General Stormwater Pollution Prevention Plan

Prepared for

Century II

KUB Investing for Another 100 Years

Safety, Security & Technical Services

February 2017

Reference Report

Knoxville Utilities Board

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Purpose

The purpose of this General Stormwater Pollution Prevention Plan (SWPPP) is to summarize the practices to be implemented for each Knoxville Utilities Board (KUB) Century II Water project to comply with the State of Tennessee General National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction Activities, or the Tennessee Construction General Permit (TN CGP). The TN CGP is included in this SWPPP in Appendix A.

This SWPPP identifies potential sources of pollution associated with construction activities related to KUB Century II Water projects and outlines the development, maintenance, and inspection of Best Management Practices (BMPs) to minimize pollution sources during construction activities.

This plan does not authorize, permit, or cover any of the following: Individual or General Aquatic Resource Alteration Permits (ARAPs), Class V Injection Wells (sinkholes), Solid and Hazardous Waste, Water Withdrawal Permits, Underground Storage Tanks, The Safe Dams Act, wetland alterations, U.S. Army Corp of Engineers 404 or Section 10 permits, Tennessee Valley Authority Section 26A permit(s), or authorize access to any private property.

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ABBREVIATIONS AND ACRONYMS

ARAP	Aquatic Resource Alteration Permit
BMPs	Best Management Practices
BPCT	Best Practicable Control Technology
CPESC	Certified Professional in Erosion and Sediment Control
EFO	Environmental Field Office
EPSC	Erosion Prevention and Sediment Control
HDPE	High-density Polyethylene
KUB	Knoxville Utilities Board
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Coverage
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
SCS	Soil Conservation Service
SWPPP	Storm Water Pollution Prevention Plan
TCA	Tennessee Code Annotated
TDEC	Tennessee Department of Environment and Conservation
TMDL	Total Maximum Daily Load
TN CGP	State of Tennessee General NPDES Permit for Storm Water Discharges Associated with Construction Activities, commonly referred to as the Construction General Permit
USGS	United States Geological Survey

1.0 GENERAL INFORMATION

The Knoxville Utilities Board (KUB) is dedicated to providing for the utility needs of its customers. As an independent agency of the City of Knoxville, KUB provides electric, gas, water, and wastewater services to more than 439,000 customers in Knoxville and parts of seven surrounding counties. The need to maintain existing facilities and to construct new facilities in support of new development is the primary impetus for KUB construction projects. KUB is accelerating replacement of its water system components as part of the Century II program. Century II is KUB's proactive long-range program to improve and maintain the electric, gas, water and wastewater systems for its customers. It includes the maintenance and replacement strategies for each system that were in place before Century II and accelerates replacements, as needed. It moves KUB into its second century of service by improving each system through sound planning, resource allocation, and continued, but accelerated, investment.

1.1 OBTAINING PERMIT COVERAGE

Each KUB Century II Water project will be unique in nature and will require varying design requirements and BMPs. Therefore, each individual project design, specifying the appropriate measures to comply with the TN CGP will be submitted to the Tennessee Department of Environment and Conservation (TDEC) with a completed Notice of Intent (NOI) form prior to construction activities. The NOI form is listed in Appendix B along with subsequent permit forms.

2.0 PROJECT TYPES

2.1 PROJECT TYPES AND SOURCES OF ACTIVITY

Century II Program projects consist of two major project types, which are listed and described below.

1. Linear Waterline Replacement Projects
2. Facility Projects

2.1.1 Linear Waterline Replacement Projects

Linear waterline replacement projects involve the renewal of existing water system components. Land disturbance activities will include the replacement of existing water transmission and distribution pipes, valves, and fire hydrants, which will involve clearing and grubbing and pipe trench excavations.

Land disturbance will vary and depend on the total linear footage of pipe identified for open cut replacement. Existing water system components are typically replaced one component at a time; therefore, the disturbed land area is minimal relative to conventional construction sites. Receiving waters will vary for each project depending on the project's location within KUB's service system.

The expected sequence of activities for a typical linear project is as follows:

1. Filing NOI with local TDEC office
2. Contractor mobilization
3. Installation of BMPs at the time of clearing and grubbing
4. Replacement of pipes, valves, and fire hydrants
5. Maintenance of BMPs throughout construction
6. Permanent stabilization of disturbed areas per TDEC standards
7. BMP removal upon site stabilization
8. Filing Notice of Termination (NOT) with local TDEC office

2.1.2 Common Linear Construction Methods

Micro-tunneling: A method of installing new pipe without requiring a trench. It is similar to auger boring but is more efficient and reliable. The micro-tunneling technique is a laser-guided, remote controlled tunnel boring machine. It can be used in the presence of rock or groundwater. The machine bores through the ground, and the new pipe is pushed into place behind it. This method is highly accurate and is well-suited for laying pipe at road or stream crossings. When the new pipe is in place, the service lines are reinstated via open cut method.

Conventional Replacement: Conventional pipe replacement via an open cut method is the most common replacement method. The open cut method consists of replacement of an existing pipe. When replacing a pipe the existing component is removed and a new pipe or appurtenance is installed in its place. Installation of new pipes is similar to replacement but does not include the removal of existing material.

2.1.3 New Facilities or Upgrades of Existing Facilities

Facility projects involve the construction of a new facility or an expansion or upgrade of an existing facility. Facilities primarily include above or below ground storage tanks, pumping stations and water treatment plant facilities. Land disturbance activities typically involve clearing and grubbing, blasting, excavation and stockpiling. The disturbed area for facility construction sites will vary and is dependent upon facility size and location. Pump station projects are likely to be less than an acre and storage facilities will be multiple acres, typically in the range of 1 to 10 acres.

The expected sequence of activities for a facility project is as follows:

1. Filing NOI with local TDEC office
2. Contractor mobilization and demarcation of construction site
3. Installation of BMPs at the time of clearing and grubbing
4. Excavation of project site and associated construction activities
5. Maintenance of BMPs throughout construction
6. Permanent stabilization of disturbed areas per TDEC standards
7. BMP removal upon site stabilization
8. Filing NOT with local TDEC office

3.0 PROJECT DESCRIPTIONS

3.1 PROJECT PLANS

Prior to construction, a detailed design will be prepared for each project area which will delineate the project area, specify necessary phasing, and include additional requirements as specified in Sections 3.5.1 and 3.5.2 of the TN CGP. Project designs plans will be prepared by a licensed professional engineer or landscape architect and stamped and certified in accordance with the Tennessee Code Annotated (TCA) Title 62, Chapter 2 and the Rules of the Tennessee Board of Architectural and Engineering Examiners. Project design plans will be submitted with the NOI.

3.1.1 General requirements

Each project design must include erosion prevention and sediment control (EPSC) plans showing the approximate location of each control measure along with a description of the timing during the construction process for implementing each measure. The different phases of construction and the EPSC measures that will be utilized during each phase should be depicted on multiple plan sheets (see below). Half sheets are acceptable.

a. For linear water replacement projects when there is no change to final contours, one sheet showing all EPSCs is sufficient.

b. For facility projects with site disturbances less than 5 acres, at least two separate EPSC plan sheets shall be developed. At least two phases shall be identified, with associated EPSC measures addressed. The plan phases shall be addressed separately in plan sheets, with each phase reflecting the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment during the initial land disturbance and the conditions and EPSC measures necessary to manage stormwater, erosion and sediment at final grading.

c. For facility projects with site disturbances more than 5 acres, at least 3 separate EPSC plan sheets shall be developed. Three phases shall be identified. The first plan sheet should reflect the conditions and EPSC measures necessary to manage storm water runoff, during the initial land disturbance. The second plan sheet shall reflect the conditions and the EPSC measures necessary to manage stormwater runoff from interim land disturbance activities. The third plan sheet shall reflect the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment at final grading.

3.1.2 Design Plan Submittal Process

Following the approval of this General SWPPP, project design plans must be submitted to the local TDEC Environmental Field Office (EFO) with a completed NOI and construction site map a minimum of 5 business days prior to the start of construction activities. The site map should be an excerpt (8 ½" x 11" or 11" x 17") from the appropriate 7.5 minute United States Geological Survey (USGS) topographic map with the project site centered. NOIs for linear projects must specify the location of each end of the construction area and all areas to be disturbed. The map should outline the boundaries of the project in red, developments, and the construction site in relation to major roads, streams, or other landmarks. If feasible, due to the scale of a quad map, all outfalls where runoff will leave the property should be identified. Stream(s) receiving the

discharge, and storm sewer system(s) conveying the discharge from all site outfalls should be clearly identified and marked on the map.

4.0 EROSION AND SEDIMENTATION CONTROLS

4.1 EROSION AND SEDIMENT CONTROLS

Prior to construction, a detailed design must be prepared for each project area which will be disturbed and specify the necessary EPSCs to minimize the dislodging and suspension of soil in water, and retain mobilized sediment on site, and include additional requirements as specified in the TN CGP. Example excerpts from KUB waterline replacement design plans showing placement of EPSCs are provided in Appendix C, along with corresponding plan notes and standard details for EPSCs that will be most commonly used in Century II Water projects.

General requirements are summarized below, however a complete description of requirements is listed in Section 3.5.3 of the TN CGP (see Appendix A).

4.1.1 General Criteria and Requirements

a. The design, inspection, and maintenance of BMPs must be prepared in accordance with good engineering practices, and, at a minimum shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook (http://tnepsc.org/TDEC_EandS_Handbook_2012_Edition4/TDEC%20EandS%20Handbook%204th%20Edition.pdf). All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications (where applicable).
b. If periodic inspection(s) or other information indicates a control has been used inappropriately, or incorrectly, the secondary permittee must replace or modify the control.
c. If sediment escapes the construction site, offsite accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. The secondary permittee shall not initiate remediation/restoration of a stream without consulting the Knoxville EFO first. Arrangements concerning removal of sediment on adjoining property must be settled by the Owner/Contractor and the landowner. The General SWPPP does not authorize access to private property.
d. Sediment should be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as necessary, and must be removed when design capacity has been reduced by 50 percent.
e. Litter, construction debris, and construction chemicals exposed to storm water shall be picked up prior to anticipated storm events or before being carried off the site by wind (e.g., forecasted by local weather reports), or otherwise prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, daily pickup, etc.). After use, materials used for erosion prevention and sediment control should be removed or otherwise prevented from becoming a pollutant source for storm water discharges.
f. Erodible material storage areas (including but not limited to overburden, stockpiles of soil, etc.) and borrow pits used primarily for the project and which are contiguous to the site are considered a part of the project and shall be identified in the NOI, maintained as part of the SWPPP per TDEC regulations and BMPs, and included in the fee calculation.
g. Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 14 calendar days prior to grading or earth moving activities unless the area is

seeded and/or mulched or other temporary cover is installed. Construction must be sequenced to minimize the exposure time of graded or cleared areas. Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation should be preserved to the maximum extent practicable.

h. Construction phasing is required on all projects regardless of size as a major practice for minimizing erosion and limiting sedimentation. Construction must be phased to keep the total disturbed area less than 50 acres of soil at any one time. Areas of the completed phase must be stabilized within 14 calendar days. No more than 50 acres of active soil disturbance is allowed at any time during a specific construction project including off-site borrow or disposal areas.
i. Erosion and sediment control measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. 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 sediments and the generation of dust shall be minimized. A stabilized construction entrance/exit shall be described and implemented, as needed, to reduce the tracking of mud and dirt onto public roads by construction vehicles.
k. Secondary permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.
l. The following records shall be maintained on or near site: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, the dates when stabilization measures are initiated, inspection records and rainfall records.
m. A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. Streams designated as waters with unavailable parameters or Exceptional Tennessee waters require a 60-foot natural buffer zone.

   The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using methodology from Tennessee's standard operating procedures for hydrologic determinations set forth in Rule 0400-40-03.05(9).

   The buffer zone requirement only applies to new construction sites as described in Section 2.4.2 of the TN CGP. The owner, designer(s), and operator(s) will reference Sections 4.1 and 5.4.2 of the TN CGP (see Appendix A) for complete listings of requirements and exceptions.

   Every attempt should be made for construction activities not to take place within the buffer zone. However, due to the nature of utility line construction, there will be many instances where this will not be feasible. In such cases, BMP's providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Such equivalent BMPs shall be designed to be as effective in protecting the receiving stream from effects of stormwater runoff as a natural riparian zone. When this is necessary, a justification for use and design of equivalent BMPs should be included with the Erosion and Sediment Control Plan.

4.1.2 Stabilization Practices

Stabilization practices may include but are not limited to;

- Seeding
- Mulching
- Geotextiles
- Sod stabilization
- Vegetative buffer strips
- Protection of trees
- Preservation of mature vegetation

a. Use of impervious surfaces for final stabilization in lieu of a permanent vegetative cover should be avoided where practicable. No stabilization, erosion prevention and sediment control measures are to be installed in a stream without obtaining a Section 404 permit and an ARAP, if such permits are required.

b. Stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than 14 days 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:

    - Where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable; or
    - Where construction activity on a portion of the site is temporarily ceased and earth-disturbing activities will be resumed within 14 days.

c. Steep slopes shall be stabilized not later than 7 days after construction activity on the slope has temporarily or permanently ceased.

d. 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.

4.1.3 Structural Practices

Structural practices to divert flows from exposed soils, to store flows, or otherwise limit runoff and discharge of pollutants from exposed areas of the site 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 & rock outlet protection
- Reinforced soil systems
- Gabions
- Temporary or permanent sediment basins

a. Structural controls shall not be placed in sinkholes, streams, or wetlands except as authorized by a Section 404 permit and/or ARAP.

b. At a minimum, erosion and sediment controls shall be designed to control the rainfall and runoff from a 2-year, 24-hour storm. Chemical treatment may be used to minimize the amount of sediment discharged when clay and other fine soils are present. Chemical treatment must follow manufacturer's dosage recommendations and must be applied upstream of a structural device in order to allow ample time and area for sediment to settle out before stormwater is discharged off-site.

c. For an outfall in a drainage area of a total of 10 or more acres, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm, or equivalent control measures, shall be provided until final stabilization of the site.

   A drainage area of 10 or more acres includes both disturbed and undisturbed portion of the site or areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified to the Knoxville EFO. 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.

d. All calculations of drainage areas, runoff coefficients, and basin volumes must be provided in the design and submitted with the NOI. The discharge structure from a sediment basin must be designed to retain sediment during lower flows.

e. Muddy water to be pumped from excavation and work areas must be held in settling basins or filtered or chemically treated prior to its discharge into surface waters. Water must be discharged through a pipe, well-grassed or lined channel, filter bag 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.

4.1.4 Storm Water Management

Construction stormwater runoff management practices may include, but are not limited to;

- Stormwater detention structure (including ponds with a permanent pool)
- Stormwater retention structures

- Flow attenuation by use of vegetative swales & natural depressions
- Onsite infiltration of runoff

a. Sequential systems (which combine several practices)

b. Each design shall specify the storm water management measures to be utilized during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed.

c. For projects discharging to waters considered waters with unavailable parameters by sediment or habitat alteration due to in-channel erosion, the design shall include a description of measures that will be installed during the construction process to control pollutants and any increase in the volume of stormwater discharges that will occur after construction operations have been completed (see also section 7.2.3 of this SWPPP). For steep slope sites, the design shall also include description of measures that will be installed to dissipate the volume and energy of the stormwater runoff to pre-development levels.

d. Velocity dissipation devices shall be placed at discharge locations and along the length of specified outfall channel to provide a non-erosive velocity flow from the structure to the receiving stream so that natural physical and biological characteristics and functions of the stream are maintained and protected (e.g., there should be no significant changes in the hydrological regime of the receiving water).

e. This SWPPP and associated permit only address the installation of stormwater management measures, and not the ultimate operation and maintenance of such structures after construction activities have been completed, the site has undergone final stabilization, and the permit coverage has been terminated. Permittees are only responsible for the installation and maintenance of stormwater management measures prior to final stabilization of the site. Permittees are encouraged to limit the amount of post construction runoff, if not required by local building regulations or local Municipal Separate Storm Sewer System (MS4) program requirements, in order to minimize in-stream channel erosion in the receiving stream.

f. Sources of non-stormwater (see TN CGP Section 1.2.3 and 3.5.9) that are combined with stormwater discharges associated with construction activity will be included in the design of all impacted control measures and discharged through stable discharge structures.

4.1.5 Site Assessments

For larger sites, quality assurance of erosion prevention and sediment controls must be done by performing a site assessment at the construction site. Site assessments are required for sites with outfalls involving drainage totaling 10 acres or more or 5 acres or more if draining to waters with unavailable parameters or Exceptional Tennessee Waters. Site assessments must be performed within a month of construction commencing by individuals with at least one of the following qualifications:

- A licensed professional 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

The site assessment will verify the installation, functionality and performance of the EPSC measures described in the EPSC plan. The findings shall be documented and kept with the SWPPP at the site. Additional site assessment requirements may be found in TN CGP Section 3.1.2.

4.1.6 Other Applicable Practices and Requirements

a. No solid materials, including building materials, shall be discharged to waters of the state, except as authorized by a Section 404 permit and/or ARAP.

b. For installation of any waste disposal systems on site, or sanitary sewer or septic system, the design will identify these systems and specify the necessary controls.

c. Waste material stored on-site will be identified and managed appropriately to minimize exposure to stormwater to the extent possible.

d. Stormwater sources from areas other than construction will be identified & associated controls will be implemented prior to construction activities.

e. If applicable, measures to prevent "taking" of legally protected state or federal listed threatened or endangered aquatic fauna and /or critical habitat will be specified by the primary permittee prior to construction.

f. Permittee(s) will comply with any additional erosion prevention, sediment controls, and stormwater management measures required by local municipality or permitted MS4 program.

5.0 MAINTENANCE AND INSPECTIONS

Section 01570 of KUB's Standards and Specifications, provided in Appendix D, outlines the secondary permittees responsibilities related to maintenance and inspections of EPSC measures on KUB projects. Further explanation of KUB's EPSC inspection documentation and recordkeeping process is contained in a KUB Job Aid provided in Appendix E.

Inspectors performing the required twice weekly inspections will have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. A copy of the certification or training record for inspector certification should be kept on site.

a. Inspections shall be performed at least twice every calendar week and at least 72 hours apart. Where sites have been finally or temporarily stabilized, or where runoff is unlikely as a result of winter conditions (e.g., site covered with snow, ice, or frozen ground), such inspection has to be conducted only once per month until thawing results in runoff or construction activity resumes. Written notification with justification will be provided to the Knoxville EFO of the intent to conduct monthly inspections.

b. Areas that will be inspected include disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the construction site, and each outfall.

c. Outfalls will be inspected to determine where 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.

d. Disturbed areas and areas used for storage of materials that are exposed to precipitation will 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 confirm adequate operation.

e. Based on inspection results, 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 later than 7 days after the need is identified.

f. Based on inspection results, any required modifications to the site description and pollution prevention measures will be made within 7 days of the inspection. Such modifications will provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

g. Inspections shall be documented on the Construction Stormwater Inspection Certification form provided in Appendix B of this general SWPPP for all construction sites.

h. Subsequent operators (secondary permittees) who have obtained coverage under this permit will conduct twice weekly inspections, unless their portion of the site has been temporarily stabilized, or runoff is unlikely due to winter conditions. The secondary

permittee is no longer required to conduct inspections of portions of the site that are covered by subsequent secondary permittee.

6.0 PERMIT ELIGIBILITY RELATED TO TOTAL MAXIMUM DAILY LOADS (TMDL)

The primary permittee will submit with the NOI the necessary documentation of permit eligibility with regard to waters that have an approved TMDL for a pollutant of concern, including:

- Identification of whether the discharge is identified, either specifically or generally, in an approved TMDL and any associated allocations, requirements, and assumptions identified for the construction stormwater discharge.
- Summaries of consultation with the division on consistency of SWPPP conditions with the approved TMDL.
- Measures taken to ensure that the discharge of TMDL identified pollutants from the site are consistent with the assumptions and requirements of the approved TMDL, including any specific waste load allocation that has been established that would apply to the construction stormwater discharge.

The 303(d) listed waters in Knox County are listed in Appendix F.

7.0 ADDITIONAL SWPPP REQUIREMENTS

This section of the SWPPP is a resource for the permittee(s), designers, and inspectors to utilize when developing, implementing, and inspecting specific projects. The information herein is a summary of requirements. Users of the SWPPP must review and understand the full requirements of the TN CGP in Appendix A.

7.1 CONSTRUCTION AND DEVELOPMENT EFFLUENT GUIDELINES

7.1.1 Non-numeric Effluent Limitations

Any point source authorized by this general SWPPP must achieve, at a minimum, the effluent limitations representing the degree of effluent reduction attainable by application of best practicable control technology (BPCT) currently available and is described in the TN CGP, Section 4.1(see Appendix A); items covered in the permit include:

- Erosion Prevention and Sediment Controls
- Water Quality Riparian Buffer Zone Requirements
- Soil Stabilization
- Dewatering
- Pollution Prevention Measures
- Prohibited Discharges
- Surface Outlets

7.2 SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

7.2.1 Release in Excess of Reportable Quantities & Spills

The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility shall be prevented or minimized in accordance with applicable stormwater pollution prevention plan for the facility. Where a release containing a hazardous substance in an amount equal to or in excess of a reportable quantity established in either the 40 CRF 117 or 40 CRF 302 occurs during a 24 hour period the secondary permittee must complete the requirements in the TN CGP Section 5.1 (see Appendix A).

7.2.2 Discharge Compliance with State Water Quality Standards

The TN CGP does not authorize stormwater or other discharges that would result in violation of a state water quality standard (TDEC Rules, Chapter 0400-40-03, 0400-40-04). Such discharges constitute a violation of the permit. All necessary action shall be taken to prevent to the extent possible discharges that cause or contribute to the violation of a water quality standard. Discharge quality requirements are in the TN CGP Section 5.3. (see Appendix A).

7.2.3 Discharges into Waters with Unavailable Parameters or Exceptional Tennessee Waters

Discharges that would add loadings of a pollutant that is identified as causing or contributing to an impairment of a water body on the list of waters with unavailable parameters, or which would cause degradation to waters designated by TDEC as Exceptional Tennessee Waters are not authorized by the TN CGP. Exceptional quality waters in Knox County are identified in Appendix G.

To comply with the permit, the operator must satisfy, at a minimum, the requirements referenced below for discharges into waters impaired by siltation (or discharges upstream of such waters and because of the proximity to the impaired segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the impaired segment that may affect the waters with unavailable parameters) and for discharges to waters identified by TDEC as Exceptional Tennessee Waters (or discharges upstream of such waters and because of the proximity to the exceptional segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the exceptional segment that may affect the Exceptional Tennessee Waters). Discharge requirements are specified in the TN CGP, Section 5.4 (see Appendix A); items covered in the permit include:

- Additional SWPPP/BMP Requirements
- Buffer Zone Requirements

EPSC's used at the site must be designed to control storm runoff generated by a 5 year, 24-hour storm event, as a minimum, either from total rainfall in a designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html.

