnam County, Tennessee and Incorporated Areas dated May 16, 2007, or any subsequent amendments to said maps. Sinkhole retention areas shall be identified by the Sinkhole Retention Maps of the City of Cookeville or as determined by the Director of Public Works.
8. Specifications shall contain information covering construction and material requirements. It shall be acceptable to reference existing specifications that have been approved by the Director of Public Works, and that are on file in the Public Works Department.
9. Erosion and sediment controls.

The drainage plan must be prepared by a registered civil engineer proficient in the field of hydrology and hydraulics and licensed in the State of Tennessee. The plan may be submitted as part of the grading plan, but must be clearly identified as a "drainage plan". Drainage plans will be drawn to an appropriate scale that will enable ready identification and recognition of submitted information and will include:

1. Flow lines of surface water onto and off the site.
2. Building pads and existing and proposed finished floor and street elevations if building construction is proposed.
3. Existing and proposed drainage channels, including drainage swales, wetlands, ditches and berms.
4. Locations of all manmade facilities, such as buildings, parking lots, sidewalks, etc.
5. Location and design of any proposed facilities for storage or conveyance of runoff into indicated drainage channels, including sumps, basins, channels, culverts, retention or detention ponds, bio-retention facilities, storm drains and drop inlets.

6. Estimates of existing and increased runoff resulting from the proposed improvements and a statement explaining the amount of the proposed effects on the existing drainage system and adjacent property.
7. Plans and specifications for all drainage provisions, retaining walls, planting, anti-erosion devices, or other protective devices whether temporary or permanent to be constructed in connection with or as part of the proposed project.
8. A map depicting the drainage area of land tributary to the site and a statement explaining the amount of estimated runoff used to determine the design characteristics of any drainage device.
9. Upstream drainage shall be considered in the design calculations.
10. Downstream improvements may be required of the developer if such improvements are required to handle stormwater generated by the proposed development.
11. The requirements of title 14, chapter 7, Stormwater Management shall be met for all applicable developments.

Erosion and Sediment Control Plan Requirements

An erosion and sediment control plan and a narrative Stormwater Pollution Prevention Plan (SWPPP) is required whenever QLP Permit coverage is required. In addition, a separate erosion and sediment control plan may be required for a Grading Permit if the Public Works Department determines that the development is so complex that soil erosion and sediment controls cannot be included in the grading plan in a clear and understandable manner or if it is determined that the site is in a special hazard area.

The erosion and sediment control plan shall be prepared by a professional engineer registered in the state of Tennessee. This plan will be clearly identified as an “erosion and sediment control plan”. A Stormwater Pollution Prevention Plan must be developed by persons meeting the requirements for SWPPP preparation as required by the Tennessee Construction General Permit that is effective at the time the stormwater pollution prevention plan is approved.

Erosion and sediment control plans will conform to the requirements of the Tennessee Construction General Permit.

Standards for Erosion and Sediment Control Plans

The Tennessee Erosion and Sediment Control Handbook (Latest edition) has been adopted by the City of Cookeville as an Approved Best Management Practices Manual. Other specifications may be used upon review and approval of the Public Works Director.

Requirements for Erosion and Sediment Control

The design, installation, operation, maintenance, inspection, record keeping and reporting of construction site runoff best management practices intended for erosion prevention and sediment control and other construction related wastes or pollutants shall be performed in accordance with

the requirements of the Tennessee Construction General Permit that is effective at the time the Grading Permit or the QLP permit coverage is obtained.

The requirements set forth in the Tennessee Construction General Permit and the Tennessee Erosion and Sediment Control Handbook may be updated and expanded at the discretion of the Director of Public Works, based on improvements in engineering, science, monitoring and local maintenance experience.

Neighboring persons and property shall be protected from damage or loss resulting from excessive stormwater runoff, soil erosion or deposition upon private property or public right-of-way of water transported silt and debris. Adjacent property owners shall be protected from land devaluation due to exposed bare banks.

Permitting Procedures

The following procedures for applying for either a Grading Permit or QLP Permit coverage shall apply:

1. Pre-application conference. A pre-application conference with the Public Works Department is required to assure timely permit application preparation and review. This conference will be used to determine if a proposed project qualifies for exemption and to determine how technical guidelines and criteria should be applied. At this time a decision will be made as to which permit is required for the project.
2. Submittal. Submission of the permit application, plans (one set) and any other required submittals, i.e. drainage calculations, water quality is to be made to the Public Works Department. Plans and submittals for a Building Permit must be submitted to the Codes Department for the review by the plans examiner.
3. Review. The Public Works Department will review the permit application to ensure that all information is provided in accordance with the regulations. Should the application be found to be incomplete, it will be returned to the applicant with a written request for additional information. The application will not be processed until such time as any requested information or reports are submitted.
4. Permit issuance. If the work described in the permit application, including drawings and/or SWPPP, conforms to the requirements of these regulations and any other pertinent laws and ordinances, and when the fees and warranty of improvements have been paid, a Grading Permit or QLP Permit coverage will be issued. Alternately if the permit application does not meet the requirements the application will be denied and a written explanation will be provided to the applicant. The issuance of either permit will not be construed to mean approval for violation of any of the provisions of these regulations or any other law or regulation; and such permit will not be valid, except insofar as the work or use that it authorizes is lawful. The issuance of a grading permit shall not prevent the Director of Public Works from requiring the correction of errors or changes due to unforeseen problems in permitted plans and specifications. The Director of Public Works may require operations and project design be modified if significant problems occur

which were not considered at the time the permit was issued. The issuance of a Grading Permit or QLP Permit coverage in no way implies that a building permit will be issued.

5. Revisions to approved plans. Prior to or during construction, should changes be anticipated that would constitute a revision of the plans already approved by the Public Works Director, the approved plans are to be revised and resubmitted in triplicate with a letter stating why such changes are believed necessary. Approval or disapproval by the Public Works Director will be given in written form.
6. Expiration. Every permit issued by the Public Works Director under provisions of these regulations shall expire by limitation and become null and void if the work authorized by such permit is not commenced within ninety (90) days from the date of issuance of the permit, provided that consecutive renewal of such permit may be granted, at no additional cost, upon written request to the Public Works Director with good cause shown. The work authorized by such permit shall not be suspended or abandoned at any time after the work is commences and shall be carried to completion or the permit shall be void. If work is suspended or abandoned, the required warranty of improvements may be issued to correct or eliminate erosion, drainage problems, or hazardous conditions.
7. Suspension or revocation. The Public Works Director shall suspend or revoke a permit issued under provisions of these regulations by giving notice in writing to the owner whenever the permit is issued in error, on the basis of incorrect information supplied or in violation of any ordinance, regulation or any of the provisions of these regulations.

Construction Procedures

1. Permit required prior to commencing any work. A person, firm, or corporation required to obtain a Grading Permit or QLP Permit coverage in compliance with these regulations must do so prior to commencing any work pertaining to the permit. Corrective measures, including but not limited to, stop work orders, penalties, and injunctions may be taken as required to enforce the terms of this requirement.
2. Posting of permit. Work requiring a Grading Permit or QLP Permit coverage shall not be commenced until the permit holder or his agent has posted the permit and SWPPP if one is required, in a conspicuous place on the front of the premises. The permit/SWPPP shall be protected from the weather and be placed to allow easy access for recording entries. The permit shall remain posted until the certificate of occupancy has been issued and/or a notice of termination has been turned into the Public Works Director on QLP Permit coverage.
3. Notification of construction. After posting the permit, the permittee must first install all erosion and sediment control measures as shown on the plans. All clearing and/or earthwork are subject to inspection by the City and should it be determined that additional erosion control measures are needed they shall be promptly acquired and installed by the permittee.

4. Observation of construction. The owner shall be responsible for the ongoing observation, review and field issuance of reports in the actual earthwork. This responsibility shall include, but need not be limited to, testing, inspection and issuing field reports as to the establishment of line, grade and drainage of the project area. Civil engineering record documents shall be preserved in accordance with state law. Permittees with QLP Permit coverage are responsible for documented inspections on approved inspection forms and shall be performed in accordance with the requirements of the Tennessee Construction General Permit that is effective at the time the stormwater pollution prevention plan is approved.
5. Notification of non-compliance. If the owner, his contractor or his consultants finds that the work is not being done in conformance with these regulations or the permitted plans, the discrepancies if not corrected in a timely manner, must be reported immediately in writing to the Director of Public Works. Plans for corrective measures must be submitted to the Director of Public Works along with an appropriate schedule for completion of such corrections.
6. Replacement of contractors or consultants. If the owner's contractor, civil engineer, engineering geologist or the testing agency of record, are changed during the course of the work, the owner shall replace the contractor or consultants of record with a qualified individual, and will notify the Director of Public Works in writing. Those with QLP permit coverage are required to have the contractor listed on their QLP NOI and any change in the contractor must be noted and the new contractor must sign the QLP permit.
7. Notification of completion. Holders of a Grading Permit must notify the Director of Public Works when the project has been completed, including installation of any permanent stormwater management facilities in accordance with the final permitted plans. Those with QLP Permit coverage must complete a Notice of Termination (NOT) form provided in accordance with the requirements of the Tennessee Construction General Permit that is effective at the time the stormwater pollution prevention plan is approved. Once a NOT has been received by the Public Works Department the department will review the NOT and inspect the site to determine if coverage under the QLP permit can be terminated or if there are deficiencies that must be corrected prior to permit termination. Any deficiencies are discovered the permittee will be notified in writing within thirty (30) days of receiving the NOT. When the site meets the termination criteria, the NOT should be re-submitted.
8. Release of warranty of improvements. One (1) year following the installation of permanent vegetation the owner may request the public works department check the vegetation on site and if it is found to have 75% coverage and be in good condition the warranty of improvements will be released. If it is discovered that the vegetation is not established the warranty of improvements must be kept by the City until such time as the vegetation is well established. Should the warranty of improvements be in

the form of a letter of credit, upon receiving notice that the letter of credit needs to be renewed the owner will provide the public works department with a letter of credit for an additional year.

Checklist

1. Have a pre-application meeting with the Public Works Department
2. You need 3 sets each of : grading plan, erosion & sediment control plan, and drainage plan
3. One set of drainage/detention calculations
4. Determine the size of the disturbed area
 - If less than one acre you need to apply for a Grading Permit – your permit cost will be \$50.00 and for work involving more than \$3,000.00 in value a warranty of improvements of \$3,000.00 for grading or \$1,000.00 for clearing will be required – either a cashier’s check or a letter of credit – you may skip the following steps unless notified by Public Works Department
 - If greater than one acre you need QLP Permit coverage – Continue on to #5
5. You must complete and turn in #1-4 above and complete a Notice of Intent (NOI) available online at www.cookeville-tn.org/pw/stormwater-management
6. You must provide a Stormwater Pollution Prevention Plan (SWPPP) which meets the requirements of the Tennessee General Construction Permit
7. Your QLP Permit coverage cost is determined by disturbed acreage:

>1 acre & < 5 acres	\$250
> 5 acres & < 50 acres	\$1,000
> 50 acres & < 150 acres	\$4,000
>150 acres	\$7,500
8. You will be required to submit a warranty of improvements in the amount of \$3,000/acre or fraction thereof for grading or \$1000.00/acre or fraction thereof for clearing – either a cashier’s check or a letter of credit.

Appendix 4

Chapter 6 Control of Natural Drainage Systems Ordinance

CHAPTER 6

CONTROL OF NATURAL DRAINAGE SYSTEMS

SECTION

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14-612. Payment of costs.

14-613. Public works projects.

14-601. Statement of purpose. It is hereby determined and established by the City of Cookeville that in order to prevent a threat or menace to life, property, public health, and public welfare the natural storm water drainage systems of the community shall be regulated in order to prevent the serious consequences of flooding. (1970 Code, § 4-1101)

14-602. Definitions. For the purpose of this chapter, the following definitions shall apply:

(1) "Natural storm water drainage system." The system of drainage ditches, channels, streams, creeks or rivers or any other means by which water is channeled to the low point in a drainage basin. Included in this definition are both naturally occurring and manmade drainage facilities. Also included in this definition are sinks, sinkholes, sinkhole retention areas, and floodways as defined under the rules and regulations of the National Flood Insurance Program.

(2) "Drainage basin." A naturally occurring area in which water will flow by gravity to a common sinkhole or stream.

(3) "Sinkhole." A hollow or depression in the land surface by which water flow, drains or otherwise enters the underground drainage system; also known as a "sink".

(4) "Sinkhole retention area." The area or basin surrounding sinkholes which provides water retention capacity and are further identified in the "SRA - Sinkhole Retention Area" district of the Cookeville Zoning Code.

(5) "Drainage ditch." Any natural or man-made ditch, way, or indentation in the land surface through which water is channeled. (1970 Code, § 4-1102)

14-603. Property owners to maintain system on private lands. It shall be the responsibility of the owner of each parcel of land within the City of Cookeville to maintain and repair all portions of the natural storm water drainage system that crosses said property. In addition, it shall be the responsibility of each property owner to prevent any and all material or other debris on his property from being carried beyond the boundaries of said property by the flow of water through the natural storm water drainage system. (1970 Code, § 4-1103)

14-604. City to maintain system on public lands. It shall be the responsibility of the City of Cookeville to maintain and repair all portions of the natural storm water drainage system located within the public rights-of-way or upon drainage easements acquired by the city as a part of a public works project approved by the city council. (1970 Code, § 4-1104)

14-605. Unlawful to alter or obstruct the natural storm water drainage system without approval from the public works department. It shall be unlawful for any property owner to cause or allow any alteration of any portion of the natural storm drainage system in any manner or form which could hinder or impede the flow of water into or through said system without first obtaining approval from the public works department. Information provided to the public works department for the proposed alterations must include a description of the proposed changes and may include such drainage calculations as shall be necessary to document to the director of public works that the carrying capacity of the natural storm water drainage system will not be diminished by said modifications to a capacity less than required to convey a 100-year rainfall event, assuming one-hundred percent (100%) development of the drainage basin. (1970 Code, § 4-1105, modified)

14-606. Installation of culverts for driveways or entrances. Upon request by the property owner and approval by the director, the public works department may install culverts on the public right-of-way for the purpose of providing access to residential, commercial, industrial and other properties. The property owner shall provide the appropriately sized concrete, HDPE or metal pipe as deemed necessary by the director of public works or city engineer. The maximum amount of culvert installed by the public works department under the provisions of this section and on any parcel or tract of land shall be limited to the amount needed to provide the maximum width of a driveway or entrance allowed under the provisions of the Cookeville Zoning Code. No fee shall be charged for the installation of a culvert at a driveway or entrance. Should catch basins, fill dirt, seeding, end walls, or other drainage structures be deemed necessary by the director of public works as a result of the installation of a culvert for driveways or entrances, the property owner requesting the defined service shall provide such materials.

(1970 Code, § 4-1106)

14-607. Installation of culverts within the right-of-way. Upon request by the property owner and approval by the director, the public works department may install culverts on the public right-of-way along the frontage of any residential, commercial, industrial and other property. Requests for the installation of culverts under the provisions of this section shall be reviewed by the public works department to determine if it is appropriate and will cause no problems in the drainage area. The property owner requesting the service defined herein shall be provided a list of materials, including all culvert, catch basins, end walls, or required drainage structures, as determined to be required for the installation, these materials will be provided by the property owner. The public works department will install the culvert and other drainage structures at no cost to the property owner for equipment and labor. (1970 Code, § 4-1107)

14-608. Stormwater detention criteria. For stormwater detention criteria see Title 14, Chapter 7, Section 12 of the Cookeville Municipal Code.

14-609. Notification of violation. Whenever any obstruction, alteration, hindrance, or impediment to the natural storm water drainage system, as defined by this chapter, exists on lands within the corporate limits of the City of Cookeville, the public works department shall notify the owner of record of said lands and direct them to abate or remove the same. Said notification shall:

- (1) Be in writing;
- (2) Specify the nature of the obstruction, alteration, hindrance, or impediment and give its location;
- (3) Specify the corrective measures required; and
- (4) Require compliance within thirty (30) days from the date of notification.

The notification shall be served upon the owner or owners of the premises where the violation is located by serving them personally or by sending said notice by certified mail, return receipt requested, to their address as shown on the current tax rolls of the City of Cookeville. (1970 Code, § 4-1109, modified)

14-610. Failure to comply with an order to correct a violation. If the owner or owners of the premises fail or refuse to comply with the order issued by the public works department within the time period specified by the letter of notification, as provided herein, such failure or refusal shall be deemed a Change 2, November 17, 2005 violation of the provisions of this chapter and said owner or owners shall be subject to the penalties herein provided. (1970 Code, § 4-1110, modified)

14-611. Penalties for failure to comply. If the owner or owners of the premises fail or refuse to comply with the order issued by the public works department within the time period specified by the letter of notification, the

director of public works or his duly authorized representatives may enter onto such premises and take the corrective action specified in the letter of notification so that the obstruction, alteration, hindrance, or impediment to the natural storm water drainage system identified by said letter is removed or abated. (1970 Code, § 4-1111, modified)

14-612. Payment of costs. Upon the completion of the corrective action carried out by the department of public works as authorized herein, the actual costs of such action, plus a fee of fifteen percent (15%) for administrative costs, shall be paid by the owner or owners of said property to the City of Cookeville and said costs shall be billed to the owner or owners of said property. If said bill is not paid in full within sixty (60) days after its date of mailing, a ten percent (10%) penalty shall be added and said costs and penalties shall be placed on the tax rolls of the City of Cookeville as a lien upon said property and collected in the same manner as other city taxes are collected. (1970 Code, § 4-1112)

14-613. Public works projects. Nothing in this chapter shall prevent the City of Cookeville from undertaking a public works project to improve the natural storm water drainage system when it is determined by the Cookeville City Council that such project will prevent a threat or menace to life, property, public health, and public welfare of the community in order to prevent the serious consequences of flooding. (1970 Code, § 4-1113)

Appendix 5

Chapter 7 Stormwater Management Ordinance 2024

CHAPTER 7
STORMWATER MANAGEMENT

SECTION

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14-701 GENERAL PROVISIONS

It is the purpose of these regulations to:

- (a) Provide a means to protect, maintain, and enhance the environment of the City of Cookeville and the public health, safety and the general welfare of the citizens of the city, by controlling discharges of pollutants into the city's stormwater system and to maintain and improve the quality of the receiving waters into which the stormwater outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the city.
- (b) Enable the City of Cookeville to comply with the National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR section 122.26 for stormwater discharges.
- (c) Allow the City of Cookeville to exercise the powers granted in Tennessee Code Annotated section 68-221-1105, which provides that, among other powers municipalities have with respect to stormwater facilities, is the power by ordinance or resolution to:
 - (1) Exercise general regulation over the planning, location, construction, and operation and maintenance of stormwater facilities in the municipality, whether or not owned and operated by the municipality;
 - (2) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
 - (3) Establish standards to regulate the quantity of stormwater discharged and to regulate stormwater contaminants as may be necessary to protect water quality;
 - (4) Review and approve plans and plats for stormwater management in proposed subdivisions or commercial developments;

- (5) Issue permits for stormwater discharges, due to construction or for construction, alteration, extension, or repair of stormwater facilities;
- (6) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit; or be charged with a civil offense.
- (7) Regulate and prohibit discharges into stormwater facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and
- (8) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of stormwater contamination, whether public or private.

The Public Works Department shall administer the provisions of these regulations.

14-702 DEFINITIONS

For the purpose of this chapter, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

- (1) "*As built plans*" means drawings depicting conditions as they were actually constructed.
- (2) "*Best management practices*" or "*BMPs*" are physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Cookeville, and that have been incorporated by reference into this ordinance as if fully set out therein. [NOTE: See section 14-704(1) for recommended BMP manual.]
- (3) "*Building Permit Applicant or Applicant*" means anyone applying for a building or grading permit.
- (4) "*Channel*" means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- (5) "*Civil penalties*" under the authority provided in Tennessee Code Annotated §68-221-1106, the City declares that any person violating the provisions of this chapter may be assessed a civil penalty by the City of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.
- (6) "*Common plan of development or sale*" is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

- (7) “*Contaminant*” means any physical, chemical, biological, or radiological substance or matter in water.
- (8) “*de minimus discharges*” are water discharges that pose insignificant threat to water quality and the environment.
- (9) “*Design storm event*” means a hypothetical storm event of a given frequency, interval and duration, used in the analysis and design of a stormwater facility. The estimated design rainfall amounts for any return period interval (i.e. 2-yr, 5-yr, 10-yr, etc.), in terms of either 24-hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html
- (10) “*Discharge*” means dispose, deposit, spill, pour, inject, seep, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.
- (11) “*Easement*” means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, municipality or other legal entity has in the land of another.
- (12) “*Erosion*” means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by anthropogenic activities or effects.
- (13) “*First Flush*” means the initial or early stages of stormwater runoff from a storm event which commonly delivers a disproportionately large amount of previously accumulated pollutants due to the rapid rate of runoff. The first flush is commonly used as the Water Quality Treatment Volume (WQTV) and is defined in the City of Cookeville Stormwater Management Design Guidelines.
- (14) “*Hotspot*” (“*priority area*”) means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.
- (15) “*Illicit connections*” means illegal and/or unauthorized connections to the municipal separate stormwater system whether or not such connections result in discharges into that system.
- (16) “*Illicit discharge*” means any discharge to the municipal separate storm sewer system that is not composed entirely of stormwater and not specifically exempted under section 14-706(2).
- (17) “*Improved sinkhole*” is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under TDEC’s Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste water in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).
- (18) “*Inspector*” An inspector is a person that has successfully completed (has a valid certification from) the “Fundamentals of Erosion Prevention and Sediment Control Level I” course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive

permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

- (a) Oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
 - (b) Update field SWPPPs;
 - (c) Conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and
 - (d) Inform the permit holder of activities that may be necessary to gain or remain in compliance with the Construction General Permit (CGP) and other environmental permits.
- (19) “*Land disturbing activity*” means any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation. Excludes agricultural activities.
- (20) “*Maintenance*” means any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the stormwater facility.
- (21) “*Maintenance agreement*” means a document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of stormwater management practices.
- (22) “*Municipal separate storm sewer system (MS4)*” (“*Municipal separate stormwater system*”) means the conveyances owned or operated by the municipality for the collection and transportation of stormwater, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, man-made channels, and storm drains, and where context indicates, it means the municipality that owns the separate storm sewer system.
- (23) “*National Pollutant Discharge Elimination System permit*” (*NPDES permit*) means a permit issued pursuant to 33 U.S.C. 1342.
- (24) “*Off-site facility*” means a structural BMP located outside the subject property boundary described in the permit application for land development activity.
- (25) “*Peak flow*” means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.
- (26) “*Person*” means any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.
- (27) “*Redevelopment*” is defined as land development on a previously developed site which disturbs 50% or more of the existing developed site. Redevelopment does not include ordinary maintenance activities, such as repaving existing paved areas, remodeling existing buildings, reroofing, and cosmetic changes to existing buildings.

- (28) “*Runoff*” means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate stormwater system.
- (29) “*Sediment*” means solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.
- (30) “*Sedimentation*” means soil particles suspended in stormwater that can settle in stream beds and may disrupt the natural flow of the stream.
- (31) “*Soils Report*” means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a soils engineer or geologist licensed in the State of Tennessee, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees.
- (32) “*Stabilization*” means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- (33) “*Stormwater*” means stormwater runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.
- (34) “*Stormwater control measure (SCM)*” means permanent practices and measures designed to reduce the discharge or pollutants from new development or redevelopment projects.
- (35) “*Stormwater management*” means the programs to maintain quality and quantity of stormwater runoff to pre-development levels.
- (36) “*Stormwater management facilities*” means the drainage structures, conduits, ponds, ditches, combined sewers, sewers, and all device appurtenances by means of which stormwater is collected, transported, pumped, treated or disposed of.
- (37) “*Stormwater management plan*” means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts and techniques intended to maintain or restore quality and quantity of stormwater runoff to pre-development levels.
- (38) “*Stormwater runoff*” means flow on the surface of the ground, resulting from precipitation.
- (39) “*Stormwater utility*” means the stormwater utility created by ordinance of the city to administer the stormwater management ordinance, and other stormwater rules and regulations adopted by the municipality.
- (40) “*Stream*” is a linear surface water that is not a Wet-Weather Conveyance as determined by a Qualified Hydrological Professional.
- (41) “*Structural BMPs*” means devices that are constructed to provide control of stormwater runoff.
- (42) “*Surface water*” includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other water courses, lakes and reservoirs.
- (43) “*Watercourse*” means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.
- (44) “*Water Quality Treatment Volume (WQTV)*” means a portion of the runoff generated from impervious surfaces at a new development or redevelopment project by the 1-year 24-hour design storm. The WQTV is further determined by

the type of treatment provided as defined in the City of Cookeville Stormwater Management Design Guidelines. The First Flush is commonly used as the WQTV.

- (45) *“Watershed”* means all the land area that contributes runoff to a particular point along a waterway.
- (46) *“Waters”* or *“waters of the state”* means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
- (47) *“Wetland(s)”* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.
- (48) *“Wet Weather Conveyance”* are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

14-703 EXISTING LOCATIONS AND DEVELOPMENTS

- (1) Requirements for all existing locations and developments. The following requirements shall apply to all locations and developments at which land disturbing activities have occurred previous to the enactment of this ordinance:
 - (a) Denuded areas must be vegetated or covered under the standards and guidelines specified in the BMP manual and on a schedule acceptable to the Public Works Department.
 - (b) Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.
 - (c) Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.
 - (d) Trash, junk, rubbish, etc. shall be cleared from drainage ways.
- (2) Requirements for existing problem locations. The Public Works Department shall in writing notify the owners of existing locations and developments of specific drainage, erosion or sediment problem affecting such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance.
- (3) Inspection of existing facilities. The Public Works Department may, to the extent authorized by state and federal law, establish inspection programs to verify that all stormwater management facilities, including those built before as well as after the

adoption of this ordinance, are functioning within design limits. These inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of the municipality's NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMPs.

- (4) Corrections of problems subject to appeal. Corrective measures imposed by the Public Works Department under this section are subject to appeal under section 14-710 of this ordinance.

14-704 STORMWATER SYSTEM DESIGN AND MANAGEMENT STANDARDS

- (1) Stormwater design or BMP manual.
 - (a) Adoption. The municipality adopts as its stormwater design and best management practices (BMP) manual the following publication(s), which are incorporated by reference in this ordinance as is fully set out herein:
 - (1) TDEC Sediment and Erosion Control Handbook; most current edition.
 - (2) Title 14, Chapter 7, Section 14-712
 - (3) Tennessee Permanent Stormwater Management and Design Guidance Manual; most current edition.
 - (4) Other MS4 approved BMP manuals that comply with the goals of the MS4 Permit and/or the Construction General Permit (CGP) may be chosen by the City and a current list is available from the Public Works Department.
 - (b) These manuals include lists of acceptable BMPs including the specific design performance criteria and operation and maintenance requirements for each stormwater practice. These include city approved BMPs for permanent stormwater management including green infrastructure BMPs. These manuals may be updated and expanded from time to time, at the discretion of the governing body of the municipality, upon the recommendation of the Public Works Department, based on improvements in engineering, science, monitory and local maintenance experience. Stormwater facilities that are designed, constructed and maintained in accordance with these BMP criteria will be presumed to meet the minimum water quality performance standards.
- (2) General performance criteria for stormwater management. The following performance criteria shall be addressed for stormwater management at all sites:
 - (a) All site designs shall control the peak flow rates of stormwater discharge associated with design storms specified in this ordinance or as specified by the

City of Cookeville Stormwater Management Design Guidelines and reduce the generation of post construction stormwater runoff to pre-construction levels. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity. All stormwater management facilities that are required under Section 14-608 of the Cookeville Municipal Code, and the Cookeville Zoning Code and Subdivision Regulations and which are approved after the adoption of this ordinance shall be built to control water quality by using the best management practice outlined in this section. Other methods of controlling water quality may be approved by the Director of Public Works if valid documentation is provided which indicates an equivalent or higher level of water quality will result from the alternate method. Due to the City's NPDES MS4 permit stormwater management requirements are periodically changed, therefore specific requirements for detention and water quality will be found in the City of Cookeville Stormwater Management Guidelines.

- (b) To protect stream channels from degradation, specific channel protection criteria shall be provided as prescribed in the BMP manual.
 - (c) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, swimming areas, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
 - (d) Stormwater discharges from "hot spots" may require the application of specific structural BMPs and pollution prevention practices. In addition, stormwater from hot spot land use may not be infiltrated.
 - (e) Prior to or during the site design process, Building Permit Applicants shall consult with the Public Works Department to determine if they are subject to additional stormwater design requirements.
 - (f) The calculations for determining peak flows as found in the MS4 BMP manual shall be used for sizing all stormwater facilities.
- (3) Minimum control requirements.
- (a) Stormwater designs shall meet the multi-stage storm frequency storage requirements as identified by the City of Cookeville Stormwater Management Design Guidelines, unless the Public Works Department has granted the applicant a full or partial waiver for a particular BMP under section 14-707.
 - (b) If hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Public Works Department may impose any and all additional requirements deemed necessary to control the volume, timing, and rate of runoff.
- (4) Permanent Stormwater management plan requirements. The stormwater management plan shall include sufficient information to allow the Public Works Department to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development of the site, both present and future, on the water resources, and the effectiveness and acceptability of the measures proposed for managing stormwater generated at the project site. To accomplish this goal the stormwater management plan shall include the following:

- (a) Topographic Base Map: A Topographic base map (2 foot contour intervals) to a suitable scale of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:
 - (1) Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wetlands, buffers; and the type, size, elevation, etc., of nearest upstream and downstream drainage structures. Riparian buffer zones shall meet the requirements both in accordance with the Tennessee Construction General Permit and with the Buffer Zone Ordinance for the City of Cookeville.
 - (2) Current land use including all existing structures, locations of utilities, roads, and easements;
 - (3) All other existing significant natural and artificial features;
 - (4) Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; the limits of clearing and grading;
- (b) Proposed structural BMPs;
- (c) A written description of the site plan and justification of proposed changes in natural conditions may also be required.
- (d) Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in the BMP manual. These calculations must show that the proposed stormwater management measures are capable of controlling runoff from the site in compliance with this ordinance and the guidelines of the BMP manual. Such calculations shall include:
 - (1) A description of the design storm frequency, duration, and intensity where applicable;
 - (2) Time of concentration;
 - (3) Soil curve numbers or runoff coefficients including assumed soil moisture conditions;
 - (4) Peak runoff rates and total runoff volumes for each watershed area;
 - (5) Infiltration rates, where applicable;
 - (6) Culvert, stormwater sewer, ditch and/or other stormwater conveyance capacities;
 - (7) Flow velocities;
 - (8) Data on the increase in rate and volume of runoff for the design storms referenced in the BMP manual; and
 - (9) Documentation of sources for all computation methods and field test results.
- (e) Soils Information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.
- (f) Maintenance and Repair Plan: The design and planning of all stormwater management facilities shall include detailed maintenance and repair procedures to

ensure their continued performance. These plans will identify the parts or components of a stormwater management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

- (g) Landscaping Plan: The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. Where it is required by the BMP, this plan must be prepared by a registered landscape architect licensed in Tennessee.
- (h) Maintenance Easements: The applicant must ensure access to the site for the purpose of inspection and repair by securing all the maintenance easements needed. These easements must be binding on the current property owner and all subsequent owners of the property and must be properly recorded in the land record.
- (i) Maintenance Agreement:
 - (1) Stormwater facilities on properties permitted under the requirements of this chapter are required to provide a maintenance agreement that runs with the land. The owner of property must execute an inspection and maintenance agreement that shall operate as a deed restriction binding on the current property owner and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities.
 - (2) The maintenance agreement shall:
 - (a) Assign responsibility for the maintenance and repair of the stormwater facility to the owner of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.
 - (b) Provide for periodic inspection by the property owner in accordance with the requirements of subsection (3) below for the purpose of documenting maintenance and repair needs and to ensure compliance with the requirements of this ordinance. The property owners will arrange for professional inspections in accordance with the requirements of subsection (3) below on a less frequent schedule, to be conducted by a professional engineer licensed or landscape architect, registered to practice in the State of Tennessee, who will submit a signed written report of the inspection to the Public Works Department. It shall also grant permission to the city to enter the property at reasonable times and to inspect the stormwater facility to ensure that it is being properly maintained.
 - (c) Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, grass cuttings and vegetation removal, and the replacement of landscape vegetation, in detention and retention

basins, and inlets and drainage pipes and any other stormwater facilities. It shall also provide that the property owner shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the BMP manual.

- (d) Provide that maintenance needs must be addressed in a timely manner.
 - (e) Provide that if the property is not maintained or repaired within the prescribed schedule, the Public Works Department shall perform the maintenance and repair at its expense, and bill the same to the property owner. The maintenance agreement shall also provide that the Public Works Department's cost of performing the maintenance shall be a lien against the property.
- (3) Inspections Required for Stormwater Management Facilities that have a Recorded Maintenance Agreement – generally. The owners and/or the operators of stormwater management facilities shall:
- (a) Perform routine inspections to ensure that the BMPs are properly functioning. These inspections shall be conducted on an annual basis, at a minimum. These inspections shall be conducted by a person familiar with control measures implemented at the site. Owners or operators shall maintain documentation of these inspections. The Public Works Department may require submittal of this documentation.
 - (b) Perform comprehensive inspection of all stormwater management facilities and practices. Such inspection shall be conducted once every five years, at a minimum. Such inspections must be conducted by either a professional engineer or landscape architect, licensed in the State of Tennessee. Complete inspection reports for these five year inspections shall include:
 - (i) Facility type,
 - (ii) Inspection date,
 - (iii) Latitude and longitude and nearest street address,
 - (iv) BMP owner information (e.g. name, address, phone number, fax, and email)
 - (v) A description of BMP condition including: vegetation and soils; inlet and outlet channels and structures; embankments, slopes and safety benches; spillways, weirs, and other control structures; and any sediment and debris accumulation,
 - (vi) Photographic documentation of BMPs, and
 - (vii) Specific maintenance items or violations that need to be corrected by the BMP owner along with deadlines and re-inspection dates.
 - (c) Owners or operators shall maintain documentation of these inspections. The Public Works Department may require submittal of this documentation.

- (5) Sediment and Erosion Control Plans: The applicant must prepare a sediment and erosion control plan for all construction activities that Complies with section 14-704 (6) below.
- (6) Sediment and Erosion Control Plan requirements. The requirements of Cookeville Municipal Code, Title 14, Chapter 5, entitled “Erosion and Sediment Control Regulations”, shall be met.

14-705 POST CONSTRUCTION

- (1) As built plans. All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee. A certificate of occupancy shall not be granted by the Codes Department until any needed corrections to all BMPs have been made and accepted by the Public Works Department.
- (2) Landscaping and stabilization requirements.
 - (a) Any area of land from which the natural vegetative cover has been either partially or wholly cleared by development activities shall be revegetated according to a schedule approved by the Public Works Department. The following criteria shall apply to revegetation efforts:
 - (1) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.
 - (2) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.
 - (3) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.
 - (b) In addition to the above requirements, a landscaping plan must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.
- (3) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a stormwater management facility shall make records of all maintenance and repairs to the facility, and shall retain the records for at least 5 years. These records shall be made available to the Public Works Department during inspection of the facility and at other reasonable times upon request.
- (4) Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for stormwater facilities under this ordinance, the Public Works Department, after reasonable notice as specified in the Enforcement Response Plan, may correct a violation of the design standards or

maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the stormwater management facility becomes a danger to public safety or public health, the Public Works Department shall notify in writing the party responsible for maintenance of the stormwater management facility. Upon receipt of that notice, the responsible person shall have 14 days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the Public Works Department may take necessary corrective action. The cost of any action by the Public Works Department under this section shall be charged to the responsible party.

14-706 ILLICIT DISCHARGES

- (1) Scope. This section shall apply to all water generated on developed or undeveloped land which enters the municipality's separate storm sewer system.
- (2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the municipal separate storm sewer system any discharge that is not composed entirely of stormwater or any discharge that flows from a stormwater facility that is not inspected in accordance with section 14-704 shall be an illicit discharge. Non-stormwater discharges shall include, but shall not be limited to, sanitary wastewater, car wash wastewater, radiator flushing disposal, spills from roadway accidents, carpet cleaning wastewater, effluent from septic tanks, improper oil disposal, laundry wastewater/gray water, improper disposal of auto and household toxins. The commencement, conduct or continuance of any non-stormwater discharge to the municipal separate storm sewer system is prohibited except as described as follows:
 - (a) Uncontaminated discharges from the following sources:
 - (1) Water line flushing or other potable water sources,
 - (2) Landscape irrigation or lawn watering with potable water,
 - (3) Diverted stream flows,
 - (4) Rising ground water,
 - (5) Groundwater infiltration to storm drains,
 - (6) Pumped groundwater,
 - (7) Foundation or footing drains,
 - (8) Crawl space pumps,
 - (9) Air conditioning condensation,
 - (10) Springs,
 - (11) Non-commercial washing of vehicles,
 - (12) Natural riparian habitat or wet-land flows,
 - (13) Swimming pools (if disinfected with chlorine and de-chlorinated prior to release - typically less than one PPM chlorine),
 - (14) Fire fighting activities, and
 - (15) Any other uncontaminated water source.
 - (b) Discharges specified in writing by the Public Works Department as being necessary to protect public health and safety.
 - (c) Dye testing is an allowable discharge if the Public Works Department has so specified in writing.

- (d) De minimus discharges – water discharges that pose insignificant threat to water quality and the environment.
 - (e) Discharges authorized by the Construction General Permit (CGP), which comply with section 1.2 of the same:
 - (i) dewatering of work areas of collected stormwater and ground water (filtering and chemical treatment may be necessary prior to discharge);
 - (ii) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
 - (iii) water used to control dust in accordance with the CGP section 5.5.3.7;
 - (iv) potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
 - (v) routine external building washdown that does not use detergents or other chemicals;
 - (vi) uncontaminated ground water or spring water; and
 - (vii) foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).
- (3) Prohibition of illicit connections.
- (a) The construction, use, maintenance or continued existence of illicit connections to the separate municipal storm sewer system is prohibited.
 - (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (4) Reduction of stormwater pollutants by the use of best management practices. Any person responsible for a property or premises, which is, or may be, the source of an illicit discharge, may be required to implement, at the person's expense, the BMPs necessary to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliant with the provisions of this section. Discharges from existing BMPs that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.
- (5) Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into stormwater, the municipal separate storm sewer system, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, the person shall notify the Public Works Department in person or by telephone or facsimile no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the Public Works Department within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the

discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least 5 years.

- (6) No illegal dumping allowed. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the city.

14-707 WAIVERS

- (1) General. Every landowner shall provide for stormwater management as required by this ordinance, unless a written request is filed to waive this requirement. Requests to waive the stormwater management plan requirements shall be submitted to the Public Works Department for approval.
- (2) Conditions for waiver. The minimum requirements for stormwater management may be waived in whole or in part upon written request of the landowner, provided that at least one of the following conditions applies:
 - (a) It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of this ordinance.
 - b) Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the Public Works Department.
- (3) Downstream damage, etc. prohibited. In order to receive consideration, the applicant must demonstrate to the satisfaction of the Public Works Department that the proposed alternative will not lead to any of the following conditions downstream:
 - (a) Deterioration of existing culverts, bridges, dams, and other structures;
 - (b) Degradation of biological functions or habitat;
 - (c) Accelerated streambank or streambed erosion or siltation;
 - (d) Increased threat of flood damage to public health, life or property.

14-708 ENFORCEMENT

- (1) Enforcement authority. The director of the Public Works Department (hereafter referred to as director) or his designees shall have the authority to issue notices of violation and citations, and to impose the civil penalties to anyone that violates this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action. The director's enforcement authority includes the following sections as set forth in the City's Enforcement Response Plan (ERP).
- (2) Notification of violation.
 - (a) Verbal warning. Verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector.
 - (b) Written Notice. Whenever the director or his designee finds that any permittee or any other person discharging stormwater has violated or is violating this ordinance or a permit or order issued hereunder, the director may serve upon such person written notice of the violation. Within ten (10) days of this notice, an explanation of the violation and a plan for the satisfactory correction and

prevention thereof, to include specific required actions, shall be submitted to the director. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.

- (c) Consent Orders. The director or his designee is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (d) and (e) below.
- (d) Show Cause Hearing. The director or his designee may order any person who violates this ordinance or permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. The hearing shall be before the Public Works director. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.
- (e) Compliance Order. When the director or his designee finds that any person has violated or continues to violate this ordinance or a permit or order issued thereunder, he may issue an order to the violator directing that, following a specific time period, adequate structures, devices, be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.
- (f) Cease and Desist Orders. When the director or his designee finds that any person has violated or continues to violate this ordinance or any permit or order issued hereunder, the director may issue an order to cease and desist all such violations and direct those persons in noncompliance to:
 - (1) Comply forthwith; or
 - (2) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.
- (3) Conflicting standards. Whenever there is a conflict between any standard contained in this ordinance and in the BMP manual adopted by the municipality under this ordinance, the strictest standard shall prevail.

14-709. PENALTIES

- (1) Violations. Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any

- lawful communication or notice to abate or take corrective action by the Public Works Department, shall be guilty of a civil offense.
- (2) Penalties. Under the authority provided in Tennessee Code Annotated section 68-221-1106, the municipality declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the Public Works Department of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.
 - (3) Measuring civil penalties. In assessing a civil penalty, the director of the Public Works Department may consider:
 - (a) The harm done to the public health or the environment;
 - (b) Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 - (c) The economic benefit gained by the violator;
 - (d) The amount of effort put forth by the violator to remedy this violation;
 - (e) Any unusual or extraordinary enforcement costs incurred by the municipality;
 - (f) The amount of penalty established by ordinance or resolution for specific categories of violations; and
 - (g) Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
 - (4) Recovery of damages and costs. In addition to the civil penalty in subsection (2) above, the municipality may recover:
 - (a) All damages proximately caused by the violator to the municipality, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation.
 - (b) The costs of the municipality's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this ordinance.
 - (5) Other remedies. The municipality may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
 - (6) Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.
 - (7) Referral to TDEC. In accordance with the City's Enforcement Response Plan and the NPDES Permit requirements, the Public Works Department may also notify TDEC of violations.

14-710 APPEALS

Pursuant to Tennessee Code Annotated section 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the Board of Environmental Appeals.

- (1) Appeals to be in writing. The appeal shall be in writing and filed with the City Clerk within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.

- (2) Public hearing. Upon receipt of an appeal, the Board of Environmental Appeals shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days notice by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal.
- (3) Appealing decisions of the Board of Environmental Appeals. Any alleged violator may appeal a decision of the Board of Environmental Appeals pursuant to the provisions of Tennessee Code Annotated, Title 27, Chapter 8.
- (4) If a petition for review of such damage assessment or civil penalty is not filed within thirty (30) days after the damage assessment or civil penalty is served in any manner authorized by law, the violator shall be deemed to have consented to the damage assessment or civil penalty, and it shall become final.

14-711 BOARD OF ENVIRONMENTAL APPEALS

- (1) There is created a Board of Environmental Appeals to hear appeals filed by any person incurring a civil penalty or damage assessment imposed pursuant to Section 14-709 of these regulations.
- (2) The board may issue subpoenas requiring attendance of witnesses and production of such evidence as requested, administer oaths, and take testimony as the board deems necessary to fulfill its purpose.
- (3) The board shall be composed of five members appointed by the Cookeville City Council.
- (4) The council shall select appointees so that the board will consist of individuals with an expertise as follows:
 - (a) One licensed professional engineer with civil engineering expertise.
 - (b) One licensed professional engineer.
 - (c) One representative of the development or industrial community.
 - (d) One neighborhood representative.
 - (e) One member at large.
- (5) The professional engineers shall have at least three (3) years experience in each member's area of expertise.
- (6) Board members shall serve for a term of five (5) years. A board member shall continue to serve, however, until a successor has been appointed, or until the board member has been reappointed. The terms of the original board members shall be staggered so that the term of one member shall expire each year.
- (7) An appointment to succeed a board member who is unable to serve said member's full term shall be for the remainder of said member's term.
- (8) Board members may be reappointed, but they do not succeed themselves automatically.
- (9) Board members shall serve without compensation.
- (10) The board shall annually select one of its members to serve as chair and another member to serve as vice-chair of the board by a majority vote of all members.
- (11) The board shall keep complete and accurate records of the proceedings of all their meetings. The Department of Public Works shall designate a person to serve as secretary to the board.

- (12) No board member shall participate in the appeal of any matter in which the member has direct personal or financial interest.
- (13) Three members of the board shall constitute a quorum, and the concurrence of a majority of the board present and voting in any matter shall be required for a determination of any matter within its jurisdiction.

14-712 STORMWATER MANAGEMENT GUIDELINES

These guidelines will outline the way stormwater detention and water quality treatment will be calculated. Stormwater detention is a necessary part of most stormwater treatment BMPs and is required for most developments.

The Stormwater Ordinance of the City of Cookeville is posted at the City of Cookeville Public Works Department's website and must be read by anyone attempting to perform stormwater calculations with the City of Cookeville. It contains provisions for fees, right-of-entry, definitions, easements and penalties. A major purpose of the Stormwater Ordinance is to improve water quality, stormwater quantity as well as comply with the City's NPDES Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4).

Stormwater Detention

Stormwater detention is required for any new development or re-development containing 5,000 square foot or more of impervious area. (Cookeville Municipal Code 14-608, Cookeville Zoning Code, Cookeville Subdivision Regulations). Where additions to the existing impervious area of the site bring the total area of impervious surface to 5,000 square foot or more, only the additional impervious area is required to provide detention.

Stormwater detention is defined as limiting the peak discharge rate for the post developed conditions to be no greater than the peak discharge rate for the predevelopment conditions. This must be accomplished using the 2-year, 5-year, and 10-year storms. The estimated design rainfall amounts for either 24-hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee:

http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html

Redevelopment of property shall be evaluated using one of the following methods unless otherwise determined by the Public Works Department:

1. Rational method – evaluate the pre-development conditions using the appropriate meadow/pastureland runoff coefficient or as existing conditions, the more conservative condition shall be used.

2. USDA Technical Release Number 55 (TR-55) – evaluate the pre-development conditions as either grassland conditions or existing conditions, the more conservative conditions shall be used.

All hydrological and hydraulic computations for stormwater detention facilities must be prepared and stamped by a registered engineer (licensed in the state of Tennessee) and proficient in this field. Plans must show sufficient information to enable the builder to construct the facility as required.

A dry detention basin must have a minimum of 2% slope in the bottom of the basin in order to drain properly. Side slopes should generally be 3:1 (H:V) or flatter, unless traversable access has been designed. Detention basins and ponds must provide forebays comprising a minimum of 10% of the total design volume. Existing regional detention ponds are not subject to the forebay requirement.

Underground detention is the use of large underground structures to provide necessary volumes for attenuating stormwater peak flows. Underground structures generally provide little or no stormwater quality benefits. The following minimum requirements must be met before an underground storage facility will be considered for approval:

- The underground detention structure must provide adequate access for inspection from the surface. Public safety must be considered.
- The underground detention structure must be constructed of durable materials with a typical 100-year lifetime. Detention storage volume shall not include the porous space within a stone or gravel bed without soils reports stamped by a geotechnical engineer stating that infiltration into the soils should exceed ½” per hour infiltration rate.
- The underground detention structure shall be designed to have positive drainage into the receiving channel or stormwater sewer assuming there is a 10-year flood in the receiving facility.
- The underground detention structure shall not receive surface runoff directly from parking lots. Surface water shall be directed to a BMP that improves water quality such as an oil/water separator, grass filter strips (of sufficient size to filter the water quantity), or a proprietary water quality device approved by the Public Works Department.
- Design measures must be taken to trap and store sediments in locations where cleanout and maintenance can be easily performed. This generally requires that some type of water quality inlet or other stormwater treatment BMP must be installed upstream from the underground detention facility. Proprietary water quality devices must be approved by the Public Works Department using industry wide standards identified by TDEC.
- A detailed maintenance and inspection plan must be submitted and approved (including inspection schedules and guidelines). Evidence of responsibility and financial budgeting must be presented.

Stormwater Water Quality Treatment

The water quality treatment volume (WQTV) commonly referred to as the first flush volume is defined as the first portion of direct runoff from impervious surfaces at a new development or redevelopment project. The water quality treatment design storm is defined by the 1-year, 24-hour design storm event that can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.

Depending on the type of permanent stormwater control measure (SCM) proposed for stormwater treatment at new development and redevelopment projects, the quantity of the WQTV or the first flush volume required to be treated is defined by the table below:

Water Quality Treatment Volume and the Corresponding SCM Treatment Type for the 1-year, 24-hour design storm		
SCM Treatment Type Proposed	WQTV Required	Notes
Infiltration, evaporation, transpiration, and/or reuse	Runoff generated from the first 1 inch of the design storm	Examples include, but not limited to, bioretention, stormwater wetlands, and infiltration systems with no underdrains
Biologically active filtration, with an underdrain	Runoff generated from the first 1.25 inches of the design storm	To achieve biologically active filtration, SCMs must provide minimum of 12 inches of internal water storage
Sand or gravel filtration, settling ponds, extended detention ponds, and wet ponds	Runoff generated from the first 2.5 inches of the design storm or the first 75% of the design storm, whichever is less	Examples include, but are not limited to, sand filters, permeable pavers, and underground gravel detention systems.
Hydrodynamic separation, baffle box settling, other flow-through manufactured treatment devices (MTDs), and treatment trains using MTDs	Maximum runoff generated from the entire design storm	Flow-through MTDs must provide an overall treatment efficiency of at least 80% TSS reduction.

The WQTV or first flush volume must be captured and released over a minimum of 24 hours and a maximum of 72 hours. No first flush runoff of impervious surfaces shall bypass the treatment facility. Stormwater recharge by infiltrating the first flush volume into the soil on site is the preferable method of first flush treatment. Infiltration may be accomplished by the use of Bioretention basins, rain gardens, bio swales, green parking for overflow lots, or other methods pre-approved by the Director of Public Works or his designee. Infiltration of the first flush may not be possible if the site is located on unsuitable soils. Where infiltration of stormwater is not possible or ill advised, treatment of the WQTV or first flush is defined as a practice or structure that removes 80% Total Suspended Solids (TSS) and other anticipated pollutants such as oil and grease.

To reach the required 80% TSS removal, multiple SCMs can be proposed on new development and redevelopment sites in a treatment train. Treatment train calculations must be submitted as defined by TDEC NPDES permit Section 4.2.5.2.

Site design standards for all new construction and redevelopment disturbing one acre or more are recommended to use in combination or alone, stormwater management measures that are designed, built and maintained to infiltrate, evapotranspire, harvest and/or use the first flush of every rainfall event preceded by 72 hours of no measurable precipitation. The first flush of rainfall should be 100% managed with no discharge to surface waters.

Stormwater management measures that are often referred to as green infrastructure that can infiltrate the first flush of rainfall are the goal that TDEC is aiming for that they term runoff reduction. Green infrastructure includes many practices including; rain gardens, bioretention, infiltration swales, etc.

Some sites are not suitable for infiltration methods and infiltration requirements may be set aside on such sites, with prior agreement by the Public Works Department. Limitations to using runoff reduction methods include, but are not limited to:

1. Where the potential for introducing pollutants into the ground water exists, unless pretreatment is provided;
2. Where pre-existing soil contamination is present in areas subject to contact with infiltrated runoff;
3. The presence of sinkholes or other karst features on the site or in close proximity;
4. Insufficient infiltration capacity of soils;
5. An extensive presence of shallow ground water table, shallow bedrock or other restrictive layers; and
6. Presence of contractive or expansive soils in close proximity to structures.

Pre-development infiltration capacity of the soils at the site must be taken into account in selection of runoff reduction management measures.

Incentive standards for redevelopment sites: a 10% reduction in volume of rainfall to be managed for any of the following types of development. Such credits are additive such that a maximum reduction of 50% of the standard one inch is possible for a project that meets all 5 criteria:

1. Redevelopment
2. Brownfield redevelopment
3. High density (>7 units per acre)
4. Vertical density (>18 units per acre)
5. Mixed use

For all projects that cannot meet 100% of the first flush runoff reduction requirement unless subject to the incentive standards, the remainder of the first flush rainfall must be treated prior to discharge with a practice or technology documented to remove 80% total suspended solids (TSS). The treatment practice or technology must be designed, installed and maintained to continue to meet this performance standard.

In addition to the runoff reduction requirement for the first flush rainfall, minimum volume controls are required to detain those storms greater than the 1 yr, 24 hr depth as outlined above in the Stormwater Detention section.

Appendix 6

Chapter 8 Riparian Buffer Zones Ordinance 2024

CHAPTER 8
RIPARIAN BUFFER ZONES

SECTION

14-801. GENERAL PROVISIONS

14-802. DEFINITIONS

14-803. STANDARDS

14-804. BUFFER ZONE MANAGEMENT AND MAINTENANCE

14-805. EXEMPTIONS

14-806. VARIANCES AND MODIFICATIONS

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14-809. APPEALS

14-801 GENERAL PROVISIONS

Riparian buffer zones serve as natural boundaries between local waterways and development and help to protect water resources by filtering pollutants, providing infiltration of stormwater runoff, providing wildlife habitat, stabilizing the banks and restoring and maintaining the chemical, physical and biological integrity of the water resources.

It is the desire of the City of Cookeville to protect and maintain the native vegetation in riparian areas by the implementation of specifications for the establishment, protection and maintenance of vegetated buffers along all water resources within the City. These provisions apply to all lots which are contiguous with or directly adjoin water bodies determined to meet the definition of streams, ponds, wetlands, springs, reservoirs or lakes. These provisions are applicable to permanent riparian buffer zones and are not referring to temporary construction buffer zones as required by the Tennessee Construction General Permit, those buffer zones are required by State Law and are separate and covered by separate ordinances.

14-802 DEFINITIONS

For the purpose of this section, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The words “shall” and “will” are mandatory and not discretionary. The word “may” is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster’s Dictionary.

- “BMPs” or “Best Management practices” are physical, structural and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Cookeville, and that have been incorporated by reference into the City Stormwater ordinances. [Note: see section 14.704(1) for recommended BMP manual.]

- “Channel” means a natural watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- “Dumping” means the introduction of material into the riparian buffer zone which could wash into the stream or otherwise cause contamination of the stream.
- “Filling” means the deposit of earth by artificial means.
- “Grading” means the operation of raising or lowering the ground surface to a predetermined elevation datum.
- “Impervious” means not allowing the passage of water through the surface of the ground or ground covering, or a substantial reduction in the capacity for water to pass through the surface of the ground or ground covering.
- “Right-of-way” is land over which a road, railroad, etc. passes.
- “Riparian” relating to, or living on the bank of a river, stream, lake, wetland, etc.
- “Riparian Buffer” is an undisturbed area, measured from Top of Bank of Water Resource, which consists of a Riparian Zone comprised of Native Vegetation, original or re-established, bordering streams, ponds, wetlands, springs, reservoirs or lakes or other water resources designated by the state is requiring a riparian buffer.
- “Stabilize” means to provide adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- “Stream” is a linear surface water that is not a Wet-Weather Conveyance as determined by a Qualified Hydrological Professional.
- “Stripping” means the removal of existing vegetation or soils.
- “Wet Weather Conveyance” is a man-made or natural watercourse, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality, whose channels are above the groundwater table and which do not support fish and aquatic life and are not suitable for drinking water supplies, and in which hydrological and biological analysis indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two (2) months. Determination of what channels are wet weather conveyances may be made by a Qualified Hydrological Professional.
- “Wetlands” are those areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typical to life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, bogs and similar areas. Wetlands are designated by federal or state organizations with this responsibility.

14-803 STANDARDS FOR BUFFER ZONES

The following standards shall apply for all riparian buffer zones:

- A. The vegetated buffer shall begin at the ordinary high water level and break in slope of the water resource.

- B. The riparian buffer width shall depend upon the assessment status of the drainage area's receiving waters for the project. Streams and other waters with available parameters for siltation or habitat alteration or unassessed waters will require buffer widths of 30 feet average. Streams or other waters listed as Exceptional Tennessee Waters or water with unavailable parameters for siltation or habitat alteration will require buffer widths of 60 feet average. The required width of the buffer zone may be averaged, as long as the minimum width of the buffer zone is equal to or greater than one half the average width given above. Buffer averaging must be applied to each side of the stream or other waters independently.
- C. The vegetative target for the riparian buffer is undisturbed native vegetation with woody vegetation (i.e. trees and shrubs) being the dominant plant form along the banks.
- D. There shall be no septic systems, permanent structures or impervious cover within the riparian buffer zone.
- E. Stormwater discharges should enter the riparian buffer as sheet flow, not as concentrated flow. Exceptions to this are at the discretion of the Public Works Department where site conditions would not allow sheet flow to be achieved prior to entering the riparian buffer.

14-804 BUFFER ZONE MANAGEMENT AND MAINTENANCE REQUIREMENTS

The following requirements shall apply for the management and maintenance of riparian buffer zones:

- A. The riparian buffer zone shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations on alteration of the natural conditions of these resources. The following practices or activities are not allowed within the buffer zone:
 - 1. Soil disturbance by grading, stripping or other practices.
 - 2. Filling or dumping.
 - 3. Use, storage or application of herbicides, except for spot spraying of noxious weeds or non-native species.
 - 4. Storage or operation of motorized vehicles, except for maintenance and emergency use approved by the Public Works Department.

EXCLUSION: Any project that has received a State or Federal Permit (including but not limited to Aquatic Resource Alteration Permits (ARAP), 401 or 404 permits) will

be excluded from those requirements of this policy that are super ceded by requirements of the state or federal permits.

- B. The following structures, practices, and activities are permitted in the buffer zone, with specific design or maintenance features, subject to the review of the Public Works Department.
 - 1. Individual trees within the buffer zone may be removed which are in danger of falling, causing damage to dwellings or other structures, or causing blockages in the stream.
 - 2. Roads, bridges, paths and utilities:
 - a. The right-of-way should be the minimum width needed to allow for maintenance access and installation.
 - b. The angle of the crossing shall be perpendicular to the stream or buffer in order to minimize clearing requirements.
 - c. A minimum number of road crossings should be used within each subdivision, and no more than one stream crossing is allowed for every 1000 feet of buffer.
 - 3. Stormwater management:
 - a. In new development, on-site and non-structural alternatives will be preferred over larger facilities within the stream buffer. When constructing stormwater management facilities (i.e. BMPs), the area cleared will be limited to the area required for construction and adequate maintenance access, as outlined in the Tennessee Erosion and Sediment Control Handbook.
 - b. Material dredged or otherwise removed from a BMP shall be stored outside the buffer.
 - 4. Stream restoration projects, facilities and activities approved by Public Works are permitted within the riparian buffer zone.
 - 5. Water quality monitoring and stream gauging are permitted within the stream buffer zone, as approved by the Public Works Department.

14-805 EXEMPTIONS

These provisions shall apply to all proposed development except for that development which prior to the effective date of this policy:

- A. Is covered by a valid, unexpired plat in accordance with development regulations.
- B. Is covered by a valid, unexpired building permit.

14-806 VARIANCES AND MODIFICATIONS

The Public Works Director may reduce or modify the requirement for a stream buffer zone for projects which will not result in disturbance of the land or where on-site conditions

clearly demonstrate that the site is not now occupied by riparian habitat vegetation and would not effectively respond to riparian re-vegetation. An applicant requesting such a waiver shall submit sufficient information to substantiate the request to waive the requirement.

14-807 ENFORCEMENT

- A. Enforcement authority. The director of the Public Works Department (hereafter referred to as director) or his designees shall have the authority to issue notices of violation and citations, and to impose the civil penalties to anyone that violates this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action. The director's enforcement authority includes the following sections as set forth in the City's Enforcement Response Plan (ERP).
- B. Notification of violation.
1. Written Notice. Whenever the director finds that any permittee or any other person has violated or is violating this ordinance, the director may serve upon such person written notice of the violation. Within fourteen (14) days of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the director. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice of violation.
 2. Consent Orders. The director is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the noncompliance. Such orders will include specific action to be taken by the person to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraphs (4) and (5) below.
 3. Show Cause Hearing. The director may order any person who violates this ordinance, to show cause why a proposed enforcement action should not be taken. The hearing shall be before the Public Works director. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meetings shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing.

4. Compliance Order. When the director finds that any person has violated or continues to violate this ordinance, he may issue an order to the violator directing that, following a specific time period, adequate structures, devices, be installed or procedures implemented and properly operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the non-compliance, including the construction of appropriate structures, installation of devices, self-monitoring, and management practices.
 5. Cease and Desist Orders. When the director finds that any person has violated or continues to violate this ordinance, the director may issue an order to cease and desist all such violations and direct those persons in noncompliance to:
 - a. Comply forthwith; or
 - b. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations.
- C. Conflicting standards. Whenever there is a conflict between any standard contained in this ordinance and in the BMP manual adopted by the municipality, the strictest standard shall prevail.

14-808. PENALTIES

- A. Violations. Any person who shall commit any act declared unlawful under this ordinance, who violates any provision of this ordinance, who violates the provisions of any permit issued pursuant to this ordinance, or who fails or refuses to comply with any lawful communication or notice to abate or take corrective action by the Public Works Department, shall be guilty of a civil offense.
- B. Penalties. Under the authority provided in Tennessee Code Annotated section 68-221-1106, the municipality declares that any person violating the provisions of this ordinance may be assessed a civil penalty by the Public Works Department of not less than fifty dollars (\$50.00) and not more than five thousand dollars (\$5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.
- C. Measuring civil penalties. In assessing a civil penalty, the director of the Public Works Department may consider:
 1. The harm done to the public health or the environment;
 2. Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity;
 3. The economic benefit gained by the violator;
 4. The amount of effort put forth by the violator to remedy this violation;
 5. Any unusual or extraordinary enforcement costs incurred by the municipality;
 6. The amount of penalty established by ordinance or resolution for specific categories of violations; and

7. Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.
- D. Recovery of damages and costs. In addition to the civil penalty in subsection (B) above, the municipality may recover:
1. All damages proximately caused by the violator to the municipality, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with, this ordinance, or any other actual damages caused by the violation.
 2. The costs of the municipality's maintenance of stormwater facilities when the user of such facilities fails to maintain them as required by this ordinance.
- E. Other remedies. The municipality may bring legal action to enjoin the continuing violation of this ordinance, and the existence of any other remedy, at law or equity, shall be no defense to any such actions.
- F. Remedies cumulative. The remedies set forth in this section shall be cumulative, not exclusive, and it shall not be a defense to any action, civil or criminal, that one (1) or more of the remedies set forth herein has been sought or granted.
- G. Referral to TDEC. In accordance with the City's Enforcement Response Plan and the NPDES Permit requirements, the Public Works Department may also notify TDEC of violations.