7.2.4 Retention, Accessibility and Submission of Records

The primary permittee shall retain copies of stormwater pollution prevention plans and all reports required by the permit, and records of all data used to complete the NOI and the NOT to comply with the permit, for a period of at least three years from the date the Notice of Termination is submitted. This period may be extended by written request of the director.

A summary of the permit requirements are below. However, the TN CGP, Section 6 (see Appendix A), should be referenced for all retention, accessibility, posting, and submission requirements.

7.2.4.1 Posting Information at the Construction Site

The secondary permittee(s) shall post a notice near the main entrance of the construction site accessible to the public with the following information:

- A copy of the Notice of Coverage (NOC) with the NPDES permit tracking number for the construction project
- Name, company name, E-mail address (if available), telephone number, and address of the project site owner or local contact person
- Brief description of the project
- Location of the SWPPP

The secondary permittee(s) shall also retain the following items/information in an appropriate location on-site:

- Location of the SWPPP if the site is inactive or does not have an on-site location to the store the plan
- Rain gauge
- Copy of twice weekly inspection reports
- Documentation of quality assurance site assessments, if applicable
- Copy of the site inspector's Fundamentals of Erosion Prevention and Sediment Control Level 1 certification or equivalent certification

7.2.5 Requirements for Termination of Coverage

Operators wishing to terminate coverage under this permit must submit a completed Notice of Termination (NOT). Failure to submit a NOT is a violation of permit conditions. The notice shall be submitted on the Division's NOT form provided in Appendix B of this SWPPP. Complete termination requirements and procedures are specified in the TN CGP, Section 8 (see Appendix A).

7.2.6 Aquatic Resource Alteration Permits (ARAP)

Alterations to channels or water bodies (stream, wetland and/or other waters of the state) that are contained on, traverse through or are adjacent to the construction site may require an ARAP. See Appendix H and go to http://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit for more information regarding ARAP requirements. It is the responsibility of the primary permittee to provide a determination of the water's status. This determination must be conducted by someone who is certified in Tennessee as a stream/wetland delineator. In some cases, issuance of coverage under the TN CGP may be delayed or withheld if the appropriate ARAP has not been obtained. At a minimum, any delay in obtaining an ARAP for water body alteration associated with the proposed project must be adequately addressed in the SWPPP prior to the issuance of an NOC. Failure to obtain an ARAP prior to any actual alterations may result in enforcement action for the unauthorized alteration.

If any ARAP is required for a site in areas proposed for active construction, the NOC will not be issued until coverage under the ARAP is granted, unless justification prior to ARAP issuance can be made. If wetlands are thought to be located in areas proposed for the active construction site, the NOC will not be issued until all potential wetland areas have been delineated by the applicant or their qualified designee and a certified party and any required ARAPs are obtained.

8.0 HYDROLOGY AND STORM WATER RUNOFF

The Century II Water Program consists of two types of work as outlined in Section 3. Identified below is a brief summary of the typical hydrology associated with the two types of work.

8.1 WATER REPLACEMENT PROJECTS (INCLUDING OPEN CUT)

The projects planned within the Century II Water Program will disturb a small area relative to conventional construction project sites. Land disturbance will be kept to a minimum due to the nature of the work. A large percentage of the replacement projects will utilize trench-less technologies which require minimal land disturbance. Components of the project requiring open cut replacement will likely require an excavation of a trench that will range from 4 to 8 feet in width.

Since minimal land disturbance is anticipated the impact to the hydrologic characteristic of the project site(s) will also be minimal. The hydrology for waterline replacement projects is considered negligible because the topography (contours) is not altered by the construction. Post construction topography and ground cover will be equivalent to pre-construction topography and ground cover. If unique situations are encountered then appropriate hydrology estimations / calculations will be made to address runoff and properly size BMPs.

8.2 NEW FACILITIES OR UPGRADES OF EXISTING FACILITIES

A portion of the projects within the KUB Century II Water Program will include the construction of new facilities or the upgrade of existing facilities. Types of facilities may include storage tanks, pump stations, etc. The Rational Method may be used to estimate runoff for small drainage sites of 5 acres or less. When larger drainage sites are encountered the Soil Conservation Service (SCS) Method may be used to evaluate runoff. If detention is required, then it will be provided per local regulations. These methods will be used for the construction of new facilities for calculating runoff and sizing BMPs.

APPENDIX A:

TENNESSEE GENERAL PERMIT NO. 100000 FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

STATE OF TENNESSEE

NPDES PERMIT

Tracking Number TNR134183

NOTICE OF COVERAGE UNDER THE GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (CGP)

Tennessee Department of Environment and Conservation
Division of Water Pollution Control
401 Church Street, 6th Floor, L&C Annex
Nashville, Tennessee 37243-1534

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.):

Name of the Construction Project:	**Century II Water Program for the Knoxville Utilities Board (200 acres)**
Master Tracking Number at the Site:	**TNR134183**
Permittee Name:	**Knoxville Utilities Board**
Contractor(s):	**no contractor**
is authorized to discharge:	storm water associated with construction activity
from site located at:	**Located within KUB's water system, which lies in Knox, Jefferson, and Sevier Counties**
to receiving waters named:	**Multiple streams receive stormwater from this area. Maps for individual projects will be submitted prior to construction.**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

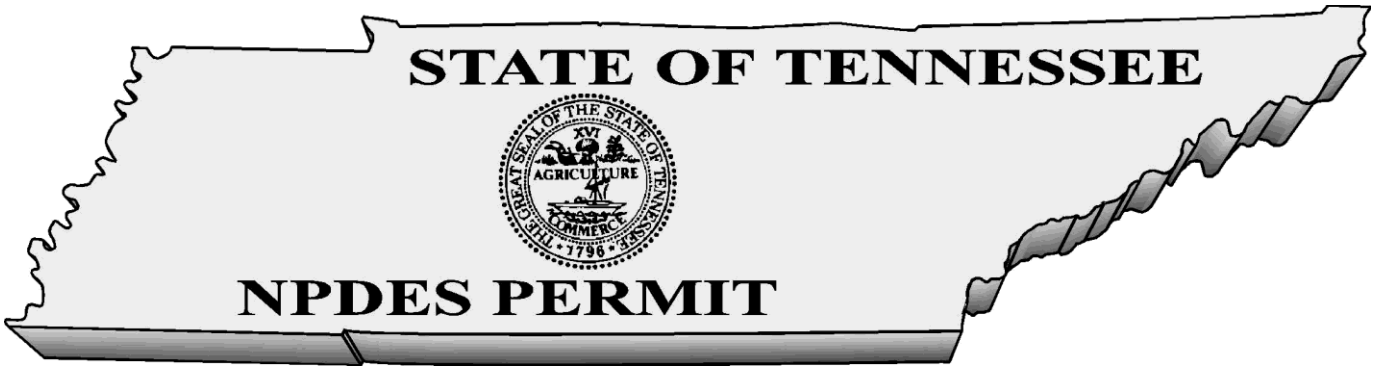
Likely presence of threatened or endangered species in one mile radius: **NO**
Likely presence of threatened or endangered species downstream: **NO**

Additional pollution prevention requirements apply for discharges into waters which TDEC identifies as:
a) impaired: **YES** b) discharging into Exceptional Tennessee Waters: **NO**

Your coverage under the CGP shall become effective on **July 3, 2012**, and shall be terminated upon receipt of Notice of Termination.

for Sandra Dudley, P.E.
Environmental Program Administrator
Division of Water Resources
RDAs 2352 and 2366

CN-0759



GENERAL NPDES PERMIT
FOR DISCHARGES OF STORMWATER
ASSOCIATED WITH CONSTRUCTION ACTIVITIES

PERMIT NO. TNR100000

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 part 5.4 (Discharges into Waters with Unavailable Parameters or Exceptional Tennessee Waters) 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 30, 2016**

This permit is effective on: **October 1, 2016**

This permit expires on: **September 30, 2021**

for Tisha Calabrese Benton
Director

Tennessee General Permit No. TNR100000
Stormwater Discharges Associated with Construction Activities

Table of Contents

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

This permit authorizes point source discharges of stormwater 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. Construction activities include clearing, grading, filling and excavating. 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 may also be required to obtain 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 state; 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 permit.

Any discharge of stormwater, or other fluid, to an improved sinkhole or injection well must be authorized by permit or rule as a Class V underground injection well under the provisions of Tennessee Rules, Chapter 0400-45-06.

1.2.2. Stormwater discharges associated with construction support activities

This permit also authorizes stormwater discharges from support activities associated with a permitted construction site. 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 site that is covered under this general permit.
b) The operator of the support activity is the same as the operator of the construction site.
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 comprehensive SWPPP covering the discharges from the support activity areas.

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. This permit does not authorize any process wastewater discharges from support activities. Process wastewater discharges from support activities must be authorized by an individual permit or other appropriate general permit.

1.2.3. Non-stormwater discharges authorized by this permit

The following non-stormwater discharges from active construction sites are authorized by this permit provided the non-stormwater component of the discharge is in compliance with Section 3.5.9 below (*Pollution prevention measures for non-stormwater discharges*):

a) Dewatering of collected stormwater and ground water.
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 3.5.5 below.
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 groundwater or spring water.
g) Foundation or footing drains where flows are not contaminated with pollutants (e.g., process materials such as solvents, heavy metals, etc.).

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 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 final 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 (*Other NPDES-permitted discharges*) and in compliance with Section 3.5.9 (*Pollution prevention measures for non-stormwater discharges*) 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 7.12 (*Individual Permit*).

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 7.12 (*Individual Permit*). 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 5.4 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) above 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).

g) Discharges into Exceptional Tennessee Waters - Discharges that would cause more than 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 5.4 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) above and the SWPPP cannot be modified to bring the site into compliance.

h) Discharges not protective of 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 species (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), 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 negatively affecting a property on the National Historic Register - Discharges that would negatively affect a property that is listed or is eligible for listing in the National Historic Register maintained by the Secretary of Interior.
k) 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. If a specific wasteload allocation has been established that would apply to the discharge, that allocation must be incorporated into the SWPPP and steps necessary to meet that allocation must be implemented. If an EPA-approved or established TMDL has specified a general wasteload allocation applicable to construction stormwater discharges, but no specific requirements for construction sites have been identified, the permittee should consult with the division to confirm that adherence to a SWPPP that meets the requirements of this permit will be consistent with the approved TMDL. Where an EPA-approved or established TMDL has not specified a wasteload allocation applicable to construction stormwater discharges, but has not specifically excluded these discharges, adherence to a SWPPP that meets the requirements of the CGP will be assumed to be consistent with the approved TMDL. If the EPA-approved or established TMDL specifically precludes construction stormwater discharges, the operator is not eligible for coverage under the CGP.

1.4. Obtaining Permit Coverage

A complete NOI, SWPPP and application fee are required to obtain coverage under this general permit. Requesting coverage under this permit means that an applicant has examined a copy of this permit and thereby acknowledged the applicant's claim of ability to comply with permit terms and conditions. Upon completing NOI review, the division will:

a) issue an NOC to the operator identified as the initial site-wide primary permittee on the NOI form (see Subpart 1.5 below - *Effective Date of Coverage*),
b) publish new operators' supplemental NOI information on TDEC's dataviewer,
c) notify the applicant of needed changes to their NOI submittal (see Section 2.6.3 below - *Application completeness*), or
d) deny coverage under this general permit (see Subpart 7.12 below - *Individual Permit*).

1.4.1. Notice of Intent

Operators wishing to obtain coverage under this permit must submit a complete NOI in accordance with Part 2 below, using the NOI form provided in Appendix A of this permit. The division will review NOIs for completeness and accuracy and, when deemed necessary, investigate the proposed project for potential impacts to the waters of the state.

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. The SWPPP, developed and submitted by the site-wide permittee (typically the owner/developer who applies for coverage prior to project commencement[1]), should address all 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

[1] See Subpart 2.1 on page 7 for a definition of a site-wide permittee.

planned to be disturbed (see definition for "disturbed area" in part 10), including any associated construction support activities (see Section 1.2.2 above). The SWPPP must be developed, implemented and updated according to the requirements in Part 3 below (*SWPPP Requirements*) and Subpart 2.3 below (*Responsibilities of Operators*). The SWPPP must be implemented prior to commencement of construction activities.

If the initial SWPPP does not address all activities until final stabilization of the site, an updated SWPPP or addendums to the plan addressing all aspects of current site disturbance must be prepared. An active, updated SWPPP must be in place for all disturbed portions of a site until each portion has been completed and finally stabilized.

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 the comprehensive SWPPP. Primary permittees at the site may develop a SWPPP addressing only their portion of the project, as long as the proposed Best Management Practices (BMPs) are compatible with the comprehensive SWPPP and complying with conditions of this general permit.

Site operators who are building single family residential houses on at-grade lots (see Section 2.2.2 below) 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 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 (see definition of "disturbed area" in Part 10) by an entire construction project for which the applicant is requesting coverage, including any associated construction support activities (see Section 1.2.2 above). The applicant may present documentation of common 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 deemed acceptable. The following conditions apply:

- If a project was previously permitted, but permit coverage was terminated (see Section 8.1.1 below - Termination process for primary permittees), and subsequent site disturbance or re-development occurs, the new operator must obtain coverage and pay the appropriate fee for the disturbed acreage.
- New primary operators must pay the fee applicable to projects seeking subsequent coverage under an actively covered larger common plan of development or sale.
- Areas not covered by the original application shall be covered under a separate tracking number and a new application fee shall be paid based on the new acreage to be covered.
- Please note that in addition to the application fee, an annual maintenance fee applies per Rule 0400-40-11-.02(12)(i).

1.4.4. Submittal of a documents to local municipalities

Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in section 1.4.5 below (*Permit coverage through Qualifying Local Program*) must submit a copy of the notice of coverage NOC, and at project completion, a copy of the signed NOT to the MS4 upon its request. 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.

1.4.5. Permit coverage through Qualifying Local Program

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 by an MS4 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/article/tennessee-qualifying-local-program.

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 NOI, SWPPP or application fee 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. Effective Date of Coverage

1.5.1. Notice of Coverage

The NOC is a notice from the division to the initial site-wide primary permittee informing the applicant that the NOI, the SWPPP, and the application fee were received and accepted, and stormwater discharges from a specified area of a construction activity have been approved under this general permit. The initial site-wide 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 an NOC. New operators are covered under the permit when their permit record is published on TDEC's dataviewer as "active" and with an effective date.

Assigning a permit tracking number by the division to a proposed discharge from a construction site does not confirm or imply an authorization to discharge under this permit. 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.

If an Aquatic Resource Alteration Permit (ARAP) is required for a site proposed for active construction, the NOC will not be issued until an ARAP application is submitted and deemed complete by the division. The treatment and disposal of wastewater (e.g., sanitary 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 and accompanying permits are issued.

1.5.2. Permit tracking numbers

Construction sites covered under this permit will be assigned permit tracking numbers in the sequence TNR100001, TNR100002, etc. An operator presently permitted under a previous construction general permit shall be granted coverage under this new general permit. Permit tracking numbers assigned under a previous construction general permit will be retained (see section 2.4.1 below). An operator receiving new permit coverage will be assigned a new permit tracking number (see section 2.4.2 below).

2. NOTICE OF INTENT (NOI) REQUIREMENTS

2.1. Who Must Submit an NOI?

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:

a) 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 who is the current owner of the construction site. This person is considered the primary permittee.
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.

The site-wide permittee is the first primary permittee to apply for coverage at the site. 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, all such operators are to be considered as co-permittees if their involvement in the construction activities affects the same project site, and are held jointly and severally responsible for complying with the permit.

2.2. Construction Site Operators

2.2.1. 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, etc. and 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 8 below.

2.2.2. 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 site-wide permittee for the purpose of constructing and selling a structure (e.g., residential house, non-residential structure, commercial building, industrial facility); and has design or operational control over construction plans and specifications is a primary permittee for that portion of the site. A commercial builder may also be hired by an end user, such as a lot owner who may not be a permittee. In either case, the commercial builder is considered a new operator and must submit a new NOI following requirements in Section 2.4.3 below.

The commercial builder may also be hired by the primary permittee or a lot owner to build a structure. In this case, the commercial builder signs the primary permittee's NOI and SWPPP as a contractor (see Section 2.2.3 below) and is considered a secondary permittee.

2.2.3. 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 EPSC implementation and maintenance, or 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 should sign the NOI and SWPPP associated with the construction project at which they will be an operator.

2.3. 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 above. Either Section 2.3.1 or 2.3.2 below, or both, will apply depending on the type of operational control exerted by an individual permittee.

2.3.1. Permittees with design control

Permittees with design control (i.e., operational control over construction plans and specifications) at the construction site, including the ability to make modifications to those plans and specifications, must:

a) ensure the project specifications they develop meet the minimum requirements of Part 3 below (stormwater pollution prevention plan - SWPPP) and all other applicable conditions;
b) ensure the SWPPP indicates the areas of the project where they have design control and ensure all other permittees implementing and maintaining portions of the SWPPP impacted by any changes they make to the plan are notified of such modifications in a timely manner;
c) ensure that 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
d) ensure that all operators on the site have permit coverage, if required, and are complying with the SWPPP.

If parties with day-to-day operational control of the construction site have not been identified at the time the comprehensive SWPPP is initially developed, the permittee with design control shall be considered to be the responsible person until a supplemental NOI is submitted identifying the new operators (see Section 2.4.3 below). 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.

2.3.2. 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:

a) ensure the SWPPP for portions of the project where they are operators meets the requirements of Part 3 below (*SWPPP Requirements*) and identifies the parties responsible for implementing the control measures identified in the plan;
b) ensure the SWPPP indicates areas of the project where they have operational control over day-to-day activities; and
c) ensure that measures in the SWPPP are adequate to prevent 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 a comprehensive SWPPP.

2.4. NOI Submittal

2.4.1. Existing sites

An operator presently permitted under the 2011 construction general permit shall be granted coverage under this new general permit.[2] There will be no additional fees associated with an extension of coverage for existing sites under the new permit. The division may, at its discretion, require permittees to confirm their intent to be covered under this new general permit following its effective date through submission of an updated NOI. If the confirmation is required but not received by the division, coverage under the new general permit will be terminated. If a site with terminated coverage is unstable or if construction continues, a new NOI, SWPPP, and application fee must be submitted.

2.4.2. New sites or New Phases of Existing Sites

Except as provided in Section 2.4.3 below, operators must submit a complete NOI, SWPPP and an application fee in accordance with the requirements described in Subpart 1.4 above. 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. The land disturbing activities shall not start until a NOC is prepared and written approval by the division staff is obtained according to Subpart 1.5 above.

2.4.3. New operators

A supplemental NOI should be submitted as soon as practicable before a new operator commences work at a site with existing coverage. The supplemental NOI must reference the project name and tracking number assigned to the primary permittee's NOI.

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 (see Section 1.4.2 above).

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 of the previously disturbed areas are stabilized. However, the division should be notified if a new operator obtains operational control at a site, but commencement of construction under the direction of the operator at the site is going to be delayed.

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

[2] If the existing permittee is an artificial person (e.g., a partnership or corporation, excluding entities not required to register with the Tennessee Secretary of State), the division reserves the right to deny coverage under this new general permit if the permittee is not 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 further reserves the right to convert permit coverage to the correct legal name of the permittee and to name each general partner of a general partnership in addition to the general partnership.

with an existing comprehensive SWPPP already implemented at the site, a copy of the supplemental or modified 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 property is inactive, but 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.

2.4.4. Late NOIs

Dischargers are not prohibited from submitting late NOIs. 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 7.1.2 below.

2.5. Who Must Sign the NOI?

All construction site operators as defined in Subpart 2.2 above (*Construction Site Operators*) must sign the NOI form. Signatory requirements for a NOI are described in Section 7.7.1 below. All signatures must be original. An NOI that does not bear an original signature will be deemed incomplete.

2.6. NOI Form

2.6.1. Contents of the NOI form

The NOI for construction projects shall be submitted on the form 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 sections of the NOI are left blank, a narrative explaining the omission must be provided as an attachment.

Owners, developers and contractors that meet the definition of the operator in Subpart 2.2 above (*Construction Site Operators*) shall apply for permit coverage on the same NOI, if possible. The division may accept separate NOI forms from different operators for 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 3 below, and must be submitted with the NOI unless the NOI is only being submitted to add a secondary permittee to an existing coverage.

2.6.2. 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, a city map, or a county map with the proposed construction site centered, must be included with the NOI. The entire proposed construction area must be outlined in red on the map. The total acreage to be disturbed should be included on the map. All outfalls discharging runoff from the property should be identified. Streams receiving the discharge and storm sewer systems conveying the discharge from outfalls should be clearly identified and marked on the map. NOIs for linear projects must specify the location of each end 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 (see Section 1.4.2 above).

2.6.3. Application completeness

The division recommends that all applicants use the Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) Checklist (see Appendix D) to check the completeness of their submittal.

Based on a review of the NOI and other available information, the division shall, within 30 days:

a) issue an NOC to the initial site-wide primary operator for the construction site (see Subpart 1.5 above),
b) publish new operators' supplemental NOI information on TDEC's dataviewer,
c) prepare a deficiency letter stating additional information must be provided before the NOC can be issued, or
d) deny coverage under this general permit and require the discharger to obtain coverage under an individual NPDES permit (see Subpart 7.12 below).

2.7. Where to Submit the NOI, SWPPP and Application Fee

The applicant shall submit the NOI, SWPPP, and application fee to the appropriate TDEC 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 2.8 below. 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).

2.8. List of the TDEC Environmental Field Offices (EFOs) and Corresponding Counties

EFO Name	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, De Kalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White
Jackson	Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardeman, 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, Shelby, Tipton
Nashville	Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, 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.

3. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

3.1. The General Purpose of the SWPPP

A SWPPP must be prepared and submitted along with the NOI as required in Section 1.4.2 above. The primary permittee must implement the SWPPP as written from commencement of construction activity until final stabilization is complete, or until the permittee does not have design or operational control of any portion of the construction site. Requirements for termination of site coverage are provided in Part 8 below.

A site-specific SWPPP must be developed for each construction project or site covered by this permit. The design, inspection and maintenance of Best Management Practices (BMPs) described in the SWPPP must be prepared in accordance with good engineering practices. At a minimum, BMPs shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook (the handbook). The handbook is designed to provide information to planners, developers, engineers, and contractors on the proper selection, installation and maintenance of BMPs. This permit allows the use of innovative or alternative BMPs, whose performance has been documented to be equivalent or superior to conventional BMPs as certified by the SWPPP designer.

Once a definable area has been finally stabilized, 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 finally stabilized, one mile of a roadway or pipeline project is done and finally stabilized, etc.).

For more effective coordination of BMPs a cooperative effort by the different operators at a site to prepare and participate in a comprehensive 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 comprehensive 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.

3.1.1. Registered engineer or landscape architect requirement

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 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.

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 (see Part 10 below) and the rules of the Tennessee Board of Architectural and Engineering Examiners. Engineering design of sediment basins and other sediment controls must be included in SWPPPs for construction sites involving drainage to an outfall totaling 10 or more acres (see Subsection 3.5.3.3 below) or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters (see Section 5.4.1 below).