14-809 APPEALS

Pursuant to Tennessee Code Annotated section 68-221-1106(d), any person aggrieved by the imposition of a civil penalty or damage assessment as provided by this ordinance may appeal said penalty or damage assessment to the Board of Environmental Appeals.

- A. Appeals to be in writing. The appeal shall be in writing and filed with the City Clerk within fifteen (15) days after the civil penalty and/or damage assessment is served in any manner authorized by law.
- B. Public hearing. Upon receipt of an appeal, the Board of Environmental Appeals shall hold a public hearing within thirty (30) days. Ten (10) days prior notice of the time, date, and location of said hearing shall be published in a daily newspaper of general circulation. Ten (10) days notice by registered mail shall also be provided to the aggrieved party, such notice to be sent to the address provided by the aggrieved party at the time of appeal.
- C. Appealing decisions of the Board of Environmental Appeals. Any alleged violator may appeal a decision of the Board of Environmental Appeals pursuant to the provisions of Tennessee Code Annotated, Title 27, Chapter 8.
1. If a petition for review of such damage assessment or civil penalty is not filed within thirty (30) days after the damage assessment or civil penalty is served in any manner authorized by law, the violator shall be deemed to have consented to the damage assessment or civil penalty, and it shall become final.

Appendix 7

Public Information and Education (PIE) Plan



PUBLIC INFORMATION & EDUCATION (PIE) PLAN

Permit # TNS075256

Prepared By:

Mary Beth Elrod, P.E.

Civil Engineer/Stormwater Manager

Public Works Department

Cookeville, TN 38501

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November 30, 2022

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INTRODUCTION

The City of Cookeville presents this Public Information and Education (PIE) Plan outlining a framework for the City's stormwater public education and outreach program. The PIE plan is required by the State of Tennessee's Small Municipal Separate Storm Sewer System (MS4) General NPDES Permit. The City is given coverage under the NPDES General Permit for Discharges under Permit Tracking Number TNS075256. The requirements of the PIE Plan are listed in Section 4.2.1 of the Small MS4 General Permit and shall include the following:

- a) Specific public information/education activities that are designed to meet the management measure
- b) Identification of job categories and applicable management measure for employee education
- c) Schedule/calendar of events for each year
- d) Methodology to evaluate components to assess overall effectiveness and the need for improvement

The objective of this program is to reduce or eliminate behaviors and practices that cause or contribute to the impacts of stormwater discharges on water bodies and the steps that the audiences can take to reduce pollutants in stormwater runoff to the maximum extent practicable (MEP).

The PIE Plan documents that the City's Public Education and Outreach program provides general information on impact of stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff, as well as targeted information for specific pollutants and sources that may cause or contribute to impairment.

TARGETED AUDIENCES & MANAGEMENT MEASURES

Per the Small MS4 General Permit, this program is designed to reach three major audiences (1) the general public, (2) engineering and development community, and (3) City employees. Each targeted audience has defined management measures that must be met by activities conducted.

1. General Public Management Measures

Conduct activities to address the following issues:

- a) General awareness of the impacts on water quality
- b) Awareness of the importance of maintenance activities for operators of permanent Best Management Practices (BMPs)/Stormwater Control Measures (SCMs)
- c) Awareness of the proper storage, use, and disposal of pesticides, herbicides, fertilizers, oil, and other automotive-related fluids
- d) Awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.

2. Engineering and Development Community Management Measures

Conduct activities to address the following issues:

- a) Awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts
- b) Awareness of the stormwater ordinances, regulations, and guidance materials related to construction phase water quality impacts

3. City Employees Management Measures

Conduct activities to address the following issues:

- a) Awareness of water quality impacts from daily operations
- b) Pollution Prevention and Good Housekeeping
- c) The awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer diversions or seepages, spills, etc.

TARGETED INFORMATION AND EDUCATION

Our Public Education and Outreach program has identified the following pollutants and sources as having the most potential to contribute pollutants to our water bodies:

- Landscaping, Gardening & Pest Control
- Food Service Industry
- Automotive Maintenance & Car Care
- Heavy Equipment & Earth Moving Activities
- Detention Pond Maintenance
- Home Repair & Remodeling
- Animal Waste
- Swimming Pool discharges

In an effort to target these potential pollutants the City has created brochures to guide the audiences most likely to contribute those pollutants. These brochures are handed out at public events as well as used as targeted mailings to specific business types.

Our Landscaping, Gardening & Pest Control brochure targets soils, yard wastes, over watering, and garden chemicals such as fertilizers, pesticides and herbicides; with information on keeping the pollutants out of our water bodies, with alternatives to common chemicals and with proper disposal procedures for these pollutants. This brochure is targeted to homeowners, gardeners, landscapers and pest control companies.

Our Food Service Industry brochure targets oil, grease, trash and cleaning chemicals; with information on minimizing wastes, recycling wastes, oil/water separators, and employee education. This brochure is targeted to restaurants, grocery/convenience stores, bakeries, food producers and distributors.

Our Automotive Maintenance & Car Care brochure targets oil, grease, antifreeze, asbestos, zinc, and organic compounds and metals from spilled fuels; with information on non-toxic cleaning products, spill response, automotive fluid disposition, vehicle washing practices, recycling of

wastes, vehicle fueling practices and employee education. This brochure is targeted to gas stations, auto repair shops, auto body shops, car dealerships, fleet managers & fleet washing businesses.

Our Heavy Equipment & Earth Moving Activities brochure targets erosion and sediment control, cleaning solvents, cement washout, asphalt and vehicle fluid leaks and spills; with information on general business practices, spill response, vehicle and equipment maintenance and erosion and sediment control. This brochure is targeted to site supervisors, earth moving equipment operators, dump truck drivers, general contractors, home builders and developers.

Our Detention Pond Maintenance brochure targets commercial, industrial and residential detention pond owners with information on proper maintenance of detention ponds and sand filters.

Our Home Repair & Remodeling brochure targets hazardous waste disposal, concrete and masonry wastes, oils & grease disposal, painting wastes, landscaping & gardening wastes and chemicals and erosion control; with information on proper disposal and work practices to minimize pollutants from these activities. This brochure is targeted to homeowners, do-it-yourselfers, and contractors for home repair and remodeling.

Our Swimming Pool Guidance is targeted to pool owners and pool maintenance companies to inform them of the proper disposal of chlorinated and non-chlorinated pool disinfectant disposal.

Our Storm Drains Are for Rain brochure is targeted to the general public and informs people about the need to keep yard wastes, fertilizers, pesticides, herbicides, fungicides, insecticides, litter, automobile fluids and animal wastes out of our stormwater.

Children's Coloring Books containing the same information as the above brochures is targeted to educate children and parents about pollution prevention and keeping storm water clean.

GENERAL INFORMATION AND OUTREACH ACTIVITIES

The City of Cookeville has a dedicated webpage for our stormwater program which can be accessed by the following link:

<https://www.cookeville-tn.gov/249/Stormwater-Management>

The webpage contains the following information that targets the general public and the engineering and development community.

- Frequently Asked Questions Section: defines what stormwater runoff is, problems it causes, how to reduce stormwater runoff, and additional information
- Construction Stormwater Section: provides links to the City ordinances and guidelines for Erosion and Sediment Control, Stormwater Management, and Riparian Buffer Zones as well as Construction Stormwater permitting information
- Permit Forms Section: provides links to forms for our QLP program for CGP permitting

- Helpful Links: provides links to TDEC’s website, stormwater and erosion control manuals, etc.
- Pamphlets and Information Section: provides a PDF link to all of our brochures as listed in the previous section as well as How To Brochures and Native Plants information

In addition to the targeted brochures, the City has and will continue to provide educational opportunities for both the general public and the engineering and development community. Particular training is based on the need and offers of assistance from other agencies, but the City will continue to promote educational opportunities as they arise. The following educational opportunities are examples of the community events:

- Sinkhole cleanups partnering with TTU and Cookeville Clean Commission
- Tree Plantings partnering with local clubs and TTU
- Grab bag handouts at local events and to local clubs with brochures, rain gauges, etc
- Children’s Grab Bag handouts at local events with Stormwater Coloring Books, etc.
- Pre-development and Pre-Construction meetings with Developers/Engineers to review and comment on proposed plans on how to comply with City ordinances
- Meetings with Homeowner Association Presidents and Groups to evaluate the conditions of the existing developments and educate them on their permanent SCMs and maintenance requirements
- EPSC Level I Certification and Re-Certification of City Employees

In addition to posting our Stormwater program information on the City’s webpage, the City of Cookeville also holds public notice hearings as needed but at least annually to allow the public to comment on our Stormwater Management Program.

CITIZEN REPORTING

The City of Cookeville has a dedicated webpage and hotline for the public to report problems or file complaints.

- Citizen Request Tracker Webpage: <https://www.cookeville-tn.gov/RequestTracker.aspx>
- Hotline: (931)-520-5201

These reports are sent directly to the Stormwater Manager and Inspector who then follow the City’s Illicit Discharge Detection and Elimination (IDDE) Plan and our Enforcement Response Procedure (ERP) as required depending on the severity of the situation.

PROGRAM GOALS AND METRICS

The City of Cookeville has implemented several BMPs for our Stormwater Management program that are aimed specifically toward Public Information and Education as a result of Small MS4 General Permit requirements. The following table of activities and goals are the BMPs that

have been implemented to meet targets or provide general information with the resources that are available to the City.

Activity Description	Goal	Distribution Type	Target Audience	Metric
Brochure/Coloring Book/Print Material Distribution at Public Events and Targeted Mailings	3 times/year	Publication	Homeowners, Children, Developers, Contractors, Employees, Public	# distributed/year
Public Events (cleanups, tree plantings, speaking, presentations, exhibits, etc.)	3 times/year	Event/ Training/ Educational Event	Homeowners, Children, Developers, Contractors, Employees, Public	# participants/year
Website/Social Media	3 times/year	Internet	Homeowners, Children, Developers, Contractors, Employees, Public	# hits/year
IDDE Targeted Mailings/Posts	3 times/year	Publication/Internet	Homeowners, Children, Developers, Contractors, Employees, Public	#mailed/year #hits/post/year #reports/year
Public Notices/Hearings	1 time/year	Publication/Internet	Public	#attendees/year #comments/year
Grab Bag Distribution	2 times/year	Events/ Club Meetings	Children, Public	# provided/year
Site Review/Plat Review /Pre-Construction Meetings	2 times/year	Scheduled Meeting	Engineers, Developers, Contractors, Employees	# meetings/year
City Employee SOP Training	1 time/year	In-Person/Online Training, Publications	Employees	#trained/year # distributed/year
EPSC Level I Certification/Re-Certification for Employees	1 time/year	In-Person/Online Training	Employees	#trained/year

Appendix 8

Illicit Discharge Detection & Elimination (IDDE) Plan



ILLICIT DISCHARGE DETECTION & ELIMINATION PLAN

Illicit discharges are prohibited by City ordinance and the Cookeville MS4 Permit requires that a plan be written to detect, identify and eliminate non-stormwater discharges, including illegal disposal, throughout the MS4 jurisdiction.

Illicit discharges are searched for during dry weather screening; normally this takes place in the drier weather months of late summer and early fall. October is historically the driest month of the year and dry weather screening during this month is appropriate. Dry weather screenings of wet weather conveyances are done in the planning zones of Industrial and Commercial areas, as these are the most likely areas to find discharges and while the runoff is limited it becomes obvious that flows in an otherwise empty ditch line are often discharges that are non-stormwater in nature. The City has designated Industrial and Commercial zoning as hot spots.

Often the information is called into the office to report an Illicit Discharge. Once a call is received and information is gathered as to the location of the concern, a field survey of the area is done. If the discharge is located and has not entered into waterways the emphasis is placed on keeping the discharge from entering waterways. Depending upon the material discharged a plan is created to contain the discharge and get it removed from the environment. Disposal depends upon the substance, if it is hazardous the discharger is required to contact a Hazardous Waste Disposal company. If the substance is non-hazardous the material can be disposed of in the Solid Waste dump.

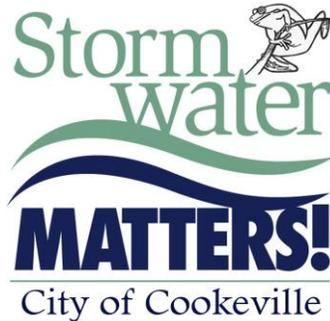
If the discharge has entered into a waterway, notification of the Tennessee Department of Environment and Conservation is done and advise from TDEC is followed.

If a discharger is found then a Notice of Violation is written or a verbal agreement may be entered into to get the discharge cleaned up and properly disposed of. From this point we follow our Enforcement Response Procedure.

Documentation of any Illicit Discharge Investigation is written and entered into our BMP Information Database under the IDDE Enforcement section.

Appendix 9

Enforcement Response Procedure (ERP)



ENFORCEMENT RESPONSE PROCEDURE

Complaints will be investigated promptly, dependent upon the type of complaint and the likelihood of continued discharge, investigations should be undertaken as soon as possible.

Maximum time from complaint to investigation commencement is seven days. When an inspector finds a discharge that violates any portion of either the Erosion and Sediment Control or the Stormwater Management Ordinances, the following procedures are to be followed in the order given unless circumstances are of sufficient severity that requires a stepped-up response. This is at the discretion of the stormwater manager.

- Determine the permit status of the property. Is it permitted by the City or State? Should it be permitted by one or both? If permits are not in order for the property owner must be contacted and expected to resolve the permitting compliance concerns.
- Consent Order – may be a verbal agreement or a written agreement. Contact the owner/operator of the property.

Notify by phone if a minor infraction or easily explained – offer to meet on site as soon as possible if there does not seem to be an agreement and understanding regarding the explanation or if the owner/operator has any questions or concerns.

For more complex solutions, multiple failures, potential failures or at the discretion of the inspector, require a site visit with the owner/operator.

Site Visit – personnel required

Minor violation – inspector and the owner/operator

Major/Repeated violation – stormwater manager, inspector (optional), and the owner/operator

Illicit Discharge – stormwater manager, inspector (optional) and the owner/operator

Agenda for the Site Visit: Identify failures that lead to the discharge or that have strong potential to result in a discharge. Discuss measures deemed necessary to correct the deficiencies. This could include:

Repair of existing BMPs

Installation of new/additional BMPs

Containment of the discharged material
Clean up of the material – which could require services of a licensed and state approved environmental remediation contractor.
Timetable for meeting the goal.

- Compliance Order – may be verbal order or written order.

Site Visit requires stormwater manager/Public Works Director, and the property's owner/operator.

Agenda for the Site Visit: Identify failures that lead to the discharge or that have strong potential to result in a discharge. Discuss measures required to correct the deficiencies. This could include:

Repair of existing BMPs
Installation of new/additional BMPs
Containment of the discharged material
Clean up of the material – which could require services of a licensed and state approved environmental remediation contractor.
Timetable for meeting the goal.
May require the owner/operator to employ the services of a licensed engineer or an approved erosion and sediment control designer.

- Cease and Desist Order – the Director may issue an order to a person who has violated or continues to violate either ordinance to cease and desist violations and to:
 1. Comply with Orders immediately
 2. Perform any actions necessary to bring the site into compliance up to and including halting all operations not required to achieve compliance.
- Show Cause Hearing – Director may require violator to attend a hearing and show cause why the proposed Enforcement Action should not be taken.
- Written Notice of Violation

This step is taken when other methods of correcting the violation have failed; when the violation involves an illicit discharge; when the violation is of large or especially damaging proportions; when the violator can not be located by telephone to arrange a site visit, or when violator has repeatedly failed to follow the requirements of the inspector.

We are required by ordinance to give violators fourteen (14) days after receipt of a NOV to produce a plan to the Director for the correction/prevention of the discharge. Therefore, we will use the Written NOV only under circumstances which require this document. The preferred procedure for violations of these ordinances is to obtain a consent order from the owner/operator with a reasonable timeframe for compliance, normally before the next rainfall.

Appendix 10

State of TN NPDES Construction General Permit (CGP) (Effective October 1, 2021)



National Pollutant Discharge Elimination System (NPDES)

General Permit for Discharges of Stormwater Associated with Construction Activities

Permit Number TNR100000

Issued by
Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the authorization by the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4, including special requirements as provided in Subpart 6.4 of this general permit, operators of point source discharges of stormwater associated with construction activities into waters of the State of Tennessee, are authorized to discharge stormwater associated with construction activities in accordance with the following permit monitoring and reporting requirements, effluent limitations, and other provisions as set forth in parts 1 through 10 herein, from the subject outfalls to waters of the State of Tennessee.

This permit is issued on: **September 27, 2021**

This permit is effective on: **October 1, 2021**

This permit expires on: **September 30, 2026**


for Jennifer Dodd
Director

Tennessee General Permit No. TNR100000
Stormwater Discharges Associated with Construction Activities

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PART 1

1. COVERAGE UNDER THIS GENERAL PERMIT

1.1. PERMIT AREA

The construction general permit (CGP) covers all areas of the State of Tennessee.

1.2. DISCHARGES COVERED BY THIS PERMIT

1.2.1. Stormwater Discharges Associated with Construction Activities

Discharge of stormwater associated with construction activity, as used in this permit, refers to stormwater point source discharges from areas where soil disturbing activities, or associated construction support activities (see Section 1.2.2) are located. Soil disturbing activities include but are not limited to clearing, grading, grubbing, filling and excavation.

This permit authorizes stormwater point source discharges from construction activities that result in soil disturbances of one or more acres. Soil disturbances of less than one acre are required to obtain authorization under this permit if construction activities are part of a larger common plan of development or sale that comprises at least one acre of cumulative land disturbance. One or more site operators must maintain coverage under this permit for all portions of a site that have not been permanently stabilized.

Projects of less than one acre of total land disturbance require authorization under this permit if:

- a) the director has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
- b) the director has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state¹; or
- c) changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater discharge permit.

¹ "Significant contributor of pollutants to waters of the state" means any discharge containing pollutants that are reasonably expected to cause or contribute to a violation of a water quality criteria or receiving stream designated uses.

1.2.2. Stormwater Discharges Associated with Construction Support Activities

This permit also authorizes stormwater discharges from support activities associated with a permitted construction activity. Support activities may include concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas and borrow areas. Support activities are authorized provided all of the following conditions are met:

- a) The support activity is related to a construction activity that is covered under this general permit.
- b) The operator of the support activity is the same as the operator of the construction activity.
- c) The support activity is not a commercial operation serving multiple unrelated construction projects by different operators.
- d) The support activity does not operate beyond the completion of the construction activity of the last construction project it supports.
- e) Support activities are identified in the Notice of Intent (NOI) and the Stormwater Pollution Prevention Plan (SWPPP). The appropriate erosion prevention and sediment controls and measures applicable to the support activity shall be described in a site-wide SWPPP covering all discharges from the support activity areas.

This permit does not authorize any process (dry weather) wastewater discharges from support activities. Process (dry weather) wastewater discharges from support activities must be authorized by an individual permit or other appropriate general permit.

TDOT projects shall be addressed in the *Waste and Borrow Policy*. Stormwater discharges associated with support activities that have been issued a separate individual permit or an alternative general permit are not authorized by this general permit.

1.2.3. Non-Stormwater Discharges Authorized by this Permit

The following non-stormwater discharges from site-wide SWPPP areas of permitted construction activities are authorized by this permit provided the non-stormwater component of the discharge is in compliance with Subsection 5.5.3.12:

- a) Dewatering of collected stormwater and groundwater, discharged in accordance with section 4.1.3.



- b) Waters used to wash dust and soils from vehicles where detergents are not used and detention and/or filtering is provided before the water leaves site. Wash removal of process materials such as oil, asphalt or concrete is not authorized.
- c) Water used to control dust in accordance with Section 5.5.3.7.
- d) Potable water sources, including waterline flushings, from which chlorine has been removed to the maximum extent practicable.
- e) Routine external building washdown that does not use detergents or other chemicals.
- f) Uncontaminated, non-turbid groundwater or spring water.
- g) Foundation or footing drains where flows are not contaminated with pollutants (e.g., lubricants and fluids from mechanized equipment, process materials such as solvents, heavy metals, etc.).
- h) Discharges from emergency fire-fighting activities.
 - i) Fire hydrant flushings.
 - j) Landscape irrigation.
- k) Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used.
- l) Uncontaminated air conditioning or compressor condensate.

All non-stormwater discharges authorized by this permit must be free of sediment and other solids, must not cause erosion of soils, and must not result in sediment or erosion impacts to receiving streams.

1.2.4. Other NPDES-Permitted Discharges

Discharges of stormwater or wastewater authorized by and in compliance with a different NPDES permit may be mixed with discharges authorized by this permit.

1.3. LIMITATIONS ON COVERAGE

Except for discharges from support activities, as described in Section 1.2.2 and non-stormwater discharges listed in Section 1.2.3, all discharges covered by this permit shall be composed entirely of stormwater. This permit does not authorize the following discharges:

- a) Post-construction discharges - Stormwater discharges associated with permanent stormwater management structures after construction

- activities have been completed, the site has undergone permanent stabilization and the coverage under this permit has been terminated.
- b) Discharges mixed with non-stormwater - Discharges that are mixed with sources of non-stormwater, other than discharges which are identified in Section 1.2.4 and in compliance with Subsection 5.5.3.12 of this permit.
 - c) Discharges covered by another permit - Discharges associated with construction activities that have been issued an individual permit in accordance with Subpart 8.11.
 - d) Discharges threatening water quality - Discharges from construction sites that the director determines will cause or has the reasonable potential to cause or contribute to violations of water quality standards. Where such a determination has been made, the division will notify the discharger in writing that an individual permit application is necessary as described in Subpart 8.11. The division may authorize coverage under this permit after appropriate controls and implementation procedures have been included in the SWPPP that are designed to bring the discharge into compliance with water quality standards.
 - e) Discharges into waters with unavailable parameters - Discharges to waters with unavailable parameters that would cause measurable degradation of water quality for the parameter that is unavailable; or that would cause additional loadings of unavailable parameters that are bioaccumulative or that have criteria below method detection levels. Waters with unavailable parameters means any segment of surface waters that has been identified by the division as failing to support its designated classified uses. A discharge that complies with the additional requirements set forth in Subpart 6.4 is not considered to cause measurable degradation of waters with unavailable parameters, unless the division determines upon review of the SWPPP that there is a reason to limit coverage as set forth in Subpart 1.3(d) and the SWPPP cannot be modified to bring the site into compliance.
 - f) Discharges into Outstanding National Resource Waters - Discharges into waters that are designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRW) pursuant to Tennessee Rules, Chapter 0400-40-03-.06(5), except activities conducted by, or on behalf of, the National Park Service on its own lands.
 - g) Discharges into Exceptional Tennessee Waters - Discharges that would cause more than de minimis DE MINIMIS degradation of water quality for any available parameter in waters designated by TDEC as Exceptional Tennessee Waters. A discharge that complies with the additional requirements set forth in Subpart 6.4 is not considered to cause more than de minimis degradation of available parameters unless the division determines upon review of the SWPPP that there is a reason to limit



coverage as set forth in Subpart 1.3(d)) and the SWPPP cannot be modified to bring the site into compliance.

- h) Discharges not protective of aquatic or semi-aquatic threatened and endangered species, species deemed in need of management or special concern species - Discharges or discharge-related activities that are likely to jeopardize the continued existence of listed or proposed threatened or endangered aquatic species, or their critical habitat, under the Endangered Species Act (ESA), or other applicable state law or rule.

Discharges or conducting discharge-related activities that will cause a prohibited "take" of federally listed aquatic species (as defined under Section 3 of the ESA and 50 CFR §17.3) unless such take is authorized under Sections 7 or 10 of the ESA.

Discharges or conducting discharge-related activities that will cause a prohibited "take" of state listed aquatic species², unless such take is authorized under the provisions of T.C.A. § 70-8-106(e).

- i) Discharges from a new or proposed mining operation - Discharges from new or proposed mining operations are not authorized.
- j) Discharges into waters with an approved Total Maximum Daily Load - Discharges of a pollutant to waters for which there is an EPA-approved or established total maximum daily load (TMDL) for that pollutant, unless the SWPPP incorporates measures or controls consistent with the assumptions and requirements of the TMDL.

Any discharge of stormwater or other fluids to groundwater via an improved sinkhole or injection well requires a Class V Underground Injection Control authorization by rule, or an individual permit under the provisions of Tennessee Rules, Chapter 0400-45-06.

1.4. OBTAINING PERMIT COVERAGE

A complete NOI, Stormwater Pollution Prevention Plan (SWPPP) and application fee³ are required to obtain coverage under this general permit. **Submitting for coverage under this permit means that an applicant has examined a copy of**

² As defined in the Tennessee Wildlife Resources Commission Proclamation, Endangered or Threatened Aquatic Species, and in the Tennessee Wildlife Resources Commission Proclamation, Wildlife in Need of Management.

³ Any reference to an "*application*" in this permit should be considered equivalent to the phrase "*complete NOI, SWPPP and application fee*"



this permit and thereby acknowledged the applicant's claim of ability to comply with permit terms and conditions.

1.4.1. Notice of Intent (NOI)

Operators wishing to obtain coverage under this permit must submit a complete NOI in accordance with Part 3, using the NOI form provided in Appendix A of this permit. Electronic submittal is encouraged (see NPDES Electronic Reporting for more information). The division may review NOIs and SWPPPs for completeness and accuracy and, when deemed necessary, investigate the proposed project for potential impacts to the waters of the state. Absent extraordinary circumstances, NOCs should be issued within 30 days of NOI submittal, unless the division has responded to the operator within that time requesting additional information. Permittees must obtain all required local authorizations related to stormwater management (see Section 1.4.4).

1.4.2. Stormwater Pollution Prevention Plan (SWPPP)

Operators wishing to obtain coverage under this permit must submit a site-specific SWPPP with the NOI, or sign and certify an existing site-specific SWPPP. The SWPPP shall address all of the operators' construction-related activities from the date construction commences to the date of termination of permit coverage, to the maximum extent practicable. The SWPPP must address the total acreage planned to be disturbed, including any associated construction support activities (see Section 1.2.2). The SWPPP must be developed, implemented and updated according to the requirements in Part 5 and Section 6.4.1. The SWPPP must be implemented prior to commencement of construction activities.

Preparation and implementation of the SWPPP may be a cooperative effort with all operators at a site. New operators with design and operational control of their portion of the construction site are expected to adopt, modify, update and implement their portion of the SWPPP. Alternatively, permittees at the site may develop and submit a SWPPP addressing only their portion of the project, as long as the proposed Best Management Practices (BMPs) are compatible with the previously submitted SWPPPs, as updated, and complying with conditions of this general permit.

SWPPPs must be updated or added if site activities diverge significantly from those indicated in the initial SWPPP. A copy of the most recent version of the SWPPP must be available at the site.

Site operators who are building single family residences on at-grade lots (see Section 2.1.2) and who are submitting an application for coverage under this permit, may complete and submit Form CN-1249, the Stormwater Pollution Prevention Plan (SWPPP) for Single Family Residential Homebuilding Sites. This SWPPP template is available on our website at:

http://tdec.tn.gov/etdec/DownloadFile.aspx?row_id=CN-1249.

Form CN-1249 is not appropriate if significant grading of the lot or lots is necessary.

1.4.3. Permit Application Fee

The permit application fee should accompany the applicant's NOI form. The fee is based on the total acreage planned to be disturbed by an entire construction project for which the applicant is requesting coverage, including any associated construction support activities (see Section 1.2.2). The applicant may present documentation of areas in the project that will not be subject to disturbance at any time during the life of the project and have these areas excluded from the fee calculation.

The application fees shall be as specified in Tennessee Rules, Chapter 0400-40-11. The application will be deemed incomplete until the appropriate application fee is paid in full. Checks for the appropriate fee should be made payable to "Treasurer, State of Tennessee." Electronic payment methods, if made available by the State of Tennessee, are acceptable and are encouraged. The following conditions apply:

- a) If stormwater discharges from the site or acreage to be disturbed was previously authorized by a CGP, but coverage has been since terminated, a primary operator must submit a new application for coverage under the CGP.
- b) A new primary operator seeking subsequent coverage under an actively permitted activity must submit the subsequent coverage fee to obtain coverage under an active NOC.
- c) Acreage additions up to 10% of the original plan area, but not to exceed a total of 5 acres, and other minor modifications of the original plan do not require separate NOI submittal. These minor additions require submittal of a plan indicating the additional area(s) of disturbance, the total acreage to be disturbed, and the updated SWPPP. The permittee is responsible for thoroughly and accurately identifying all waterbodies (including wetlands and streams) located on the added acreage and to provide a determination of the water's status if not previously provided. An additional fee and



updated NOI are required only if the total acreage of disturbance would require a higher fee than originally paid, and then only the difference is due. New acreage disturbances cannot be added as previously disturbed acreage is stabilized, to create a 'rolling' total of disturbance. Iterative changes that would create cumulative impact exceeding 10% of the original plan area, or a total of 5 acres require submittal of updated NOI and SWPPP to the division.

- d) In addition to the application fee, an annual maintenance fee applies per Tennessee Rules, Chapter 0400-40-11-.02(12)(i).

1.4.4. Submittal of Documents to Local Municipalities

Some permittees may discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in Section 1.4.5. These permittees are encouraged to coordinate with the local MS4 authority prior to submitting an NOI to the division. Permitting status of all permittees covered, or previously covered, under this general permit as well as the most current list of all MS4 permits is available at:

<http://tn.gov/environment/article/tdec-dataviewers>.

Permittees must obtain all necessary authorizations pursuant to provisions of any local ordinances that apply to construction activities, and permittees are expected to comply with any additional erosion prevention, sediment control, and construction stormwater management measures required by a local municipality, county or permitted MS4 program.

1.4.5. Permit Coverage Through a Qualifying Local Program (QLP)

Coverage equivalent to coverage under this general permit may be obtained from a qualifying local erosion prevention and sediment control MS4 program. A Qualifying Local Program (QLP) is a municipal stormwater program implemented for stormwater discharges associated with construction activity that has been formally approved by the division. More information about Tennessee's QLP program and MS4 participants can be found at:

<https://www.tn.gov/environment/permit-permits/water-permits1/npdes-permits1/npdes-stormwater-permitting-program/tennessee-qualifying-local-program.html>.

If a construction site is within the jurisdiction of, and has obtained a notice of coverage from, a QLP, the operator is authorized to discharge stormwater associated with construction activity under this general permit without the submittal of an application to the division. Permitting of stormwater runoff from



construction sites from federal or state agencies (e.g., Tennessee Department of Transportation and Tennessee Valley Authority) and the local MS4 program itself will remain solely under the authority of TDEC.

The division may require any operator located within the jurisdiction of a QLP to obtain permit coverage directly from the division. The operator shall be notified in writing by the division that coverage by the QLP is no longer applicable and how to obtain coverage under this permit.

1.5. NOTICE OF COVERAGE

1.5.1. Permit Tracking Numbers

Construction activities covered under this permit will be assigned permit tracking numbers in the sequence TNR100001, TNR100002, etc. Permit tracking numbers assigned under a previous construction general permit will be retained. An operator applying for new permit coverage will be assigned a new permit tracking number. Assigning a permit tracking number by the division to a proposed discharge from a construction activity does not confirm or imply an authorization to discharge under this permit. Operators receiving new permit coverage will be listed as active on the TDEC Dataviewer.

1.5.2. Notice of Coverage (NOC)

The NOC is a notice from the division to the primary permittee informing them that the NOI, the SWPPP, and the application fee were received and accepted. The primary permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC.

For new operators seeking subsequent coverage under an existing tracking number, the division will not issue a NOC. New operators that notify the division to be added to an existing coverage are covered upon receipt of notification of permit coverage by the division. The permit record reflecting the additional operator will be published on TDEC's DataViewer in the next update.

The division reserves the right to deny coverage to artificial entities (e.g., corporations or partnerships, excluding entities not required to register with the Tennessee Secretary of State) that are not properly registered and in good standing (i.e., listed with an entity status of "active") with the Tennessee Secretary of State, Division of Business Services. The division also reserves the right to issue permit coverage in the correct legal name of the individual or entity seeking



coverage, including each general partner of a general partnership in addition to the general partnership.

Alterations to channels or waterbodies (see definition of streams) that are contained on, traverse through or are adjacent to the construction site are not authorized by this permit. Such alterations may require an Aquatic Resources Alteration Permit (ARAP): <https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit--arap-.html>.

It is the responsibility of the applicant to thoroughly and accurately identify all waterbodies (see definition of streams) located on the site and to provide a determination of the water's status.

For channels, this determination must be conducted in accordance with Tennessee's standard operating procedures for hydrologic determinations set forth at Tennessee Rules, Chapter 0400-40-03.05(9). Wetlands determinations must include the submission of a wetland delineation completed utilizing the USACOE 1987 *Wetlands Delineation Manual* and applicable *Regional Supplement*. For the purposes of permitting, the permittee may choose to provide all aquatic features located on the site the protections afforded to streams and wetlands in lieu of conducting hydrologic determinations. ARAPs are independent requirements from CGP coverage and complete applications for ARAPs shall precede NOI submittal. The division reserves the right to delay or withhold issuance of coverage under the CGP in some cases until the appropriate ARAP coverage has been obtained.

The treatment and disposal of wastewater (e.g., sanitary, commercial or industrial wastewater) generated during and after the construction must be also addressed prior to issuance of the NOC. The NOC may be delayed until adequate wastewater treatment is identified and accompanying disposal permits are issued.

PART 2

2. CONSTRUCTION SITE OPERATORS

2.1. TYPES OF OPERATORS

2.1.1. Owner/Developer

An owner or developer of a project is a primary permittee. This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person may include, but is not limited to, a developer, landowner, realtor, commercial builder, homebuilder, utility company, etc. This person may be an individual, a corporate entity, or a governmental entity. An owner's or developer's responsibility to comply with requirements of this permit extends until permit coverage is terminated in accordance with requirements of Part 9.

The site-wide permittee is the first primary permittee to apply for coverage for a construction activity. There may be other primary permittees for a project, but there is only one site-wide permittee. Where there are multiple operators associated with the same project, all operators are required to obtain permit coverage. Once covered by a permit, each operator is responsible for complying with the permit. Permittees are jointly and severally liable for a violation related to construction activities that affect the same project site, unless a permittee affirmatively demonstrates to the satisfaction of the Department that its own action, or failure to act, was not a cause of the violation.

2.1.2. Commercial Builders

A commercial builder can be a primary or secondary permittee at a construction site.

A commercial builder who purchases one or more lots from a primary permittee for the purpose of constructing and selling a structure⁴ and has design or operational control over construction plans and specifications for that portion of

⁴ e.g., residential house, non-residential structure, commercial building, industrial facility, etc.



the site, or is hired by an end user, such as a lot owner who may not be a permittee, must obtain coverage in one of the following ways:

- a) The site-wide permittee may transfer coverage to the commercial builder, for the entire site or just the acreage/lots the builder has purchased;
- b) The commercial builder may submit a new NOI for the acreage purchased, following requirements in Section 3.1.4; or
- c) The commercial builder may be hired by the primary permittee or a lot owner to build a structure, and by mutual agreement build on the site under the existing coverage of the site-wide permittee. In this case, the commercial builder signs the primary permittee's NOI and SWPPP as a contractor (see Section 2.1.3) and is considered a secondary permittee.

2.1.3. Contractors

A contractor is considered a secondary permittee. This person has day-to-day operational control of the activities necessary to ensure compliance with the SWPPP or other permit conditions (e.g., the contractor is authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions). A contractor may be:

- a general contractor
- a grading contractor
- an erosion control contractor
- a sub-contractor responsible for land disturbing activities or erosion prevention and sediment control (EPSC) implementation and maintenance
- a commercial builder hired by the primary permittee.

The contractor may need to include in their contract with the party that hired them specific details for the contractor's responsibilities concerning EPSC measures. This includes the ability of the contractor to make EPSC modifications. The contractor shall sign the primary permittee's NOI and SWPPP associated with the construction project at which they will be an operator (insofar as possible), or submit a separate NOI to the division indicating their intent to be added to the existing activity coverage as an operator.

2.2. RESPONSIBILITIES OF OPERATORS

A permittee may meet one or more of the operational control components in the definition of "operator" found in Subpart 2.1. Either Section 2.2.1 or 2.2.2, or both, will apply depending on the type of operational control exerted by an individual permittee.



2.2.1. Permittees with Design Control

Permittees with operational control over construction plans and specifications at the construction site, including the ability to make modifications to those plans and specifications, must ensure that:

- a) the project specifications meet the minimum requirements of Part 5 (SWPPP) and all other applicable conditions;
- b) the SWPPP indicates the areas of the project where they have operational control;
- c) all other permittees implementing and maintaining portions of the SWPPP impacted by any changes made to the plan are notified of such modifications in a timely manner;
- d) all common BMPs (i.e., sediment treatment basin and drainage structures) necessary for the prevention of erosion or control of sediment are maintained and effective until all construction is complete and all disturbed areas in the entire project are stabilized, unless permit coverage has been obtained and responsibility has been taken over by a new primary permittee; and
- e) all operators on the site have permit coverage, if required.

If parties with day-to-day operational control of the construction site have not been identified at the time the site-wide SWPPP is initially developed, the permittee with operational control shall be considered to be the responsible person until an NOI is submitted identifying the new operators (see Section 3.1.4). These new operators (e.g., general contractor, utilities contractors, sub-contractors, erosion control contractors, hired commercial builders) are considered secondary permittees. The SWPPP must be updated to reflect the addition of new operators.

2.2.2. Permittees with Day-to-Day Operational Control

Permittees with day-to-day operational control of the activities necessary to ensure compliance with the SWPPP or other permit conditions must ensure that:

- a) the SWPPP for portions of the project where they are operators meets the requirements of Part 5 and identifies the parties responsible for implementing the control measures identified in the plan;
- b) the SWPPP indicates areas of the project where they have operational control over day-to-day activities; and

- c) measures in the SWPPP are adequate to prevent soil erosion and control any sediment that may result from their earth disturbing activity.

Permittees with operational control over only a portion of a larger construction project are responsible for compliance with all applicable terms and conditions of this permit as it relates to their activities on their portion of the construction site. This includes, but is not limited to, implementation of Best Management Practices (BMPs) and other controls required by the SWPPP. Permittees shall ensure either directly or through coordination with other permittees, that their activities do not render another person's pollution control ineffective. All permittees must implement their portions of the SWPPP.



PART 3

3. NOTICE OF INTENT (NOI) REQUIREMENTS

3.1. NOI SUBMITTAL

3.1.1. Who Must Submit an NOI?

All operators must submit an NOI form. For the purpose of this permit and in the context of stormwater associated with construction activity, an “operator” means any person associated with a construction project who meets either or both of the following two criteria:

- a) The person has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is considered the primary permittee and is typically:
 - the owner or developer of the project,
 - the owner or developer of a portion of the project (e.g., subsequent builder), or
 - the person who is the current owner of the construction site.
- b) The person has day-to-day operational control of the activities necessary to ensure compliance with the SWPPP or other permit conditions. This person is typically a contractor, or a commercial builder hired by the primary permittee, and is considered a secondary permittee.

3.1.2. Existing Sites

An operator presently permitted under the 2016 construction general permit shall be granted coverage under this new general permit. Coverage will be extended automatically without notification to the division or an additional fee being assessed. The existing SWPPP shall be modified according to the Section 5.3.1 of this permit.

If an operator does not wish to be continued under the new general permit, they may terminate coverage (Section 9.1). If a site with terminated coverage is unstable or if construction continues, a new NOI, SWPPP and application fee must be submitted.

3.1.3. New Sites or New Phases of Existing Sites

Except as provided in Section 3.1.4, operators must submit a complete NOI, SWPPP and an application fee in accordance with the requirements described



in Subpart 1.4. The complete application should be submitted at least 30 days prior to commencement of construction activities. The permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC or the TDEC DataViewer. The land disturbing activities shall not start until the NOC is received by the applicant according to Subpart 1.5.

3.1.4. New Operators

New operators proposing to conduct construction activities at a site with existing coverage must submit an NOI. The NOI should be submitted prior to the new operator commencing work at the site. The NOI must reference the project name and tracking number assigned to the primary permittee's NOI. The NOI may not need to be submitted immediately upon assuming operational control if the portion of the site controlled by the new operator is inactive and all the previously disturbed areas are permanently stabilized.

A new operator working as a residential home builder may submit Form CN-1249, the Stormwater Pollution Prevention Plan (SWPPP) for Single Family Residential Homebuilding Sites. This form may be found at:

http://tdec.tn.gov/etdec/DownloadFile.aspx?row_id=CN-1249.

If the primary permittee's company name has changed (but not the site ownership or authorized signators), an updated NOI should be submitted to the division within 30 days of the name change, along with documentation that the name change has been properly registered with the Tennessee Secretary of State, Division of Business Services. If the new operator agrees to comply with an existing site-wide SWPPP already implemented at the site, a copy of the SWPPP does not have to be submitted with the NOI.

If the transfer of ownership is due to foreclosure or a permittee filing for bankruptcy proceedings, the new owner (e.g., a lending institution) must obtain permit coverage if the construction activity is inactive but soil is not stabilized sufficiently. If the property is sufficiently stabilized permit coverage may not be necessary, unless and until construction activity at the site resumes.

3.1.5. Late NOIs

Dischargers are not prohibited from submitting NOIs after construction at their site has already begun. When a late NOI is submitted, and if the division authorizes coverage under this permit, such authorization is only for future discharges. Any prior, unpermitted, discharges or permit noncompliances are subject to penalties as described in Section 8.1.2.



3.1.6. Who Must Sign the NOI?

All construction site operators as defined in Subpart 2.1 must sign the NOI form. Signatory requirements for a NOI are described in Section 8.7.1. Signatures on electronically submitted NOIs are deemed to be equivalent to a hardcopy signature. An NOI that does not bear a valid signature will be deemed incomplete.

3.2. FORMAT AND CONTENT OF THE NOI FORM

3.2.1. NOI Form

The NOI form is provided in Appendix A of this permit. This form and its instructions set forth the required content of the NOI. The NOI form must be filled in completely. If the division notifies applicants by mail, E-mail, public notice or by making information available on the world wide web of electronic NOI forms (see NPDES Electronic Reporting), the operators may be required to use those electronic options to submit the NOI (Section 3.3.2)

Owners, developers and contractors that meet the definition of the operator in Subpart 2.1 shall apply for permit coverage on the same NOI, if possible. The division may accept separate NOI forms from different operators for construction activities on the same construction site when warranted.

After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The SWPPP shall be prepared in accordance with Part 5, and must be submitted with the NOI unless the NOI is only being submitted to add a secondary permittee to an existing coverage.

3.2.2. Construction Site Map

An excerpt (8 ½" by 11" or 11" by 17") from the appropriate 7.5 minute United States Geological Survey (USGS) topographic map (or other map showing contours) with the proposed construction site centered, must be included with the NOI. The entire proposed construction area must be clearly outlined on the map, with all acreage to be disturbed clearly identified. All outfalls⁵ discharging runoff from the property, streams receiving the discharge, and storm sewer systems conveying the discharge from outfalls shall be clearly identified and marked on the map. NOIs for linear projects must specify the location of each end

⁵ Phrase "point source" and term "outfall" are used interchangeably. For the purpose of this general permit, they can be considered synonyms.



of the construction area and all areas to be disturbed. Commercial builders that develop separate SWPPPs that cover only their portion of the project shall also submit a site or plat map that clearly indicates the lots for which they are applying for permit coverage, and the location of EPSCs that will be used at each lot (Section 5.5).

3.3. WHERE AND HOW TO SUBMIT AN APPLICATION

3.3.1. Traditional Submittal

The applicant shall submit the [NOI](#), [SWPPP](#) and application fee to the appropriate Environmental Field Office ([EFO](#)) for the county where the construction activity is located and where [stormwater discharges](#) enters waters of the state. If a site straddles a county line of counties that are in different [EFO](#) service areas, the [operators](#) shall send the [NOI](#) and the application fee to the [EFO](#) that provides coverage for the majority of the proposed construction activity.

A list of counties and the corresponding [EFOs](#) is provided in Subpart 3.4. The division's Nashville Central Office will serve as a processing office for [NOIs](#) submitted by federal or state agencies (e.g., TDOT, TVA and the local [MS4](#) programs).

3.3.2. Submittal Using Electronic Forms

The division is in the process of launching the new [NPDES Electronic Reporting](#) online customer portal for submission of permit applications and other reports. If [the division](#) notifies applicants by mail, E-mail, public notice or by making information available on the world wide web of electronic application submittal, the [operators](#) may be required to use those electronic options to submit the [NOI](#), [SWPPP](#) and an application fee. For more information, visit <https://www.tn.gov/environment/program-areas/wr-water-resources/netdmr-and-electronic-reporting.html>.

3.4. TDEC ENVIRONMENTAL FIELD OFFICES (EFOS) AND CORRESPONDING COUNTIES

<u>EFO Name</u>	List of Counties
Chattanooga	Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Polk, Rhea, Sequatchie
Columbia	Bedford, Coffee, Franklin, Giles, Hickman, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Perry, Wayne
Cookeville	Cannon, Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Trousdale, Van Buren, Warren, White
Jackson	Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Weakley
Johnson City	Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington
Knoxville	Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union
Memphis	Fayette, Hardeman, Shelby, Tipton
Nashville	Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Williamson, Wilson

TDEC may be reached by telephone at the toll-free number 1-888-891-8332 (TDEC). Local [EFOs](#) may be reached directly when calling this number from the construction site, using a land line.

PART 4

4. CONSTRUCTION AND DEVELOPMENT EFFLUENT GUIDELINES

4.1. NON-NUMERIC EFFLUENT LIMITATIONS

Any point source authorized by this general permit must achieve, at a minimum, the effluent limitations representing the degree of effluent reduction attainable by application of best practicable control technology (BPT) currently available.

4.1.1. Erosion prevention and sediment controls

Design, install and maintain effective erosion and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:

- 1.) Control stormwater volume and velocity to minimize soil erosion in order to minimize pollutant discharges;
- 2.) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;
- 3.) Minimize the amount of soil exposed during construction activity;
- 4.) Minimize the disturbance of steep slopes;
- 5.) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- 6.) Provide and maintain natural buffers as described in Section 4.1.2, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible;
- 7.) Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted; and
- 8.) Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.

4.1.2. Water Quality Riparian Buffer Zone Requirements

The water quality riparian buffer zone requirements in this section apply to all streams with available parameters adjacent to construction sites (for waters with

unavailable parameters or Exceptional Tennessee Waters, see Section 6.4.2). A 30-foot natural water quality riparian buffer shall be preserved between such waterbodies and the disturbed areas, to the maximum extent practicable, during construction activities. The water quality riparian buffer is required to protect waters of the state that are not wet weather conveyances as identified using Tennessee's standard operating procedures for hydrologic determinations set forth in Tennessee Rules, Chapter 0400-40-03-.05(9).⁶ Because of the potential heavy sediment loading associated with construction site runoff, water quality riparian buffers are not primary sediment control measures and shall not be relied on as such; the primary purpose of water quality riparian buffers is additional pollutant removal. Stormwater discharges must enter the water quality riparian buffer zone as sheet flow, not as concentrated flow, where site conditions allow. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, to improve its effectiveness in protecting waters of the state.

The water quality riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The 30-foot criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location. If the construction site encompasses both sides of a stream, buffer averaging can be applied to both sides, but each side must average the 30-foot criterion independently.

Construction activities within the water quality riparian buffer zone shall be avoided and existing forested buffer areas shall be preserved whenever possible. Where it is not practicable to maintain a full water quality riparian buffer, BMPs providing equivalent protection to a receiving stream as a natural water quality riparian buffer must be used. A justification for use and a design of equivalent BMPs shall be included in the SWPPP. Such equivalent BMPs are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects may include sewer line construction, roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure.

⁶ If obtaining permit coverage for the first time following the effective date of this permit, 15-foot buffers are also required for any wet weather conveyance identified as waters of the United States by the U.S. Army Corps of Engineers or the Environmental Protection Agency.



This requirement does not apply to any valid Aquatic Resources Alteration Permit (ARAP), or equivalent permits issued by federal authorities. Additional buffer zone requirements may be established by the local MS4 program.

4.1.2.1. Water quality riparian buffer zone exemption based on existing uses

Water quality riparian buffer zones as described in Section 4.1.2 shall not be required in portions of the buffer where certain land uses exist and are to remain in place according to the following:

- a) A use shall be considered existing if it was present within the buffer zone as of the date of the Notice of Intent for coverage under the construction general permit. Existing uses may include buildings, parking lots, roadways, utility lines and on-site sanitary sewage systems. Only the portion of the buffer zone that contains the footprint of the existing land use is exempt from buffer zones. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from the buffer zone.
- b) If an area with an existing land use is proposed to be converted to another use or the impervious surfaces located within the buffer area are being removed, buffer zone requirements shall apply.

4.1.2.2. Pre-approved sites

Construction activity at sites that were pre-approved prior to February 1, 2010, is exempt from the buffer requirements of Section 4.1.2. Evidence of pre-approval for highway projects shall be a final right-of-way plan; and, for other construction projects, the final design drawings with attached written and dated approval by the local, state or federal agency with authority to approve such design drawings for construction.

4.1.3. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls. Appropriate controls may include weir tanks, dewatering tanks, gravity bag filters, sand media particulate filters, pressurized bag filters, cartridge filters or other control units providing the level of treatment necessary to comply with permit requirements.



4.1.4. Pollution Prevention Measures

The permittee must design, install, implement and maintain effective pollution prevention measures to minimize the discharge of sediment and other pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

- a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash waters not containing soaps or solvents. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
- b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
- c) Minimize the discharge of pollutants from spills and leaks, and implement chemical spill and leak prevention and response procedures.

4.1.5. Prohibited Discharges

The following discharges are prohibited:

- a) Wastewater from washout of concrete, unless managed by an appropriate control.
- b) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
- c) Fuels, oils or other potential pollutants used in vehicle and equipment operation and maintenance.
- d) Soaps or solvents used in vehicle and equipment washing.

PART 5

5. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

5.1. THE GENERAL PURPOSE OF THE SWPPP

A SWPPP must be prepared and submitted along with the NOI as required in Section 1.4.2. The primary permittee must implement the SWPPP and maintain effective Best Management Practices (BMPs) from commencement of construction activity until permanent stabilization is complete, or until the permittee does not have design or operational control of any portion of the construction site. If a SWPPP submittal contains contradictory or ambiguous information, the division will hold the permittee to the most stringent interpretation of the information submitted. Requirements for termination of site coverage are provided in Part 9.

A site-specific SWPPP must be developed for each construction project or activity covered by this permit. The design, inspection and maintenance of BMPs described in the SWPPP must be prepared in accordance with good engineering practices. At a minimum, BMPs shall be consistent with the recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook (the handbook).

Once a definable area has been permanently stabilized as described in Subsection 5.5.3.4, the permittee may identify this area on the SWPPP. No further SWPPP or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in a complex are done and the area is permanently stabilized, one mile of a roadway or pipeline project is done and permanently stabilized, etc.).

For more effective implementation of BMPs, a cooperative effort by the different operators at a site to prepare and participate in a site-wide SWPPP is expected. Primary permittees at a site may develop separate SWPPPs that cover only their portion of the project. In instances where there is more than one SWPPP for a site, the permittees must ensure the stormwater discharge controls and other measures are compatible with one another and do not prevent another operator from complying with permit conditions. The site-wide SWPPP developed and submitted by the primary permittee must assign responsibilities to secondary permittees and coordinate all BMPs at the construction site. Assignment and coordination can be done by name or by job title.



5.2. QUALIFICATION REQUIREMENTS

For sites greater than five acres of disturbance, the narrative portion of the SWPPP shall be prepared by an individual who has a working knowledge of erosion prevention and sediment controls, such as (but not limited to):

- a registered engineer or landscape architect,
- a Certified Professional in Erosion and Sediment Control (CPESC) or
- a person that successfully completed the “Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites” course.

For sites less than or equal to five acres of disturbance, these qualification requirements do not apply, and the division provides the following optional templates:

- Form CN-1249, the Stormwater Pollution Prevention Plan (SWPPP) for Single Family Residential Homebuilding Sites. This SWPPP template is available at:
http://tdec.tn.gov/etdec/DownloadFile.aspx?row_id=CN-1249. Form CN-1249 is not appropriate if significant grading of the lot or lots is necessary.
- SWPPP Template for Sites Not Requiring Engineer Design from the DWR – NR – G – 02 - Construction Stormwater – 05172019 Guidance regarding construction stormwater general permit coverage involving sites with Non-Engineer Design SWPPPs:
<https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/dwr-nr-g-02-cgp-non-engineering-swppp-final-051719.pdf>
Attachment A (template):
<https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/dwr-nr-g-02-cgp-non-engineering-swppp-final-051719-template.docx>.

Plans and specifications for any building or structure, changes in topography and drainage, including the design or modification of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a professional engineer or landscape architect registered in Tennessee and signed and sealed in accordance with the Tennessee Code Annotated, Title 62, Chapter 2 and the rules of the Tennessee Board of Architectural and Engineering Examiners. Engineering design of sediment basins or equivalent sediment controls must be provided for construction sites involving



drainage to an outfall totaling 10 or more acres (Subsection 5.5.3.5) or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters (Section 6.4.1).

5.3. SWPPP PREPARATION AND COMPLIANCE

5.3.1. Existing Sites

Operators of an existing site, presently permitted under the division's 2016 construction general permit, shall maintain full compliance with the existing SWPPP. The existing SWPPP shall be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented as soon as practicable but no later than 12 months following the new permit effective date. The permittee shall make the updated SWPPP available for the division's review upon request.

5.3.2. New Sites or New Phases of Existing Sites

For construction stormwater discharges not authorized under an NPDES permit as of the effective date of this permit, a SWPPP that meets the requirements of Part 5 of this permit shall be prepared and submitted along with the NOI and an appropriate fee for coverage under this permit.

5.3.3. Signature Requirements

The SWPPP shall be signed by the operator in accordance with Subpart 8.7, and if applicable, certified according to requirements in Section 5.2. Signatures on electronically submitted documents are deemed equivalent to original signatures. A SWPPP that does not bear a valid signature will be deemed incomplete.

5.3.4. SWPPP Availability

A copy of the existing version of the SWPPP shall be retained on-site at the location which generates the stormwater discharge in accordance with Part 7 of this permit. If the site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located off-site, reasonable local access to the plan during normal working hours must be provided.

The permittee shall make the existing SWPPP and inspection reports available upon request to the director; the local agency approving erosion prevention and sediment control plans, grading plans, land disturbance plans or stormwater management plans; or the operator of an MS4.



5.4. KEEPING SWPPP CURRENT

5.4.1. SWPPP Modifications

The permittee must modify, update and recertify the SWPPP if any of the following conditions apply:

- a) Whenever there is a change in the scope of the project that would be expected to have a significant effect on the discharge of pollutants to the waters of the state and which has not otherwise been addressed in the SWPPP.
- b) Whenever there is a change in chemical treatment methods, including the use of different treatment chemical, different dosage or application rate or different area of application.
- c) Whenever inspections or investigations by site operators or local, state or federal officials indicate the SWPPP is proving ineffective in eliminating or significantly minimizing pollutants from sources identified under Section 5.5.2, or is otherwise not achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity. Where local, state or federal officials determine that the SWPPP is ineffective in eliminating or significantly minimizing pollutant sources, a copy of any correspondence to that effect must be retained in the SWPPP.
- d) Whenever any new operator (typically a secondary permittee) who will implement a measure of the SWPPP must be identified (see Subpart 3.1.1 for further description of which operators must be identified).
- e) Whenever it is necessary to include water quality protection measures as required by the applicable wildlife management agency intended to prevent a negative impact to legally protected state or federally listed fauna or flora (or species proposed for such protection – Subpart 1.3). Amendments to the SWPPP may be reviewed by the division, a local MS4, the EPA, or an authorized regulatory agency.
- f) Whenever a Total Maximum Daily Load (TMDL) is developed for the receiving waters for a pollutant of concern (e.g., siltation). A list of Tennessee's TMDLs can be found at:
<https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/tennessee-s-total-maximum-daily-load--tmdl--program.html>.



5.5. COMPONENTS OF THE SWPPP

The SWPPP must:

- a) identify all potential sources of pollutants likely to affect the quality of stormwater discharges from the construction site;
- b) describe practices to be used to reduce pollutants in stormwater discharges from the construction site; and
- c) assure compliance with the terms and conditions of this permit.

The SWPPP shall include the items described in Sections 5.5.1, 5.5.2 and 5.5.3.

5.5.1. SWPPP Narrative

Each SWPPP shall provide a description of pollutant sources and other information as indicated below:

- a) A description of all construction activities at the site, including the intended sequence of activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation).
- b) Estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, filling or other construction activities.
- c) A description of the topography of the site, including an estimation of percent slope and delineation of drainage area (acres) serving each outfall. Drainage area estimates shall include off-site drainage, if applicable.
- d) Hydric soils must be clearly identified.
- e) A description of how the runoff will be handled to prevent erosion at the permanent outfall and receiving stream.
- f) An erosion prevention and sediment control (EPSC) plan with the proposed construction area clearly outlined. The plan shall indicate the boundaries of the permitted area, drainage patterns, approximate slopes anticipated after major grading activities, areas of soil disturbance, an outline of areas which are not to be disturbed, the location of major structural and nonstructural controls identified in the SWPPP, the location of areas where stabilization practices are expected to occur, streams and sinkholes, and identification on the erosion control plan of outfall points intended for coverage. The erosion control plan must meet requirements stated in Section 5.5.3.
- g) A description of any discharge associated with industrial activity other than construction stormwater that originates on site and the location of that activity and its permit number.



- h) Identification of any streams on or adjacent to the project, a description of any anticipated alteration of these waters and the permit number or the tracking number of the Aquatic Resources Alteration Permit (ARAP) or Section 401 Certification issued for the alteration.
- i) The name of the receiving waters (this does not include wet weather conveyances connecting the site discharge to the receiving stream).
- j) Identification if those receiving waters have unavailable parameters for siltation.⁷
- k) Identification if those receiving waters are Exceptional Tennessee Waters.⁸
- l) If applicable, clearly identify and outline the buffer zones established to protect waters of the state located within the boundaries of the project.
- m) A description of the construction phasing for projects of more than 50 acres (Subsection 5.5.3.2).
- n) The timing of the planting of the vegetation cover must be discussed in the SWPPP if permanent or temporary vegetation is to be used as a control measure. Planting cover vegetation during winter months or dry months should be avoided.

5.5.2. SWPPP and EPSC plans

The SWPPP must include EPSC plans (Section 5.5.3) showing the approximate location of each control measure and a description of when the measure will be implemented during the construction process (e.g., prior to the start of earth disturbance, as the slopes are altered and after major grading is finished). The different stages of construction and the EPSC measures that will be utilized during each stage shall be depicted on multiple plan sheets as described below.

Three separate EPSC plan sheets should be developed for most sites, with the exception of single-lot homes, commercial lots, or linear infrastructure projects of less than or equal to 5 acres, for which a single plan sheet may be sufficient:

- a. The first plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during the initial land disturbance (grading) stage.

⁷ DWR Construction Stormwater Permitting Map Viewer can be found at: <https://tdeconline.tn.gov/dwrcgp/>

⁸ List of Exceptional Waters and ORNWs in Tennessee can be found at: https://tdec.tn.gov:8090/pls/enf_reports/f?p=9034:34304; corresponding map viewer is under development



- b. A second plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during any interim grading and construction stages.
- c. The third plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during the final grading stage while permanent site stabilization is being achieved.

The description and implementation of controls shall address the following minimum components, as described in Sections 5.5.3, 5.5.3.6 and 5.5.3.7. Additional controls may be necessary to comply with Section 6.3.2.

5.5.3. Erosion Prevention and Sediment Controls (EPSC)

5.5.3.1. General criteria and requirements

- a) The erosion prevention controls shall be designed to eliminate to the maximum extent practicable the dislodging and suspension of soil in water. Sediment controls shall be designed to retain mobilized sediment on site to the maximum extent practicable.
- b) All control measures must be properly selected, installed and maintained in accordance with the manufacturer's specifications and/or good engineering practices. If periodic inspections or other information indicate a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control.
- c) If sediment escapes the permitted area, off-site accumulations that have not reached a stream must be removed at a frequency sufficient to minimize off-site impacts (e.g., sediment that has escaped a construction site and collected in a street must be removed so that it does not subsequently wash into storm sewers and streams during the next rain or so that it does not pose a safety hazard to users of public streets). Permittees shall not initiate remediation or restoration of a stream without receiving prior authorization from the division. This permit does not authorize access to private property. Arrangements concerning the removal of sediment on adjoining property must be settled by the permittee and the adjoining landowner.
- d) Sediment must be removed from sediment traps, silt fences, sediment basins and other sediment controls when design capacity has been reduced by 50%.
- e) Erodible material storage areas (e.g., overburden and stockpiles of soil) and borrow pits that are used primarily for the permitted project are considered a part of the site and shall be identified on the NOI, addressed in the SWPPP and included in the fee calculation. TDOT projects shall be addressed in the Waste and Borrow Manual per the Statewide Stormwater Management Plan (SSWMP).