3.1.2. Site assessment

Quality assurance of erosion prevention and sediment controls (EPSCs) shall be done by performing site assessments. The site assessment shall be conducted at each outfall draining 10 or more acres (see Subsection 3.5.3.3 below) or 5 or more acres if draining to waters with unavailable parameters or Exceptional Tennessee Waters (see Section 5.4.1 below). 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:

a) A licensed professional engineer or landscape architect.
b) A Certified Professional in Erosion and Sediment Control (CPESC).
c) A person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

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 (as defined in Part 10 below) 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 (see Part 10 below) and the rules of the Tennessee Board of Architectural and Engineering Examiners.

The site assessment findings shall be documented and the documentation kept with the field SWPPP at the site. At a minimum, the documentation shall include information required in the inspection form provided in Appendix C of this permit, an assessment of any failing or unmaintained EPSCs, causes of failure and any action necessary to bring the site into compliance with this permit. The documented quality assurance site assessments 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. The documentation must contain the printed name and signature of the individual performing the site assessment and the following certification:

> *"I certify under penalty of law that this report and all attachments are, 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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."*

The site assessment can take the place of one of the twice weekly inspections required in Subsection 3.5.8.2 below if the entire site is inspected during the assessment.

The division may require additional site assessments to be performed if site inspections by division personnel reveal site conditions that have potential of causing pollution to waters of the state.

3.2. SWPPP Preparation and Compliance

3.2.1. Existing sites

Operators of an existing site presently permitted under the division's 2011 construction general permit shall maintain full compliance with the current SWPPP. The current SWPPP should be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented 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.

3.2.2. 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 Subpart 3.5 below of this permit shall be prepared and submitted along with the NOI and an appropriate fee for coverage under this permit.

3.3. Signature Requirements, SWPPP Review and Making Plans Available

3.3.1. Signature requirements

The SWPPP shall be signed by the operators in accordance with Subpart 7.7 below, and if applicable, certified according to requirements in Section 3.1.1 above. All signatures must be original. Electronic signatures are deemed equivalent to original signatures. A SWPPP that does not bear an original signature or an electronic signature will be deemed incomplete.

3.3.2. SWPPP review

The permittee shall make updated plans 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.

3.3.3. Making plans available

A copy of the current version of the SWPPP shall be retained on-site at the location which generates the stormwater discharge in accordance with Part 6 below 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.

3.4. Keeping Plans Current

3.4.1. SWPPP modifications

The permittee must modify and update 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. If applicable, the SWPPP must be modified or updated 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.
b) 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 3.5.2 below, 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.
c) Whenever any new operator (typically a secondary permittee) who will implement a measure of the SWPPP must be identified (see Subparts 2.1 and 2.2 above for further description of which operators must be identified).
d) Whenever it is necessary to include measures intended to prevent a negative impact to legally protected state or federally listed fauna or flora (or species proposed for such protection – see Subpart 1.3 above). Amendments to the SWPPP may be reviewed by the division, a local MS4, the EPA, or an authorized regulatory agency.
e) Whenever a TMDL is developed for the receiving waters for a pollutant of concern (e.g., siltation and habitat alterations due to in-channel erosion).

3.5. Components of the SWPPP

The SWPPP shall include the following items, as described in Sections 3.5.1 to 3.5.10 below: a site description; a description of stormwater runoff controls, erosion prevention and sediment control measures, stormwater management measures, and a description of any other items needing control; approved local government sediment and erosion control requirements; maintenance and inspection requirements; pollution prevention measures for non-stormwater discharges and documentation of permit eligibility related to Total Maximum Daily Loads (TMDL). 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.

3.5.1. Site description

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, not just grading and street construction.
b) The intended sequence of activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation).
c) 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.
d) A description of the topography of the site, including an estimation percent slope and the variation in percent slope found on the site. The estimate should be on a basis of a drainage area serving each outfall, rather than an entire project.
e) An estimate of drainage area (acres) serving each outfall.
f) Data describing the soil, how the soil type will dictate the needed control measures and how the soil may affect the expected quality of runoff from the site. The data may be referenced or summarized.
g) An estimate of the runoff coefficient of the site after construction activities are completed and a description of how the runoff will be handled to prevent erosion at the permanent outfall and receiving stream. The estimate of the percentage of impervious area before and after construction must also be provided.
h) An erosion prevention and sediment control plan with the proposed construction area clearly outlined. The plan should 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, surface waters including wetlands 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 3.5.2 below.
i) 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.
j) Identification of any stream or wetland 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.
k) The name of the receiving waters and identification if those receiving waters have unavailable parameters for siltation and habitat alterations due to in-channel erosion or are Exceptional Tennessee Waters.
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 lot-level EPSC measures to be implemented when a lot, or lots, at a subdivided construction project is sold to a new owner prior to the completion of construction. Subdivided construction projects may include residential or commercial subdivisions and industrial parks. The new operator must obtain coverage under this permit once the property is sold.
n) A description of the construction phasing for projects of more than 50 acres (see Subsection 3.5.3.1 below).
o) A description of the protections (e.g., caution fencing or stream side buffer zones) employed to limit the disturbance if only a portion of the total acreage of the construction site is to be disturbed. The limits of disturbance shall be clearly identified in the SWPPP and the areas to be undisturbed clearly marked in the field before construction activities begin.

3.5.2. Description of stormwater runoff controls

The SWPPP shall include a description of appropriate erosion prevention and sediment controls and other Best Management Practices (BMPs) that will be implemented at the construction site. The SWPPP must clearly describe each activity which disturbs soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation). The SWPPP must also describe:

a) appropriate control measures and the general timing for the measures to be implemented during construction activities, and
b) which permittee is responsible for implementation of which controls.

The SWPPP must include EPSC plans 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 should be depicted on multiple plan sheets as described below. Half sheets are acceptable. One sheet showing the combined EPSCs that will be used during the life of a multi-phase project will not be considered complete.

At least two separate EPSC plan sheets shall be developed for site disturbances less than five acres. The first plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during the initial land disturbance, or grading, stage. The second plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during the final grading stage.

At least three separate EPSC plan sheets shall be developed for site disturbances of five or more acres. In addition to the two plan sheets described above, a third plan sheet will address the EPSC measures necessary to manage stormwater runoff, erosion and sediment during any interim grading stages.

The description and implementation of controls shall address the following minimum components, as described in Sections 3.5.3, 3.5.4 and 3.5.5 below. Additional controls may be necessary to comply with Section 5.3.2 below.

3.5.3. Erosion prevention and sediment control

3.5.3.1. General criteria and requirements

a) The construction-phase erosion prevention controls shall be designed to eliminate (or minimize if complete elimination is not possible) 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) The design, inspection and maintenance of Best Management Practices (BMPs) described in the SWPPP must be prepared in accordance with good engineering practices and, at a minimum, shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook. In addition, all control measures must be properly selected, installed and maintained in accordance with the manufacturer's specifications, where applicable. All control measures selected must be able to slow runoff so that rill and gully formation is prevented. When steep slopes or fine particle soils are present at the site, additional

physical or chemical treatment of stormwater runoff may be required. Proposed physical or chemical treatment must be researched and applied according to the manufacturer's guidelines and fully described in the SWPPP. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control.

Chemicals used for treating stormwater runoff must be shown to be non-toxic to sensitive aquatic species through a 48-hour or 96-hour acute toxicity test as reported in the product's Material Safety Data Sheets. The chemical feed rate shall be such that the effluent concentration of the product is lower than the LC50 toxicity value for sensitive aquatic species as reported in the products Material Safety Data Sheets. Calculations used to determine the chemical feed rate so that runoff or effluent is not toxic to sensitive aquatic species shall also be included in the SWPPP. Chemicals used for treating stormwater runoff shall be applied in accordance with manufacturer specifications and securely stored on-site in the contractor's staging and storage area if not stored off-site or provided by others. Chemicals shall not be applied directly to any stream.

c) 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.
d) 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 consulting the division first. 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.
e) Sediment should be removed from sediment traps, silt fences, sedimentation basins and other sediment controls as recommended in the Tennessee Erosion and Sediment Control Handbook. Sediment must be removed when design capacity has been reduced by 50%.
f) Litter, construction debris and construction chemicals exposed to stormwater shall be picked up prior to storm events or before being carried off of the site by wind so that they do not become a pollutant source for stormwater discharges. Erosion prevention and sediment control materials (e.g., silt fence) should be removed or otherwise prevented from becoming a pollutant source for stormwater discharges.
g) Erodible material storage areas (e.g., overburden and stockpiles of soil) and borrow pits that are used primarily for the permitted project and are contiguous to the site 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).
h) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 14 days prior to grading or earth moving activities unless the area is subsequently temporarily or permanently stabilized.
i) Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent practicable.
j) Construction must be sequenced to minimize the exposure time of graded or denuded areas.

k) Construction phasing is recommended on all projects regardless of size as an effective practice for minimizing erosion and limiting sedimentation. Construction must be phased to keep the total disturbed area less than 50 acres at any one time. Areas of the completed phase must be stabilized within 14 days (see Subsection 3.5.3.2 below). No more than 50 acres of active soil disturbance is allowed at any time during the construction project. This includes off-site borrow or disposal areas that meet the conditions of Section 1.2.2 above.

   The 50 acre limitation does not apply to linear construction projects (e.g., roadway, pipeline and other infrastructure construction activities) if the following conditions are met:

   i. Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance have separate receiving waterbodies.
   ii. Where contiguous disturbances amount to greater than 50 acres, but no single waterbody is receiving runoff from more than 50 disturbed acres.
   iii. With the department's written concurrence, where more than 50 acres of disturbance is to occur and where a single waterbody will receive runoff from more than 50 acres.
   iv. Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance are more than 5 miles apart.

   In order for a linear project to take advantage of the 50 acre rule exemption outlined in this paragraph, the contractor shall conduct monthly site assessments as described in Section 3.1.2 above until the site is permanently stabilized.

l) EPSC measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workday, but must be replaced at the end of the workday.
m) The following records shall be maintained on or near the site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; the dates when stabilization measures are initiated; inspection records and rainfall records.
n) Off-site vehicle tracking of sediment and the generation of dust shall be minimized. A stabilized construction access shall be described and implemented, as needed, to reduce the tracking of mud and dirt onto public roads by construction vehicles.
o) Permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily precipitation.

3.5.3.2. 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.. Use of impervious surfaces for final 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 no later than 14 days 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 will resume within 14 days.

Steep slopes shall be stabilized no later than seven days 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.

3.5.3.3. Structural practices

The SWPPP shall include a description of structural practices 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 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 or wetlands except as authorized by a section 404 permit and/or Aquatic Resources Alteration Permit (ARAP).

EPSC measures must be prepared in accordance with good engineering practices and the latest edition of the Tennessee Erosion and Sediment Control Handbook. In addition, EPSC measures shall be designed to minimize erosion and maximize sediment removal resulting from a 2-year, 24-hour storm (the design storm – see part 10 below: "2-year and 5-year design storm depths and intensities"), as a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. 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.

For an on-site 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 final stabilization of the site.[3] 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

[3] Two principal objectives in sediment basin design should be recognized: (a) lower wet and dry sediment treatment storage with a permanent pool, with a total minimum volume below the principal spillway riser crest of 134 yd^3/acre (b) upper hydrologic storage (i.e., 2-yr or 5-yr and 25-yr, 24-hr storms) for designing hydraulic controls such as principal and emergency spillways.

measure is substituted for a sediment retention basin, the equivalency 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.

All calculations of drainage areas, runoff coefficients and basin volumes must be provided in the SWPPP. The discharge structure from a sediment basin must be designed to retain sediment during the lower flows. 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.

3.5.4. Stormwater management

The SWPPP shall include a 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.

For projects discharging to waters with unavailable parameters for siltation and habitat alterations due to in-channel erosion, the SWPPP shall include a description of measures that will be installed during the construction process to control pollutants and the increase in impervious area after the construction addressed in the permit application is completed, the nature of fill material and existing data describing the soil or the quality of the discharge. The SWPPP shall also include a description of measures that will be installed to dissipate the volume and energy of the stormwater runoff to pre-development levels.

This permit only addresses the installation of stormwater management measures and not the ultimate operation and maintenance of such structures after the construction activities have been completed, the site has undergone final stabilization and the permit coverage has been terminated. Permittees are only responsible for the operation and maintenance of stormwater management measures prior to final stabilization of the site and permit coverage being terminated. Permittees are not responsible for maintenance after permitted stormwater discharges associated with construction activity have been eliminated from the site. All permittees are encouraged to limit the amount of post construction runoff voluntarily, if not required by local building regulations or local MS4 program requirements, to minimize in-stream channel erosion in the receiving stream.

Construction stormwater runoff management practices may include: stormwater detention structures, including ponds with a permanent pool; stormwater retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems, which combine several practices.

Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide a non-erosive velocity flow from the structure to the receiving stream so that the natural physical and biological characteristics and functions of the stream are maintained and protected (i.e.,, there should be no significant changes in the hydrological regime of the receiving water). The SWPPP shall include an explanation of the technical basis used to select the velocity dissipation devices to control pollution where flows exceed pre-development levels. The Tennessee Erosion and Sediment Control Handbook provides measures that can be incorporated into the design or implemented on site to decrease erosive velocities. An Aquatic

Resources Alteration Permit (ARAP) may be required if such velocity dissipation devices installed would alter the receiving stream or its banks.

3.5.5. 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) (see Part 9 below).
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.
d) A description of stormwater sources from areas other than construction and a description of controls and measures that will be implemented at those sites.
e) A description of measures necessary to prevent "taking" of legally protected state or federal listed threatened or endangered aquatic fauna and critical habitat, if applicable. The permittee must describe and implement such measures to maintain eligibility for coverage under this permit.

3.5.6. Approved local government sediment and erosion control requirements

Permittees must comply with any additional erosion prevention, sediment control and stormwater management measures required by a local municipality or permitted MS4 program.

3.5.7. Maintenance

The SWPPP shall describe procedures to ensure that vegetation, erosion prevention and sediment control measures, buffer zones and other protective measures are kept in good and effective operating condition. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event, but in no case more than seven days after the need is identified.

3.5.8. Inspections

3.5.8.1. Inspector training and certification

Twice weekly inspections can be performed by:

a) a person with a 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 an 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.

A copy of the certification, or training record for inspector certification, should be kept on site.

3.5.8.2. Schedule of inspections

a) Inspections described in paragraphs b, c and d below, shall be performed at least twice every calendar week. 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 finally stabilized, as described in Subpart 3.1 above. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the local Environmental Field Office, or the division's Nashville Central Office for projects of the Tennessee Department of Transportation (TDOT) and the Tennessee Valley Authority (TVA). Should the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspections shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly inspections.
b) Qualified personnel, as defined in Subsection 3.5.8.1 above (provided by the permittee or cooperatively by multiple permittees), shall inspect disturbed areas of the construction site that have not been finally 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 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 3.5.1 above and pollution prevention measures identified in the SWPPP in accordance with Section 3.5.2 above shall be revised as appropriate, but in no case later than seven 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.
g) All inspections shall be documented on the Construction Stormwater Inspection Certification form provided in Appendix C of this permit for all construction sites. An alternative inspection form 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. 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 7.7.2 below. 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. If the division requests the Construction Stormwater Inspection Certification form to be submitted, a copy of the signed original must be submitted.

h) 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.
i) Subsequent primary permittees who have obtained coverage under this permit should conduct twice weekly inspections, unless their portions of the site have been temporarily stabilized, runoff is unlikely due to winter conditions or due to extreme drought as stated in paragraph a) above. The 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).

3.5.9. Pollution prevention measures for non-stormwater discharges

The SWPPP must identify the source of any non-stormwater discharge listed in Section 1.2.3 above 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.

3.5.10. Documentation of permit eligibility related to Total Maximum Daily Loads (TMDL)

The SWPPP must include documentation supporting a determination of permit eligibility with regard to waters that have an approved TMDL for a pollutant of concern, including:

a) whether the discharge is identified, either specifically or generally, in an approved TMDL and any associated wasteload allocations, site-specific requirements and assumptions identified for the construction stormwater discharge;
b) summaries of consultations with the division on consistency of SWPPP conditions with the approved TMDL, and
c) measures taken to ensure that the discharge of TMDL identified pollutants from the site is consistent with the assumptions and requirements of the approved TMDL, including any specific wasteload allocation that has been established that would apply to the construction stormwater discharge.

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 and is described in Sections 4.1.1 through 4.1.7 below.

4.1.1. Erosion prevention and sediment controls

Design, install and maintain effective erosion controls 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 below, 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

Water quality riparian buffer zone requirements in this section apply to all streams adjacent to construction sites except for streams with unavailable parameters or Exceptional Tennessee Waters (see Section 5.4.2 below). A 30-foot natural water quality riparian buffer adjacent to all streams at a construction site shall be preserved, 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 (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using Tennessee's standard operating procedures for hydrologic determinations set forth in Rule 0400-40-03-.05(9). [4] Because of heavy sediment load associated with construction site runoff, water quality riparian buffers are not primary sediment control measures and should not be relied on as such. However, 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 must be applied independently.

[4] 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.

Every attempt should be made for construction activities to not take place within the water quality riparian buffer zone and for existing forested areas to be preserved. 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 at a construction site. Equivalent BMPs shall be designed to be as effective in protecting the receiving stream from the impacts of stormwater runoff as a natural water quality riparian buffer. 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.

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 above 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 CGP. 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 above. 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. Soil stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. 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.

4.1.4. 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.

4.1.5. Pollution prevention measures

The permittee must design, install, implement and maintain effective pollution prevention measures to minimize the discharge of 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. 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.

Soil analysis shall be performed prior to the application of fertilizer to any portion of the site. Soil analysis shall include parameters included in the Basic Test by the UT Agriculture Extension for developing and maintaining fertilizer programs (e.g., soil pH, buffer value, phosphorus, potassium, calcium, magnesium). Soil samples should be representative of the area for which fertilizer will be applied. Sample type should be composite and should be collected in accordance with the guidance provided in the University of Tennessee Extension "Soil Testing" brochure PB1061, available at: http://utextension.tennessee.edu/publications/Documents/PB1061.pdf. Soil analysis results shall be used to determine correct fertilizer application rates to prevent the over-application of fertilizer to the site. Documentation of required soil analysis be maintained onsite with the SWPPP.

4.1.6. 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.

4.1.7. Surface outlets

Discharges from basins and impoundments shall utilize outlet structures that only withdraw water from near the surface of the basin or impoundment, unless infeasible.

5. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

5.1. 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 stormwater pollution prevention plan for the facility. This permit does not relieve the permittee of the reporting requirements of 40 CFR 117 and 40 CFR 302. Where a release containing a hazardous substance in an amount equal to or in excess of a reportable quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24 hour period:

a) the permittee is required to notify the National Response Center (NRC) (800-424-8802), the Tennessee Emergency Management Agency (emergencies: 800-262-3300; non-emergencies: 800-262-3400) and the local emergency planning office (where applicable) in accordance with the requirements of 40 CFR 117 or 40 CFR 302 as soon as he or she has knowledge of the discharge;
b) in addition to any follow up notifications required by federal law, the permittee shall submit, within 14 days of knowledge of the release, a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, what actions were taken to mitigate effects of the release, and steps to be taken to minimize the chance of future occurrences, to the appropriate Environmental Field Office (see Subpart 2.8 above); and
c) the SWPPP required under Part 3 above of this permit must be updated within 14 days of knowledge of the release: to provide a description of the release, the circumstances leading to the release, and the date of the release. This can be accomplished by including a copy of a written description of the release as described in the paragraph b) above. In addition, the SWPPP must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

5.2. Spills

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

5.3. Discharge Compliance with State Water Quality Standards

5.3.1. 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 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.

5.3.2. 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 floating scum, oil or other matter contained in the stormwater discharge.
c) The stormwater discharge must not cause an objectionable color contrast in the receiving stream.
d) The stormwater discharge must result in no materials in concentrations sufficient to 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 above.

5.4. Discharges into Waters with Unavailable Parameters or Exceptional Tennessee Waters

5.4.1. SWPPP/BMP requirements

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 (see Subpart 1.3 above). 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 habitat alterations due to in-channel erosion (or discharges upstream of such waters and because of the proximity to the segment with unavailable parameters and the nature of the discharge is likely to contribute sediment in amounts measurable in the waters with unavailable parameters) and for discharges to Exceptional Tennessee Waters (or discharges upstream of such waters and because of the proximity to the exceptional segment and the nature of the discharge is likely to cause more than de minimis degradation in the exceptional segment):

a) 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 - see Part 10 below: “2-year and 5-year design storm depths and intensities”), at a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. Additional physical or chemical treatment of stormwater runoff, such as use of treatment chemicals, may be necessary to minimize the amount of sediment being discharged when clay and other fine particle soils are found on sites.
b) The SWPPP must be prepared by individuals with one or more of the following qualifications:

- A licensed professional engineer or landscape architect.
- A Certified Professional in Erosion and Sediment Control (CPESC).
- A person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

c) A copy of the certification or training record for inspector certification should be included with the field SWPPP.
d) The permittee shall perform inspections described in Section 3.5.8 above at least twice every calendar week. Inspections shall be performed at least 72 hours apart.
e) The permittee must certify on the form provided in Appendix C of this permit whether or not all planned and designed EPSC measures are installed and in working order. 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 7.7.2 below. The record of inspections must be kept at the construction site with a copy of the SWPPP. For record retention requirements, see Part 6 below.
f) 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 director 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 (see Subpart 7.12 below). To obtain the individual permit, the operator must file an individual permit application (U.S. EPA NPDES Forms 1 and 2F). 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.
g) 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 final stabilization of the site. The drainage area includes both disturbed and undisturbed portions of the site and areas adjacent to the site, all draining through a common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified in the SWPPP narrative. 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 and a marker installed signifying when sediment accumulation has reduced the wet storage volume by 50%. In a case that sediment marker is damaged by the volume of water or sediment, a best professional judgement should be used in evaluating sediment basin capacity.
h) For an on-site outfall in a drainage area totaling 3.5 - 4.9 acres, a minimum sediment trap volume that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained, is recommended until final 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. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment trap. Diverted runoff can be omitted from the volume calculation. Sediment

storage expected from the disturbed areas must be included and a marker installed signifying when sediment accumulation has reduced the wet storage volume by 50%.

i) The director may require revisions to the SWPPP necessary to prevent a negative impact to legally protected state or federally listed aquatic fauna, their habitat or the receiving waters.

5.4.2. Water quality riparian buffer zone requirements

Sites that contain, or are adjacent to, receiving waters with unavailable parameters or Exceptional Tennessee Waters shall preserve a 60-foot natural water quality riparian buffer zone adjacent to the receiving stream. The buffer zone shall be preserved to the maximum extent practicable during construction activities at the site. The water quality riparian buffer is required to protect waters of the state, as identified using Tennessee's standard operating procedures for hydrologic determinations set forth in Rule 0400-40-03-.05(9), located within, or immediately adjacent to, the boundaries of the project.[5] Because of heavy sediment load associated with construction site runoff, water quality riparian buffers are not primary sediment control measures and should 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 as sheet flow, not as concentrated flow, where site conditions allow. Rehabilitation and enhancement of a natural water quality riparian buffer zone is allowed, if necessary, to improve its effectiveness in protecting waters of the state.