- f) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 14 days prior to commencement of grading or earth moving activities unless the area is subsequently temporarily or permanently stabilized.
- g) Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site shall be preserved to the maximum extent practicable. The limits of soil disturbance shall be clearly outlined in the SWPPP and the areas to remain undisturbed clearly indicated on the site, with the methods to be used to mark these areas described in the SWPPP.
- h) Construction must be sequenced to minimize the exposure time of graded or denuded areas.
- i) EPSC measures must be in place and functional before earth moving operations begin and must be constructed and maintained throughout the construction period stages as appropriate. Temporary measures may be removed at the beginning of the workday but must be replaced at the end of the workday.
- j) Off-site vehicle tracking of sediment and the generation of dust shall be minimized. A stabilized construction access shall be described and implemented to reduce the tracking of mud and dirt onto public roads by construction vehicles.

5.5.3.2. Construction phasing

Construction phasing is recommended on all projects regardless of size as an effective practice for minimizing erosion and limiting sedimentation. It is recommended that construction be phased to keep the total disturbed area less than 50 acres at any one time. This includes off-site borrow or disposal areas that meet the conditions of Section 1.2.2. Areas where construction is completed must be stabilized within 14 days (Subsection 5.5.3.4).

5.5.3.3. Projects Exceeding 50 acres of Disturbance

On projects where the permittee chooses to disturb more than 50 acres at one time, the following additional requirements shall apply:

- a) The permittee shall notify the division immediately if more than 50 acres of disturbance at one time is planned.
- b) Site assessments, as described in Subsection 5.5.3.8, shall be conducted on a quarterly basis.
- c) Operator inspections as described in Subsection 5.5.3.9 shall be conducted twice per week and following any rainfall event of more than 0.5 inches in

24 hours. Inspections following rainfall events can be counted as one of the twice-weekly inspections.

- d) Data describing the erodibility of soils on site, how the soil type erodibility will dictate the needed control measures and how the soil may affect the expected quality of runoff from the site shall be provided. The data may be referenced or summarized. Hydric soils must be clearly identified.
- e) A geospatial file shall be submitted to the division which identifies the project area boundaries as a polygon feature. This polygon feature can be submitted in any common data format (e.g., .kml file, shapefile, feature layer, etc.) that is compatible with common geographic systems software (e.g., Google Earth, ESRI, QGIS, etc.). The file name should reflect the same site name provided on the permit application, or a permit tracking number, if available.
- f) Stormwater runoff monitoring shall be conducted at each outfall draining 10 or more acres (Section 5.5.3.5) or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters (Section 6.4.1).

Code	Parameter	Qualifier	Unit	Sample Type	Monitoring Frequency	Statistical Base
00070	Turbidity	Report	NTU	Grab	Monthly	Daily Maximum
00070	Turbidity	Report	NTU	Grab	Monthly	Monthly Average
00530	Total Suspended Solids (TSS)	Report	mg/L	Grab	Monthly	Daily Maximum
00530	Total Suspended Solids (TSS)	Report	mg/L	Grab	Monthly	Monthly Average
45613	Floating solids or visible foam-visual	Report	Y=1;N=0	Visual	Monthly	Value
50050	Flow	Report	MGD	Estimate	Monthly	Daily Maximum
50050	Flow	Report	MGD	Estimate	Monthly	Monthly Average

The permittee shall maintain a log of rainfall events including date, estimated duration (in hours), and total estimated rainfall per calendar day. For sampling events, the permittee shall provide an estimate of the total volume of the discharge per sampled outfall and the interval between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.



The permittee shall report the estimated total drainage area and estimated acreage of land disturbance in the drainage area for each outfall for each sampling event. Record of the estimated drainage area and amount of land disturbance for a given sample event shall be reported in the notes section of the Discharge Monitoring Report.

5.5.3.4. Stabilization practices

The SWPPP shall include a description of temporary and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved when possible. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees and the preservation of mature vegetation. When seasonal or climate conditions would prevent timely establishment of vegetation other stabilization practices must be utilized. Use of impervious surfaces for permanent stabilization in lieu of a permanent vegetative cover should be avoided where practicable. No stabilization control measures or EPSC measures are to be installed in a stream without obtaining a Section 404 permit and an Aquatic Resources Alteration Permit (ARAP).

Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site must be completed within 2 weeks after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

- a) Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable.
- b) Where construction activity on a portion of the site is temporarily ceased, but soil disturbing activities is planned to resume within 2 weeks.
- c) In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures such as properly anchored mulch, soil binders or matting must be employed.

Steep slopes shall be stabilized within one week after construction activity on the slope has temporarily or permanently ceased.



Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface. On sites where disturbed acreage will be returned to its prior agricultural use (i/e. row crops, pasture) normal agricultural practices can be substituted.

5.5.3.5. Structural practices

The SWPPP shall include a description of structural practices utilized to divert flows from exposed soils, store flows or otherwise limit runoff and discharge of pollutants from exposed areas of the site. Such practices may include, but are not limited to silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions and temporary or permanent sediment basins. Structural controls shall not be placed in streams except as authorized by a section 404 permit and/or Aquatic Resources Alteration Permit (ARAP).

EPSC measures shall be designed to minimize erosion and maximize sediment removal resulting from a 2-year, 24-hour storm (the design storm). The design of erosion prevention and sediment controls must adhere to good engineering practices. The drainage area recommendations and treatment design specifications are provided in the Tennessee Erosion and Sediment Control Handbook. Chemical treatment of the stormwater runoff may be necessary to minimize the amount of sediment being discharged when clay and other fine particle soils or highly erodible soils are present at the construction site. However, the use of cationic polymers for treatment is prohibited.

For an outfall that receives drainage from 10 or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 2-year, 24-hour storm and runoff from each acre drained, or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until permanent stabilization of the site. A drainage area of 10 or more acres includes disturbed and undisturbed portions of the site and areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment basin, the equivalency (with respect to sediment removal) must be justified to the division. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin. Diverted runoff can be omitted from the volume calculation.



Sediment storage expected from the disturbed areas must be included. Discharges from basins and impoundments shall utilize outlet structures that only withdraw water from near the surface of the basin or impoundment, unless infeasible.

All calculations related to drainage areas, runoff coefficients, basin volumes and equivalent control measures must be provided in the SWPPP. The discharge structure from a sediment basin must be designed to retain sediment during the lower flows in accordance with the most current version of the Tennessee Erosion and Sediment Control Handbook. Muddy water to be pumped from excavation and work areas must be held in settling basins, filtered or chemically treated prior to its discharge into surface waters. Water must be discharged through a pipe, grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation. Discharged water must not cause an objectionable color contrast with the receiving stream.

Sediment structures treating drainage areas in excess of 25 acres require a site-specific design that accurately defines the site hydrology, site-specific sediment loading, hydraulics of the site, and adheres to all Tennessee Erosion and Sediment Control Handbook design recommendations for sediment basins.

Velocity dissipation structures shall be installed if needed to provide for non-erosive discharge velocities to wet weather conveyances or streams.

5.5.3.6. Stormwater management

The following factors must be accounted for in the design of all stormwater controls:

- a) The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. Stormwater controls must be designed to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater, as well as minimizing channel and streambank erosion at discharge points.
- b) The soil type and range of soil particle sizes expected to be present on the site.
- c) Description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed, including a brief

description of applicable State or local erosion and sediment control requirements.

5.5.3.7. Other items needing control

- a) No solid materials, including building materials, shall be placed in waters of the state, except as authorized by a section 404 permit and/or Aquatic Resources Alteration Permit (ARAP). Litter, construction debris and construction chemicals exposed to stormwater shall be picked up prior to storm events or before being carried off the site by wind so that they do not become a pollutant source for stormwater discharges. EPSC materials shall be prevented from becoming a pollutant source for stormwater discharges.
- b) The SWPPP shall identify and provide the necessary EPSC measures for the installation of any waste disposal system, sanitary sewer or septic system. Permittees must also comply with applicable state and local waste disposal, sanitary sewer or septic system regulations as necessary.
- c) The SWPPP shall include a description of construction and waste materials expected to be stored on-site. The SWPPP shall also include a description of controls used to reduce pollution from materials stored on site. Controls may include storage practices to minimize exposure of the materials to stormwater or spill prevention and response.

5.5.3.8. Site Assessments

Site assessment shall be conducted at each outfall draining 10 or more acres (Section 5.5.3.5) or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters (Section 6.4.1). The site assessment is a documented site inspection conducted by a qualified individual to verify the installation, functionality and performance of the EPSC measures described in the SWPPP. Site assessments shall cover the entire disturbed area and occur within 30 days of construction commencing at each portion of the site that drains the qualifying acreage. The site assessment shall be performed by individuals with one or more of the following qualifications:

1. A licensed professional engineer or landscape architect;
2. A Certified Professional in Erosion and Sediment Control (CPESC); or
3. A person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites"



At a minimum, site assessments should be performed to verify the installation, functionality and performance of the EPSC measures described in the SWPPP. If structural BMPs (or equivalent EPSC measures) are not constructed or construction is in progress at the time of the site assessment, a follow-up monthly assessment(s) are required until the BMPs are constructed per the SWPPP. The site assessment should be performed with the inspector and should include a review and update (if applicable) of the SWPPP. Modifications of plans and specifications for any building or structure, including the design of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect and stamped and certified in accordance with the [Tennessee Code Annotated](#), Title 62, Chapter 2 and the rules of the [Tennessee Board of Architectural and Engineering Examiners](#).

5.5.3.9. Inspections

Operators shall ensure proper installation, maintenance, and overall effectiveness of erosion prevention and sediment controls (EPSCs) by performing twice weekly site inspections. Inspections must verify and document the functionality and performance of the EPSC measures described in the SWPPP. Initial inspections shall also indicate if all EPSCs have been installed as designed in the submitted SWPPP and EPSC plans; and, if not, measures that need to be taken so those EPSCs meet the design specifications in the field SWPPP and EPSC plans.

5.5.3.10. Inspector qualifications

Twice weekly inspections can be performed by:

- a) a person with a valid certification from the “Level I - Fundamentals of Erosion Prevention and Sediment Control” course,
- b) a licensed professional engineer or landscape architect,
- c) a Certified Professional in Erosion and Sediment Control (CPESC), or
- d) a person who has successfully completed the “Level II - Design Principles for Erosion Prevention and Sediment Control for Construction Sites” course.

An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements, such as stabilization and maintenance activities.

5.5.3.11. Schedule of inspections

- a) Inspections described in paragraphs b, c and d below, shall be performed at least twice weekly. Inspections shall be performed at least 72 hours apart. Where sites or portions of construction sites have been temporarily stabilized, inspections only have to be conducted once per month until construction activity resumes. Inspection requirements do not apply to definable areas that have been permanently stabilized. Changes to the inspection frequency and the justification for such request must be included in the records kept on site. For projects by the Tennessee Department of Transportation (TDOT) and the Tennessee Valley Authority (TVA), such request must be submitted to the division's Nashville Central Office. The division reserves the right to require more frequent inspections if deemed necessary to ensure compliance at a site.
- b) Qualified personnel, as defined in Subsection 5.5.3.10 (provided by the permittee or cooperatively by multiple permittees), shall inspect disturbed areas of the construction site that have not been permanently stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site and each outfall.
- c) Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. EPSC measures shall be observed to ensure that they are operating correctly.
- d) Outfall points shall be inspected to determine whether EPSC measures are effectively preventing sediment discharges off-site or impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- e) Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced, modified or repaired as necessary, before the next rain event; but in no case more than seven days after the need is identified.
- f) Based on the results of the inspection, the site description identified in the SWPPP in accordance with Section 5.5.1 and pollution prevention measures identified in the SWPPP in accordance with Section 5.5.3 shall be revised as appropriate. Such revisions shall be made no later than seven days following the inspection. In addition, any modifications to pollution prevention measures shall be implemented as soon as practicable but no later than 14 days following the inspection.

- g) All inspections shall be documented on the *Construction Stormwater Inspection Certification Form* provided in Appendix C of this permit. An alternative inspection form may be used as long as the form contents and the inspection certification language are equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. The form must contain the printed name and signature of the inspector and the certification must be executed by a person who meets the signatory requirements of Section 8.7.2. Inspection reports must be submitted to the division within 10 days of the request.
- h) Inspectors shall accurately document site conditions in their inspection reports. Falsifying inspection records, or other documentation; or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.
- i) The initial primary permittee (such as a developer) is no longer required to inspect portions of the site that are covered by a subsequent primary permittee (such as a home builder). Subsequent primary permittees who have obtained coverage under this permit shall conduct twice weekly inspections as per the requirements in Subsection 5.5.3.9.

5.5.3.12. Pollution prevention measures for non-stormwater discharges

The SWPPP must identify source(s) of all non-stormwater discharge(s) listed in Section 1.2.3 if it is to be combined with stormwater discharges associated with construction activity. The SWPPP shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater components of the discharge. Any non-stormwater must be discharged through stable discharge structures. Estimated volume of the non-stormwater components of the discharge must be included in the design of all impacted control measures.

PART 6

6. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

6.1. RELEASES IN EXCESS OF REPORTABLE QUANTITIES

The discharge of hazardous substances or oil in the stormwater discharges from a facility shall be prevented or minimized in accordance with the applicable SWPPP for the facility. This permit does not relieve the permittee of the reporting requirements of 40 CFR 117 and 40 CFR 302.

6.2. SPILLS

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

6.3. DISCHARGE COMPLIANCE WITH STATE WATER QUALITY STANDARDS

6.3.1. Violation of water quality standards

This permit does not authorize stormwater or other discharges that would cause or contribute to a violation of a state water quality standard (Tennessee State Rules, Chapters 0400-40-03, 0400-40-04). Such discharges constitute a violation of this permit.

Where a discharge is already authorized under this permit and the division determines the discharge to cause or contribute to the violation of applicable state water quality standards, the division will notify the operator of such violations. The permittee shall take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and shall document these actions in the SWPPP.

6.3.2. Discharge quality

- a) The construction activity shall be carried out in such a manner that will prevent violations of water quality criteria as stated in the Tennessee Rules, Chapter 0400-40-03-.03. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits or turbidity impair the usefulness of waters of the state for any of the uses designated for that water body by Tennessee Rules, Chapter 0400-40-04. Construction activity carried out in the manner required by



this permit shall be considered in compliance with the Tennessee Rules, Chapter 0400-40-03-.03.

- b) There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits, or sludge banks of such size or character as may be detrimental to fish and aquatic life.
- c) The stormwater discharge must not contain total suspended solids, turbidity, or color in such amounts or character that will result in any objectionable appearance compared to the turbidity or color of the receiving water, considering the nature and location of the water.
- d) The stormwater discharge shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream. This provision includes species covered under Subpart 1.3.
- e) Solids or other materials removed by any sediment control treatment devices must be disposed of in a manner that prevents its entrance into or pollution of any surface or subsurface waters.

6.4. DISCHARGES INTO WATERS WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS

6.4.1. SWPPP/BMP Requirements

- a) Discharges that would cause measurable degradation of waters with unavailable parameters or that would cause more than de minimis degradation of Exceptional Tennessee Waters are not authorized by this permit (Subpart 1.3). To be eligible to obtain and maintain coverage under this permit, the operator must satisfy, at a minimum, the following additional requirements for discharges into waters with unavailable parameters for siltation and for discharges to Exceptional Tennessee Waters⁹. All other provisions of this general permit that apply to receiving waters with available parameters shall also apply.
- b) The SWPPP must certify that EPSC measures used at the site are designed to control stormwater runoff generated by a 5-year, 24-hour storm event (the design storm), at a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.

⁹ or discharges upstream of such waters and because of the proximity to the segment and the nature of the discharge is likely to cause more than de minimis degradation in the unavailable or exceptional segment.

- c) The permittee shall perform inspections described in Section 5.5.3.9 at least twice every calendar week. Inspections shall be performed at least 72 hours apart.
- d) If the division finds that an operator is contributing to the impairment of a receiving stream despite complying with the SWPPP, the operator will be notified by the division in writing that the discharge is no longer eligible for coverage under the general permit. The operator may update the SWPPP and implement the necessary changes designed to eliminate further impairment of the receiving stream. If the permittee does not implement the SWPPP changes within seven days of receipt of notification, the permittee will be notified in writing that continued discharges must be covered by an individual permit (Subpart 8.11). To obtain the individual permit, the operator must file an individual permit application and submit an updated SWPPP. The project must be stabilized immediately and remain stable until the SWPPP is updated and the individual permit is issued. Only discharges from earth disturbing activities necessary for stabilization are authorized to continue until the individual permit is issued.
- e) For an on-site outfall in a drainage area totaling five or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained; or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until permanent stabilization of the site.
- f) For an on-site outfall in a drainage area totaling 3.5 - 4.9 acres, a minimum sediment trap volume or engineering equivalent that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained, is required until permanent stabilization of the site. A drainage area of 3.5 - 4.9 acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining through the common outfall.

6.4.2. Water Quality Riparian Buffer Zone Requirements

Sites that contain, or are adjacent to, receiving waters with unavailable parameters for siltation or designated as Exceptional Tennessee Waters shall preserve a 60-foot natural water quality riparian buffer zone adjacent to the receiving stream. All other buffer zone requirements as stated in Section 4.1.2 will apply.

The natural water quality riparian buffer zone shall be preserved between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the buffer can be established on an average width basis at a project, as long as the minimum width of the buffer is more than 30 feet at any measured location. If the construction site encompasses both sides of a stream, buffer averaging can be applied to both sides, but each side must average the 60-foot criterion independently.

This requirement does not apply to an area that is being altered under the authorization of a valid Aquatic Resources Alteration Permit (ARAP), or equivalent permits issued by federal authorities. Additional natural buffer zone requirements may be established by the local MS4 program.

PART 7

7. RETENTION, ACCESSIBILITY AND SUBMISSION OF RECORDS

7.1. DOCUMENTS

The primary permittee shall retain copies of SWPPPs, reports required by this permit, records of all data used to complete the NOI and the NOT for a period of at least three years from the date the NOT is submitted. This period may be extended by written request of the director.

7.2. ACCESSIBILITY AND RETENTION OF RECORDS

The permittee shall retain a copy of the SWPPP and a copy of the permit at the construction site (or other location accessible to the division) from the date construction commences to the date of termination of permit coverage. Permittees with day-to-day operational control over SWPPP implementation shall have a copy of the SWPPP available at a central location onsite for the use of all operators and those identified as having responsibilities under the plan whenever they are on the construction site.

7.2.1. Posting Information at the Construction Site

A notice shall be posted near the main entrance of the construction site visible to the public with the following information:

- a) a copy of the NOC with the NPDES permit tracking number for the construction project;
- b) a name or company name; E-mail address (if available); telephone number and address of the project site owner/operator or a local contact person; and
- c) the location of the SWPPP (Subpart 7.2).

The notice must be maintained in a legible condition. The notice shall be posted in a local public building if posting this information near a main entrance is infeasible due to safety concerns or if the site is not accessible to the public. If the construction project is a linear construction project (e.g., pipeline or highway), the notice must be placed in a publicly accessible location near where construction is actively underway and moved as necessary. This permit does not provide the public with any right to trespass on a construction site for any reason, including inspection of a site. This permit does not require permittees to allow members of the public access to a construction site.



The permittee shall also retain the following items in an appropriate location on-site (or other location accessible to [the division](#)):

- a) A rain gauge (or use a reference site for a record of daily precipitation) and accurate [rainfall](#) records;
- b) A copy of all required inspection reports; and
- c) Records of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated.

7.3. ELECTRONIC SUBMISSION OF DOCUMENTS

This permit requires the submission of forms developed by the [director](#) in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting inspection findings, applying for permit coverage and requesting for termination of permit coverage. The [director](#) may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter [0400-01-40](#). Electronic submission may be required when available, unless waived by the Commissioner in accordance with 40 C.F.R. § 127.15.

If [the division](#) notifies applicants by mail, E-mail, public notice or by making information available on the world wide web of electronic forms (see [NPDES Electronic Reporting](#)), the [operators](#) may be required to use those electronic options to submit the [NOI](#) (Section 3.3.2)

In the event of large-scale emergencies and/or prolonged electronic reporting system outages, an episodic electronic reporting waiver may be granted by the Commissioner in accordance with 40 CFR § 127.15. A request for a deadline extension or episodic electronic reporting waiver should be submitted to DWRWater.Compliance@tn.gov, in compliance with the Federal NPDES Electronic Reporting Rule.

In the event that [NPDES Electronic Reporting](#) is not functioning, the permittee shall comply with reporting conditions by mailing reports with wet-ink original signatures shall to the following address:

*STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT UNIT
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102*

For purposes of determining compliance with this permit, data provided to the division electronically is legally equivalent to data submitted on signed and certified forms. A copy must be retained for the permittee's files.

7.3.1. Monitoring Results

Monitoring results (if applicable, for projects exceeding 50 acres of disturbance at one time, see Subsection 5.5.3.3) shall be recorded monthly and submitted monthly using NetDMR. Submittals shall be no later than 15 days after the completion of the reporting period. If NetDMR is not functioning, a completed DMR with an original signature shall be submitted to the address for Compliance and Enforcement Unit as listed in the Subpart 7.3 above. The first DMR is due on the 15th of the month following permit effectiveness.

DMRs must be signed and certified by a responsible corporate officer as defined in Tennessee Rule 0400-40-05-.05(6), a general partner or proprietor, or a principal municipal executive officer or ranking elected official, or his duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

PART 8

8. STANDARD PERMIT CONDITIONS

8.1. DUTY TO COMPLY

8.1.1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Tennessee Water Quality Control Act (TWQCA) and is grounds for an enforcement action, permit termination, revocation and reissuance, modification; or for denial of a permit renewal application.

8.1.2. Penalties

Pursuant to T.C.A. § 69-3-115 of The Tennessee Water Quality Control Act of 1977, as amended:

- a) Any person who violates an effluent standard or limitation or a water quality standard established under this part (T.C.A. § 69-3-101, et. seq.); violates the terms or conditions of this permit; fails to complete a filing requirement; fails to allow or perform an entry, inspection, monitoring or reporting requirement; violates a final determination or order of the board, panel or commissioner; or violates any other provision of this part or any rule or regulation promulgated by the board, is subject to a civil penalty of up to ten thousand dollars (\$10,000) per day for each day during which the act or omission continues or occurs.
- b) Any person unlawfully polluting the waters of the state or violating or failing, neglecting, or refusing to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class C misdemeanor. Each day upon which such violation occurs constitutes a separate offense.
- c) Any person who willfully and knowingly falsifies any records, information, plans, specifications, or other data required by the board or the commissioner, or who willfully and knowingly pollutes the waters of the state, or willfully fails, neglects or refuses to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class E felony and shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) or incarceration, or both.



8.1.3. Civil and criminal liability

Nothing in this permit shall be construed to relieve the discharger from civil or criminal penalties for noncompliance. Notwithstanding this permit, the discharger shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the discharger to conduct stormwater discharge activities in a manner such that public or private nuisances or health hazards will not be created. Furthermore, nothing in this permit shall be construed to preclude the State of Tennessee from any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the Federal Water Pollution Control Act.

8.1.4. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable local, state or federal law.

8.2. CONTINUATION OF THE EXPIRED GENERAL PERMIT

Permittees shall maintain coverage under this general permit until a new general permit is issued.

Operator(s) of an existing site permitted under the division's 2016 construction general permit shall maintain full compliance with the existing SWPPP. The existing SWPPP shall be modified according to the Section 5.3.1 of this permit.

8.3. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

8.4. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.



8.5. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division or an authorized representative of the division, within a time specified by the division, any information that the division may request to determine compliance with this permit or other information relevant to the protection of the waters of the state. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit.

8.6. OTHER INFORMATION

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the director, he or she shall promptly submit such facts or information.

8.7. SIGNATORY REQUIREMENTS

All NOIs, SWPPPs, NOTs, Construction Stormwater Inspection Certifications, Construction Stormwater Monitoring Report forms, reports, certifications or information either submitted to the director or the operator of a large or medium Municipal Separate Storm Sewer System (MS4) shall be signed as described in Sections 8.7.1 and 8.7.2 and dated.

8.7.1. Signatory Requirements for an NOI¹⁰

The NOI shall be signed as follows:

- a) For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or
 - ii. the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated site including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive

¹⁰ As specified in 40 CFR 122.22(a)(1)-(3) [48 FR 14153, Apr. 1, 1983, as amended at 48 FR 39619, Sept. 1, 1983; 49 FR 38047, Sept. 29, 1984; 50 FR 6941, Feb. 19, 1985; 55 FR 48063, Nov. 16, 1990; 65 FR 30907, May 15, 2000]

measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- b) For a general partnership, by each general partner in the general partnership,
- c) For a sole proprietorship, by the proprietor,
- d) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or
 - ii. a senior executive officer having responsibility for the overall operations of a principle geographic unit of the agency (e.g., Regional Administrators of [EPA](#)).

NOTE: The division does not require specific assignments or delegations of authority to responsible corporate or municipal, state, federal, or other public agency officers. The division will presume that these officers have the requisite authority to sign permit applications unless the entity has notified the [director](#) to the contrary. Procedures governing authority to sign permit applications may provide for assignment or delegation to applicable positions rather than to specific individuals.

8.7.2. Signatory Requirements for SWPPPs, Reports and Other Items

SWPPPs, Construction Stormwater Inspection Certification forms, reports, certifications or other information submittals required by the permit and other information requested by [the division](#), including but not limited to Notice of Violation responses, shall be signed by a person described in Section 8.7.1, or by a duly authorized representative of that person.

8.7.3. Duly Authorized Representative

For a purpose of satisfying signatory requirements for reports (Section 8.7.2), a person is a duly authorized representative only if:

- a) the authorization is made in writing by a person described in Section 8.7.1;
- b) the authorization specifies an individual having responsibility for the overall operation of the regulated site or activity such as the position of



plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; a duly authorized representative may thus be either a named individual or any individual occupying a named position; and

- c) the written authorization is submitted to the director or an appropriate EFO. The written authorization shall be a written document including the name of the newly authorized person or any individual occupying a named position as described in paragraph b) above, and the corresponding contact information (title, mailing address, phone number and E-mail address) for the authorized person or position. The written authorization shall be signed by the newly authorized person accepting responsibility and by the person described in Section 8.7.1 delegating the authority.

8.7.4. Changes to Authorization

If an authorization under Sections 8.7.1 or 8.7.3 is no longer accurate because a different individual or position has responsibility as the primary or secondary permittee, but the company name (permittee name) remains the same, a new NOI and SWPPP certification shall be submitted and signed by the new party who meets signatory authority satisfying the requirements of Sections 8.7.1 or 8.7.3 . The NOI shall include the new individual's information (title, mailing address, phone number and E-mail address), the existing tracking number and the project name.

8.7.5. Signatory Requirements for Primary Permittees

Primary permittees required to sign an NOI and SWPPP because they meet the definition of an operator (Subpart 2.1) shall sign the following certification statement on the NOI and on the SWPPP:

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."



8.7.6. Signatory Requirements for Secondary Permittees

Secondary permittees required to sign an [NOI](#) and SWPPP because they meet the definition of an [operator](#) but who are not primarily responsible for preparing an [NOI](#) and SWPPP, shall sign the following certification statement on the [NOI](#) and on the SWPPP:

"I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

8.8. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to Section 311 of the Clean Water Act or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ([CERCLA](#)).

8.9. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges; nor does it authorize any injury to private property, any invasion of personal rights or any infringement of federal, state or local laws or regulations. The issuance of this permit does not authorize trespassing or [discharges of stormwater](#) or [non-stormwater](#) across private property.

8.10. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.



8.11. INDIVIDUAL PERMITS

8.11.1. Required Individual Permit Coverage

The director may require any person covered by this permit to apply for and obtain an individual NPDES permit to ensure adequate protection of designated uses of a receiving stream. Any interested person may petition the director in writing to take action under this paragraph but must include in their petition the justification for such an action. Where the director requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the director shall notify the discharger in writing that an individual permit application is required. This notification will include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application and a statement that coverage under this general permit shall terminate upon the effective date of an individual NPDES permit; or denial of coverage under an individual permit. An individual NPDES permit is required only when additional permit terms or conditions beyond those set forth herein are necessary to protect water quality. Criteria for the division to require an individual NPDES permit may include, but are not limited to:

- a) Due to unique site conditions the discharge may result in greater than de minimis degradation, or a threat to threatened or endangered aquatic or semi-aquatic species.
- b) The total acreage to be disturbed and/or total drainage area to an outfall may exceed the capability of standard EPSCs and other BMPs to prevent pollution to waters.
- c) Steep grades or erosive soil conditions warrant site-specific controls that exceed the conditions of the CGP.
- d) Other site-specific conditions, such as contaminated soils or public lands.

The notification may require stabilization of the site and suspend coverage under this general permit until the individual permit is issued. Individual permit applications and updated SWPPP shall be submitted to the appropriate Environmental Field Office of the division as indicated in Subpart 3.4. The director may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the director under this paragraph, then the applicability of this permit to the discharger will be terminated at the end of the day specified by the director for application submittal.



If the decision to require an individual NPDES permit precedes the issuance of coverage under this general permit, earth disturbing activities cannot begin until the individual permit is issued.

8.11.2. Permittee-Requested Individual Permit Coverage

Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. Any discharger that knowingly cannot abide by the terms and conditions of this permit must apply for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, and a SWPPP to the appropriate division's Environmental Field Office. The request may be granted by issuance of an individual permit, or alternative general permit, if the reasons cited by the permittee are adequate to support the request.

8.11.3. General Permit Termination

When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the discharger is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is terminated on the date of such denial, unless otherwise specified by the director. Coverage under the Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity (TMSP) will not be considered as an alternative general permit under this section without being specified by the director.

8.12. OTHER, NON-STORMWATER, PROGRAM REQUIREMENTS

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

8.13. PROPER OPERATION AND MAINTENANCE

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related equipment) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs.

Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee, when determined by the permittee or the division to be necessary to achieve compliance with the conditions of the permit.

8.14. INSPECTION AND ENTRY

The permittee shall allow authorized representatives of the Environmental Protection Agency, the director or an authorized representative of the commissioner of TDEC, or, in the case of a construction site which discharges through a municipal separate storm sewer, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law:

- a) to enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- b) to have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
- c) to inspect any facilities or equipment, including monitoring and control equipment.

8.15. PERMIT ACTIONS

This permit may be issued, modified, revoked, reissued or terminated for cause in accordance with this permit and the applicable requirements of T.C.A. § 69-3-108. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

PART 9

9. REQUIREMENTS FOR TERMINATION OF COVERAGE

9.1. TERMINATION OF DEVELOPER AND BUILDER COVERAGE

9.1.1. Termination Process for Primary Permittees

Primary permittees wishing to terminate coverage under this permit must submit a completed Notice of Termination (NOT) form provided in Appendix B of this permit (representative photo or video documentation of site stabilization is recommended). Electronic submittal is encouraged (see NPDES Electronic Reporting for more information). Primary permittees who abandon a site and fail to submit the NOT will be in violation of this permit. If the NOT was not submitted five years following the “estimated end date” (as identified on the NOI), the division can terminate the CGP coverage, unless the permittee specifically requests to maintain coverage. Signs notifying the public of the construction activity shall be in place until the NOT form has been submitted. Primary permittees may terminate permit coverage only if the conditions described below occur at the site:

- a) For areas where the primary permittee has control, all earth-disturbing activities and, if applicable, construction support activities permitted under Section 1.2.2 at the site are complete and the following requirements are met:
 - i. For any areas that were disturbed during construction, are not covered by permanent structures and over which the permittee had control during the construction activities; the requirements for permanent vegetation or non-vegetative stabilization described in Subsection 5.5.3.4 are met;
 - ii. The permittee has removed and properly disposed of all construction materials, as well as waste and waste handling devices. The permittee has removed all equipment and vehicles that were used during construction, unless they are intended for long-term use following termination of permit coverage;
 - iii. The permittee has removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following termination of permit coverage;
 - iv. The permittee has identified in the SWPPP who is responsible for ongoing maintenance of any stormwater controls left on the site for long-term use following termination of permit coverage, and
 - v. The groundcover achieves permanent stabilization.



- b) The permittee has transferred control of all areas of the site for which he is responsible (including, but not limited to, infrastructure, common areas, stormwater drainage structures, sediment control basin) under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit.
- c) The permittee obtains coverage under an individual or alternative general NPDES permit.

9.1.2. NOT Review

The division may review NOTs for completeness and accuracy and, when necessary, investigate the proposed site for which the NOT was submitted. Coverage under the permit is terminated when the permit record is published on TDEC's DataViewer as "Inactive." Operators may be liable for discharges that occur from the site after termination.

The division retains the right to deny termination of coverage under this general permit upon receipt of the NOT. If the local Environmental Field Office has information indicating that the permit coverage is not eligible for termination, written notification will be provided within 30 days of receipt that permit coverage has not been terminated. The notification will include a summary of existing deficiencies. When the site meets the termination criteria, the NOT should be re-submitted.

If any permittee files for bankruptcy or the site is foreclosed on by the lender, the permittee shall notify the division of the situation so that the division may assess the site to determine if permit coverage should be obtained by any other person or whether other action is needed.

9.2. TERMINATION OF BUILDER AND CONTRACTOR COVERAGE

9.2.1. Termination Process for Secondary Permittees

Secondary permittees must request termination of coverage under this permit by submitting a NOT when they are no longer an operator at the construction site. Electronic submittal is encouraged (see [NPDES Electronic Reporting](#) for more information). Secondary permittees receive coverage under this permit but are not normally mailed a NOC. Consequently, the division may, but is not required to, notify secondary permittees that their notice of termination has been received. If the division has reason to believe that the secondary permittee's NOT should



not have been submitted, the division will deny the secondary permittee's NOT in writing, with specific reasons as to why the NOT should not have been submitted.

9.3. NOT CERTIFICATION

The NOT and the following certification must be signed in accordance with Subpart 8.7 of this permit:

"I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

9.4. WHERE TO SUBMIT A NOT?

Electronic submittal is encouraged (see [NPDES Electronic Reporting](#) for more information). Otherwise, the NOT shall be submitted to the Environmental Field Office (EFO) which issued the NOC to the primary permittee. A list of counties and the corresponding EFOs is provided in Subpart 3.4. The appropriate permit tracking number must be clearly printed on the form.

PART 10

10. DEFINITIONS, ACRONYMS AND RESOURCES

10.1. DEFINITIONS

<p>2-year 24-hour 5-year 24-hour</p>	<p>2-year and 5-year design storm depths and intensities The estimated design rainfall amounts, for any return period interval (i.e., 2-yr, 5-yr, 25-yr, etc.,) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the data available at https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html. Other data sources may be acceptable with prior written approval by TDEC Division of Water Resources.</p>
<p>ARAP</p>	<p>Aquatic Resource Alteration Permit Persons who wish to make an alteration to a <u>stream</u>, river, lake or wetland must first obtain a water quality permit. Physical alterations to properties of waters of the state require an ARAP or a §401 Water Quality Certification (§401 certification). Examples of <u>stream</u> alterations that require a permit from the division include:</p> <ul style="list-style-type: none"> • Dredging, excavation, channel widening, or straightening • Bank sloping; stabilization • Channel relocation • Water diversions or withdrawals • Dams, weirs, dikes, levees or other similar structures • Flooding, excavating, draining and/or filling a wetland • Road and utility crossings • Structural fill <p>General ARAPs are developed and maintained by the division to provide a streamlined, expedited means of authorizing projects that singularly or cumulatively propose minor impacts to water resources.</p>
<p>BMP</p>	<p>Best Management Practices (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the discharge of pollutants to <u>waters</u> of the state. BMPs also include treatment requirements, operating procedures; and practices to control plant site runoff,</p>

	<p>spillage, leaks, sludge or waste disposal, or drainage from raw material storage. BMPs include source control practices (non-structural BMPs) and engineered structures designed to treat runoff.</p> <p><u>Structural BMPs</u> are facilities that help prevent pollutants in stormwater runoff from leaving the site.</p> <p><u>Non-structural BMPs</u> are techniques, activities and processes that reduce pollutants at the source.</p>
borrow pit	<p>Borrow Pit is an excavation from which erodible material (typically <u>soil</u>) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.</p>
buffer zone	<p>Buffer Zone or Water Quality Riparian Buffer is a permanent strip of natural perennial vegetation, adjacent to a <u>stream</u>, river, wetland, pond, or lake that contains dense vegetation made up of grass, shrubs, and/or trees. The purpose of a water quality riparian buffer is to maintain existing water quality by minimizing risk of any potential <u>sediments</u>, nutrients or other pollutants reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters</p>
clearing	<p>Clearing refers to removal of vegetation and disturbance of <u>soil</u> prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities. Clearing, grading and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams or power lines for sight distance or other maintenance and/or safety concerns, or cold planning, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal <u>stormwater</u> NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state <u>stormwater</u> NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (<u>T.C.A. 69-3-101 et seq.</u>).</p>

commencement	Commencement of construction: the initial disturbance of <u>soils</u> associated with clearing, grading, excavating or other construction activities.
common plan	Common plan of development or sale is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design) or physical demarcation (including boundary signs, lot stakes, surveyor markings) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different <u>operators</u> .
control measure	Control measure refers to any Best Management Practice (BMP) or other method used to prevent or reduce the discharge of pollutants to waters of the state.
CWA	CWA means the Clean Water Act of 1977 or the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.)
director	Director means the director, or authorized representative, of the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation.
degradation	Degradation means the alteration of the properties of waters by the addition of pollutants, withdrawal of water, or removal of habitat, except those alterations of a short duration.
de minimis	De Minimis is degradation of a small magnitude, as provided in this paragraph: (a) <u>Discharges and withdrawals</u> : 1. Subject to the limitation in part 3 of this subparagraph, a single discharge other than those from new domestic wastewater sources will be considered de minimis if it uses less than five percent of the available assimilative capacity for the substance being discharged. 2. Subject to the limitation in part 3 of this subparagraph, a single water withdrawal will be considered de minimis if it removes less than five percent of the 7Q10 flow of the <u>stream</u> .

	<p>3. If more than one activity described in part 1 or 2 of this subparagraph has been authorized in a segment and the total of the authorized and proposed impacts uses no more than 10% of the assimilative capacity, or 7Q10 low flow, they are presumed to be de minimis. Where the total of the authorized and proposed impacts uses 10% of the assimilative capacity, or 7Q10 low flow, additional degradation may only be treated as de minimis if the Division finds on a scientific basis that the additional degradation has an insignificant effect on the resource.</p> <p>(b) Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the Division finds that the impacts, individually and cumulatively, are offset by impact minimization and/or in-system mitigation, provided however, in Outstanding National Resource Waters (ONRWs) the mitigation must occur within the ONRW.</p>
discharge of a pollutant	Discharge or discharge of a pollutant refers to the addition of pollutants to waters from a source.
disturbed area	Disturbed area means the total area presented as part of the development (and/or of a larger common plan of development) subject to being cleared, graded, grubbed, filled or excavated during the life of the development. The area cannot be limited to only the portion of the total area that the site-wide owner/developer initially disturbs through the process of various land clearing activities or in the construction of roadways, sewers, drainfields, and water utilities, <u>stormwater</u> drainage structures, etc., to make the property marketable.
division	Division means the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation
exceptional waters	Exceptional Tennessee Waters are surface waters designated by the division as having the characteristics set forth at Tennessee Rules, Chapter 0400-40-03-.06(4). Characteristics include waters within parks or refuges; scenic rivers; waters with threatened or endangered species; waters that provide specialized recreational opportunities; waters within areas designated as lands

	unsuitable for mining; waters with naturally reproducing trout; waters with exceptional biological diversity and other waters with outstanding ecological or recreational value.
permanent stabilization	<p>Permanent Stabilization means that all <u>soil</u> disturbing activities at the site have been completed and one of the three following criteria is met:</p> <ol style="list-style-type: none"> (1) A perennial, preferably native, vegetative cover with a uniform (i.e., evenly distributed, without large bare areas) density of at least 70 percent has been established on all unpaved areas and areas not covered by permanent structures, and all slopes and channels have been permanently stabilized against erosion. (2) Equivalent permanent stabilization measures such as the use of riprap; permanent geotextiles; hardened surface materials including concrete, asphalt, gabion baskets or Reno mattresses have been employed. (3) For construction projects on land used for agricultural or silvicultural purposes, <u>permanent stabilization</u> may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.
improved sinkhole	<p>Improved sinkhole is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under the Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures and crevices, such as those commonly associated with weathering of limestone.</p>
Level 1	<p>Level 1 - Fundamentals of Erosion Prevention and Sediment Control training and certification program administered by University of Tennessee Water Resources Research Center (https://tnepsc.org/index.asp). The Fundamentals course is a foundation-building course intended for individuals involved in land-disturbing activities covered by the Construction General Permit. The course aims to build a working knowledge of erosion and <u>sedimentation</u> processes and practices and is intended for: site inspectors, inspection and enforcement personnel from all levels of government, plan preparers and reviewers, and designers and engineers. Topics include:</p>

	<p>Construction General Permit and related <u>SWPPP</u> requirements; function, installation, limitations, inspection and maintenance of Best Management Practices; roles of local officials and state government agencies involved in the permitting process; and basic hydrologic and erosion processes. Upon successful completion of a Course Certification Exam, the participant receives a Level 1 TNEPSC certificate. The Level 1 certificate is valid for three full years following the year that the certificate was issued. To meet the requirement for Level 1 certified staff, TDOT may develop and administer an approved equivalent Level1 training and certification program as provided in the TDOT individual <u>MS4</u> Permit. The equivalent TDOT Level 1 certification is valid only for TDOT staff and for projects where TDOT is the primary site <u>operator</u>.</p>
Level 2	<p>Level 2 - Design Principles for Erosion Prevention and Sediment Control for Construction Sites training and certification program administered by University of Tennessee Water Resources Research Center (https://tnepsc.org/index.asp). It is an advanced 2-day workshop designed for engineers and other professionals who have completed the prerequisite Level 1 course. The Level 2 Design workshop provides the general tools needed for developing an acceptable, working <u>SWPPP</u>. Topics discussed in the course include: hydrologic methods for determining peak flows; principles of <u>soil</u> erosion, scouring and <u>sediment</u> transport processes, including practice examples for preventing erosion; and open channel principles and practices for designing a stable channel, including use and examples of riprap, blankets and matting, and vegetation; <u>stormwater</u> control requirements and design; <u>sedimentation</u> principles; and <u>temporary sediment basin</u> design requirements, and detailed examples. The Level 2 Design workshop provides a Certificate of Completion after attending both days and successfully completing the take-home exam.</p>
linear project	<p>Linear Project is a land disturbing activity as conducted by an underground/overhead utility or highway department, including, but not limited to, any cable line or wire for the transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any</p>

	<p>cable line or wire for communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas and borrow/spoil sites associated with the linear project. Land disturbance specific to the development of residential and commercial subdivisions or high-rise structures is not considered a linear project.</p>
measurable degradation	<p>Measurable Degradation, as used in the context of <u>discharges</u> or withdrawals, means changes in parameters of waters that are of sufficient magnitude to be detectable by the best available instrumentation or laboratory analyses.</p>
month	<p>Month or Monthly refers to calendar months.</p>
MS4	<p>“Municipal Separate Storm Sewer System” or “MS4” is defined in 40 CFR §122.26(b)(8) to mean a conveyance or system of conveyances (e.g., roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that are:</p> <ul style="list-style-type: none"> a) owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, <u>stormwater</u>, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that <u>discharges</u> to waters of the United States; b) designed or used for collecting or conveying <u>stormwater</u>; c) not a combined sewer; and d) not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR §122.2.
operator	<p>Operator for the purpose of this permit and in the context of <u>stormwater</u> associated with construction activity, means any person (typically considered the primary permittee)</p>

	<p>associated with a construction project that meets either of the following two criteria:</p> <ul style="list-style-type: none"> a) This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g., subsequent builder) or the person who is the current owner of the construction site. b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a <u>SWPPP</u> for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee and is considered a secondary permittee. <p>It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of “operator” (see Part 2 of this permit).</p>
point source (or outfall)	<p>Point source means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include introduction of pollutants from non-point source agricultural and silvicultural activities, including <u>stormwater</u> runoff from orchards, cultivated crops, pastures, range lands, forest lands or return flows from irrigated agriculture or agricultural <u>stormwater</u> runoff. In short, outfall is a point where runoff leaves the site as a concentrated flow in a discrete conveyance. Phrase “point source” and term “outfall” are used interchangeably in this general permit, and can be considered synonyms.</p>
pollutant	<p>Pollutant means sewage, industrial wastes, or other wastes.</p>
QLP	<p>Qualifying State, Tribal, or local erosion and sediment control program is one that includes, as defined in 40 CFR 122.44(s):</p>

	<p>a) Requirements for construction site <u>operators</u> to implement appropriate erosion and <u>sediment</u> control best management practices.</p> <p>b) Requirements for construction site <u>operators</u> to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.</p> <p>c) Requirements for construction site <u>operators</u> to develop and implement a <u>stormwater</u> pollution prevention plan. A stormwater pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures and identification of non-<u>stormwater</u> discharges.</p> <p>d) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.</p>
rainfall	A rainfall event is defined as any occurrence of rain preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.
registered engineer	Registered Engineer and Registered Landscape Architect An engineer or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code Annotated, to practice in Tennessee.
runoff coefficient	Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff. Runoff coefficient is also defined as the ratio of the amount of water that is not absorbed by the surface to the total amount of water that falls during a rainstorm.
sediment	Sediment means solid material, both inorganic (mineral) and organic, that is in suspension, is being transported; or has been moved from the site of origin by wind, water, gravity or ice as a product of erosion.
sediment basin	Sediment basin A temporary basin consisting of an embankment constructed across a wet weather

	conveyance, an excavation that creates a basin or by a combination of both. A sediment basin typically consists of a forebay cell, dam, impoundment, permanent pool, primary spillway, secondary or emergency spillway and surface dewatering device. The size and shape of the basin depends on the location, size of drainage area, incoming runoff volume and peak flow, <u>soil</u> type and particle size, land cover, and receiving <u>stream</u> classification (i.e., waters with unavailable parameters, Exceptional TN Waters, or waters with available parameters).
sedimentation	Sedimentation means the action or process of forming or depositing sediment.
soil	Soil or Topsoil means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.
steep slope	Steep Slope or Steep Grade means a natural or created slope of 35% grade or greater. Designers of sites with steep slopes must pay attention to <u>stormwater</u> management in the <u>SWPPP</u> to engineer runoff around or over a steep slope so as not to erode the slope. In addition, site managers should focus on erosion prevention on the slopes and stabilize the slopes as soon as practicable to prevent slope failure or sediment discharges from the project.
stormwater	Stormwater means rainfall runoff, snow melt runoff, and surface runoff and drainage.
stream	A Stream is a surface water that is not a wet weather conveyance. Therefore, as used in this permit, "stream" includes lakes, wetlands and other non-linear surface waters.
construction stormwater	Stormwater associated with industrial activity is defined in 40 CFR 122.26(b)(14) and incorporated here by reference. Most relevant to this permit is 40 CFR 122.26(b)(14)(x), which relates to construction activity including clearing, grading, filling and excavation activities, including borrow pits containing erodible material. Disturbance of soil for the purpose of crop production is exempt from permit requirements, but stormwater discharges from agriculture-related activities that involve construction of structures (e.g., barn construction, road construction, pond construction) are considered associated with industrial

	activity. Maintenance to the original line and grade, hydraulic capacity; or to the original purpose of the facility (e.g., re-clearing, minor excavation performed around an existing structure necessary for maintenance or repair and repaving of an existing road) is not considered a construction activity for the purpose of this permit.
discharge-related activities	Stormwater discharge-related activities means activities that cause, contribute to or result in point source stormwater pollutant discharges. These activities may include excavation, site development, grading and other surface disturbance activities; and activities to control stormwater including the siting, construction and operation of best management practices (BMPs).
SWPPP	Stormwater Pollution Prevention Plan is a written site-specific plan required by this permit that includes a narrative pollution prevention plan and graphical erosion and sediment control plan. In its basic form, the plan contains a site map, a description of construction activities that could introduce pollutants to stormwater runoff, a description of measures or practices to control these pollutants, and erosion and sediment control plans and specifications. It must be prepared and submitted before construction begins. In order to effectively reduce erosion and <u>sedimentation</u> impacts, Best Management Practices (BMPs) must be designed, installed and maintained during land disturbing activities. The <u>SWPPP</u> should be prepared in accordance with the <u>Tennessee Erosion and Sediment Control Handbook</u> .
take	Take of an endangered species means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct.
the handbook	<u>Tennessee Erosion and Sediment Control Handbook</u> is a guidance issued by the Division of Water Resources for the purpose of developing Stormwater Pollution Prevention Plans and Erosion and Sediment Control Plans required by the TNCGP. The handbook is designed to provide information to planners, developers, engineers and contractors on the proper selection, installation and maintenance of BMPs. The handbook is intended for use during the design and

	construction of projects that require erosion and sediment controls to protect waters of the state.
temporary stabilization	Temporary stabilization is achieved when vegetation or non-erodible surface has been established on the area of disturbance and construction activity has temporarily ceased. Under certain conditions, temporary stabilization is required when construction activities temporarily cease. However, if future construction activity is planned, permit coverage continues.
TMDL	<p>Total maximum daily load (TMDL) means the sum of the individual wasteload allocations for <u>point sources</u> and load allocations for nonpoint sources and natural background (40 CFR 130.2(l)). TMDL is a study that quantifies the amount of a pollutant in a <u>stream</u>, identifies the sources of the pollutant and recommends regulatory or other actions that may need to be taken in order for the <u>stream</u> to cease being polluted. TMDLs can also be described by the following equation:</p> <p>TMDL = sum of nonpoint sources (LA)+ sum of <u>point sources</u> (WLA)+ margin of safety</p> <p>A list of completed TMDLs that have been approved by EPA can be found at our web site: https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/tennessee-s-total-maximum-daily-load--tmdl--program.html</p>
treatment chemicals	Treatment chemicals are polymers, flocculants or other chemicals used to reduce turbidity in stormwater discharges by chemically bonding to suspended silts and other soil materials and causing them to bind together and settle out. Common examples of anionic treatment chemicals are chitosan and anionic PAM.
turbidity	Turbidity is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air.
waste site	Waste site is an area where material from a construction site is disposed of. When the material is erodible, such as soil, the site must be treated as a construction site.

waters or waters of the state	Waters (or waters of the state) means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.
unavailable parameters	Waters with unavailable parameters means any segment of surface waters that has been identified by the division as failing to support one or more classified uses. For the purpose of this permit, pollutant of concern is siltation. Based on the most recent assessment information available to staff, the division will notify applicants and permittees if their discharge is into, or is affecting, waters with unavailable parameters. Resources to be used in making this determination include biennial compilations of impaired waters, databases of assessment information, updated GIS coverages (https://tdeonline.tn.gov/dwr/), and the results of recent field surveys. GIS coverages of the streams and lakes not meeting water quality standards, plus the biennial list of waters with unavailable parameters, can be found at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html .
week	A one-week period is a synonym of a calendar-week ; typically, a period from Sunday through Saturday.
wet weather conveyance	Wet weather conveyances are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that meet the following: <ul style="list-style-type: none"> a) The conveyance carries flow only in direct response to precipitation runoff in its immediate locality. b) The conveyance's channels are at all times above the ground water table. c) The flow carried by the conveyance is not suitable for drinking water supplies. d) Hydrological and biological analyses indicate that, due to naturally occurring ephemeral or low flow under normal weather conditions, there is not sufficient water



	to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Tennessee Rules, Chapter 0400-40-3-.04(3)).
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10.2. ACRONYMS AND ABBREVIATIONS

7Q10	7-day minimum, 10-year recurrence interval
<u>ARAP</u>	Aquatic Resource Alteration Permit
<u>BMP</u>	Best Management Practice
BPT	Best Practicable Control Technology Currently Available
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit (this NPDES permit)
<u>CWA</u>	Clean Water Act
<u>EFO</u>	Environmental Field Office (see Subpart 3.4)
EPA	(U.S.) Environmental Protection Agency
EPSC	Erosion Prevention and Sediment Control
<u>MS4</u>	Municipal Separate Storm Sewer System
NOC	Notice of Coverage (see Subpart 1.5)
NOI	Notice of Intent (to be covered by this permit – see Section 1.4.1)
NOT	Notice of Termination (see Part 9)
NPDES	National Pollutant Discharge Elimination System
ONRW	Outstanding National Resource Waters
<u>QLP</u>	Qualifying Local Program (see Section 1.4.5)
<u>SWPPP</u>	Stormwater Pollution Prevention Plan
TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
<u>TMDL</u>	Total Maximum Daily Load
TMSP	Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity
TVA	Tennessee Valley Authority
TWQCA	Tennessee Water Quality Control Act
UIC	Underground Injection Control
USGS	United States Geological Survey



10.3. RESOURCES, HYPERLINKS, AND WEB PAGES

Electronic Code of Federal Regulations (eCFR), Title 40 (40 CFR § 1 through § 1099)

<https://www.ecfr.gov/cgi-bin/text-idx?SID=75202eb5d09974cab585afeea981220b&mc=true&tpl=/ecfrbrowse/Title40/40chapter1.tpl>

Electronic Reporting (NetDMR) Waiver Request

https://www.tn.gov/content/dam/tn/environment/water/documents/wr_electronic_reporting_waiver.pdf

Online Forms

[NPDES Electronic Reporting](#)

NPDES Compliance Inspection Manual (EPA)

<https://www.epa.gov/sites/production/files/2017-01/documents/npdesinspect.pdf>

NPDES Electronic Reporting Rule

<https://www.federalregister.gov/documents/2015/10/22/2015-24954/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule>

Rules of the TN Department of Environment and Conservation, Chapter 0400-40

<https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40.htm>

TDEC Water Quality Rules, Reports, and Publications

<https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html>

Technical Support Document for Water Quality-based Toxics Control (EPA)

<https://www3.epa.gov/npdes/pubs/owm0264.pdf>

Tennessee Water Resources Data and Map Viewers

<https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html>

USGS StreamStats

https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools?qt-science_center_objects=0#qt-science_center_objects

USGS SWToolbox

<https://www.usgs.gov/software/swtoolbox-software-information>

(End of body of permit; appendices follow.)

APPENDIX A – NOTICE OF INTENT FORM (NOI)

(See Next Page)



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, TN 37243

Toll Free Number: 1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name:		NPDES Tracking Number: TNR	
Street Address including city or zip code or Location:		Construction Start Date:	
Site Description:		Estimated End Date:	
County(ies):		MS4 Jurisdiction (if applicable):	Latitude (dd.dddd):
			Longitude (-dd.dddd):
			Acres Disturbed:
			Total Acres:
Are there any streams <input type="checkbox"/> and/or wetlands <input type="checkbox"/> on or adjacent to the construction site? If wetlands are located on-site and may be impacted, attach wetlands delineation report. If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP Number:			
Receiving waters:			
Include the SWPPP with the NOI <input type="checkbox"/> SWPPP Included		Include a site location map <input type="checkbox"/> Map Included	

Name of Site Owner or Developer (Site-Wide Permittee): (correct legal name of person, company, or entity that has operational or design control over construction plans and specifications)			
For corporate entities only, provide the Tennessee Secretary of State (SOS) Control Number:			
Site Owner or Developer Contact Name: (individual responsible for site)		Title or Position: (the party who signs the certification below):	
Mailing Address:	City:	State:	Zip:
Phone: ()	E-mail:		

Optional Contact Name:		Title or Position:	
Mailing Address:	City:	State:	Zip:
Phone: ()	E-mail:		

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner or Developer Name: (print or type)	Signature:	Date:
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Contractor(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements.

Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:
Primary contractor name, address, and SOS control number (if applicable): (print or type)	Signature:	Date:

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Purpose of this form A completed notice of intent (NOI) must be submitted to obtain coverage under the Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activity (permit). **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions.** This permit is required for stormwater discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

The appropriate permit application fee must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g., equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites):

(i) Projects equal to or greater than 150 acres	\$10,000
(ii) Projects equal to or greater than 50 acres and less than 150 acres	\$6,000
(iii) Projects equal to or greater than 20 acres and less than 50 acres	\$3,000
(iv) Projects equal to or greater than 5 acres and less than 20 acres	\$1,000
(v) Projects equal to or greater than 1 acre and less than 5 acres	\$250
(vi) Projects seeking subsequent coverage under an actively covered larger common plan of development or sale	\$100

There is no fee for sites less than 1 acre. A separate annual maintenance fee is also required for construction activities that exceed 1 year under general permit coverage. Tennessee Rules, Chapter 0400-40-11-.02(b)(12)).

Who must submit the NOI form? Per Section 2 of the permit, all site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current landowner of the construction site. This person is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the primary permittee, any separate or subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The site-wide site-specific SWPPP shall be prepared in accordance with the requirements of part 5 of the permit and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

Artificial entities (e.g., corporations or partnerships excluding entities not required to register) must submit the TN Secretary of State, Division of Business Services, control number. The Division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the TN Secretary of State.

Notice of Coverage The division will review the NOI for completeness and accuracy and prepare a notice of coverage (NOC). Stormwater discharge from the construction site is authorized as of the effective date of the NOC.

Complete the form Type or print clearly, using ink and not markers or pencil. Answer each item or enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your construction site or activity. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee, a map, and the SWPPP.**

Describe and locate the project Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate geographic information available to describe the location (reference to adjacent highways, roads and structures; e.g. intersection of state highways 70 and 100). Latitude and longitude (expressed in decimal degrees) of the center of the site can be located on USGS quadrangle maps. The maps can be obtained at the USGS World Wide Web site: <http://www.usgs.gov/>; latitude and longitude information can be found at numerous other web sites. Attach a copy of a portion of a 7.5 minute topographic map, a city map, or a county map showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

Give name of the receiving waters Trace the route of stormwater runoff from the construction site and determine the name of the river(s), stream(s), creek(s), wetland(s), lake(s) or any other water course(s) into which the stormwater runoff drains. Note that the receiving water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the water body that the unnamed tributary enters.

An ARAP may be required **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If you have a question about the ARAP program, contact your local Environmental Field Office (EFO).

Submitting the form and obtaining more information Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing** or use MyTDEC Forms for electronic submittal.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Parkway, Suite 206	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

APPENDIX B – NOTICE OF TERMINATION FORM (NOT)

(See Next Page)



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources (DWR)
 William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor
 Nashville, Tennessee 37243
 1-888-891-TDEC (8332)

**Notice of Termination (NOT) for
 General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)**

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Submit this form to the local DWR Environmental Field Office (EFO) address (see table below) or using MyTDEC Forms electronic submittal process. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Site or Project Name:	NPDES Tracking Number: TNR
Street Address or Location:	County(ies):

Name of Permittee Requesting Termination of Coverage:			
Permittee Contact Name:	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone: ()	E-mail:		

Check the reason(s) for termination of permit coverage: (check only one)

<input type="checkbox"/>	Primary permittee termination: all requirements for termination under Permit Part 9.1.1. a) through c) have been met. This includes, but is not limited to, for areas the primary permittee has control all earth-disturbing activities at the site are complete and permanent stabilization as defined in Part 10 of the CGP has been achieved. (attach photo documentation).
<input type="checkbox"/>	When applicable, and you are a primary permittee seeking termination, list who is responsible for ongoing maintenance of stormwater controls left on the site subject for long-term use following termination of coverage:
<input type="checkbox"/>	Secondary permittee termination: all requirements for termination under Permit Part 9.2.1. have been met (no longer an operator at the construction site).