The natural water quality riparian buffer zone should 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 must be applied independently.

Every attempt should be made for construction activities not to take place within the water quality riparian buffer zone and for existing forested areas to be preserved. Where it is not practicable to maintain a full water quality riparian buffer, or if the construction site is located in an MS4 jurisdiction and would qualify for a smaller permanent water quality riparian buffer due to the size of the drainage area, then BMPs providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Equivalent BMPs shall be designed to be as effective in protecting the receiving stream from the impacts of stormwater runoff as a natural water quality riparian buffer zone. 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.

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.

[5] 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.

5.4.2.1. Water quality riparian buffer zone exemption based on existing uses

Water quality riparian buffer zones as described in Section 5.4.2 above 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 CGP. 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.

5.4.3. Pre-approved sites

Construction activity at sites that have been pre-approved before February 1, 2010, are exempt from the buffer requirements of Section 5.4.2 above. 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 dated, written approval by the local, state or federal agency with authority to approve such design drawings for construction.

6. RETENTION, ACCESSIBILITY AND SUBMISSION OF RECORDS

6.1. Documents

The 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.

6.2. 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 local location accessible to the director and the public) 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. The permittee shall maintain a copy of all records for a period of three years once coverage is terminated.

6.2.1. Posting information at the construction site

The initial site-wide permittee shall post a notice near the main entrance of the construction site accessible 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.
c) A brief description of the project.
d) The location of the SWPPP (see Section 3.3.3 above).

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 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 following items in an appropriate location on-site:

a) A rain gauge (or use a reference site for a record of daily precipitation),
b) A copy of the twice weekly inspection reports,
c) A documentation of quality assurance site assessments, if applicable (see Section 3.1.2 above).
d) A copy of the site inspector's certification (e.g., Fundamentals of Erosion Prevention and Sediment Control Level 1 or Level 2, P.E., P.L.A., CPESC).

6.3. Electronic Submission of Documents

If the division notifies dischargers by mail, E-mail, public notice or by making information available on the world wide web of electronic forms or other report options that become available at a later date (e.g., electronic submission of forms), the operators may take advantage of those options to satisfy the NOI, NOT and other report notification requirements.

7. STANDARD PERMIT CONDITIONS

7.1. Duty to Comply

7.1.1. 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.

7.1.2. 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.

7.1.3. 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.

7.1.4. 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.

7.2. Continuation of the Expired General Permit

Permittees shall maintain coverage under this general permit until a new general permit is issued. Permittees who choose not to maintain coverage under the expired general permit, or are required to obtain an individual permit, must submit an application (U.S. EPA NPDES Forms 1 and 2F and any other applicable forms) at least 180 days prior to expiration of this general permit. Permittees who are eligible and choose to be covered by the new general permit must submit an NOI by the date specified in that permit. Facilities that have not obtained coverage under this permit by the permit expiration date cannot become authorized to discharge under the continued permit.

Operator(s) of an existing site permitted under the division's 2011 construction general permit shall maintain full compliance with the existing SWPPP. The existing SWPPP should be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented 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.

7.3. 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.

7.4. 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.

7.5. 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.

7.6. 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.

7.7. 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 shall be signed as described in Sections 7.7.1 and 7.7.2 below and dated.

7.7.1. Signatory requirements for an NOI[6]

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

[6] 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]

making major capital investment recommendations, and initiating and directing other comprehensive 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.

7.7.2. Signatory requirements for 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 7.7.1 above, or by a duly authorized representative of that person.

7.7.3. Duly authorized representative

For a purpose of satisfying signatory requirements for reports (see Section 7.7.2 above), a person is a duly authorized representative only if:

a) the authorization is made in writing by a person described in Section 7.7.1 above;
b) the authorization specifies either an individual or a position 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 (see Section 2.8 above). The written authorization shall be a written document including the name of the newly authorized person and the contact information (title, mailing address, phone number, fax number and E-mail address) for the authorized person. The written

authorization shall be signed by the newly authorized person accepting responsibility and by the person described in Section 7.7.1 above delegating the authority.

7.7.4. Changes to authorization

If an authorization under Sections 7.7.1 above or 7.7.3 above 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 to an appropriate EFO (see Section 2.8 above) and signed by the new party who meets signatory authority satisfying the requirements of Sections 7.7.1 above or 7.7.3 above . The NOI shall include the new individual's information (title, mailing address, phone number, fax number and E-mail address), the existing tracking number and the project name.

7.7.5. Signatory requirements for primary permittees

Primary permittees required to sign an NOI and SWPPP because they meet the definition of an operator (see Subpart 2.2 above) 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.*"

7.7.6. 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."

7.8. Penalties for Falsification of Reports

Knowingly making any false statement on any report or form required by this permit may result in the imposition of criminal penalties as provided for in Section 309 of the Clean Water Act and in T.C.A. § 69-3-115 of the Tennessee Water Quality Control Act.

7.9. 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).

7.10. 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.

7.11. 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.

7.12. Individual Permits

7.12.1. Required 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. The notification may require stabilization of the site and suspend coverage under this general permit until the individual permit is issued. Individual permit applications shall be submitted to the appropriate Environmental Field Office of the division as indicated in Subpart 2.8 above. 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.

7.12.2. Permittee requested 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, 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.

7.12.3. 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.

7.13. 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.

7.14. 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 stormwater pollution prevention plans.

Proper operation and maintenance also includes adequate laboratory quality assurance and quality control procedures. 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.

7.15. 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.

7.16. 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.

8. REQUIREMENTS FOR TERMINATION OF COVERAGE

8.1. Termination of Developer and Builder Coverage

8.1.1. Termination process for primary permittees

Primary permittees wishing to terminate coverage under this permit must submit a completed NOT form provided in Appendix B of this permit. 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. 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) 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 final vegetation or non-vegetative stabilization described in Subsection 3.5.3.2 are met.
   ii. The permittee has removed and properly disposed of all construction materials; and, 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 who is responsible for ongoing maintenance of any stormwater controls left on the site for long-term use following termination of permit coverage.
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.

8.1.2. 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."

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 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 should 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.

8.2. Termination of Builder and Contractor Coverage

8.2.1. Termination process for secondary permittees

Secondary permittees must request termination of coverage under this permit by submitting an NOT when they are no longer an operator at the construction site. Secondary permittees receive coverage under this permit, but are not normally mailed an 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.

8.3. NOT certification

The NOT and the following certification must be signed in accordance with Subpart 7.7 above (Signatory Requirements) 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."*

8.4. Where to Submit an NOT

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 2.8 above. The appropriate permit tracking number must be clearly printed on the form.

9. Aquatic Resource Alteration Permits (ARAPs)

Alterations to channels or waterbodies (streams, wetlands and/or other waters of the state) that are contained on, traverse through or are adjacent to the construction site, may require an Aquatic Resources Alteration Permit (ARAP) (http://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit). It is the responsibility of the developer to provide a determination of the water's status.[7] This determination must be conducted in accordance with Tennessee's standard operating procedures for hydrologic determinations set forth at Rule 0400-40-03.05(9). The permittee can make an assumption that streams/wetlands are present at the site in order to expedite the permit process. In some cases, issuance of coverage under the CGP may be delayed or withheld if the appropriate ARAP has not been obtained. At a minimum, any delay in obtaining an ARAP for water body alteration associated with the proposed project must be adequately addressed in the SWPPP prior to issuance of an NOC**.** Failure to obtain an ARAP prior to any actual alteration may result in enforcement action for the unauthorized alteration.

10. DEFINITIONS

"**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 following NOAA National Weather Service Atlas 14 data for Tennessee: http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. Other data sources may be acceptable with prior written approval by TDEC Division of Water Resources.

"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.

"Borrow Pit" is an excavation from which erodible material (typically soil) 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**" or "**Water Quality Riparian Buffer**" is a strip of dense undisturbed perennial native vegetation, either original or re-established, that borders streams and rivers, ponds and lakes, wetlands and seeps. Buffer zones are established for the purposes of slowing water runoff, enhancing water infiltration and minimizing the risk of any potential sediments, nutrients or other pollutants from leaving the upland area and reaching surface waters. Buffer zones are most effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet

[7] The EPA considers inventorying a site's natural features is a technique called fingerprinting. More info can be found in EPA's document - EPA's Developing Your SWPPP – A Guide for Construction Sites (EPA-833-R-06-004 May 2007).

flow, rather than in concentrated form such as in channels, gullies, or wet weather conveyances. Therefore, it is critical that the design of any development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into and through the buffer zone as shallow sheet flow. Buffer zones are established for the primary purpose of protecting water quality and maintaining a healthy aquatic ecosystem in receiving waters.

"Clearing" in the definition of discharges associated with construction activity, typically refers to 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; for instance, clearing forested land in order to convert forestland to pasture for wildlife management purposes. 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 stormwater NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state stormwater NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.).

"Commencement of construction" The initial disturbance of soils associated with clearing, grading, excavating or other construction activities.

"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" As used in this permit, 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" means the Clean Water Act of 1977 or the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.)

"**Department**" means the Department of Environment and Conservation.

"Director" means the director, or authorized representative, of the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation.

"Discharge of stormwater associated with construction activity" As used in this permit, refers to stormwater point source discharges from areas where soil disturbing activities (e.g., clearing, grading, excavation), or construction materials or equipment storage or maintenance (e.g., earth fill piles, fueling, waste material) are located.

"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, 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 and water utilities, stormwater drainage structures, etc., to make the property marketable.

"**Division**" means the Division of Water Resources of the State of Tennessee, Department of Environment and Conservation.

"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.

"**Final Stabilization**" means that all soil disturbing activities at the site have been completed and one of the three following criteria is met:

a) 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.

b) 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.

c) For construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.

"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.

"Inspector" An inspector is a person with following qualifications:

a) a 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 an Sediment Control (CPESC), or
d) 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. An inspector may also have the following responsibilities:

a) Oversee the requirements of other construction-related permits, such as an 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.
d) Inform the permit holder of activities that may be necessary to gain or remain in compliance with the CGP and other environmental permits.

"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 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**," as used in the context of discharges or withdrawals – Changes in parameters of waters that are of sufficient magnitude to be detectable by the best available instrumentation or laboratory analyses.

(Note: Because analytical techniques change, the Department may consider either the most sensitive detection method needed to comply with state standards or any biological, chemical, physical, or analytical method, conducted in accordance with U.S. EPA approved methods as identified in 40 C.F.R. part 136. Consistent with T.C.A. § 69-3-108, for scenarios involving cumulative, non-measurable activities or parameters that are managed by a narrative criterion, the Department will use mathematical models and ecological indices to ensure no degradation will result from the authorization of such activities, consistent with the state's mixing zone policy.)

"Monthly" refers to calendar months.

"**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:

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;
b) designed or used for collecting or conveying stormwater;
c) not a combined sewer; and
d) not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR §122.2.

"NOI" means notice of intent to be covered by this permit (see Part 2 above)

"NOT" means notice of termination (see Part 8 above).

"**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 that meets either of the following two criteria:

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, and is considered the primary permittee.

b) This 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.

It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of "operator."

"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.

"**Qualifying State, Tribal, or local erosion and sediment control program**" is one that includes, as defined in 40 CFR 122.44(s):

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 procedures, inspection procedures and identification of non-stormwater discharges.
d) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

"**Quality Assurance Site Assessment**" means a documented site inspection to verify the functionality and performance of the SWPPP and for determining if construction, operation and maintenance accurately comply with permit requirements as presented in the narrative, engineering specifications, maps, plans, drawings and details for EPSC measures and stormwater management.

"**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" 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**" 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" 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**" means the action or process of forming or depositing sediment.

"**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.

"**Soil**" 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**" 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" means rainfall runoff, snow melt runoff, and surface runoff and drainage.

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.

"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.

"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).

"**Stormwater Pollution Prevention Plan"** (SWPPP) means a written plan required by this permit that includes a site map, a description of construction activities that could introduce pollutants to stormwater runoff and a description of measures or practices to control these pollutants. It must be prepared and approved 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. 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. It also aids in the development of SWPPPs and other reports, plans or specifications required when participating in Tennessee's water quality regulations.

"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.

"**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.

"**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 CFR 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:

TMDL = sum of non point sources (LA)+ sum of point sources (WLA)+ margin of safety

A list of completed TMDLs that have been approved by EPA can be found at our web site: http://www.tn.gov/environment/article/wr-ws-tennessees-total-maximum-daily-load-tmdl-program.

"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" 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**" 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**" 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.

"W**aters 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, pollutants of concern include, but are not limited to: siltation (silt/sediment) and habitat alterations due to in-channel erosion. 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 (http://tdeconline.tn.gov/dwrwqa/), 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 http://tn.gov/environment/article/wr-wq-water-quality-reports-publications.

"**Wet weather conveyances**" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that meet the following:

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)).

11. LIST OF ACRONYMS

ARAP	Aquatic Resource Alteration Permit
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CGP	Construction General Permit
CWA	Clean Water Act
EFO	Environmental Field Office
EPA	(U.S.) Environmental Protection Agency
EPSC	Erosion Prevention and Sediment Control
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Coverage
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ONRW	Outstanding National Resource Waters
POTW	Publicly Owned Treatment Works
QLP	Qualifying Local Program
SWPPP	Stormwater Pollution Prevention Plan

TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
TMDL	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

(End of body of permit; appendices follow.)

APPENDIX A – Notice of Intent (NOI) Form
(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, Tennessee 37243
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 or Location:		Construction Start Date:
		Estimated End Date:
Site Description:		Latitude (dd.dddd):
		Longitude (-dd.dddd):
County(ies):	MS4 Jurisdiction (if applicable):	Acres Disturbed:
		Total Acres:

Check the appropriate box(s) if there are streams and/or wetlands on or adjacent to the construction site: Streams Wetlands
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit (ARAP) has been obtained for this site, what is the permit number?

Receiving waters:

Attach the SWPPP with the NOI: SWPPP Attached | Attach a site location map: Map Attached

Site Owner/Developer (Primary Permittee): (Provide person, company, or entity that has operational or design control over construction plans and specifications):

For corporate entities only, provide correct Tennessee Secretary of State (SOS) Control Number:
(an incorrect SOS control number may delay NOI processing)

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: ( )	Fax: ( )	E-mail:		

Optional Contact:		Title or Position:		
Mailing Address:		City:	State:	Zip:
Phone: ( )	Fax: ( )	E-mail:		

***Owner/Developer(s) 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 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.

Owner/Developer Name (print/type):	Signature:	Date:
Owner/Developer Name (print/type):	Signature:	Date:

***Contractor 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. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury.

Contractor name, address, and SOS control number (if applicable):	Signature:	Date:

OFFICIAL STATE USE ONLY

Received Date:	Reviewer:	Field Office:	Permit Tracking Number: TNR	Exceptional TN Water:
Fee(s):	T & E Aquatic Flora/Fauna:	SOS Corporate Status:	Waters with Unavailable Parameters:	Notice of Coverage Date:

CONSTRUCTION GENERAL PERMIT - NOTICE OF INTENT (NOI) - INSTRUCTIONS

A completed NOI must be submitted to obtain coverage under the CGP. **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.** CGP coverage is required for stormwater (SW) 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 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, etc.). A separate annual maintenance fee is also required for activities that exceed 1 year under CGP coverage. See TN Rules, Chapter 0400-40-11-.02(b)(12).

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 20 < 50 acres	= or > 5 < 20 acres	= or > 1 < 5 acres	Subsequent coverage
Fee	$10,000	$6,000	$3,000	$1,000	$250	$100

Who must submit the NOI form? All site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of SW 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 land owner of the construction site, and 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 initial site-wide primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to add a subsequent permittee to an existing coverage. **Artificial entities (e.g., corporations or partnerships) must submit the correct Tennessee Secretary of State, Division of Business Services, control number. General partnerships. For general partnerships, the NOI must be signed by each general partner in the general partnership.**

The NOI will be considered incomplete without a correct control number, and the division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the Tennessee Secretary of State (i.e., listed with an entity status of "active"). The division further reserves the right to issue permit coverage in the correct legal name of the individual or entity seeking coverage and to name each general partner of a general partnership in addition to the general partnership.

Complete the form: Type or print clearly. Answer each item or enter "NA," for not applicable. 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 and comprehensive site-specific SWPPP (if applicable).**

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 information available to describe the location (reference to adjacent highways, roads and structures; eg., intersection of state highways 70 and 100). Latitude and longitude (in decimal degrees) can be found at numerous other web sites. Attach a copy of a 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.

Name of the receiving waters: Trace the route of SW runoff from the site and determine the name of the 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 waterbody 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 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**.

Notice of Coverage: The division will review NOIs for completeness and accuracy and issue an NOC to site-wide primary operators, authorizing SW discharge from the construction site as of the effective date of the NOC. New subsequent operators will not receive an NOC, but are considered covered under the permit when their permit record is published on TDEC's dataviewer as "active" and with an effective date. TDEC Permit Dataviewer can be found at: http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34001:0

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 Pkwy, Suite 206	37402
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 (NOT) Form

(next page)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Resources
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. Please submit this form to the local DWR Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

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:

☐	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
☐	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

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 finally 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:

EFO	**Street Address**	**Zip Code**	**EFO**	**Street Address**	**Zip Code**
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	1301 Riverfront Parkway, Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

APPENDIX C – Twice-Weekly Inspection Report Form
(next page)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources
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 (Twice-Weekly Inspections)

Site or Project Name:		**NPDES Tracking Number: TNR**
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has rainfall been checked/documented daily? Yes No	Name of Inspector:
Current weather conditions:		Inspector's Training Certification Number:

Please check the box if the following items are on-site:

Notice of Coverage (NOC) Stormwater Pollution Prevention Plan (SWPPP) Twice-weekly inspection documentation

Site contact information 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?	Yes	No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?	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 per section 5.3.2?	Yes	No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	Yes	No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4? If "No," describe below the measures to be implemented to address deficiencies.	Yes	No
6.	If construction activity at any location has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No," describe below each location and measures taken to stabilize the area(s)	Yes	No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters per section 4.1.5? If "No," describe below the measures to be implemented to address deficiencies.	Yes	No
8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," describe below the measures to be implemented to address deficiencies. N/A	Yes	No
9.	Have all previous deficiencies been addressed? If "No," describe remaining deficiencies in Comment section. Check if deficiencies/corrective measures have been reported on a previous form.	Yes	No

Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

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.

Inspector Name and Title:	Signature:	Date:
Primary Permittee Name and Title:	Signature:	Date:

Construction Stormwater Inspection Certification Form (Twice-Weekly Inspections)

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week 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.

As described in section 3.5.8.1 of the Permit, inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course (http://www.tnepsc.org/). Twice weekly inspections can also be performed by: a licensed professional engineer or landscape architect; a Certified Professional in Erosion and Sediment Control (CPESC) or a person who has successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course. A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally 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 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 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 D

Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) Checklist

(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, Tennessee 37243 1-888-891-8332 (TDEC)

Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) Checklist for the General Permit for Discharges of Stormwater Associated with Construction Activities (CGP)

Date Received: _____ **Staff Review Completion Date:** _____ **New NPDES Tracking Number:** _____ **MS4 Jurisdiction:** _____

Reviewer: _____ **# of Disturbed Acres:** _____ **Site/Project Name:** _____

Impaired Waters: Yes ☐ **No** ☐ **Exceptional Waters: Yes** ☐ **No** ☐ **T & E Species: Yes** ☐ **No** ☐ **(***Add comments below)* **Fee Collected: Yes** ☐ **No** ☐

This NOI/SWPPP checklist pertains to the current CGP, and is used during the NOI review process to help determine whether the submittal provides enough information to grant a Notice of Coverage under the permit. ***This checklist does not specifically address every condition of the permit or preclude the Division from asking for additional information****.*

Yes	No	NOI Requirements	Yes	No	
		Correct site-wide permittee (Owner/Developer) entity name included			Start/End Dates listed
		Proper signature for the owner/developer provided			Disturbed acreage given
		Receiving waters listed			Latitude/Longitude given and is correct
		ARAP Required? ARAP #(s):			County(ies) listed
		Appropriate portion of USGS topo map provided showing the boundaries of the construction site [2.6.2]	County(ies):		

Yes	No	N/A	SWPPP Requirements	CGP pg #
			"Common Plan of Development"/Site Concept Plan has been provided *[1.2.1]*	1
			Plans and specs for structural control measures have been prepared and stamped by Professional Engineer or Landscape Architect *[3.1.1]*	13
			Includes engineering design of sediment basin/controls for projects 10 acres or greater (5 acres if impaired/exceptional waters) *[3.1.1]*	13, 14
			Includes Quality Assurance Site Assessment requirement criteria if applicable *[3.1.2]*	14
			Signed by the operator(s) *[3.3.1]*	15
			Includes multi-phase sheets: <5 ac. – 2-phase plan min.; ≥5 ac. – 3-phase plan min. *[3.5.2]*	18
			Depicts disturbance limits, buffer zones, watershed drainage patterns/acreage, and proposed contours/slopes *[3.5.1.d&g; 4.1.1]*	17
			Includes a description of all construction activity (not just grading and street construction) [3.5.1.a]	17
			Includes a description sequence of major activities (e.g., grubbing, excavation, grading, utilities, and infrastructure installation, etc.) [3.5.1.b]	17
			Includes estimates of the total site area versus the total area of the site to be disturbed [3.5.1.c]	17
			Includes a complete inventory of aquatic resources (including any stream, sinkhole or wetland) on or adjacent to the project [3.5.1.i]	17
			Includes a description of appropriate erosion prevention and sediment controls (EPSCs) and the general timing of implementation *[3.5.2]*	18
			Specifies which permittee is responsible for implementation of which EPSC [*3.5.2]*	18
			Specifies removal of trapped sediment from sediment controls at or before 50% design capacity *[3.5.3.1.e]*	19
			Specifies EPSCs will be implemented before earth-moving begins *[3.5.3.1.l]*	20
			Specifies stabilization within 15 days (7 days for ≥35% slopes) on site areas where construction has temporarily/permanently ceased [3.5.3.2]	21
			Specifies inspections of outfalls/EPSC measures at least twice weekly and at least 72 hours apart *[3.5.8.2.a]*	24
			Specifies that vegetation, EPSCs & other protective measures are repaired, replaced, or modified within 7 days *[3.5.7; 3.5.8.2.f]*	23, 24
			Depicts the proposed location of all major structural/nonstructural controls and all proposed stabilization practices *[3.5.1.g; 3.5.3.3]*	18
			Identifies all outfall locations intended for coverage under the CGP *[3.5.1.g]*	17
			Includes the name of the receiving water(s), and approximate size and location of affected wetland acreage at the site *[3.5.1.j]*	17
			Identifies construction phasing for activities that will disturb >50 acres *[3.5.1.m & 3.5.3.1.k]*	20
			EPSCs have been designed to control the rainfall and runoff from a 2-year, 24-hour return interval storm *[3.5.3.3]*	21
			Specifies sediment basins for construction sites with drainage areas >10 acres *[3.5.3.3]*	22
			Specifies a 30' natural riparian buffer zone adjacent to all streams, lakes, wetlands on/adjacent to the construction site *[4.1.2]*	26

Yes	No	N/A	Additional SWPPP Requirements for Discharges into Impaired or Exceptional TN Waters	CGP pg #
			Specifies that EPSCs proposed for the site have been designed to control storm runoff generated by a 5-year, 24-hour storm event *[5.4.1.a]*	30
			Specifies sediment basins for construction sites with drainage areas >5 acres that discharge to impaired or exceptional waters [3.5.3.3] *[5.4.1.f]*	31
			Specifies a 60' natural riparian buffer zone adjacent to all impaired or exceptional waters on/adjacent to the construction site [4.1.2] *[5.4.2]*	31
			SWPPP Requirements for Permanent (Post-Development) Stormwater Management	CGP pg #
			Specifies velocity dissipation devices at discharge locations and along the length of any outfall channel *[3.5.4]*	22
			Includes technical basis used to select velocity dissipation devices where flows exceed predevelopment levels *[3.5.4]*	23

Identification indicators of possible streams or wetlands utilizing site information and resources include:

1. Contour and stream indicators on USGS TOPO maps
2. Drainage area to a defined conveyance (20 acres east TN/40 middle TN/ 75 west TN),
3. Aerial photography identifying a sinuous tree line or grouping of remaining forest in an agricultural setting
4. Springhouse/box
5. Comparable nearby drainage that has previously been determined to have a stream
6. Onsite or adjacent ponds or impoundments
7. Check EFO HD GIS for previous determinations
8. NRCS soil maps or Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
9. Wetlands on National Wetlands Inventory: (http://www.fws.gov/wetlands/data/mapper.HTML)

If sufficient indicators exist, a stream determination may need to be performed. Stream determinations must be performed by a QHP.

Comments

APPENDIX B:
NOTICE OF INTENT
NOTICE OF TERMINATION AND
CONSTRUCTION INSPECTION FORMS

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
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 or Location:		Construction Start Date:
		Estimated End Date:
Site Description:		Latitude (dd.dddd):
		Longitude (-dd.dddd):
County(ies):	MS4 Jurisdiction (if applicable):	Acres Disturbed:
		Total Acres:

Check the appropriate box(s) if there are streams and/or wetlands on or adjacent to the construction site: Streams ☐ Wetlands ☐
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit (ARAP) has been obtained for this site, what is the permit number?

Receiving waters:

Attach the SWPPP with the NOI: SWPPP Attached ☐ | Attach a site location map: Map Attached ☐

Site Owner/Developer (Primary Permittee): (Provide person, company, or entity that has operational or design control over construction plans and specifications):

For corporate entities only, provide correct Tennessee Secretary of State (SOS) Control Number:
(an incorrect SOS control number may delay NOI processing)

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: ( )	Fax: ( )	E-mail:		

Optional Contact:		Title or Position:		
Mailing Address:		City:	State:	Zip:
Phone: ( )	Fax: ( )	E-mail:		

***Owner/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 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.

Owner/Developer Name: (print/type)	Signature:	Date:

***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. As specified in Tennessee Code Annotated Section 39-16- 702(a)(4), this declaration is made under penalty of perjury.

Contractor name, address, and SOS control number (if applicable):	Signature:	Date:
Contractor name, address, and SOS control number (if applicable):	Signature:	Date:

OFFICIAL STATE USE ONLY

Received Date:	Reviewer:	Field Office:	Permit Tracking Number: TNR	Exceptional TN Water:
Fee(s):	T & E Aquatic Flora/Fauna:	SOS Corporate Status:	Waters with Unavailable Parameters:	Notice of Coverage Date:

CONSTRUCTION GENERAL PERMIT - NOTICE OF INTENT (NOI) - INSTRUCTIONS

A completed NOI must be submitted to obtain coverage under the CGP. **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.** CGP coverage is required for stormwater (SW) 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 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, etc.). A separate annual maintenance fee is also required for activities that exceed 1 year under CGP coverage. See TN Rules, Chapter 0400-40-11-.02(b)(12).

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 20 < 50 acres	= or > 5 < 20 acres	= or > 1 < 5 acres	Subsequent coverage
Fee	$10,000	$6,000	$3,000	$1,000	$250	$100

Who must submit the NOI form? All site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of SW 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 land owner of the construction site, and 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 initial site-wide primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to add a subsequent permittee to an existing coverage. Artificial entities (e.g., corporations or partnerships) must submit the correct Tennessee Secretary of State, Division of Business Services, control number. **The NOI will be considered incomplete without a correct control number, and the division reserves the right to deny coverage to artificial entities that are not properly registered and in good standing with the Tennessee Secretary of State**.

Complete the form: Type or print clearly. Answer each item or enter "NA," for not applicable. 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 and comprehensive site-specific SWPPP (if applicable).**

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 information available to describe the location (reference to adjacent highways, roads and structures; eg., intersection of state highways 70 and 100). Latitude and longitude (in decimal degrees) can be found at numerous other web sites. Attach a copy of a 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.

Name of the receiving waters: Trace the route of SW runoff from the site and determine the name of the 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 waterbody 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 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**.

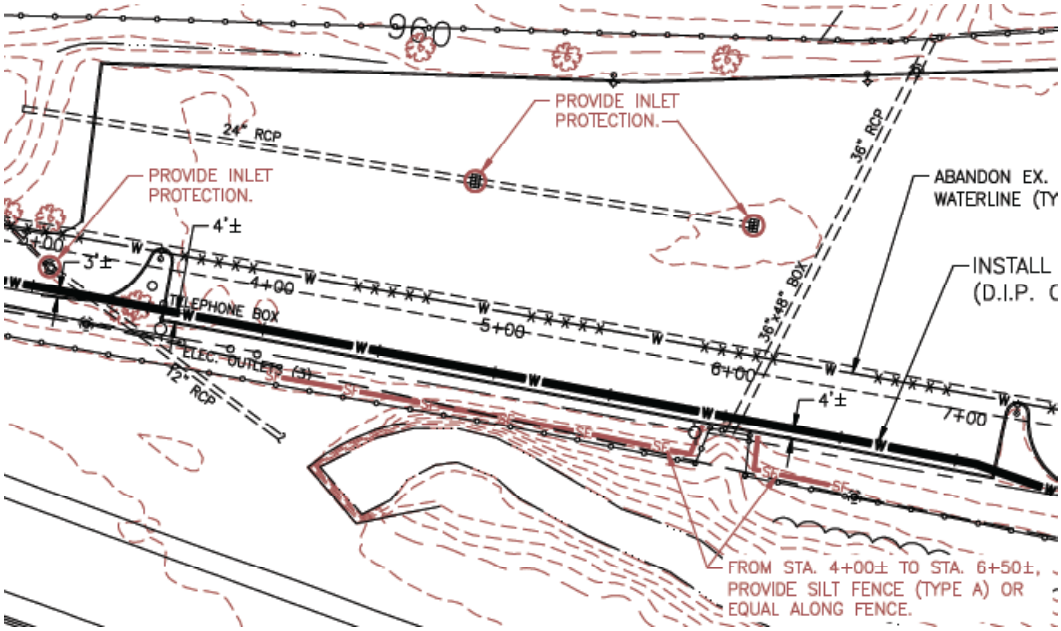
Notice of Coverage: The division will review NOIs for completeness and accuracy and issue an NOC to site-wide primary operators, authorizing SW discharge from the construction site as of the effective date of the NOC. New subsequent operators will not receive an NOC, but are considered covered under the permit when their permit record is published on TDEC's dataviewer as "active" and with an effective date. TDEC Permit Dataviewer can be found at: http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34001:0

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 Pkwy, Suite 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

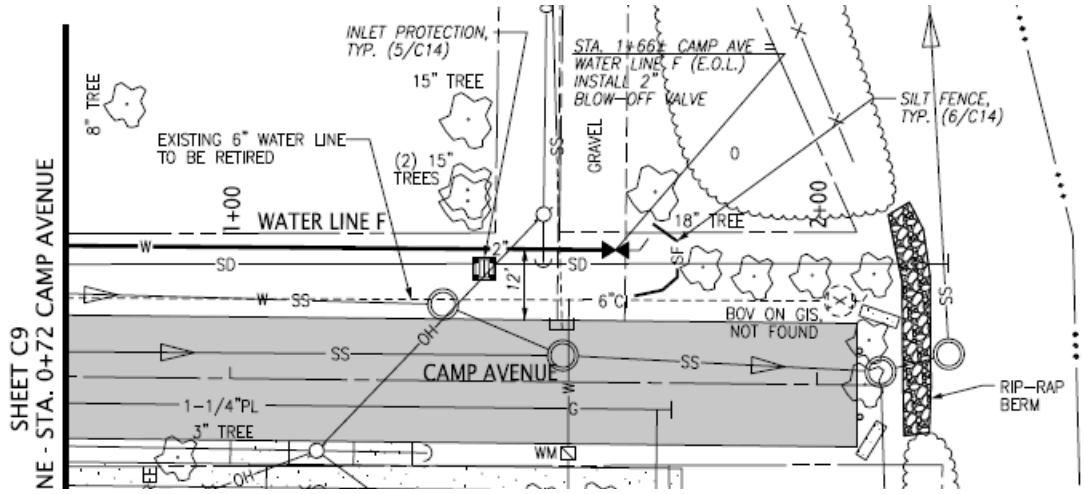
APPENDIX C:

EXAMPLE EXCERPTS FROM PLANS
STANDARD PLAN NOTES
STANDARD DETAILS

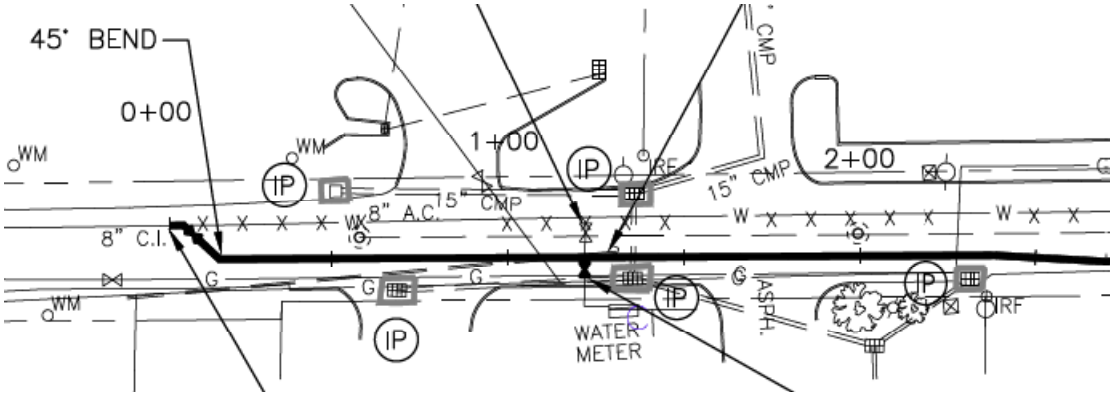
Example Excerpts from KUB Waterline Replacement Plans



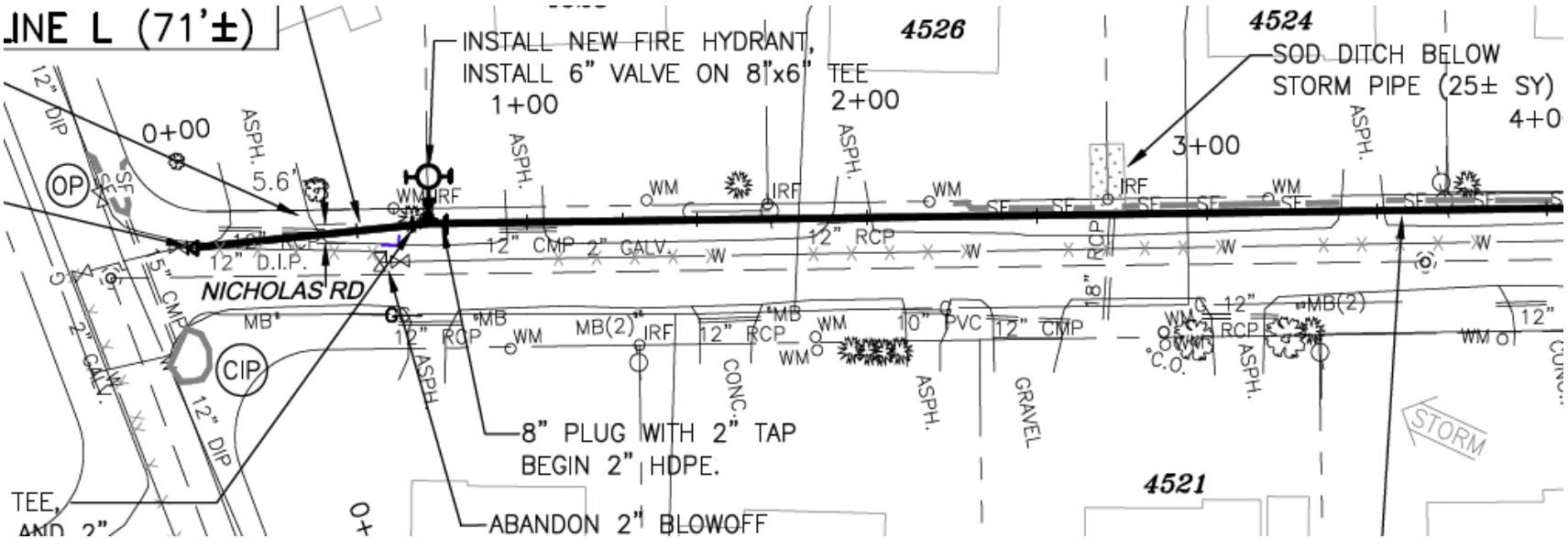
Example 1. Excerpt of Waterline Replacement Design Plan Showing Inlet Protection and Silt Fence Locations



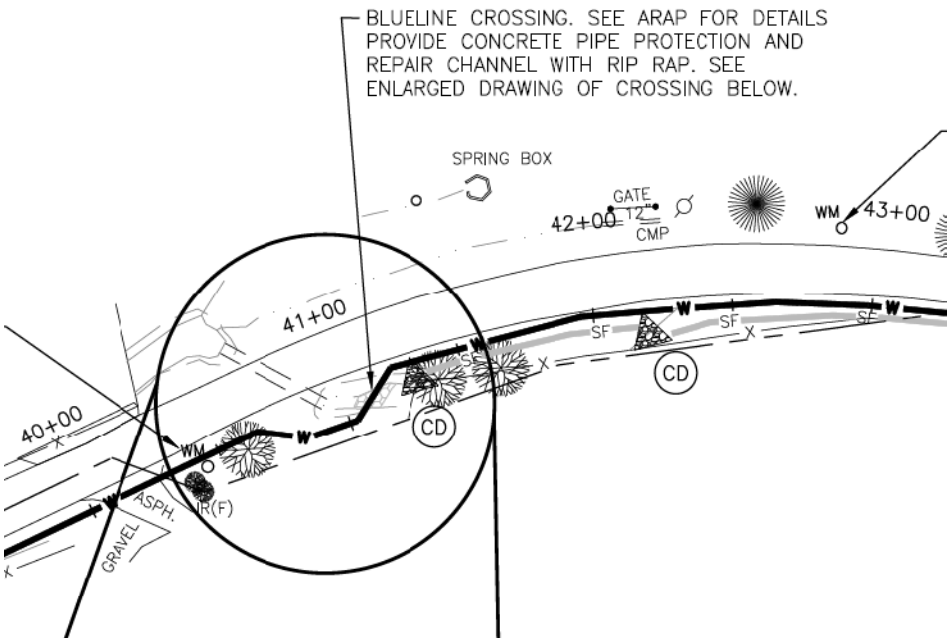
Example 2. Excerpt of Waterline Replacement Design Plan Showing Inlet Protection, Silt Fence, and Rip-Rap Berm

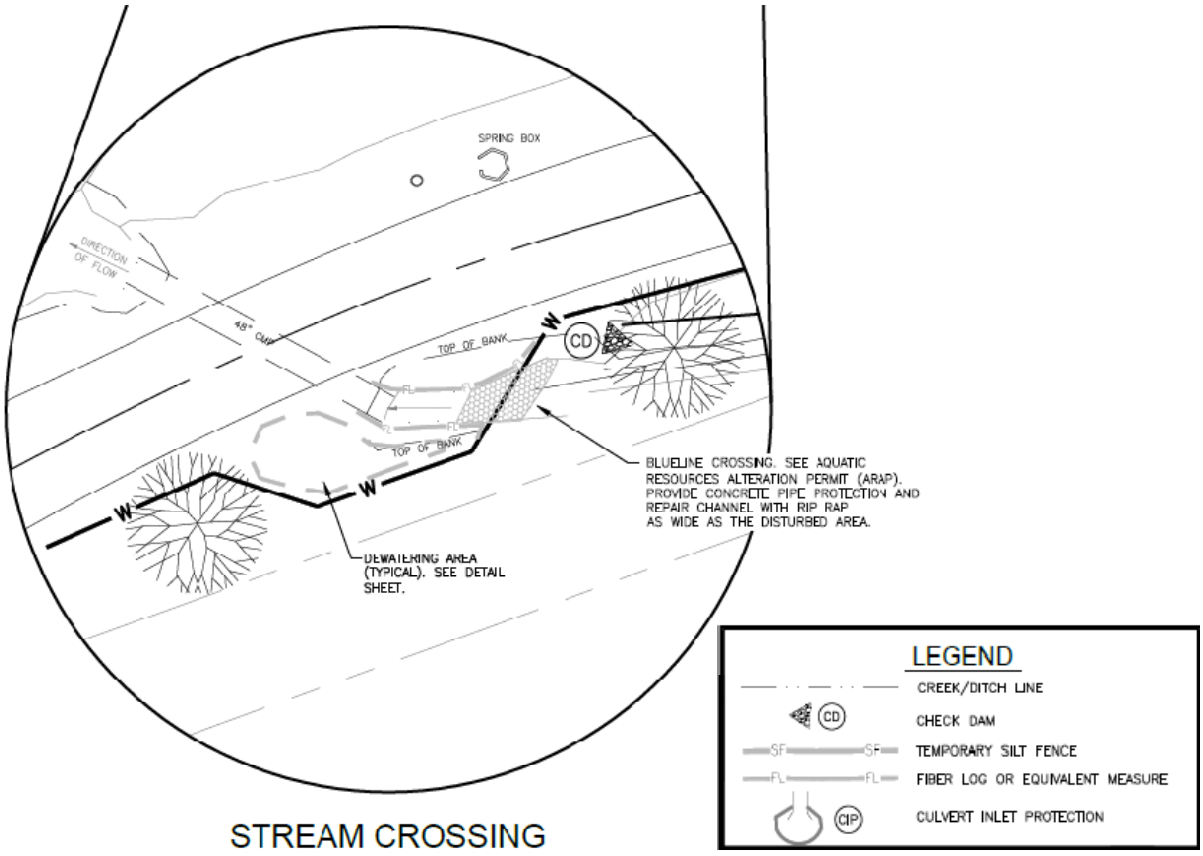


Example 3. Excerpt of Waterline Replacement Design Plan Showing Inlet Protection



Example 4. Excerpt of Waterline Replacement Design Plan Showing Inlet Protection, Culvert Inlet Protection, Outlet Protection, Silt Fence and Sod





STREAM CROSSING

Example 5. Excerpt of Waterline Replacement Design Plan Showing Check Dam, Silt Fence, Dewatering Area and Stream Crossing

Standard Waterline Replacement Design Plan Notes

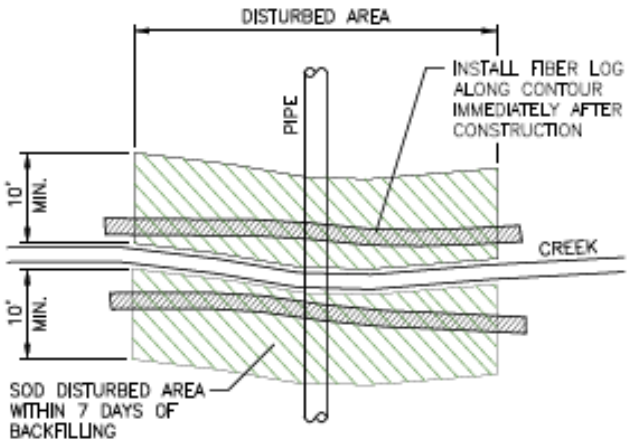
SEDIMENT & EROSION CONTROL NOTES

1. OWNER: KUB – PO BOX 59017, KNOXVILLE, TN 37950–9017
2. 24–HOUR EMERGENCY CONTACT:
3. THIS PROJECT INCLUDES THE OPEN–CUT INSTALLATION OF
4. TOTAL DISTURBED AREA IS APPROXIMATELY ___ ACRES.
5. ALL CONSTRUCTION LIES ABOVE THE 100 YEAR FLOOD HAZARD.
6. EROSION AND SEDIMENT CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR COMPLIANCE, INSTALLATION, MAINTENANCE AND REMOVAL. CONTROLS SHALL BE CONSISTENT WITH THE TDEC EROSION AND SEDIMENT CONTROL HANDBOOK.
7. THE EROSION CONTROLS MUST BE INSTALLED ALONG THE PIPE LINE ALIGNMENT WHERE THEY ARE NEEDED AND REMOVED WHEN THE AREA HAS BEEN STABILIZED. CHANGES MAY BE MADE TO IMPROVE EROSION AND SEDIMENT CONTROLS.
8. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
9. SILT FENCE SHALL BE INSTALLED AS REQUIRED TO PREVENT SEDIMENT FROM THIS PROJECT BEING DEPOSITED ON ADJACENT PROPERTY.
10. DISTURBED AREAS SHALL BE RESTORED TO NEAR ORIGINAL CONDITION (CONCRETE, ASPHALT, GRASS, ETC.).
11. CONTRACTOR SHALL NOT INSTALL SEDIMENT TRAPS SHOULD POTENTIAL EXIST FOR PAVEMENT FLOODING AND/OR WATER DAMAGE TO ADJACENT PROPERTY.
12. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED BY THE CONTRACTOR AT THE END OF EACH DAY'S WORK AND AT THE END OF EACH AND EVERY RAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND OR REMOVAL OF ACCUMULATED SILTS AND SEDIMENTS FROM THE EROSION AND SEDIMENT CONTROL DEVICES. (CONT.)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF SAID STRUCTURES. ALL SILTS AND/OR SEDIMENTS REMOVED FROM THE EROSION/SEDIMENT CONTROL DEVICES SHALL BE DEPOSITED ON SITE IN SUCH A MANNER AS TO PREVENT SAID SILTS AND/OR SEDIMENTS FROM REENTERING THE CONTROL DEVICES AND OR EXITING THE SITE THROUGH THE STORM DRAINAGE SYSTEMS AND/OR SURFACE DRAINAGE.