Certification and Signature:

(must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been permanently stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type):	Signature:	Date:
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EFO	Address	EFO	Street Address
Memphis	8383 Wolf Lake Drive, Bartlett, TN 38133	Cookeville	1221 South Willow Ave., TN 38506
Jackson	1625 Hollywood Drive, TN 38305	Chattanooga	1301 Riverfront Parkway, Ste. 206, TN 37402
Nashville	711 R S Gass Boulevard, TN 37243	Knoxville	3711 Middlebrook Pike, TN 37921
Columbia	1421 Hampshire Pike, TN 38401	Johnson City	2305 Silverdale Road, TN 37601

APPENDIX C – INSPECTION REPORT FORM

(See Next Page)



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources (DWR)
 William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor,
 Nashville, Tennessee 37243
 1-888-891-8332 (TDEC)

**General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)
 Construction Stormwater Inspection Certification (Inspection Form)**

Site or Project Name:		NPDES Tracking Number: TNR
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has rainfall been checked/documentated daily? <input type="checkbox"/> Yes <input type="checkbox"/> No	Name of Inspector:
Current weather/ground conditions:	Rainfall total since last inspection:	Inspector's TNEPSC Certification Number:
Site Assessment <input type="checkbox"/> Yes <input type="checkbox"/> No	Assessor's TN PE registration number:	Assessor's TNEPSC Level II/CPESC number:

Check the box if the following items are on-site:	
<input type="checkbox"/>	Notice of Coverage (NOC)
<input type="checkbox"/>	Stormwater Pollution Prevention Plan (SWPPP)
<input type="checkbox"/>	Weekly inspection documentation
<input type="checkbox"/>	Site contact information
<input type="checkbox"/>	Rain Gage
Off-site Reference Rain Gage Location	

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly?				
If "No," describe below in Comment Section				
1.	Are all applicable EPSCs installed and maintained per the SWPPP per the current phase?	<input type="checkbox"/>	<input type="checkbox"/>	
		Yes	No	
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas? (permit section 4.1.5)	<input type="checkbox"/>	<input type="checkbox"/>	
		Yes	No	
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts? (permit section 5.3.2)	<input type="checkbox"/>	<input type="checkbox"/>	
		Yes	No	
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	<input type="checkbox"/>	<input type="checkbox"/>	
		Yes	No	
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls? (permit section 4.1.3) If "No," describe below the measure to be implemented to address deficiencies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		N/A	Yes	No
6.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days? (permit section 3.5.3.2) If "," describe below each location and measures taken to stabilize the area(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		N/A	Yes	No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from wash waters, exposure of materials and discharges from spills and leaks per section 4.1.4? If "No," describe below the measure to be implemented to address deficiencies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		N/A	Yes	No

Construction Stormwater Inspection Certification Form (Inspection Form)

Purpose of this form/ Instructions

An inspection, as described in subsection 5.5.3.9. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at the specified frequency and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

Inspections can be performed by:

- a) a person with an valid certification from the "Fundamentals of Erosion Prevention and Sediment Control Level I" course,
- b) a licensed professional engineer or landscape architect,
- c) a Certified Professional in Erosion and Sediment Control (CPESC), or
- d) a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

Qualified personnel, as defined in subsection 5.5.3.10 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been permanently stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

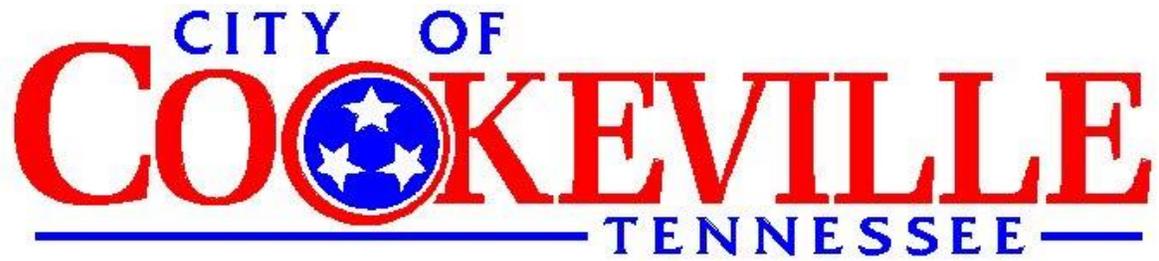
Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 5.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 5.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the Division's form and the permittee has obtained a written approval from the Division to use the alternative form. Inspection documentation will be maintained on site and made available to the Division upon request. Inspection reports must be submitted to the Division within 10 days of the request.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

Appendix 11

Standard Operation Procedures (SOPs) for Erosion and Sediment Control During Utility Trenching Operations



Standard Operating Procedures (SOP)

for

Erosion and Sediment Control

During

Utility Trenching Operations

June 15, 2010

Standard Operating Procedures (SOPs) for: Utility Installation and Repair Projects

Prerequisites

1. Key employees, project managers and contractors should attend the Tennessee Erosion Prevention and Sediment Control Program Training class for certification.
2. Employees performing the procedures in this SOP should refer to the materials in the Appendix of this SOP.
3. Permits for construction activity over one acre in size are required to contact the Tennessee Department of Environment and Conservation to obtain a Construction Stormwater Permit.

Stormwater Protection Equipment and Materials

1. Inlet protection devices (wattles, drain covers, berms, sandbags, and/or filter fabric).
2. Spill kit and equipment for dry clean up (socks, absorbent pads, kitty litter, broom and dustpan).
3. Secondary containment (berms, containers and tarps).

Standard Operating Procedures

1. Storm Drain Protection

- Identify any storm drains near work zone.
- Install inlet protection within 25 feet and/or down gradient of work.
- Inspect site at the beginning and end of the day to ensure there is no sediment of pollutant entering the storm drain.
- Clean dirt and mud from roadway with brooms or the street sweeper as needed.

2. Erosion Control and Storage of Materials

- Cover and contain all liquid and solid material to prevent runoff.
- Avoid storing piles of materials (soil, sand & gravel) in the street. If necessary to store dirt in street it must be surrounded on the lower side by materials to prevent runoff.
- Excavated materials should be placed on the uphill side of the trench to minimize sediment runoff.
- Control erosion permanently prior to leaving the site. At a minimum any open cut in the roadway must be stabilized with crusher run and maintained until such time as it is patched with asphalt.
- Trenches and excavations in the Right-of-Way but off the roadway must be smoothed and leveled, seed should be sown and any exposed dirt covered with straw or erosion matting.
- Inspect and maintain all erosion and sediment control devices or installations until vegetation has been established.

3. Dewatering

- Dewatering of groundwater or potable water that is commingled with sediment will be accomplished through the use of sediment bags or a temporary dewatering structure as per the TDEC Erosion & Sediment Control Handbook.

4. Spill Response and Reporting

- Any spill or discharge of any pollutant (ex. Oil, sediment, paints, fuels, hazardous liquids or super-chlorinated water) that reaches storm drains or enters *waters of the state* must be mitigated immediately and reported to the Cookeville Fire Department and the Emergency Management Agency.

5. Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper BMPs to prevent stormwater pollution.

6. Employee Training

- All applicable employees should be trained in stormwater pollution prevention.

Appendix

**Best Management Practices
From the Tennessee Erosion
And Sediment Control Handbook**

Disturbed Area Stabilization (With Mulch) – **MU**



DEFINITION

Applying hay, straw, mulch, plant residues, or other suitable materials, produced on the site if possible, to the soil surface.

PURPOSE

- To reduce runoff and erosion
- To conserve moisture
- To promote germination of seed
- To prevent surface compaction or crusting
- To protect seed from birds
- To modify soil temperature
- To increase biological activity in the soil

CONDITIONS

Mulch may be used to promote vegetation germination and growth during a vegetative stabilization practice, or may be used as a temporary stabilization measure on its own where seed may not germinate due to temporary conditions.

CONSTRUCTION SPECIFICATIONS

Mulching Without Seeding: This standard applies to cleared areas where seed may not have a suitable growing season to produce an erosion-retardant cover, but can be stabilized with a mulch cover. Mulch can be used as an erosion control device for up to six months, but it shall be applied at the appropriate depth (depending on the material used), anchored, and have a continuous 95% cover or greater of the soil surface. Maintenance is required to maintain 95% cover.

Mulching With Seeding: Mulch should be applied when seeding for vegetation stabilization. It significantly assists germination by protecting the seed from birds, by holding moisture at the surface of the soil, and by reducing soil surface temperature. Mulch applied to seeded areas shall achieve 75% soil cover.

Site Preparation: Consider these factors when preparing to use mulch:

1. Grade to enable the use of equipment for applying and anchoring mulch.
2. Install best management practices as required such as diversions, terraces, and/or sediment barriers.
3. Loosen compacted soil to a minimum depth of 4 inches if using mulch while seeding.

Mulching Materials: Select one of the following materials and apply at the rate indicated:

1. Dry straw or hay shall be applied at a rate that provides 95% or greater soil coverage.
2. Wood waste (chips, sawdust or bark) shall be applied at a rate that provides 95% or greater soil coverage. **Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch.** This method of mulching can greatly reduce erosion control costs. This method should not, however, be used in conjunction with seeding due to soil acidification and nitrogen reduction problems that the decomposition of the "green" material will produce.

Anchoring Mulch: Anchor straw or hay mulch immediately after application by one of the following methods:

1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment. The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture

shall consist of 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration.

2. Hay and straw mulch may be pressed into the soil immediately after the mulch is spread. A special "crimper" or disk harrow with the disks set straight may be used. Serrated discs are preferred and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch should not be plowed into the soil.
3. Synthetic tackifiers or binders may be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers should be mixed and applied according to manufacturer's specifications. Refer to specification **Tackifiers and Binders - TB**.

MAINTENANCE

Inspection of the application should be performed along with other regularly scheduled erosion and sediment control inspections. Any areas that have washed out due to high storm water flows should be reconsidered for different BMP use, or at least retreated. Areas that have been disturbed by blowing wind should be retreated. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event if possible, but in no case more than seven days after the need is identified.

Disturbed Area Stabilization (With Permanent Vegetation) – **PS**



DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization.

PURPOSE

- To reduce storm water runoff velocity
- To maintain sheet flow
- To protect the soil surface from erosion
- To promote infiltration of runoff into the soil
- To improve wildlife habitat
- To improve aesthetics

CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, and other denuded areas that will not be regraded. Permanent stabilization should be applied where topsoil was never stripped, or has been returned and incorporated into the soil surface.

PLANNING CONSIDERATIONS

1. When stripping a site, topsoil should be stockpiled for later use.
2. Stockpiled topsoil should be stabilized using temporary vegetation. Refer to specification **Disturbed Area Stabilization (With Temporary Vegetation) - **TS****.
3. Where a suitable planting medium is not present, topsoil shall be imported and incorporated into the site.
4. Block sod provides immediate cover. It is especially effective in controlling erosion adjacent to concrete flumes and other structures. Refer to specification **Disturbed Area Stabilization (With Sod) - **SO****.
5. When mixed plantings are done during marginal planting periods, companion crops shall be used.
6. No-till planting can be effective when planting is done following a summer or winter annual cover crop.
7. Irrigation should be used when the soil is dry or when summer plantings are done.

8. Low maintenance plants, as well as native species, should be used to ensure long-lasting erosion control.
9. Wildlife plantings should be included when applicable.

Wildlife Plantings: Commercially available plants beneficial to wildlife species include the following:

Mast Bearing Trees: Beech, Black Cherry, Blackgum, Chestnut, Oak, Hackberry, Hickory, Locust, and Persimmon.

Trees that produce nuts or fruits are favored by many game species.

Shrubs and Small Trees: Bayberry, Bicolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Rhododendron, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry. Plant shrubs in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for lespedeza, which produces seeds used by quail and songbirds.

CONSTRUCTION SPECIFICATIONS

Grading and Shaping: Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape the slope, where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

Concentrations of water that could cause excessive soil erosion should be diverted to a safe outlet. Diversions and other treatment practices must conform to the appropriate standards and specifications set out in this handbook.

Plant Selection: Refer to Table 1 for suggested species. Plants should be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area; time of year of planting, method of

planting; and the needs and desires of the land user.

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space. A high seeding rate of the companion crop may prevent the establishment of perennial species.

Ryegrass shall not be used in any seeding mixtures containing permanent, perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.

Seed Quality: The term "pure live seed" is used to express the quality of seed and is not shown on the label. Pure live seed (PLS) is expressed as a percentage of the seeds that are pure and will germinate. Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination; i.e.,

$$(PLS = \% \text{ germination} \times \% \text{ purity})$$

EXAMPLE: Common bermuda seed

$$\begin{aligned} &70\% \text{ germination, } 80\% \text{ purity} \\ &PLS = 70\% \text{ germination} \times 80\% \text{ purity} \\ &PLS = 56\% \end{aligned}$$

The percent of PLS determines the amount of seed needed. If the seeding rate is 10 pounds PLS and the bulk seed is 56 % PLS, the bulk seeding rate is:

$$\frac{10 \text{ lbs PLS/acre}}{56\% \text{ PLS}} = 17.9 \text{ lbs/acre}$$

An application of 17.9 lbs/acre will provide 10 lbs/acre of pure live seed.

Permanent Cover Seeding Mixtures

Seeding Dates	Grass Seed	Percentages
February 1 to July 1	Kentucky 31 Fescue	80%
	Korean Lespedeza	15%
	English Rye	5%
June 1 to August 15	Kentucky 31 Fescue	55%
	English Rye	20%
	Korean Lespedeza	15%
	German Millet	10%
April 15 to August 15	Bermudagrass (hulled)	70%
	Annual Lespedeza	30%
August 1 to December 1	Kentucky 31 Fescue	70%
	English Rye	20%
	White Clover	10%
February 1 to December 1	Kentucky 31 Fescue	70%
	Crown Vetch	25%
	English Rye	5%

Source: TDOT Standard Specifications

Table 1

Topsoil: Topsoil should be friable and loamy, free of debris, objectionable weeds and stones, and contain no toxic substances that may be harmful to plant growth. When replacing topsoil on disturbed areas, maintain needed erosion and sediment control practices such as diversions, berms, sediment basins, etc. Grades containing these structures should be maintained after the topsoil is applied.

Topsoil should be handled only when it is dry enough to work without damaging soil structure. A uniform application of 5 inches (unsettled) is recommended, but may be adjusted at the discretion of the engineer or landscape architect. See Table 2 for additional information about the volume of topsoil to achieve various depths.

Seedbed Preparation: When conventional seeding is to be used, topsoil should be applied to any area where the disturbance results in subsoil being the final grade surface.

Broadcast plantings

1. Seedbed preparation may not be required where hydraulic seeding equipment is to be used.
2. Tillage, at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate topsoil, lime, and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a crimper is to be used.
3. Tillage may be done with any suitable equipment.
4. Tillage should be done parallel to the contour where feasible.
5. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide consecutive beds, 6 to 8 inches apart, in which seed may

lodge and germinate. Hydraulic seeding may also be used.

Individual Plants

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
3. Where pine seedlings are to be planted, use a subsoiler under the row to a depth of 36 inches on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.
4. Trees should not be planted in power line right-of-ways or under power lines.

Inoculants: All legume seed shall be inoculated with appropriate nitrogen fixing bacteria. The inoculants shall be pure culture prepared specifically for the seed species and used within the dates on the container.

A mixing medium recommended by the manufacturer shall be used to bond the inoculants to the seed. For conventional seeding, use twice the amount of inoculants recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

Cubic Yards of Topsoil Required to Attain Various Soil Depths

Depth (Inches)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806

Table 2

PLANTING

Hydraulic Seeding: Mix the seed (innoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding: Seeding will be done on a freshly prepared seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

No-Till Seeding: No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants: Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots.

Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at

the nursery. The tips of vines and sprigs must be at or slightly above the ground surface.

Where individual holes are dug, an appropriate amount of fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added, and the plant shall be set in the hole and the hole filled in.

APPLYING MULCH

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% soil cover. Select the mulching material from the following and apply as indicated:

1. When using temporary erosion control blankets or block sod, mulch is not required.
2. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre. *Sericea lespedeza* hay containing mature seed shall be applied at a rate of three tons per acre.
3. Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower type spreading equipment, other spreading equipment or by hand.
4. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
5. One thousand pounds per acre of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
6. Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to aid in uniform application during seeding.

ANCHORING MULCH

Anchor straw or hay mulch immediately after application by one of the following methods:

1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment. The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration.
2. Hay and straw mulch may be pressed into the soil immediately after the mulch is spread. A special "crimper" or disk harrow with the disks set straight may be used. Serrated disks are preferred, and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
3. Synthetic tackifiers or binders may be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers should be mixed and applied according to manufacturer's specifications. Refer to specification **Tackifiers and Binders - TB**.

BEDDING MATERIAL

Mulch is used as a bedding material to conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas.

<u>Material</u>	<u>Depth</u>
Grain straw	4" to 6"
Grass Hay	4" to 6"

Pine needles	3' to 5"
Wood waste	4' to 6"

IRRIGATION

Irrigation will be applied at a rate that will not cause runoff.

MAINTENANCE

Inspection of the seeding and mulch application should be performed along with other regularly scheduled erosion and sediment control inspections. Any areas that have washed out due to high storm water flows, areas that have been disturbed by blowing wind, and areas that do not show good germination should be retreated. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event if possible, but in no case more than seven days after the need is identified.

Erosion Control Blanket/Matting – MA



DEFINITION

A protective blanket or soil stabilization mat used to assist in establishment of temporary or permanent vegetation on steep slopes, channels, or stream banks.

PURPOSE

- To prevent erosion of the soil surface
- To promote seed germination
- To protect young vegetation
- To prevent erosion of seed
- To prevent wind dispersal of seed or mulch
- To allow for easy installation of seed and/or mulch

CONDITIONS

Matting and blankets can be applied to steep slopes where erosion hazards are high and conventional seeding is likely to be too slow in providing adequate protective cover. **Concentrated flow areas, all slopes steeper than 2.5:1, with a height of ten feet or**

greater, and cuts and fills within stream buffers, should be stabilized with the appropriate erosion control matting or blanket. Maintenance of the final vegetative cover must be considered when choosing blankets versus matting.

PLANNING CONSIDERATIONS

Care must be taken to choose the type of blanket or matting which is most appropriate for the specific needs of a project. Manufacturer's recommendations should be followed when choosing products.

Temporary Erosion Control Blankets

This includes rolled erosion control blankets consisting of a plastic netting which covers and is intertwined with a natural organic or manmade mulch; or, a jute mesh which is typically homogenous in design and can act alone as a soil stabilization blanket. Temporary blankets as a minimum should be used to stabilize concentrated flow areas with a velocity less than 5 ft/sec and slopes 2.5:1 or steeper with a height of 10 feet or greater. Because temporary blankets will deteriorate in a short

period of time, they provide no long-term erosion prevention protection when used alone.

Benefits of using temporary erosion control blankets include the following:

- Protection of the seed and soil from raindrop impact and subsequent displacement
- Thermal consistency and moisture retention for seedbed area
- More complete and faster germination of grasses and legumes

Permanent Erosion Control Matting

Consists of a permanent, non-degradable, three-dimensional plastic structure that is filled with soil prior to planting. These mats are also known as turf reinforcing mats. Roots penetrate the matrix, forming a continuous anchorage for vegetation. Matting should be used when a vegetative lining is desired in storm water conveyance channels where the projected or designed velocity is between about five and ten feet per second. These velocities are suggestions only. Concentrated flow channel linings should be designed by a professional experienced in the use of these materials, and according to the manufacturer's recommendations.

Benefits of using erosion control matting include the following:

- All of the benefits gained from using erosion control blankets
- Provides erosion protection from flows of high capacity storm water conveyance channels
- Acts as a filter for fine sediment during lower flow storm water events

CONSTRUCTION SPECIFICATIONS

All blanket and matting materials should be nontoxic to vegetation and to the germination of seed. Netting should be intertwined with the mulching material/fiber to maximize strength and provide for ease of handling.

Temporary Blankets

Machine produced temporary blankets should have a consistent thickness with the organic material evenly distributed over the entire blanket area. All blankets should have a minimum width of 48 inches. Machine

produced temporary blankets include the following:

1. Straw blankets are temporary blankets that consist of weed-free straw from agricultural crops formed into a blanket. Blankets with a top side of photodegradable plastic mesh size of 5/16 x 5/16 inch and sewn to the straw with biodegradable thread are appropriate for slopes. The blanket should have a minimum thickness of 3/8 inch and minimum dry weight of 0.5 pounds per square yard.
2. Excelsior blankets are temporary blankets that consist of curled wood excelsior (80% of fibers are six inches or longer) formed into a blanket. The blanket should have clear markings indicating the top side of the blanket and be smolder resistant. Blankets should have photodegradable plastic mesh having a maximum mesh size of 1 1/2 x 3 inches. The blanket should have a minimum thickness of 1/4 of an inch and a minimum dry weight of 0.8 pounds per square yard. Slopes require excelsior matting with the top side of the blanket covered in the plastic mesh, and for waterways, both sides of the blanket require plastic mesh.
3. Coconut fiber blankets are temporary blankets that consist of 100% coconut fiber formed into a blanket. The minimum thickness of the blanket should be 1/4 of an inch with a minimum dry weight of 0.5 pounds per square yard. Blankets should have photodegradable plastic mesh, with a maximum mesh size of 5/8 x 5/8 inch and be sewn to the fiber with a breakdown resistant synthetic yarn. Plastic mesh is required on both sides of the blanket if used in waterways. A maximum of two inches is allowable for the stitch pattern and row spacing.
4. Wood fiber blankets are temporary blankets that consist of reprocessed wood fibers that do not possess or contain any growth or germination inhibiting factors. The blanket should have a photodegradable plastic mesh; with a maximum mesh size of 5/8 x 3/4 inch, securely bonded to the top of the

mat. The blanket should have a minimum dry weight of 0.35 pounds per square yard. A maximum of two inches is allowable for the stitch pattern and row spacing. This practice should be applied only to slopes.

5. Jute mesh consists of woven root fiber or yarn, with regularly spaced openings between strands. A typical jute mesh will weigh approximately 1.0 pounds per square yard for basic slope applications.

Permanent Matting

Permanent matting consists of a web of nettings, monofilaments or fibers that are entangled to form a strong and dimensionally stable matrix. Mats should maintain their shape before, during, and after installation, under dry or water saturated conditions. Mats must be stabilized against ultraviolet degradation and shall be inert to chemicals normally encountered in a natural soil environment.

INSTALLATION

Always follow the manufacturer's recommendations for orienting, overlapping, entrenching, and securing blankets or mats. The following are basic guidelines that may vary by manufacturer or application.

Site Preparation: After the site has been shaped and graded to the approved design, prepare a friable seedbed relatively free from clods and rocks more than one inch in diameter, and any foreign material that will prevent contact of the blanket or mat with the soil surface.

Temporary Blankets: Erosion control blankets should generally be installed vertically from the top of the slope to the bottom (See Figure 1). Trim blankets as necessary to fit the area to be covered. For slopes shallower than 2:1, and with a height of twice the width of the blanket roll or less, up to a maximum height of 16 feet, the blanket may be applied horizontally across the slope. For use in concentrated flow areas, place the blanket in the direction of the water flow.

Always entrench the blanket beyond the top and bottom of the slope and at any horizontal joint a minimum of 6 inches, or per manufacturer's recommendation. Overlap vertical joints at least 3 inches, or per manufacturer's recommendation (See Figure 2).

Permanent Matting: When installing permanent matting in a storm water conveyance channel, begin at the bottom of the slope and progress upstream, centering the mat in the middle of the channel. Shingle upstream layer over downstream layer, overlapping 3 feet. Overlap 3 inches minimum along longitudinal seams. Entrench the upper and lower edges beyond the slope (See Figure 3).

Staples: Staples should be used to anchor temporary blankets, and either staples or stakes should be used to anchor permanent matting. Follow manufacturer's recommendations for stapling or staking pattern and frequency.

Planting: Seed and any necessary soil amendments should be applied prior to installation of temporary blankets. For permanent mats, the area should be brought to final grade, and any soil amendments tilled or plowed into the soil surface. After the permanent mat has been installed and backfilled with topsoil, the area should be seeded and mulched. Refer to specifications **Disturbed Area Stabilization (With Permanent Vegetation) – PS** and **Disturbed Area Stabilization (With Mulch) – MU**.

MAINTENANCE

Inspections of blankets and matting should be made before anticipated storm events (or series of storm events such as intermittent showers over one or more days) and within 24 hours after the end of a storm event of 0.5 inches or greater, and at least once every fourteen calendar days. Blanket and matting inspections should identify washed out areas, areas needing additional staples, and/or additional areas needing blankets or matting. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event if possible, but in no case more than seven days after the need is identified.

Erosion Control Blanket - Slope Installation

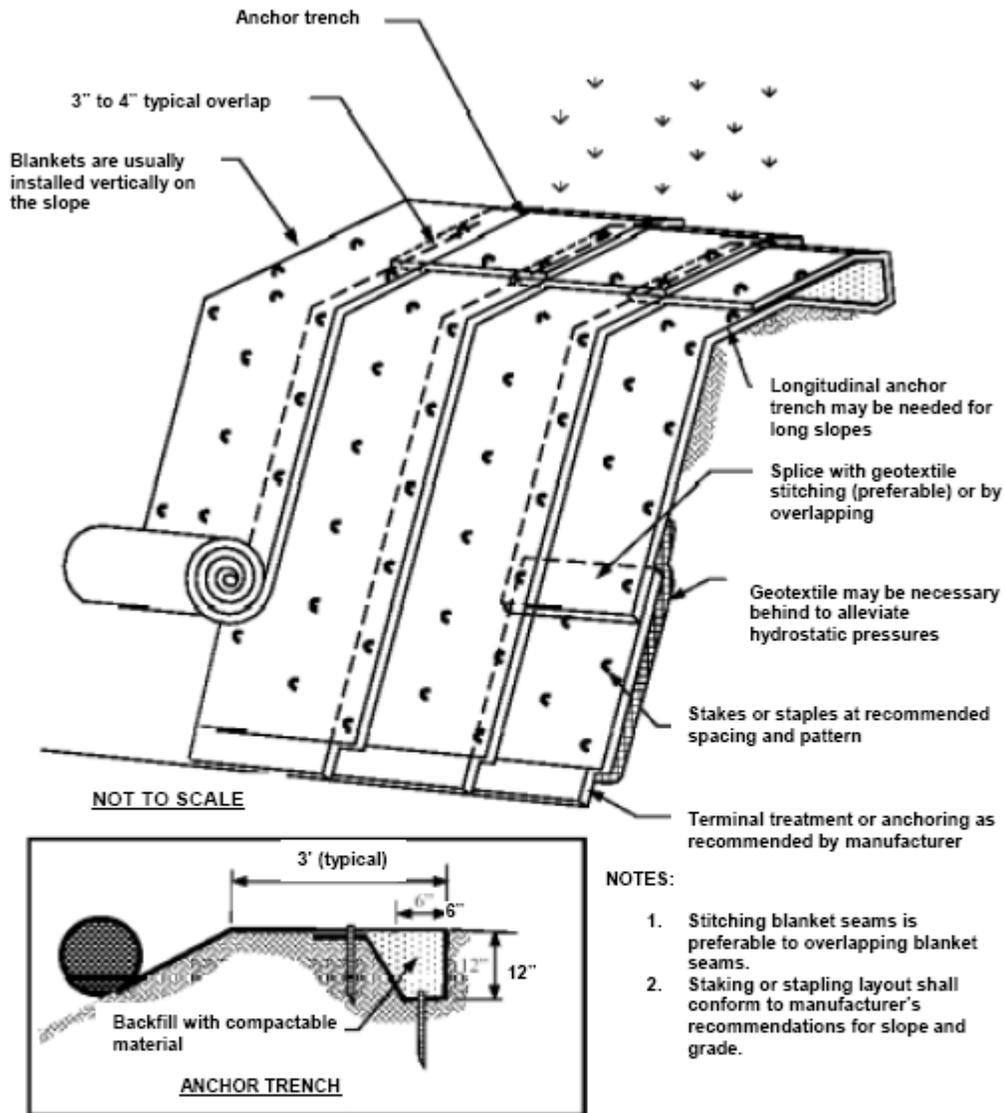
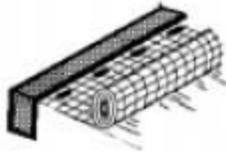


Figure 1

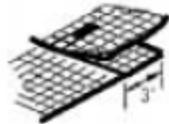
Source: Knoxville Engineering Department

Anchoring Details For Erosion Control Blanket



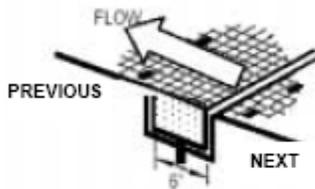
UPHILL ANCHOR SLOT:

Bury the uphill end of the mat within a trench at least 6" deep (12" deep for longer slopes). Tamp the soil firmly. Staple or stake at 12" intervals across the mat.



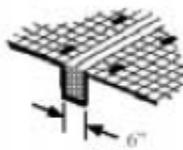
OVERLAP:

Overlap edges of the strips at least 3" (and preferably more for channels). Stake or staple every 12" down the center of the overlap.



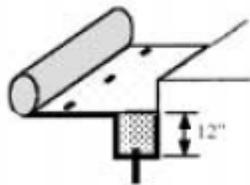
ANCHOR SLOT (WITHIN A CHANNEL):

Dig a slot 6" deep and 6" wide at end of the PREVIOUS roll, and insert NEXT roll on bottom and sides of anchor slot. Insert the PREVIOUS roll on bottom and sides of anchor slot, and then install stakes or staples through both rolls at the bottom of the anchor slot. Fill anchor slot with soil, tamp firmly, and then install NEXT roll in the upstream direction.



CHECK SLOTS:

Check slots should be made every 50 feet on slopes and intermittent drainage channels. Insert a fold of the mat into a 6" deep trench and tamp firmly. Staple or stake at 12" intervals across the mat. Lay mat smoothly on the surface of the soil. Do not stretch the mat and do not allow wrinkles.



ANCHORING ENDS AT STRUCTURES:

Place end of mat in a 12" deep slot at the side of structure. Place stakes or staples at 12" intervals within slot. Fill trench and tamp firmly. Roll mat up the channel or downhill as necessary.

Figure 2

Source: Knoxville Engineering Department

Erosion Control Matting - Channel Installation

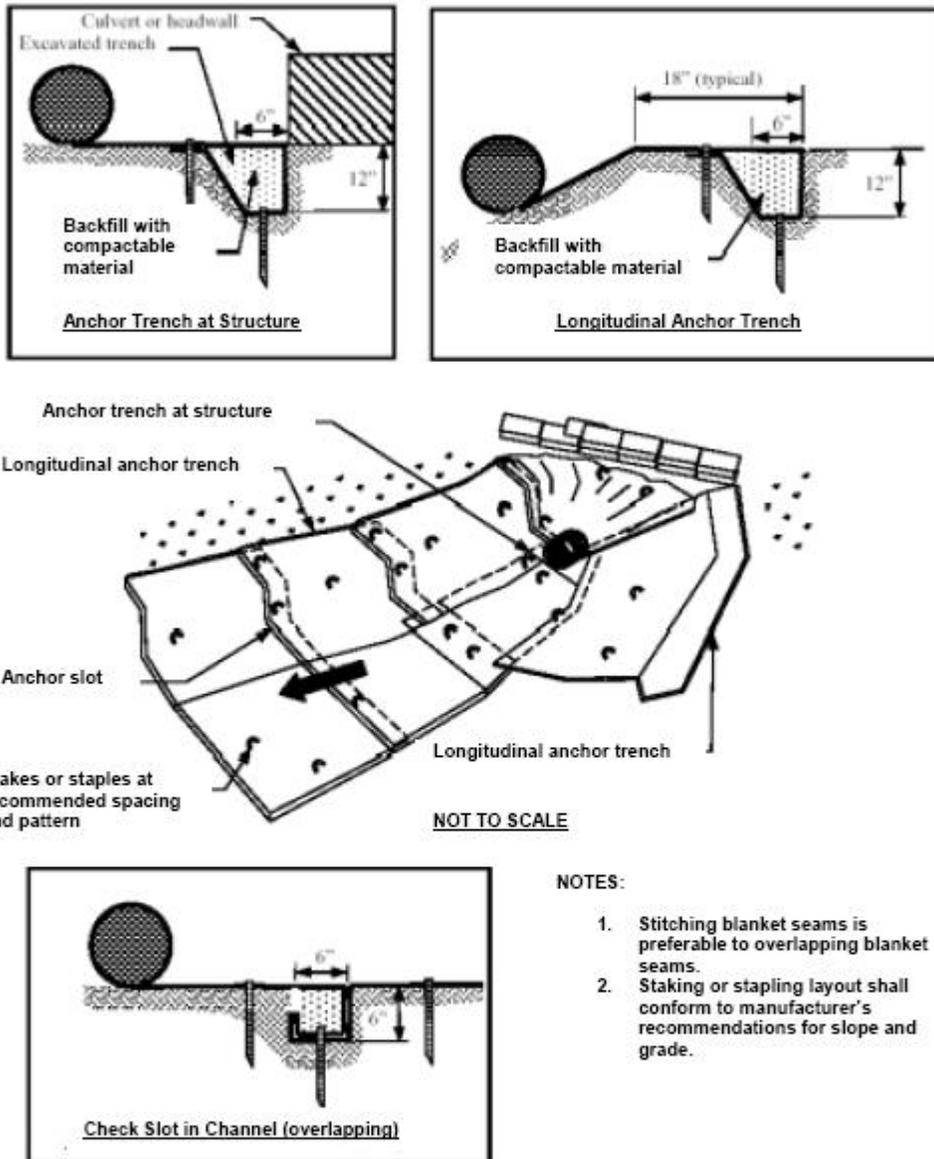


Figure 3

Source: Knoxville Engineering Department

Dewatering Structure - DW



DEFINITION

A temporary structure for settling and/or filtering sediment-laden water that is discharged from dewatering activities.