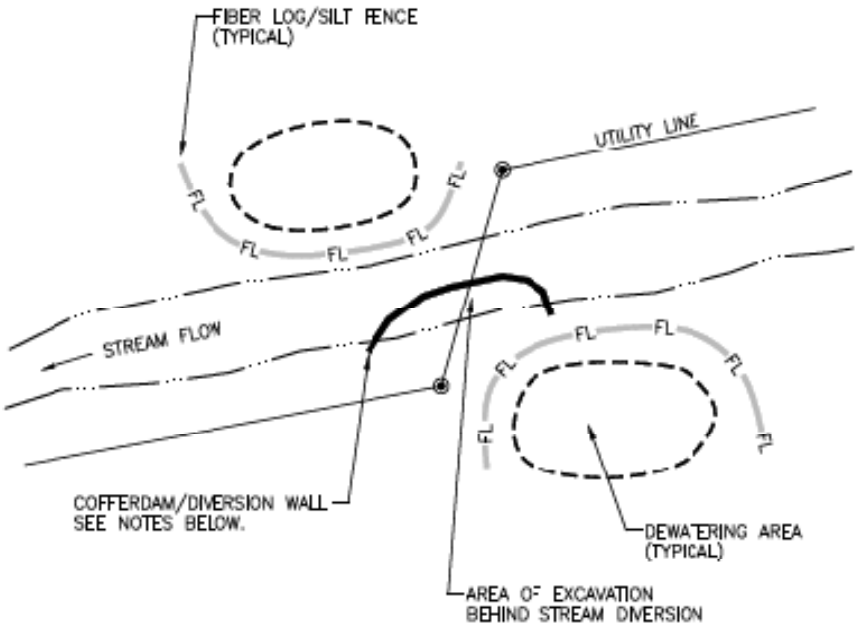
13. FAILURE TO INSTALL, OPERATE AND/OR MAINTAIN ALL EROSION CONTROL MEASURES SHALL BE JUSTIFICATION TO STOP CONSTRUCTION ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED IN ACCORDANCE WITH APPROVED PLANS OR AS DIRECTED BY THE OWNER.
14. THE CONTRACTOR SHALL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ON SITE ONTO PUBLIC ROADWAYS OR INTO STORM DRAINS SHALL BE REMOVED IMMEDIATELY.
15. UPON PIPE INSTALLATION, DISTURBED SOIL SHALL BE STABILIZED WITH TEMPORARY COVER OR PERMANENT VEGETATION AS REQUIRED EVERY TWO WEEKS AND PRIOR TO ANY RAIN EVENT.
16. MATERIAL STAGING AREA SHALL BE ENCOMPASSED WITH SILT FENCE IF THE AREA IS DISTURBED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL EROSION CONTROLS CREATED BY DRAINAGE PATTERNS AT VARIOUS STAGES DURING CONSTRUCTION. DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE RPR IMMEDIATELY.
18. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT BEFORE THE SILT IS WITHIN 12–INCHES OF THE TOP OF THE SILT FENCE UTILIZED FOR EROSION CONTROL.
19. STRAW MULCHING SHALL BE USED WITH PERMANENT VEGETATION APPLICATIONS AND SHALL BE FREE OF WEED SEEDS AND SPREAD AT A RATE OF 90 POUNDS PER 1000 SQUARE FEET.
20. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL DISTURBED SOIL WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
21. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
22. IN STREETS AND OTHER PAVED AREAS, REMOVE EXCAVATED MATERIALS FROM THE SITE AS CONSTRUCTION PROGRESSES TO PREVENT ANY EROSION OF THE EXCAVATED MATERIAL. IN OTHER AREAS, PLACE THE EXCAVATED MATERIAL SO AS NOT TO BLOCK ANY DRAINAGE AREAS. REPLACE EXCAVATED MATERIAL IN THE TRENCH IMMEDIATELY AFTER WORK HAS BEEN COMPLETED AND APPROVED BY THE OWNER.
23. RETAIN NATURAL VEGETATION WHENEVER FEASIBLE.
24. RESTORE AND COVER EXPOSED AREAS SUBJECT TO EROSION AS QUICKLY AS POSSIBLE BY MEANS OF SEEDING AND MULCHING. FIBER MATTING MAY BE NECESSARY AS REQUIRED BY OWNER.
25. PLACE EXCAVATED SOIL DIRECTLY INTO TRUCKS OR STOCKPILE IT AWAY FROM PAVEMENT WHERE THE SPOIL PILE WILL NOT ERODE ONTO THE PAVEMENT. KEEP PAVEMENT FREE OF EXCAVATED SOIL AT ALL TIMES. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
26. FOR ALL WORK OUTSIDE OF PAVED AREAS, SEED AND STRAW DISTURBED SURFACES AS SOON AS PRACTICAL FOLLOWING TRENCH BACKFILL AND COMPACTION.

Standard Details for EPSCs



STREAM BANK STABILIZATION

N.T.S.



NOTES:

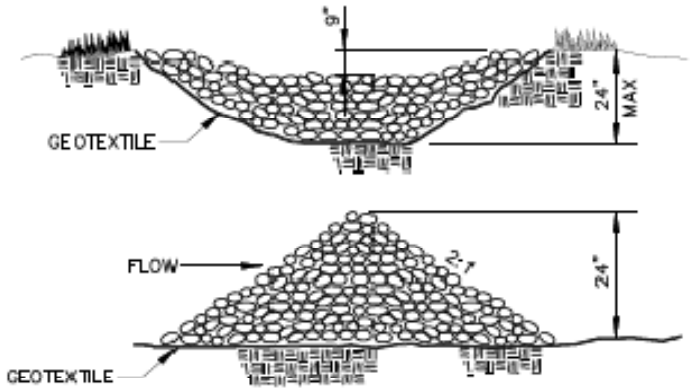
1. THE CONTRACTOR WHO WISHES TO BY-PASS PUMP THE STREAM FLOW, MAY OPT TO CONSTRUCT A DAM UPSTREAM AND DOWNSTREAM OF THE PROPOSED CROSSING. THE METHODS AND EQUIPMENT USED MUST PREVENT NUISANCE OR HAZARDOUS FLOODING IN THE PROJECT AREA.
2. IF CRUSHED STONE/RIP RAP IS USED TO CONSTRUCT THE DIVERSION STRUCTURE(S), IT SHALL BE SEPARATED FROM THE CREEK BED BY A GEOSYNTHETIC MATERIAL TO FACILITATE REMOVAL. NO ERODIBLE MATERIALS SHALL BE USED.
3. PROVIDE FILTERING BAGS AS NECESSARY TO TREAT WATER REMOVED FROM EXCAVATIONS.

TYPICAL STREAM DIVERSION

N.T.S.

L= THE DISTANCE SUCH THAT POINTS
A AND B ARE OF EQUAL ELEVATION

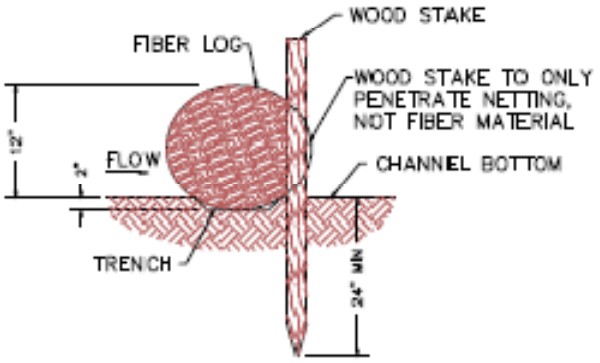
SPACING BETWEEN CHECK DAMS



ROCK CHECK DAM (CD)

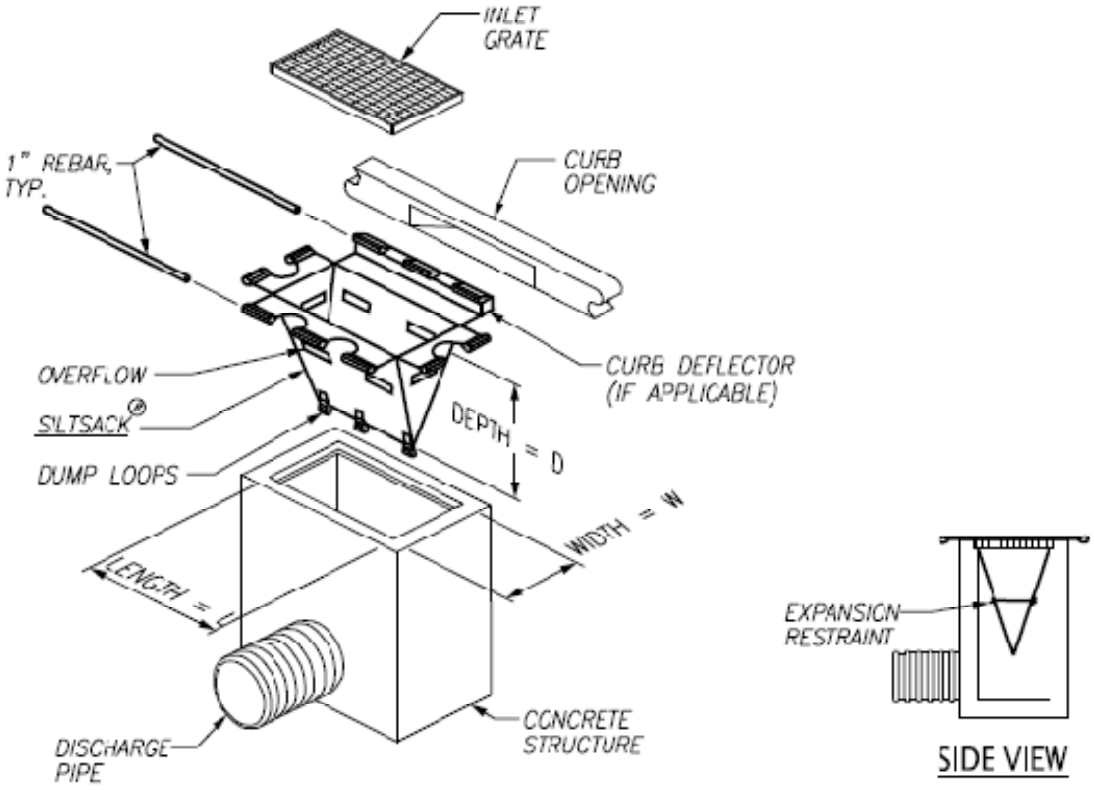
N.T.S.

INSTALL FIBER LOG IN ACCORDANCE
WITH MANUFACTURER'S RECOMMENDATIONS



FIBER LOG BARRIER

N.T.S.



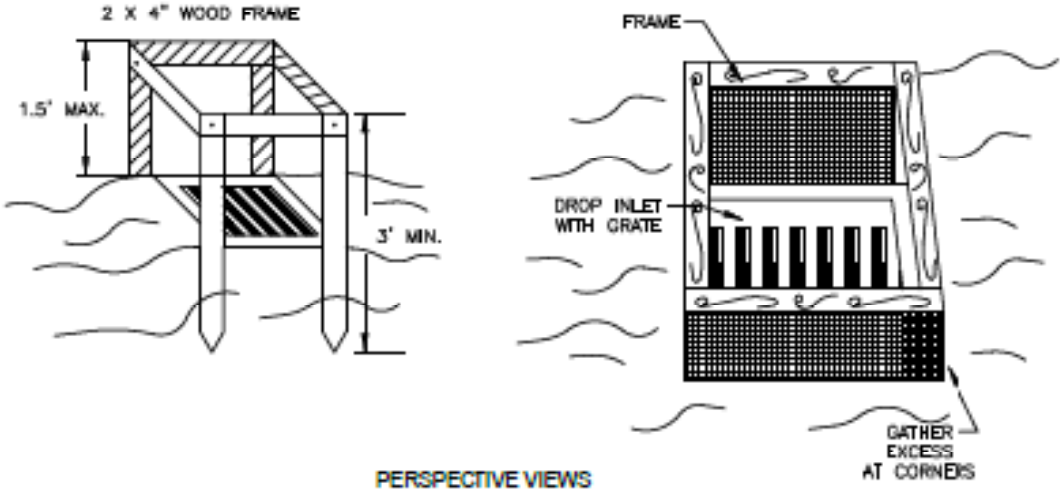
NOTES:

1. THE INLET SEDIMENT CONTROL DEVICE SHALL BE SILTSACK®, OR EQUIVALENT, FOR USE ON STORM STRUCTURES LOCATED IN PAVED AREAS WHERE THERE IS A POTENTIAL FOR RECEIVING SEDIMENT LADEN RUNOFF.

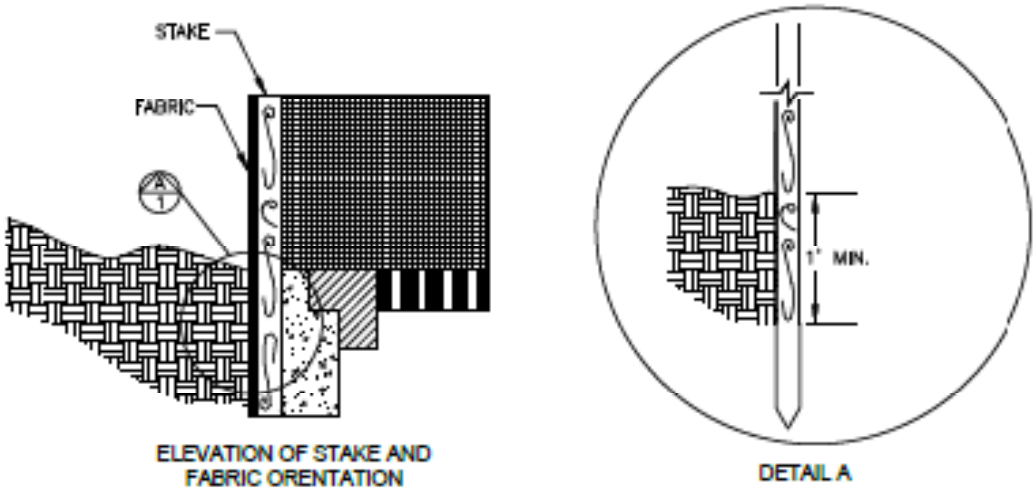
2. BMP MUST MEET OR EXCEED ALL REQUIREMENTS OF CITY OF KNOXVILLE BMP MANUAL. REFER TO: TEMPORARY INLET PROTECTION ES-24.

5 / C4-C11 INLET SEDIMENT CONTROL DEVICE

N.T.S.



PERSPECTIVE VIEWS



ELEVATION OF STAKE AND
FABRIC ORENTATION

DETAIL A

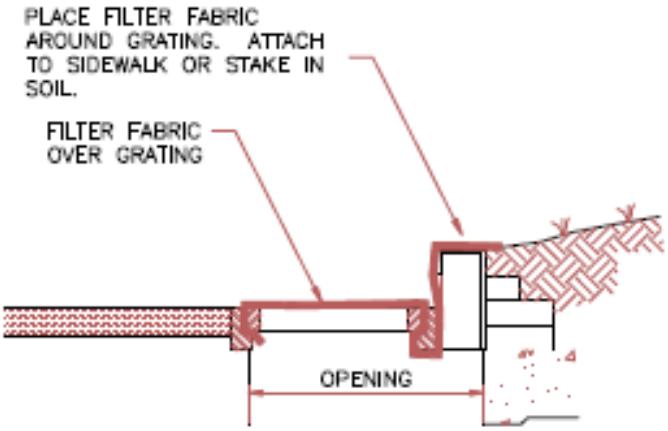
SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

SILT FENCE DROP INLET PROTECTION

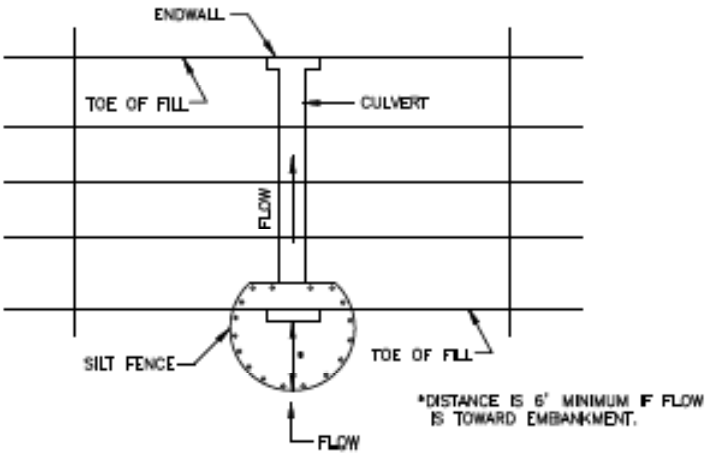
IP

N.T.S.

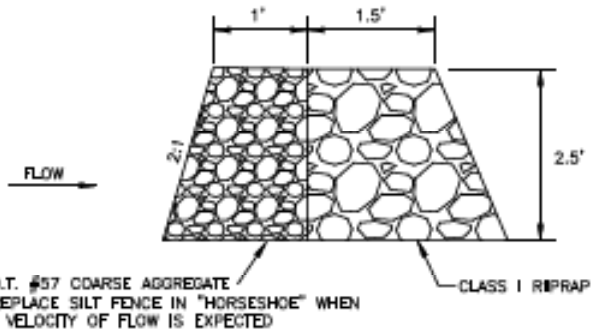


CURB INLET PROTECTION

N.T.S.



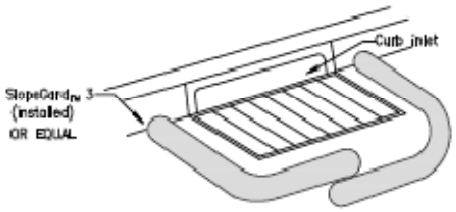
OPTIONAL STONE COMBINATION**



SILT FENCE CULVERT INLET PROTECTION

N.T.S.

CIP



NOTES:
1. Place an adequate number of SlopeGard 3 rolls around an inlet to provide complete protection. Leave approximately 3"–6" between the SlopeGard 3 rolls and the inlet. Ends should overlap about 12 inches.
2. Inspect inlet protection device before and after rain events, and weekly throughout the rainy season. During extended rain events, inspect at least once every 24 hours.
3. Remove and properly dispose of accumulated silt and debris to allow for proper function of device.

SLOPEGARD™ 3 SEDIMENTATION CONTROL DEVICE

KriStar Enterprises, Inc., Santa Rosa, CA (800) 579–8819

Model	Dia. (in)	Length (ft)	Weight (±10%) (lb/ft)	Sediment Retention Cap. (cu ft/ft)	Functional Life (mo)
SC–FR3	8	6	8.3	0.25	24–36

SlopeGard™ 3 Fiber Roll is made from curled wood (aspen) excelsior and they may be used on a slope to prevent erosion or they may be placed upstream of a drainage inlet to prevent sediment and debris from entering the inlet.

Key elements of installation are:

1. It is critical that the Fiber Rolls be installed perpendicular to the expected water flow (parallel to the slope contour).
2. Because they have a weighted core, the SlopeGard?3 Fiber Rolls do not have to be staked.
3. SlopeGard™ 3 Fiber Rolls are best suited for small gentle slopes or narrow shallow gullies. For other areas, Rice Straw or SlopeGard?1 Fiber Rolls are more appropriate.
4. On steeper slopes, dig small trenches across the slope on contour for the SlopeGard™ 3 Fiber Rolls. The trench should be deep enough to contain the bottom–half of the roll.
5. Commence the installation from the bottom of the slope and work uphill.
6. Lay the Fiber Rolls in the trenches, fitting them snugly against the soil insuring that no gaps exist between the roll and the near wall of the trench.
7. When Fiber Rolls are placed end–to–end, the ends of each roll should be snugly abutted to the end of the roll next to it.

Maintenance requirements vary with the application.

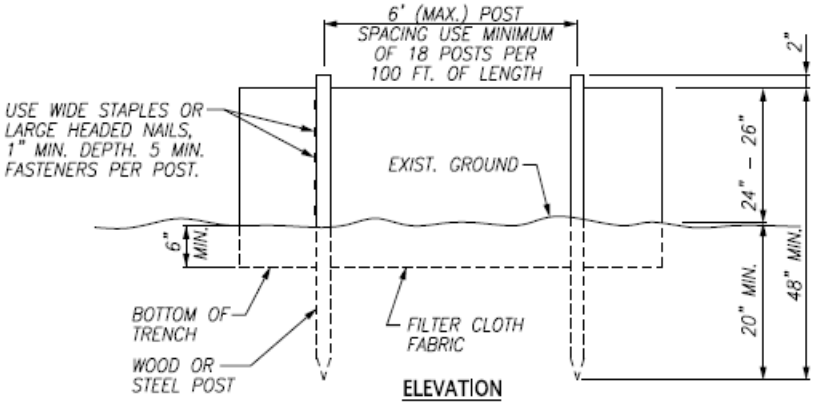
1. Slope–Gard™ 3 should be inspected before and after every rain event.
2. During extended rains, the device should be inspected every 24 hours.
3. The silt and debris should be removed when the depth exceeds three inches and disposed.

Specifications:

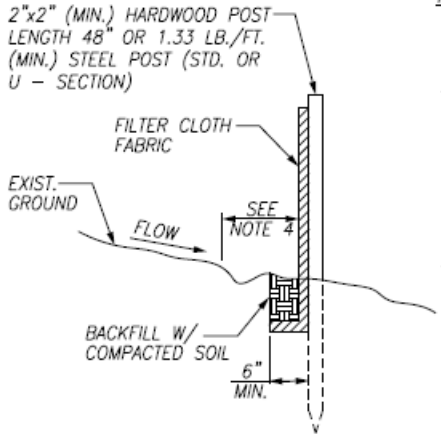
1. SlopeGard™ 3 fiber rolls are intended for placement around drainage inlets on construction sites or in areas subject to erosion to prevent sediment from entering the storm drain system.
2. SlopeGard™ 3 fiber rolls are assembled from a machined mat or blanket of shaved aspen wood curled excelsior with a weighted inner core contained in a photodegradable, extruded, "high visibility" netting tube and, for ease of handling, have a handle on each end. Excelsior material contains at least 80% of fibers at least 6 inches in length. SlopeGard?3 is available in either curled wood excelsior or optional reticulated polyurethane. The weighted inner core holds the device in place thereby eliminating the need for securing its place with either sandbags or stakes.
3. SlopeGard™ 3 is contained in a tubular orange netting with a strand thickness of about 0.03 per inch, a knot thickness of about 0.055 per inch and a weight of at least 0.35 oz/ft made from 85% high–density polyethylene and 14% ethyl vinyl acetate with titanium dioxide for UV inhibition.
4. The reticulated polyurethane is also available in safety orange to increase detection and to reduce the chances of tripping and damage from vehicles.
5. SlopeGard™ 3 is placed end–to–end in a circle around a construction site drainage inlet to prevent runoff and silt, sediment and debris from entering the inlet.

INLET PROTECTION (IP)

N.T.S.



ELEVATION



SECTION

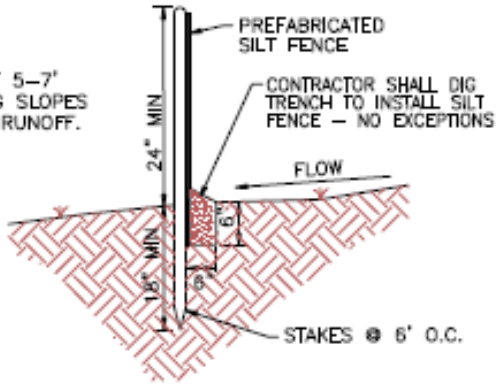
NOTES:

1. SILT FENCE SHALL BE PRE-ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
2. SILT FENCE SHALL HAVE AN APPROVED BACKING OR A BUILT-IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE GEOTEXTILE FABRIC.
3. ONCE PERMANENT VEGETATION IS ESTABLISHED, REMOVE THE SILT FENCE, BACKFILL TRENCH WITH TOPSOIL, AND APPLY SEED AND MULCH TO ALL DISTURBED AREAS. LEGALLY DISPOSE OF REMOVED FENCE OFF-SITE.
4. PLACE SILT FENCE AT LEAST 5 TO 7 FEET AWAY FROM STEEP OR LONG SLOPES TO IMPOUND STORMWATER RUNOFF.
5. POST SPACING SHALL BE 4 FEET MAXIMUM WITHIN A DRAINAGE CHANNEL.
6. TURN LAST 7 TO 10 FEET OF SILT FENCE UPHILL.
7. BMP MUST MEET OR EXCEED ALL REQUIREMENTS OF CITY OF KNOXVILLE BMP MANUAL. REFER TO: SILT FENCE ES-14.

6 / C4-C11 **SILT FENCE**

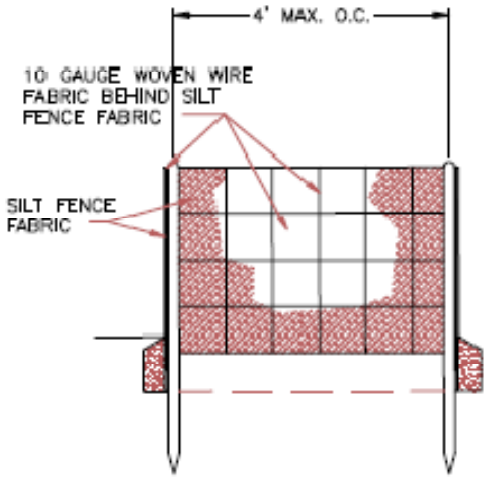
N.T.S.

PLACE SILT FENCE AT LEAST 5–7' AWAY FROM STEEP OR LONG SLOPES TO IMPOUND STORM WATER RUNOFF.



SILT FENCE

N.T.S.



WIRE FENCE REINFORCEMENT IS REQUIRED BELOW SLOPES THAT ARE OVER 8' HIGH, OR WHERE SILT FENCE IS INSTALLED IMMEDIATELY ADJACENT TO GRADING LIMITS. INSTALL REINFORCEMENT AT LOCATIONS WHERE WASHOUT OR HEAVY FLOW MAY OCCUR.

SILT FENCE REINFORCEMENT

N.T.S.

SEEDING REQUIREMENTS

DATES	TYPE & APPLICATION RATES
MAR. 1 – APR. 1	KY31 FESCUE – 8LBS/1000SF
APR. 2 – MAY 30	KY 31 FESCUE – 5LBS/1000SF
AUG. 15 – OCT. 1	KY31 FESCUE – 5LBS/1000SF
OCT. 2 – NOV. 20	KY31 FESCUE– 8LBS/1000SF

SEEDING SHALL NOT BE PERFORMED DURING OTHER PERIODS

FERTILIZER – 15LBS/1000SF

AGRICULTURAL LIMESTONE – 40LBS/1000SF

APPENDIX D:
KUB STANDARDS AND SPECIFICATIONS
SECTION 01570 EROSION PREVENTION AND SEDIMENT CONTROL

SECTION 01570
EROSION PREVENTION AND SEDIMENT CONTROL

PART 1. GENERAL

1.1 DESCRIPTION

A. This work shall consist of erosion prevention and sediment control on all cut and fill operations, excavation, backfill, or other construction activities within the limits of the construction site, within any temporary or permanent easements, and within any borrow site used during the period of construction. The protection of these sites shall continue throughout the construction period. During flood seasons, protect the sites by diverting stormwater, sandbagging, pumping water, and any other means appropriate to restrain flooding of project site and equipment. Minimize erosion by phasing disturbances and/or by utilizing straw, mulch, and other stabilizers where possible. During dry weather, sprinkle the sites with water, surfactants and/or other means as necessary to provide dust control.

B. The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion prevention and sediment control features, to ensure economical, effective, and continuous erosion prevention and sediment control throughout the construction and post-construction periods.

C. CONTRACTOR is responsible for ensuring that construction means and methods are performed in a manner that utilizes best management practices in conformance with all applicable environmental laws, regulations, and any and all approved permits, such as the NPDES Storm Water Construction Permit and the City of Knoxville Site Development Permit.

D. CONTRACTOR is responsible for installation, inspections, and maintenance of any and all required erosion prevention and sediment control for PROJECT. For projects covered under TDEC's *General NPDES Permit for Discharges of Storm Water Associated with Construction Activities* (i.e., projects greater than one acre and/or part of the Pace 10 or Century II water Programs), the following specific requirements apply:

- Certification for sediment and erosion control inspectors must be included in the on-site Storm Water Pollution Prevention Plan (SWPPP). Therefore, CONTRACTOR will include copies of the certifications for sediment and erosion control inspectors in the submittal package, in accordance with requirements in Section 2.5.8.1 of TDEC's *General NPDES Permit for Discharges of Storm Water Associated with Construction Activities*.
- KUB will provide a copy of PROJECT SWPPP or SWPPP as submitted for approval for CONTRACTOR to review. CONTRACTOR will review and then sign on to PROJECT's Notice of Intent (NOI). Signature indicates that CONTRACTOR

understands and will adhere to the erosion prevention and sediment control requirements outlined in the SWPPP.

- CONTRACTOR will be solely responsible for payment of any fines or penalties from any regulatory agency enforcement due to a notice of non-compliance for storm water discharges.

E. CONTRACTOR shall submit completed TDEC erosion and sediment control inspection forms to KUB. All completed forms for the given month must be submitted electronically by the fifth day of the following month. Forms will be submitted by e-mail to ErosionControl@kub.org. Completed inspection forms shall be submitted in Adobe pdf format.

CONTRACTOR must be current and up to date with the TDEC erosion and sediment control inspection forms submittals to OWNER prior to submitting any given monthly Application for Payment. OWNER may at OWNERs sole discretion may suspend processing an Application for Payment until up to date TDEC erosion and sediment control inspection forms submittals are correctly filled out and received by OWNER.

PART 2. PRODUCTS

2.1 TEMPORARY BERMS: These berms are used temporarily at the top or base of newly constructed slopes to prevent excessive erosion until permanent controls are installed or slopes stabilized.

2.2 TEMPORARY SLOPE DRAINS: A temporary slope drain is a facility consisting of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half round pipe, metal pipe, plastic pipe, sod, or other material that may be used to carry water down slopes to reduce erosion.

2.3 SEDIMENT STRUCTURES: Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.

2.4 CHECK DAMS: Check dams are barriers composed of large stones, sand bags, or other noncorrodible materials placed across or partially crossing a natural or constructed drainway.

2.5 TEMPORARY SEEDING AND MULCHING: Temporary seeding and mulching is measures consisting of seeding, mulching, fertilizing, and matting utilized to reduce erosion. All cut and fill slopes including waste sites and borrow pits shall be seeded when and where necessary to eliminate erosion.

2.6 TEMPORARY SILT FENCES: Silt fences are temporary sediment barriers consisting of a filter fabric stretched across and attached to supporting posts and entrenched. The silt fence is constructed of synthetic filter fabric, posts, and depending upon the strength of the

fabric used, wire fence for support. The filter barrier is constructed of stakes and burlap or synthetic filter fabric in accordance with TDEC specifications SF-1 through SF-8.

PART 3. EXECUTION

3.1 PROJECT REVIEW: It is the responsibility of CONTRACTOR to follow the SWPPP developed by the design engineer and approved by the applicable regulatory agencies. If at any time OWNER deems it necessary or if CONTRACTOR observes problems during site inspections, CONTRACTOR shall provide additional erosion prevention and sediment control devices and mark changes on the applicable SWPPP. The site shall be provided with maximum protection from erosion at all times.

3.2 CONSTRUCTION REQUIREMENTS

A. In the event of conflict between these requirements and pollution control laws, rules or regulations, or other Federal, State, or Local agencies, the more restrictive laws, rules, or regulations shall apply.

B. In streets and other paved areas, remove excavated material from the site as construction progresses to prevent any erosion of this material.

C. In other areas, place the excavated material so as not to block any drainage areas. Replace excavated material in the trench immediately after work has been completed and approved by OWNER.

D. Dispose of all excavated materials that cannot be re-used in accordance with all applicable laws and regulations and with Section 02321, paragraph 3.13.

E. Retain natural vegetation whenever feasible.

F. Restore and cover exposed areas subject to erosion as quickly as possible by means of seeding and mulching. Where earth-disturbing activities have ceased permanently or will not be resumed for a period exceeding 14 days, stabilization measures must be implemented as soon as possible, but in no case later than 14 days after earth-disturbing activities have ceased. Use diversion ditches or other methods as appropriate to prevent storm water from running over the exposed area until seeding is established as specified. Fiber matting or other stabilizing materials may be necessary as required by OWNER.

G. Take particular care along streams and drainage ditches so that fallen trees, debris, and excavated material will not adversely affect the streamflow. Exercise care to minimize the destruction of streambanks. Wherever the streambanks are affected by construction, reduce the slope of the streambanks to provide a suitable condition for vegetative protection. Minimize land exposure in terms of area and time.

H. Take care during the placing of concrete, hauling of materials, etc., to keep vehicles from creating a severe erosion problem. Proper scheduling of operations and prompt repair of ruts created during this operation is necessary.

I. When working in TDOT R.O.W., CONTRACTOR should notify TDOT of erosion prevention and sediment control intentions to eliminate watershed and sediment diversions onto roadway.

3.3 CONSTRUCTION OF STRUCTURES

A. The most up-to-date Best Management Practices (BMPs) from TDEC and the City of Knoxville should be followed, as appropriate.

3.4 MAINTENANCE: The temporary erosion prevention and sediment control features installed by CONTRACTOR shall be acceptably maintained by CONTRACTOR until no longer needed or permanent erosion prevention and sediment control methods are installed. The temporary erosion prevention and sediment control materials shall be moved and become the property of CONTRACTOR.

3.5 EROSION PREVENTION AND SEDIMENT CONTROL OUTSIDE PROJECT AREA: Temporary pollution control shall include construction work outside the project area where such work is necessary as a result of construction such as borrow pit operations, haul roads, and equipment storage sites.

END OF SECTION

APPENDIX E:

KUB JOB AID: EROSION PREVENTION AND SEDIMENT CONTROL INPECTION AND DOCUMENTATION

Job Aid:
Erosion Prevention and Sediment Control Inspection Documentation

Project #

Program: Stormwater Pollution Prevention Plan
Department: Engineering
Owner: Vice President, Engineering

Document Status: Final
Approved by: Julia B. Childers
Released Date: 7/23/2012

The purpose of this Job Aid is to describe the roles and responsibilities related to erosion prevention and sediment control (EPSC) inspection and documentation. The Knoxville Utilities Board (KUB) has created this process to better document compliance with the Tennessee NPDES General Permit for Discharges of Storm Water Associated with Construction Activities (CGP) and establish standardized record-keeping procedures. This document applies to all KUB projects that require a Tennessee Department of Environment and Conservation (TDEC) Notice of Coverage (NOC).

▶ **To ensure compliance with the Storm Water Pollution Prevention Plan (SWPPP), each involved party should adhere to the following guidelines:**

Involved Parties	There are four main groups responsible for various tasks related to EPSC documentation. These groups consist of contractors, project inspectors, a KUB auditor and KUB project managers. The roles of these parties are outlined below. The process is intended to provide multiple checks and balances in order to ensure compliance with the SWPPP.
Contractors	Contractors performing work on KUB projects that require a NOC are required to perform and document twice weekly EPSC inspections. The standardized TDEC inspection form is shown in Appendix A and must be utilized for all inspections. The prime contractor has responsibility for the site and is also required to co-sign the Notice of Intent (NOI) with KUB. Contractors must have a certified inspector perform each inspection. Certification consists of successful completion of the Level 1 Certification Class (Fundamentals of Erosion Prevention and Sediment Control for Construction Sites) offered through TDEC and continuing recertification as required. Each standardized TDEC inspection form should be completed and signed by the inspector. Any deficiencies noted on the form should be corrected in a timely manner as described in the SWPPP. TDEC inspection forms for each month must be submitted to KUB by the fifth day of the following month. They must be submitted electronically in Adobe pdf format. Forms should be e-mailed to ErosionControl@kub.org. Twice weekly inspections must continue until the Notice of Termination (NOT) is accepted by TDEC and all erosion and sediment control devices are removed from the site. All forms must be submitted to KUB. It should be noted that the NOT may be submitted after final completion of the project. It is the contractor's responsibility to ensure the inspections are completed and submitted until the NOT has been accepted by TDEC.

Project Inspectors	Inspectors assigned to specific projects are responsible for completing the inspection form shown in Appendix B. Project inspectors performing erosion and sediment control inspections must be certified through the TDEC Level 1 Certification Class. The role of the project inspector generally consists of performing independent erosion and sediment control inspections and ensuring that contractors are completing the required twice weekly TDEC inspections. They should work with the contractor and project manager to resolve any stormwater-related deficiencies noted on their or the contractor's inspection forms. Project inspectors are required to complete one erosion and sediment control inspection form per week per project. Their team leaders are then responsible for collecting these inspection forms and submitting them electronically on a biweekly basis to ErosionControl@kub.org.
Audit	A KUB auditor will perform an independent erosion and sediment control inspection of all projects covered under an NOI. Each project will be inspected at least quarterly. The auditor will, at a minimum, be TDEC Level I Certified. The auditor will complete the form shown in Appendix C. They will also send the project manager and inspector an e-mail detailing the results of their inspection. Any noted deficiencies will be outlined in the e-mail. The auditor will place an electronic copy of their completed inspection form in the KUB Project Management Database (PMD).
Project Managers	Project managers will be responsible for ensuring that inspections are being submitted by contractors and project inspectors. Project Managers involved with projects requiring a NOC are generally required to maintain TDEC Level I certification as part of KUB's required training program. They will also be responsible for working with the contractor and project inspector to resolve erosion and sediment control issues as they arise. Failure of the contractor to submit completed inspection forms in a timely manner can result in withholding of pay applications and/or other disciplinary actions. Project managers will determine if contractors are adequately completing and submitting erosion and sediment control inspections.
Documentation of Inspections	Electronic copies of inspections performed by contractors, project inspectors and the KUB auditor will be kept on file for at least 3 years. They will be kept in the KUB Project Management Database with their respective project. Within the KUB PMD, each project will have a folder named Erosion Control. This folder will have three subfolders named "Contractor", "Inspector" and "Audit". Inspection forms will be stored in their respective subfolders, and will be accessible through a hotlink in the KUB Project Management Database and via the intrashares files. Administrative staff in the Engineering Department will separate and file inspection forms received through the ErosionControl@kub.org e-mail box.

Appendix A: Standardized TDEC Inspection Form

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Pollution Control (WPC)
6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)
General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Site or Project Name:			**NPDES Tracking Number: TNR**	
Primary Permittee Name:			Date of Inspection:	
Current approximate disturbed acreage:		Has rainfall been checked/documented daily? ☐Yes ☐ No	Name of Inspector:	
Current weather conditions:			Inspector's TNEPSC Certification Number:	

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Twice-weekly inspection documentation

☐ Site contact information ☐ 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?	☐Yes	☐No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?	☐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 per section 5.3.2?	☐Yes	☐No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	☐Yes	☐No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4? If "No", describe below the measures to be implemented to address deficiencies.	☐Yes	☐No
6.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No", describe below each location and measures taken to stabilize the area(s).	☐Yes	☐No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters per section 4.1.5? If "No", describe below the measures to be implemented to address deficiencies.	☐Yes	☐No
8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No", describe below the measures to be implemented to address deficiencies. ☐ N/A	☐Yes	☐No
9.	Have all previous deficiencies been addressed? If not, describe the remaining deficiencies in the Comments section. ☐ Check if deficiencies/corrective measures have been reported on a previous form.	☐Yes	☐No

Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this report and all attachments are, 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.

Inspector Name and Title:	Signature:	Date:
Permittee Name and Title:	Signature:	Date:

Construction Stormwater Inspection Certification Form (Twice-Weekly Inspections)

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2. of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week 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.

Inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. (http://www.tnepsc.org/). A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, as defined in section 3.5.8.1 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally 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 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 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 B: Project Inspector Inspection Form

Assessment of Contractor's Sediment and Erosion Control Practices

NPDES No: _____

Project Name:	Date of Assessment:
Contractor Name:	Inspector Name:
Contractor Phone #:	Company:
Date of Last Rain Event:	Title:
Current Weather Conditions:	Intensity: Light / Moderate / Heavy

Documentation

	Document	Yes	No	Comments (If "No")
1 .	Have all contractors working on this site signed the Notice of Intent (NOI)?	☐	☐	
2 .	Have the Contractor's Sediment and Erosion Control inspections been completed by a certified inspector or as required by the SWPPP?	☐	☐	
3 .	Does the Contractor have copies of the SWPPP, Notice of Coverage, and inspection records readily available at or near the site?	☐	☐	
4 .	Has the Contractor identified and repaired all inadequate controls per the SWPPP requirements?	☐	☐	
5 .	Has the Contractor identified all Sediment and Erosion Control modifications on the approved project plans?	☐	☐	
6 .	I have visually inspected all Sediment and Erosion Controls to ensure they are installed per the plan drawing and there are no defects.	☐	☐	
7 .	Are there any identifiable SWPPP deficiencies, i.e. unprotected disturbed areas (slopes and stockpiles included), active or previous discharges, sediment in streets, project related litter, spills, improperly stored materials, etc?	☐	☐	
8	I have followed up with the Contractor on any deficiencies noted in items 4 and 7.	☐	☐	

Signature: _____ Date: _____

Appendix C: KUB Auditor Inspection Form

Assessment of Contractor's Sediment and Erosion Control Practices

NPDES No: _____

Project:	Date of Assessment:
Contractor:	Auditor Name:
Project Inspector:	
Project Control #:	
Date of Last Rain Event:	
Current Weather Conditions:	Intensity: Light / Moderate / Heavy

Documentation

	Document	Yes	No	Comments (If "No")
1 .	Visually inspected Erosion Prevention and Sediment Control devices per design drawings.	☐	☐	
2 .	Observed EPSC deficiencies.	☐	☐	
3 .	If any, were deficiencies from last inspection corrected?	☐	☐	
4 .	Documented inspection in PMD and notified project manager and inspector of inspection.	☐	☐	

Signature: _____ Date: _____

APPENDIX F:
303(D) LISTED WATERS IN KNOX COUNTY

Holston River Basin

This basin contains the following USGS Hydrologic Unit Codes: 06010104 (Holston River).

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010104 001 - 0100	LOVE CREEK	Knox	9.7	Nitrate+Nitrite Loss of biological integrity due to siltation Other Anthropogenic Habitat Alterations Escherichia coli	M L L H	Discharges from MS4 area	Stream is Category 5. (One or more uses impaired.)
TN06010104 001 - 0500	ROSEBERRY CREEK	Knox	20.0	Escherichia coli	NA	Pasture Grazing Septic Tanks	Category 5. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010104 001 - 0800	LOST CREEK	Jefferson	26.8	Nitrate+Nitrite Loss of biological integrity due to siltation Escherichia coli	M L NA	Pasture Grazing Septic Tanks	Category 5. Approved pathogen TMDL addresses some of the known pollutants.
TN06010104 001 - 0900	BEAVER CREEK	Jefferson	21.0	Alteration in stream-side or littoral vegetative cover Escherichia coli	L NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010104 001 - 1400	SWANPOND CREEK	Knox	16.3	Loss of biological integrity due to siltation Alteration in stream-side or littoral vegetative cover Escherichia coli	L L NA	Channelization Discharges from MS4 Area	Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN06010104 001 – 2000	HOLSTON RIVER	Grainger Jefferson	26.9	Low DO Flow alteration	L NA	Upstream Impoundment	Below Cherokee Reservoir. Category 5, flow alteration is 4c (impact not caused by a pollutant). Habitat for federally listed pink mucket pearly mussel (Lampsilis abrupta).
TN06010104 004 – 2000	CHEROKEE RESERVOIR (UPPER)	Hawkins Hamblen	2,816 ac	Mercury	L	Atmospheric Deposition Sources Outside the State	Category 5. Assistance from EPA is needed for TMDLs which include atmospheric deposition.
TN06010104 004T - 0600	UNNAMED TRIB TO RED HOUSE BR. EMBAYMENT	Hawkins	1.5	Loss of biological integrity due to siltation	L	Sand/Gravel/Rock Quarry	Category 5. (One or more uses impaired.)
TN06010104 004T - 0800	STONE MOUNTAIN BRANCH	Hawkins	2.11	Loss of biological integrity due to siltation Escherichia coli	L H	Pasture Grazing Undetermined Source	Stream is Category 5. (One or more uses impaired.)
TN06010104 004T - 0900	RENFROE CREEK	Hawkins	6.9	Escherichia coli	H	Pasture Grazing	Stream is Category 5. (One or more uses impaired.)
TN06010104 004T - 1100	STOCK CREEK	Hawkins	4.2	Alteration in stream-side or littoral vegetative cover	L	Pasture Grazing	Stream is Category 5. (One or more uses impaired.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010104 011 - 2000	HOLSTON RIVER	Hawkins	23.9	Mercury	L	Sources Outside the State Atmospheric Deposition	Category 5. EPA assistance is requested for atmospheric deposition TMDLs.
TN06010104 015 - 0500	CANEY CREEK	Hawkins	10.7	Escherichia coli	H	Pasture Grazing	Category 5.
TN06010104 015 - 0600	STANLEY CREEK	Hawkins	7.7	Escherichia coli	H	Pasture Grazing	Category 5.
TN06010104 015 - 0700	UNNAMED TRIB TO BIG CREEK	Hawkins	2.28	Escherichia coli	H	Pasture Grazing	Category 5.
TN06010104 018 - 1000	RICHLAND CREEK	Grainger	26.7	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010104 019 - 0100	LITTLE FLAT CREEK	Knox	30.3	Escherichia coli	NA	Animal Feeding Operations (NPS)	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010104 019 - 1000	FLAT CREEK	Union Knox	16.3	Total Phosphorus Escherichia coli	M NA	Municipal Point Source Pasture Grazing	Category 5. EPA approved a pathogen TMDL that addresses a known pollutant.
TN06010104 019 - 2000	FLAT CREEK	Union Knox	2.8	Escherichia coli	NA	Pasture Grazing Collection System Failure	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.