PURPOSE

To settle and filter sediment-laden water prior to the water being discharged off-site.

CONDITIONS

Wherever sediment-laden water must be removed from a construction activity by means of pumping.

PLANNING CONSIDERATIONS

Water that is pumped from a construction site usually contains a large amount of sediment. A dewatering structure is typically needed to remove the sediment before water is released off-site.

One of several types of dewatering structures may be constructed depending upon site conditions and type of operation.

A well stabilized, onsite, vegetated area may serve as a dewatering device if the area is stabilized so that it can filter sediment and at the same time withstand the velocity of the discharged water without eroding. The discharge of sediment-laden water onto a vegetated area should not pose a threat to the survival of the existing vegetative stand through smothering by sedimentation. A minimum filtering length of **75 feet** must be available in order for such a method to be feasible.

DESIGN CRITERIA

Formal design is not required. The following information should be considered:

A dewatering structure must be sized (and operated) to allow pumped water to flow through the filtering device **without overtopping** the structure. An excavated basin may be lined with geotextile to help reduce scour and to prevent the inclusion of

soil from within the structure. Types of dewatering devices are shown in Figures 1 and 2.

CONSTRUCTION SPECIFICATIONS

Portable Sediment Tank (see Figure 1)

Materials: The sediment tank may be constructed with steel drums, sturdy wood or other material suitable for handling the pressure exerted by the volume of water. The structure should have a minimum depth of two feet.

Location: The location for the sediment tank should be chosen for easy clean-out and disposal of the trapped sediment, and to minimize the interference with construction activities.

Storage Volume: The following formula should be used to determine the storage volume of the sediment tank:

Pump discharge (gpm) x 16 = cubic feet of storage required

Operation: Once the water level nears the top of the tank, **the pump must be shut off** while the tank drains and additional capacity is made available. The tank should be designed to allow for emergency flow over the top of the tank. Clean-out of the tank is required once one-third of the original capacity is depleted due to sediment accumulation. The tank should be clearly marked showing the clean-out point.

Straw Bale /Silt Fence Pit (see Figure 2)

Materials: The straw bale/silt fence pit should consist of straw bales, silt fence, a stone outlet (a combination of TDOT Class A-1 Riprap and TDOT #1 Aggregate) and an excavated wet storage pit.

Storage Volume: The following formula should be used to determine the storage volume of the straw bale/silt fence pit:

Pump discharge (gpm) x 16 = cubic feet of storage required

In calculating the capacity, one should include the volume available from the floor of

the excavation to the crest of the stone weir. In any case, the excavated area should be a minimum of 3 feet below the base of the perimeter measures (straw bales or silt fence). The perimeter measures must be installed according to the specification **Silt Fence-SF**.

Operation: Once the water level nears the crest of the stone weir (emergency overflow), **the pump must be shut off** while the structure drains down to the elevation of the excavated area. The remaining water may be removed only after a minimum of 6 hours of sediment settling time. This effluent should be pumped across an area with established vegetation or through a silt fence prior to entering a watercourse. When the excavated area becomes filled to one-half of the excavated depth, accumulated sediment should be removed and properly disposed of.

Sediment Filter Bag (see Photograph)

Materials: The filter bag should be constructed of non-woven geotextile material that will provide adequate filtering ability to capture the larger soil particles from the pumped water. The bag should be constructed so that there is an inlet neck that may be clamped around the dewatering pump discharge hose so that all of the pumped water passes through the bag.

Location: The filter bag should be used in combination with a straw bale/silt fence pit when located within 50 feet of a stream. When the distance to a stream is greater than 50 feet, the bag may be placed on well-established grass, or on an aggregate pad constructed of TDOT # 57 stone at a minimum depth of 6 inches. The bag should never be placed on bare soil.

Storage Volume: The capacity of the sediment filter bag should be adequate to handle the dewatering pump discharge, and should be based on the bag manufacturer's recommendation.

Operation: When used in conjunction with a straw bale/silt fence pit, a filter bag may be operated until the water in the pit reaches the crest of the emergency overflow. **The pump must be shut off** at this point.

When placed on either a stone pad or well-established grass, the pad may be operated until such time the discharge from the bag reaches a stream. Unless the discharge is at least as clear as the receiving water, **the pump must be shut off** at this point.

Disposal: When the bag has been completely filled with sediment it should be cut open, regraded in place, and immediately stabilized with either sod or erosion control blanket. Refer to specifications **Disturbed Area Stabilization (with Sod) - SO**, or **Erosion Control Blanket/Matting - MA**, respectively.

MAINTENANCE

The filtering devices must be inspected frequently and repaired or replaced once the sediment build-up prevents the structure from functioning as designed.

The accumulated sediment which is removed from a dewatering device must be spread on-site and stabilized or disposed of at an approved disposal site as per the SWPPP.

Portable Sediment Tank

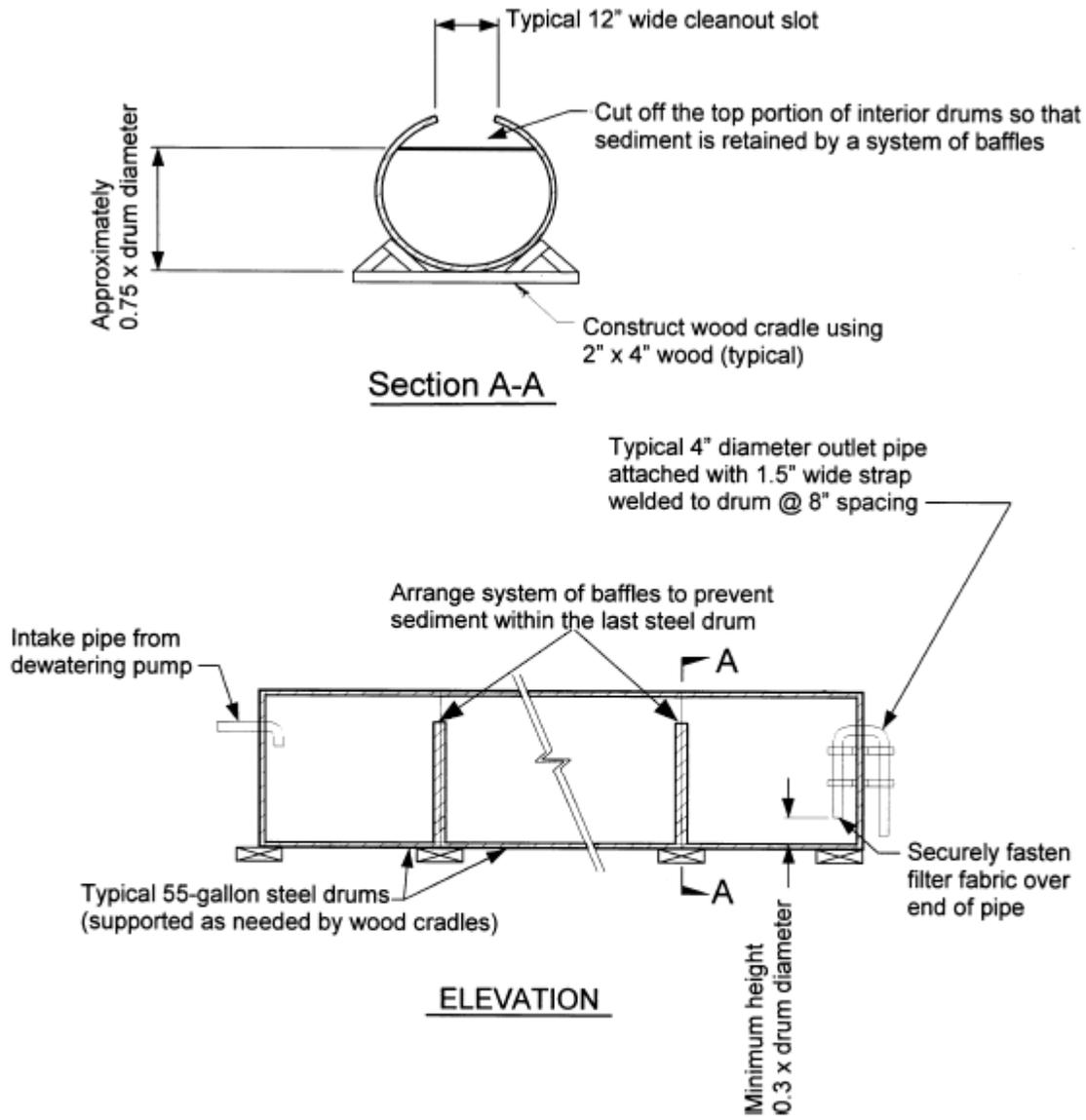
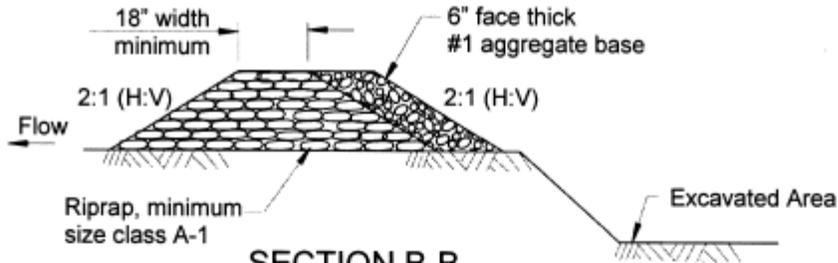


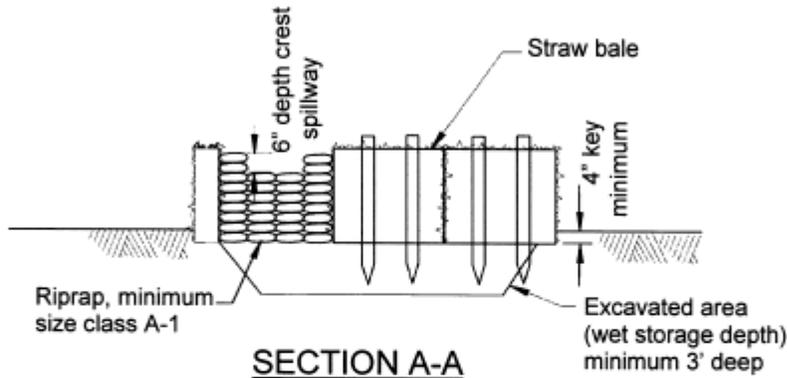
Figure 1

Source: Knoxville Engineering Department

Straw Bale/Silt Fence Pit



SECTION B-B



SECTION A-A

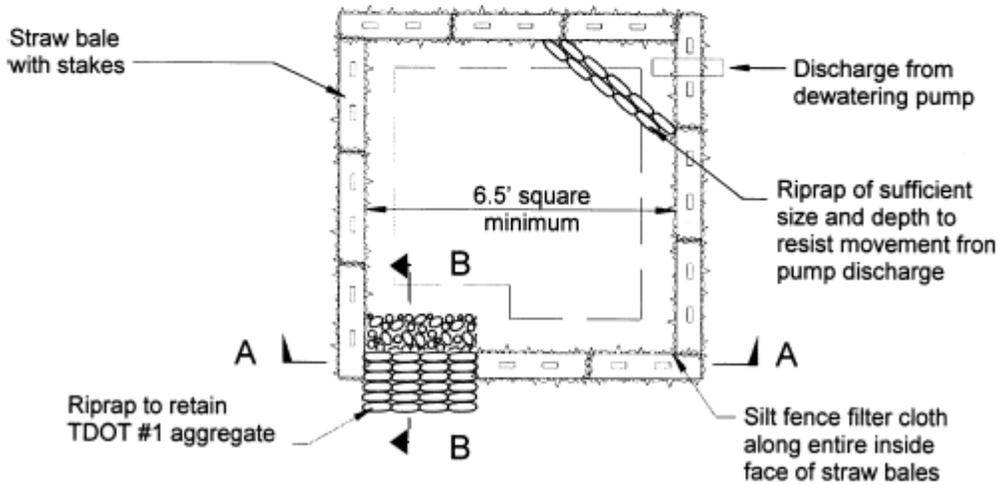


Figure 2

Source: Knoxville Engineering Department

Appendix 12

TMDL Stream Monitoring Plan - Sediment



City of Cookeville

TOTAL MAXIMUM DAILY LOAD (TMDL)

STREAM MONITORING PLAN

Sediment

Caney Fork River Watershed (HUC 05130108)

Permit # TNS075256

**303(d) Listed Stream Segments
Cane Creek, Hudgens Creek, Pigeon Roost Creek**

Submitted By:

**Mary Beth Elrod, P.E.
Civil Engineer – Public Works Dept.
Cookeville, TN 38501
Phone: 931-520-5202
melrod@cookeville-tn.org**

November 30, 2022

Introduction

Section 303(d) of the Clean Water Act requires each state to list those waters within its boundaries for which technology based effluent limitations are not stringent enough to protect any water quality standard applicable for such waters. Listed waters are prioritized with respect to designated use classifications and the severity of pollution. In accordance with this prioritization, states are required to develop Total Maximum Daily Loads (TMDL) for those water bodies that are not attaining water quality standards. State water quality standards consist of designated use(s) for individual waterbodies, appropriate numeric and narrative water quality criteria protective of the designated uses and an antidegradation statement. The TMDL process establishes the maximum allowable loadings of pollutants for a waterbody that will allow the waterbody to maintain water quality standards. The TMDL may then be used to develop controls for reducing pollution from both point and nonpoint sources in order to restore and maintain the quality of water resources (USEPA, 1991).

Purpose

The purpose of this document is to comply with monitoring requirements associated with the Total Maximum Daily Load (TMDL) for Siltation in the Caney Fork River Watershed as described in NPDES Permit #TNS075256, Section 3.1.1.

Watershed Characterization

The Caney Fork Watershed (HUC 05130108) is located in Middle Tennessee. The City of Cookeville is located in Putnam County of which a portion is located in the Caney Fork Watershed. Cookeville is located within the Eastern Highland Rim (71h) ecoregion.

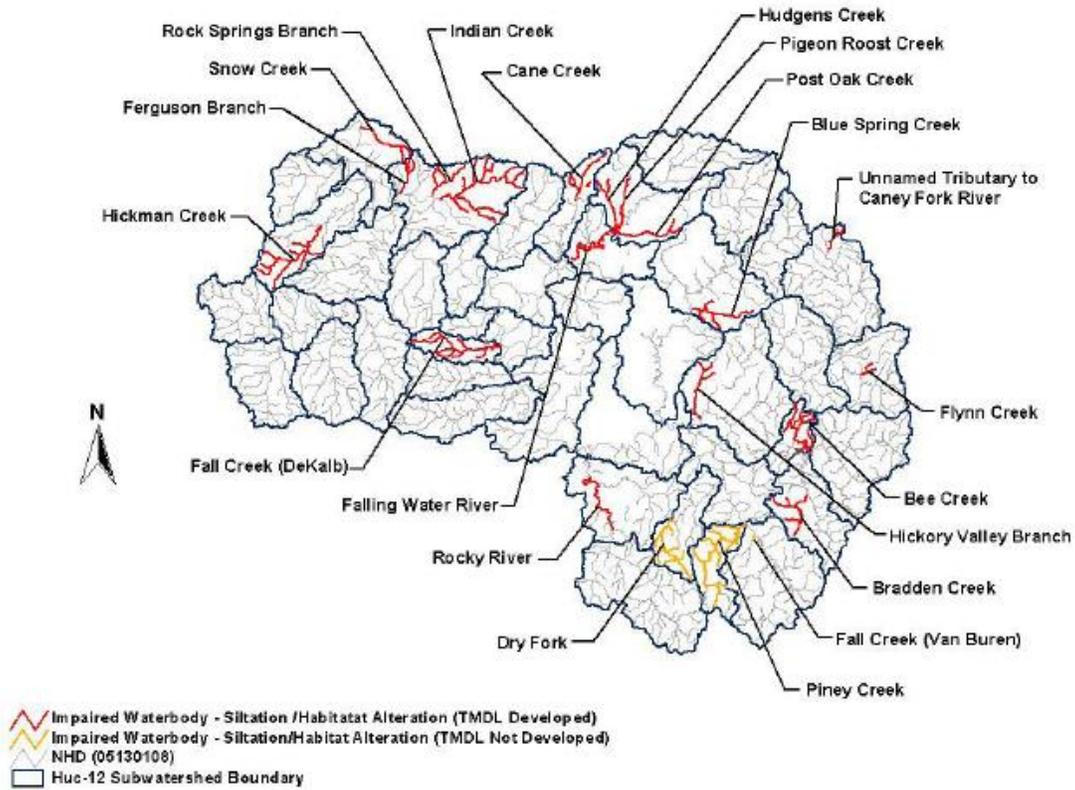
The Eastern Highland Rim has level terrain, with landforms characterized as table lands of moderate relief and irregular plains. Mississippian-age limestone, chert, shale and dolomite predominate, and karst terrain sinkholes and depressions are within the area. Numerous springs and spring associated fish fauna also typify the region. Natural vegetation for the region is transitional between the oak-hickory type to the west and the mixed mesophytic forests of the Appalachian ecoregions to the east. Bottomland hardwood forests were once abundant in some areas, although much of the original bottomland forest has been inundated by several large impoundments. Barrens and former prairie areas are now mostly oak thickets or pasture or cropland.

Location

In 2005, EPA Region 4 approved the TMDL for Siltation and Habitat Alteration in the Caney Fork River Watershed (HUC 05130108). Impaired water bodies addressed in the TMDL that are within the City Limits of Cookeville are as follows:

Waterbody ID	Waterbody	Miles Impaired	Testing Site	Latitude	Longitude
TN05130108045_0150	Cane Creek	12.0	Within Highlands Business Park	36°08'03"	85°34'04"
TN05130108045_0300	Hudgens Creek	6.7	North of Bunker Hill Rd. South of Tolbert	36°05'51"	85°31'08"
TN05130108045_0400	Pigeon Roost Creek	2.4	Downstream of Cookeville STP Approx 4600' downstream of S. Jefferson Ave.	36° 5.783'	85° 30.42'
TN05130108045_0450	Pigeon Roost Creek	3.2	Upstream of Cookeville STP Approx. 2000' upstream of S. Jefferson Ave.	36° 6.614'	85° 30.04'

Location Map Caney Fork Watershed



Monitoring Plan

The City of Cookeville monitoring plan for the Caney Fork River Siltation and Habitat Alteration TMDL will consist of the following:

1) A biological stream sampling utilizing the Semi-Quantitative Single Habitat (SQSH) method via a certified laboratory to ensure that the State of Tennessee standard operating procedure for Macro invertebrate Stream Survey is followed. Below is a list of scheduled testing to compliment TDEC’s monitoring:

Segment Reference #	Segment Name	Proposed Date of Monitoring
05130108045_0150	Cane Creek	2023
05130108045_0300	Hudgens Creek	2023
05130108045_0400	Pigeon Roost Creek	2023
05130108045_0450	Pigeon Roost Creek	2023

2) A visual stream survey and impairment inventory will be conducted on the listed segments and their tributaries to identify and prioritize impairment sources. All sub watersheds in the MS4 jurisdiction will be surveyed during the five year period according to the following schedule:

Segment Reference #	Segment Name	Proposed Date of Monitoring
05130108045_0150	Cane Creek	2023
05130108045_0300	Hudgens Creek	2024
05130108045_0400	Pigeon Roost Creek	2025
05130108045_0450	Pigeon Roost Creek	2026

The Maryland Department of Natural Resources, Watershed Restoration Division, Survey Protocols, as modified for Tennessee by MTAS, will be used as a guide in performing all visual stream surveys. Any modifications to this protocol will be submitted along with the report.

The City of Cookeville plans to survey all stream segments in each watershed within the city limits. At a minimum City Staff will survey immediately upstream and downstream of each outfall to ascertain if pollutants are being conveyed by the drainage system and if said pollutants are likely causing stream impairment. The City will continue to implement the terms of its MS4 Permit, ensuring that all existing BMPs are being used to meet waste load allocations (WLA) for each stream segment.

Appendix 13

TMDL Stream Monitoring Plan – Pathogens



City of Cookeville

TOTAL MAXIMUM DAILY LOAD (TMDL)

STREAM MONITORING PLAN

Pathogens

Caney Fork River Watershed (HUC 05130108)

Permit # TNS075256

**303(d) Listed Stream Segments
Hudgens Creek, Pigeon Roost Creek**

Submitted By:

**Mary Beth Elrod, P.E.
Civil Engineer – Public Works Dept.
Cookeville, TN 38501
Phone: 931-520-5202
melrod@cookeville-tn.org**

November 30, 2022

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Section 303(d) of the Clean Water Act requires each state to list those waters within its boundaries for which technology based effluent limitations are not stringent enough to protect any water quality standard applicable for such waters. Listed waters are prioritized with respect to designated use classifications and the severity of pollution. In accordance with this prioritization, states are required to develop Total Maximum Daily Loads (TMDL) for those water bodies that are not attaining water quality standards. State water quality standards consist of designated use(s) for individual waterbodies, appropriate numeric and narrative water quality criteria protective of the designated uses and an antidegradation statement. The TMDL process establishes the maximum allowable loadings of pollutants for a waterbody that will allow the waterbody to maintain water quality standards. The TMDL may then be used to develop controls for reducing pollution from both point and nonpoint sources in order to restore and maintain the quality of water resources (USEPA, 1991).

Purpose

The purpose of this document is to comply with monitoring requirements associated with the Total Maximum Daily Load (TMDL) for Pathogens in the Caney Fork River Watershed as described in NPDES Permit #TNS075256, Section 3.1.1.

Watershed Characterization

The Caney Fork Watershed (HUC 05130108) is located in Middle Tennessee. The City of Cookeville is located in Putnam County of which a portion is located in the Caney Fork Watershed. Cookeville is located within the Eastern Highland Rim (71h) ecoregion.

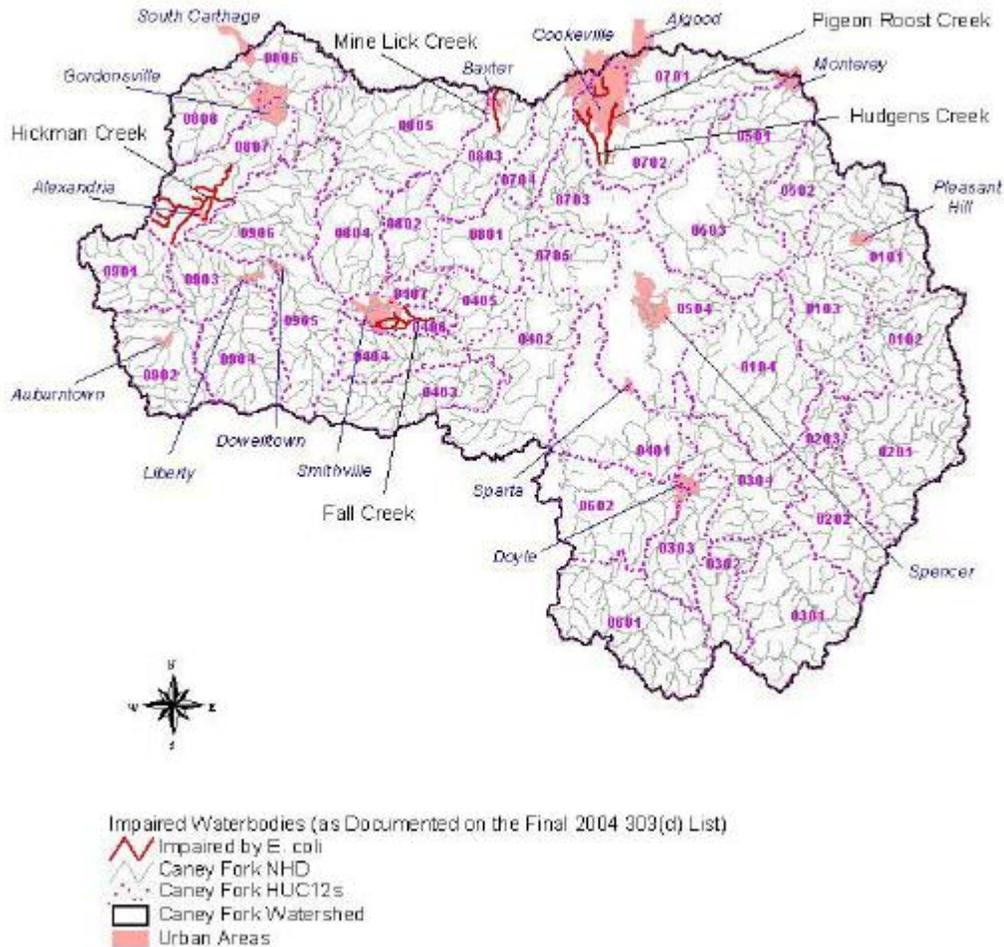
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Location

In 2005, EPA Region 4 approved the TMDL for Pathogens in the Caney Fork River Watershed (HUC 05130108). Impaired water bodies addressed in the TMDL that are within the City Limits of Cookeville are as follows:

Waterbody ID	Waterbody	Miles Impaired	Testing Site	Latitude	Longitude
TN05130108045_0300	Hudgens Creek	6.7	North of Bunker Hill Rd. South of Tolbert	36°05'51"	85°31'08"
TN05130108045_0400	Pigeon Roost Creek	2.4	Downstream of Cookeville STP Approx 100' upstream of S. Jefferson Ave.	36°06'22"	85°30'18"
TN05130108045_0450	Pigeon Roost Creek	3.2	Upstream of Cookeville STP Approx. 1800' upstream of S. Jefferson Ave.	36°06'32"	85°05'14"

Location Map Caney Fork Watershed



Source Assessment

Nonpoint sources of E. coli in the municipal Separate Storm Sewer System (MS4) are addressed in the program's permit through Best Management Practices (BMPs) such as education and outreach programs, public participation, illicit discharge detection and elimination, grading permits, post-construction water quality requirements and municipal facility stormwater pollution prevention plans.

Nonpoint source loading of coliform bacteria from urban land use areas is attributable to multiple sources. These include: stormwater runoff, illicit discharges of sanitary waste, runoff from improper disposal of waste materials, leaking septic systems and domestic animals.

Monitoring Plan

The City of Cookeville monitoring plan for the Caney Fork River Pathogen TMDL will consist of the following:

The Tennessee Department of Environment and Conservation has established the minimum monitoring frequencies for the MS4 Phase II programs including the City of Cookeville Stormwater Program. Two monitoring methods have been identified for E. coli: bacteriological sampling and habitat assessment.

1) Bacteriological Analysis:

The main objective of the bacteriological analysis is to quantify the pathogen loading of the stream. Sampling will be performed utilizing the Bacteriological (Pathogen) Analysis Method.

One sample set (five samples in a thirty day period) will be taken from Hudgens Creek and the two segments of Pigeon Roost Creek in a five year period. Analysis method is identified in the State of Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Quality System Standard Operating Procedures for Chemical and Bacteriological Sampling of Surface Water, March 2004.

Segment Reference #	Segment Name	Proposed Date of Monitoring
05130108045_0300	Hudgens Creek	2023
05130108045_0400	Pigeon Roost Creek	2023
05130108045_0450	Pigeon Roost Creek	2023

2) A visual stream survey and impairment inventory will be conducted on the listed segments and their tributaries to identify and prioritize impairment sources. All sub watersheds in the MS4 jurisdiction will be surveyed during the five year period according to the following schedule:

Segment Reference #	Segment Name	Proposed Date of Monitoring
05130108045_0300	Hudgens Creek	2024
05130108045_0400	Pigeon Roost Creek	2025
05130108045_0450	Pigeon Roost Creek	2026

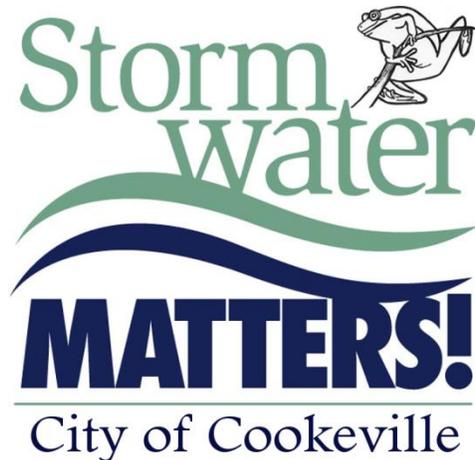
The Maryland Department of Natural Resources, Watershed Restoration Division, Survey Protocols, as modified for Tennessee by MTAS, will be used as a guide in

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The City of Cookeville plans to survey all stream segments in each watershed within the city limits. At a minimum City Staff will survey immediately upstream and downstream of each outfall to ascertain if pollutants are being conveyed by the drainage system and if said pollutants are likely causing stream impairment. The City will continue to implement the terms of its MS4 Permit, ensuring that all existing BMPs are being used to meet waste load allocations (WLA) for each stream segment.

Appendix 14

Protocol for Visual Stream Survey of Outfalls



Protocol for Visual Stream Survey of Outfalls

Streams segments that have been designated as impaired by the Tennessee Department of Environment and Conservation are required to be visually surveyed once every five year permit cycle. The City has mapped all outfalls along blue-line streams, but for this permit requirement we will be surveying the following stream segments:

- TN05130108045_0150 Cane Creek
- TN05130108045_0300 Hudgens Creek
- TN05130108045_0400 Pigeon Roost Creek Lower Segment
- TN05130108045_0450 Pigeon Roost Creek Upper Segment

Each segment is to be walked/boated to observe the following potential problems:

- Erosion sites
- Inadequate stream buffers
- Fish migration blockages
- Exposed or discharging pipes
- Channelized stream sections
- Trash dumping sites
- In or near stream construction
- Unusual conditions

Findings of any of these conditions should be reported to the Stormwater Manager.

Any new outfalls are to be mapped, described and photographed as they are located. All outfalls are to be visually surveyed and the following information is to be entered into the GeoDatabase:

- Outfall identification number
- Date
- Names of team doing survey
- Number of photos taken
- Type of outfall: Stormwater, Sewage overflow, Industrial, Pumping Station, Agricultural, other _____.
- Type of pipe: Earth Channel, Concrete channel, Rip rap channel, Concrete Pipe, Corrugated Metal Pipe, HDPE, other _____.
- Location (facing downstream): left bank, right bank, head of stream, other _____.
- Pipe diameter: _____ inches.
- Channel width _____ ft. Channel depth _____ ft.
- Condition: Good, average, poor
- Evidence of Discharge: Yes No
- Color: Clear, medium brown, dark brown, greenish brown, yellow brown, green, oily sheen, other _____.
- Odor: None, oily, musky, fishy, rotten eggs, chlorine, other _____.