Upper French Broad River Basin This basin contains the following USGS Hydrologic Unit Codes: 06010105 (Upper French Broad) and 06010106 (Pigeon River),

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010105 001 - 0100	CLEAR CREEK	Cocke	28.0	Nitrate+Nitrite Escherichia coli	M NA	Municipal Point Source Pasture Grazing	Category 5. EPA approved a pathogen TMDL.
TN06010105 001 - 0200	LONG CREEK	Cocke	19.6	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010105 001 – 1000	FRENCH BROAD RIVER	Cocke	4.08	Mercury	L	Atmospheric Deposition	Fishing advisory due to mercury in largemouth bass. Category 5.
TN06010105 003 – 1100	JOHNS CREEK	Cocke	1.45	Escherichia coli	NA	Septic Tanks	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.

Final Version 2014 303(d) LIST (Upper Tennessee River Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010201 015 – 0100	BACON CREEK	Loudon Monroe	10.2	Nitrate+Nitrite Alteration in stream-side or littoral vegetative cover Loss of biological integrity due to siltation Physical Substrate Habitat Alteration Escherichia coli	M NA NA M NA	Pasture Grazing Animal Feeding Operations (NPS) Channelization	Category 5. Impaired, but EPA approved pathogen and habitat alteration TMDLs for some of the known pollutants.
TN06010201 015 - 1000	SWEETWATER CREEK	Loudon	7.75	Escherichia coli	NA	Pasture Grazing Animal Feeding Operation (NPS)	Category 4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010201 015 - 2000	SWEETWATER CREEK	Loudon Monroe	10.13	Nitrate+Nitrite Total Phosphorus Loss of biological integrity due to siltation Alteration in stream-side or littoral vegetative cover Escherichia coli	M M M L NA	Municipal Point Source Channelization Pasture Grazing Land Development	Category 5. EPA approved a pathogen TMDL for some of the known pollutants.
TN06010201 015 - 3000	SWEETWATER CREEK	McMinn Monroe	8.68	Loss of biological integrity due to siltation Alteration in stream-side or littoral vegetative cover Escherichia coli	L L NA	Urbanized High Density Area Pasture Grazing	4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010201 020 - 1000	FORT LOUDOUN RESERVOIR	Knox Loudon	14066 ac	PCBs	NA	Contaminated Sediment	Fishing advisory due to PCBs. Category 4a. EPA approved a PCB TMDL for the known pollutant.
TN06010201 020 - 2000	FORT LOUDOUN RESERVOIR	Knox	534 ac	Mercury PCBs	L NA	Atmospheric Deposition Contaminated Sediment	Fishing advisory due to mercury and PCBs. Category 5. EPA approved a PCB TMDL for some of the known pollutants.
TN06010201 026 – 0100	RODDY BRANCH	Blount Knox	6.4	Alteration in stream-side or littoral vegetative cover Physical Substrate Habitat Alteration Loss of biological integrity due to siltation Escherichia coli	NA NA NA NA	Pasture Grazing Channelization	Stream is Category 4a. One or more uses impaired, but EPA has approved pathogen, siltation, and habitat alteration TMDLs that address the known pollutants.
TN06010201 026 – 0110	CANEY BRANCH	Blount	1.43	Physical Substrate Habitat Alteration	NA	Pasture Grazing	Category 4a. EPA approved a habitat alteration TMDL for the known pollutants.

Final Version 2014 303(d) LIST (Upper Tennessee River Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010201 032 – 0700	DRY BRANCH	Blount	3.31	Escherichia coli	NA	Undetermined Source	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 032 – 0800	SHORT CREEK	Blount	10.7	Nitrate+Nitrite	M	Undetermined Source	Category 5. TMDLs needed.
TN06010201 032 – 0820	TIPTON BRANCH	Blount	2.5	Alteration in stream-side or littoral vegetative cover Loss of biological integrity due to siltation	NA NA	Upstream Impoundments	Category 4a. Impaired, but EPA approved a siltation/habitat alteration TMDL for the known pollutants.
TN06010201 033-0100	LITTLE ELLEJOY CREEK	Blount	14.7	Nitrate+Nitrite Escherichia coli	M NA	Pasture Grazing Animal Feeding Operation	Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutants.
TN06010201 033 – 0200	PITNER CREEK	Blount	13.5	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010201 033 - 1000	ELLEJOY CREEK	Blount	14.78	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses known pollutant.
TN06010201 033 - 2000	ELLEJOY CREEK	Blount	5.37	Nitrate+Nitrite Loss of biological integrity due to siltation Escherichia coli	M NA NA	Pasture Grazing	Category 5. EPA approved siltation and pathogen TMDLs that address some of the known pollutants.
TN06010201 034 - 0200	WILDWOOD BRANCH	Blount	6.26	Alteration in stream-side or littoral vegetative cover Escherichia coli	NA NA	Pasture Grazing	Category 4a. Impaired, but EPA has approved pathogen and habitat alteration TMDLs that address known pollutants.
TN06010201 034 – 1000	NAILS CREEK	Blount Sevier	24.5	Escherichia coli	NA	Pasture Grazing	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 037 – 1000	LITTLE TURKEY CREEK	Knox	14.0	Loss of biological integrity due to siltation	NA	Discharges from MS4 area	Category 4a. EPA has approved a siltation TMDL that addresses the known pollutant.
TN06010201 038 – 1000	TOWN CREEK	Loudon	12.9	Loss of biological integrity due to siltation Escherichia coli	NA H	Discharges from MS4 area	Category 5. EPA approved a siltation TMDL for some of the known pollutants.
TN06010201 040 –0600	BLACK CREEK	Roane	16.7	Total Phosphorus Physical Substrate Habitat Alterations Escherichia coli	M NA H	Municipal Point Source Urbanized High Density Area Pasture Grazing Collection System Failure Channelization	Category 5. EPA approved a habitat TMDL for some of the known pollutants.

Final Version 2014 303(d) LIST (Upper Tennessee River Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority	Pollutant Source	COMMENTS
TN06010201 041 – 2000	PINEY CREEK	Rhea	12.8	Loss of biological integrity due to siltation L	Nonirrigated Crop Production	Category 5.
TN06010201 064 – 1000	STAMP CREEK	Roane	13.4	Escherichia coli H	Pasture Grazing	Category 5. TMDL needed.
TN06010201 065 – 1000	STEEKEE CREEK	Loudon	11.0	Escherichia coli NA	Pasture Grazing	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 066 – 0100	CASTEEL BRANCH	Knox	0.95	Loss of biological integrity due to siltation NA	Pasture Grazing Discharges from MS4 area	Category 4a. Impaired, but EPA approved a siltation TMDL for the known pollutant.
TN06010201 066 – 0200	TWIN BRANCH	Knox	1.87	Alteration in stream-side or littoral vegetative cover NA Loss of biological integrity due to siltation NA	Pasture Grazing Discharges from MS4 area	Category 4a. Impaired, but EPA approved siltation and habitat alteration TMDLs that address the known pollutants.
TN06010201 066 – 0400	GRANDVIEW BRANCH	Knox	1.7	Escherichia coli NA	Discharges from MS4 area	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 066 – 0500	McCALL BRANCH	Knox	1.73	Loss of biological integrity due to siltation NA	Discharges from MS4 area Streambank Modification	Category 4a. Impaired, but EPA approved a siltation TMDL for the known pollutant.
TN06010201 066 – 0600	HIGH BLUFF BRANCH	Knox	1.25	Escherichia coli NA	Discharges from MS4 area	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 066 – 1000	STOCK CREEK	Knox	3.77	Escherichia coli NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010201 066 – 1200	GUN HOLLOW BRANCH	Knox	1.36	Escherichia coli NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010201 066 – 2000	STOCK CREEK	Knox	1.98	Escherichia coli NA	Pasture Grazing	Category 4a. Impaired, but EPA approved a pathogen TMDL for the known pollutant.
TN06010201 067 – 0100	EAST FORK THIRD CREEK	Knox	2.78	Loss of biological integrity due to siltation NA Other Anthropogenic Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Urbanized High Density Area Land Development Collection System Failure	Category 4a. EPA approved siltation, pathogen, and habitat alteration TMDLs that address the known pollutants.

Final Version 2014 303(d) LIST (Upper Tennessee River Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority	Pollutant Source	COMMENTS
TN06010201 067 – 1000	THIRD CREEK	Knox	17.86	Nitrates L Loss of biological integrity due to siltation NA Other Anthropogenic Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Urbanized High Density Area Land Development Collection System Failure	Water contact advisory due to pathogens. Category 5. EPA has approved siltation, pathogen, and habitat alteration TMDLs that address some of the known pollutants.
TN06010201 080 – 0100	WHITES CREEK	Knox	10.2	Other Anthropogenic Habitat Alterations NA Escherichia coli H	Discharges from MS4 area Streambank Modification	Category 5. EPA approved a habitat alteration TMDL that addresses some of the known pollutants.
TN06010201 080 – 1000	FIRST CREEK	Knox	16.1	Nitrate+Nitrite L Loss of biological integrity due to siltation NA Other Anthropogenic Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Urbanized High Density Area Collection System Failure	Water contact advisory. Category 5, impaired, but EPA has approved siltation, pathogen, and habitat alteration TMDLs that address some of the known pollutants.
TN06010201 083 – 1000	FLOYD CREEK	Loudon Blount	7.7	Loss of biological integrity due to siltation NA Escherichia coli NA	Pasture Grazing	Category 4a. EPA approved siltation and pathogen TMDLs for the known pollutants.
TN06010201 087 – 1000	HINES CREEK	Loudon Roane	20.3	Loss of biological integrity due to siltation L Escherichia coli NA	Pasture Grazing	Category 5. EPA approved a pathogen TMDL for some of the known pollutants.
TN06010201 097- 1000	SECOND CREEK	Knox	12.8	Other Anthropogenic Habitat Alterations NA Nitrate+Nitrite L Loss of biological integrity due to siltation NA Escherichia coli NA	Discharges from MS4 area Urbanized High Density Area Collection System Failure	Water contact advisory. Category 5. Impaired, but EPA approved siltation, pathogen, and habitat alteration TMDLs that address some of the known pollutants.
TN06010201 1015 – 1000	CLOYD CREEK	Loudon	11.3	Escherichia coli NA	Pasture Grazing Unrestricted Cattle Access	Category 4a. EPA approved a pathogen TMDL that addresses pathogens.
TN06010201 1149 – 1000	POLECAT CREEK	Loudon	13.1	Nitrate+Nitrite L Loss of biological integrity due to siltation M Escherichia coli NA	Pasture Grazing	Category 5. EPA approved a pathogen TMDL for some of the known pollutants.
TN06010201 1330 – 1000	SINKING CREEK	Knox	4.1	Escherichia coli M	Discharges from MS4 area	Stream is Category 5. (One or more uses impaired.)
TN06010201 1334 – 0100	TEN MILE CREEK (formerly called Sinking Creek)	Knox	12.74	Alteration in stream-side or littoral vegetative cover NA Loss of biological integrity due to siltation NA Escherichia coli H	Discharges from MS4 area	This stream is Category 5. Impaired, but EPA has approved siltation and habitat alteration TMDLs that address the known pollutants.

Final Version 2014 303(d) LIST (Upper Tennessee River Watershed cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority	Pollutant Source	COMMENTS
TN06010201 340 – 1000	TURKEY CREEK	Knox	15.8	Loss of biological integrity due to siltation NA Escherichia coli H	Discharges from MS4 area	Category 5. Impaired, but EPA has approved a siltation TMDL that addresses some of the known pollutants.
TN06010201 462 – 0100	LAUREL FORD BRANCH	Rhea	1.75	Escherichia coli H	Pasture Grazing	Category 5. Impaired.
TN06010201 462 – 1000	TOWN CREEK	Rhea	7.7	Escherichia coli H	Pasture Grazing	Category 5. Impaired.
TN06010201 526 – 1000	MUDDY CREEK	Rhea	7.0	Loss of biological integrity due to siltation L Escherichia coli H	Pasture Grazing	Category 5. Impaired.
TN06010201 620 – 1000	CARDIFF CREEK	Roane	3.8	Chrome, hexavalent L pH L	CERCLA site	Hexavalent chrome levels exceed acute criteria in this stream. Category 5.
TN06010201 621 – 1000	CANEY CREEK	Roane	18.2	Physical Substrate Habitat Alteration NA Loss of biological integrity due to siltation NA Escherichia coli NA	Pasture Grazing Collection System Failure	Category 4a. Impaired, but EPA has approved habitat/siltation and pathogen TMDLs that address some of the known pollutants.
TN06010201 697 – 1000	FOURTH CREEK	Knox	14.9	Physical Substrate Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Channelization	Category 4a. EPA approved pathogen and habitat alteration TMDLs that address the known pollutants.
TN06010201 719 – 1000	WILLIAMS CREEK	Knox	2.8	Other Anthropogenic Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Collection System Failure	Category 4a. EPA approved pathogen and habitat alteration TMDLs that address the known pollutants.
TN06010201 721 – 1000	BAKER CREEK	Knox	3.3	Nitrate+Nitrite M Other Anthropogenic Habitat Alterations NA Escherichia coli NA	Discharges from MS4 area Collection System Failure	Category 5. EPA approved pathogen and habitat alteration TMDLs that address some of the known pollutants.
TN06010201 723 – 1000	GOOSE CREEK	Knox	4.9	Loss of biological integrity due to siltation NA Other Anthropogenic Habitat Alterations NA PCBs L Escherichia coli NA	Collection System Failure Discharges from MS4 area RCRA Hazardous Waste	Water contact advisory due to pathogens. Witherspoon Superfund site. Category 5. EPA has approved siltation, pathogen, and habitat alteration TMDLs that address some of the known pollutants.
TN06010201 983 – 1000	POLECAT CREEK	Blount	1.85	Alteration in stream-side or littoral vegetative cover NA Loss of biological integrity due to siltation NA	Land Development Channelization	This stream is Category 4a. Impaired, but EPA has approved siltation and habitat alteration TMDLs that address the known pollutants.

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010206 026 – 1000	DAVIS CREEK	Campbell Claiborne	8.0	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010206 026 – 2000	DAVIS CREEK	Claiborne	5.1	Escherichia coli	NA	Pasture Grazing	Category 5. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010206 026 – 3000	DAVIS CREEK	Claiborne	3.6	Nitrate+Nitrite Loss of biological integrity due to siltation Escherichia coli	M L NA	Animal Feeding Operations Pasture Grazing	Dairy operations. Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutant.
TN06010206 026 – 4000	DAVIS CREEK	Claiborne	2.6	Nitrate+Nitrite Loss of biological integrity due to siltation Escherichia coli	M L NA	Animal Feeding Operations Pasture Grazing	Dairy operations. Category 5. EPA approved a pathogen TMDL that addresses some of the known pollutant.
TN06010206 026 – 5000	DAVIS CREEK	Claiborne	1.5	Escherichia coli	NA	Animal Feeding Operations	Category 5. EPA approved a pathogen TMDL that addresses the known pollutant.

Lower Clinch River

This basin contains the following USGS Hydrologic Unit Codes: 06010207 (Clinch River).

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE / TMDL Priority		Pollutant Source	COMMENTS
TN06010207 001 - 0100	POPLAR CREEK EMBAYMENT, WATTS BAR RESERVOIR	Roane	141 ac	PCBs Mercury	L L	Industrial Point Source Contaminated Sediments	Fishing advisory due to PCBs and mercury. DOE impacts. Stream is Category 5. EPA should produce TMDL for pollutants from DOE facilities.
TN06010207 001 - 1000	WATTS BAR RESERVOIR, CLINCH RIVER ARM	Roane	2682 ac	PCBs Chlordane Mercury	NA NA L	Industrial Point Source Contaminated Sediments Atmospheric Deposition	Fishing advisory due to PCBs. DOE Reservation impacts. Category 5. EPA approved a PCB/chlordane TMDL that addresses some of the known pollutants. EPA should produce TMDL for DOE.
TN06010207 004 – 0100	GRABLE BRANCH	Knox	1.3	Oil & Grease Loss of biological integrity due to siltation Physical Substrate Habitat Alterations	L NA L	Industrial Point Source Channelization Industrial Permitted Runoff Discharges from MS4 area	Truck stops near I-40. Category 5. EPA approved a siltation TMDL that addresses some of the known pollutants.

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE /TMDL Priority		Pollutant Source	COMMENTS
TN06010207 006 - 1000	MELTON HILL RESERVOIR	Anderson Knox Loudon Roane	5690 ac	PCBs Chlordane	NA NA	Contaminated Sediment	Fishing advisory due to PCBs and chlordane. Category 4a. EPA approved a PCB/chlordane TMDL for the known pollutants.
TN06010207 006T – 0900	SCARBORO CREEK	Anderson	1.99	Escherichia coli	H	Urbanized High Density Area	Stream is Category 5. (One or more uses impaired.)
TN06010207 006T – 1100	ERNIES CREEK	Anderson	4.1	Escherichia coli	H	Urbanized High Density Area	Stream is Category 5. (One or more uses impaired.)
TN06010207 011 – 0300	WILLOW FORK	Knox	5.9	Alteration in stream-side or littoral vegetative cover Loss of biological integrity due to siltation Escherichia coli	L NA NA	Discharges from MS4 area	Stream is Category 5. EPA approved siltation and pathogen TMDLs for some of the known pollutants.
TN06010207 011 – 0500	HINES BRANCH	Knox	3.2	Other anthropogenic substrate alterations Escherichia coli	NA NA	Discharges from MS4 area	Category 4a. EPA approved habitat and pathogen TMDLs for the known pollutants.
TN06010207 011 – 0600	KNOB FORK	Knox	8.1	Nitrate+Nitrite Loss of biological integrity due to siltation Habitat loss due to other anthropogenic substrate Alteration in stream-side or littoral vegetative cover Escherichia coli	M NA L L NA	Discharges from MS4 area	Category 5. EPA approved siltation and TMDLs that address some of the known pollutants.
TN06010207 011 – 0700	GRASSY CREEK	Knox	8.2	Loss of biological integrity due to siltation Escherichia coli	NA NA	Discharges from MS4 Area	Category 4a. EPA approved habitat and pathogen TMDLs for the known pollutants.
TN06010207 011 – 0800	MEADOW CREEK	Knox	4.96	Escherichia coli	NA	Discharges from MS4 Area	Category 4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010207 011 – 0900	PLUMB CREEK	Knox	5.3	Escherichia coli	H	Discharges from MS4 Area	Category 4a. EPA approved a pathogen TMDL for the known pollutant.
TN06010207 011 – 1000	BEAVER CREEK	Knox	22.5	Total Phosphorus Nitrate+Nitrite Escherichia coli Low Dissolved Oxygen Loss of biological integrity due to siltation Physical Substrate Habitat Alterations	M M NA L NA L	Municipal Point Source Collection System Failure Pasture Grazing Discharges from MS4 Area	Stream is Category 5. Impaired, but EPA has approved siltation and pathogen TMDLs that address some of the known pollutants.

Final Version 2014 303(d) LIST (Clinch River cont.)

Waterbody ID	Impacted Waterbody	County	Miles/Acres Impaired	CAUSE /TMDL Priority		Pollutant Source	COMMENTS
TN06010207 011 – 2000	BEAVER CREEK	Knox	13.7	Escherichia coli Loss of biological integrity due to siltation Physical Substrate Habitat alterations	NA NA L	Pasture Grazing Discharges from MS4 Area	Category 5. Impaired, but EPA has approved siltation and pathogen TMDLs that address some of the known pollutants.
TN06010207 011 – 3000	BEAVER CREEK	Knox	7.5	Escherichia coli Loss of biological integrity due to siltation Physical Substrate Habitat alterations	NA NA L	Pasture Grazing Discharges from MS4 Area	Category 5. EPA approved siltation and pathogen TMDLs that address some of the known pollutants.
TN06010207 014 – 0100	WILLIAMS BRANCH	Knox	2.4	Loss of biological integrity due to siltation	NA	Industrial Permitted Runoff	Category 4a. EPA approved a siltation TMDL that addresses the known pollutants.
TN06010207 014 – 0400	NORTH FORK BULLRUN CREEK	Union	19.0	Escherichia coli	H	Collection System Failure	Category 5. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010207 014 – 1000	BULLRUN CREEK	Knox Anderson	11.8	Escherichia coli	NA	Discharges from MS4 Area Pasture Grazing	Category 5. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010207 014 – 3000	BULLRUN CREEK	Union Grainger	11.4	Escherichia coli	NA	Pasture Grazing	Category 4a. EPA approved a pathogen TMDL that addresses the known pollutant.
TN06010207 016 – 0100	BUFFALO CREEK	Anderson	19.9	Nitrate+Nitrite Total Phosphorus	M M	Municipal Point Source Pasture Grazing	Stream is Category 5. Impaired, but EPA has approved a pathogen TMDL that addresses some of the known pollutants.
TN06010207 016 – 0200	BYRAMS CREEK	Anderson Union	22.4	Escherichia coli	H	Pasture Grazing	Stream is Category 5. (One or more uses impaired.)
TN06010207 016 – 1000	HINDS CREEK	Anderson	6.7	Loss of biological integrity due to siltation Alteration in stream-side or littoral vegetative cover Escherichia coli	L L NA	Pasture Grazing	Stream is Category 5. Impaired, but EPA has approved a pathogen TMDL that addresses some of the known pollutants.
TN06010207 016 – 3000	HINDS CREEK	Anderson Union	8.9	Escherichia coli	NA	Pasture Grazing	Stream is Category 5. Impaired, but EPA has approved a pathogen TMDL that addresses some of the known pollutants.

APPENDIX G:
EXCEPTIONAL QUALITY WATERS LIST FOR KNOX COUNTY

Knox County Exceptional Tennessee Waters

HUC	Watershed Name	Waterbody	County
6010104	Holston	Hogskin Branch	Knox
6010104	Holston	Holston River	Knox Jefferson
6010107	French Broad-Lower	French Broad River	Sevier/Knox
6010107	French Broad-Lower	Tuckahoe Creek	Sevier, Knox
6010201	Watts Bar, Ft Loudoun, Little River (Upper Tennessee)	Turkey Creek	Knox
6010207	Clinch-Lower	Clinch River - Melton Hill Reservoir	Anderson, Knox, Loudon, Roane
6010104	Holston	Brice Branch Unnamed Tributary	Knox
6010104	Holston	Brice Branch Unnamed Tributary	Knox
6010104	Holston	Flat Creek Unnamed Tributary	Knox
6010207	Clinch-Lower	Clinch River	Anderson, Knox, Loudon, Roane

Description	Basis for Inclusion	From Lat	To Lat	From Long
Portion in House Mountain SNA.	House Mountain State Natural Area.	36.1025	36.1074	-83.7645
From confluence with French Broad River to McBee Island.	Federal endangered Pink Mucket, federal threatened Snail Darter.	35.9596	36.0988	-83.8496
From Holston River to Douglas Dam.	Federally endangered Pink Mucket, federal threatened Snail Darter, state endangered Lake Sturgeon (includes frequent reported sightings from fisherman below dam) and state threatened Blue Sucker (includes TTU report at mile 22).	35.9596	35.961	-83.8497
In its entirety.	State Scenic River (Class III Developed River Area).	35.9591	36.0232	-83.7084
From Fort Loudon Lake to Hwy 11.	State endangered Sweetscent Ladies'-Tresses	35.8705	35.8814	-84.1474
Clinch River from Melton Hill Dam to Pellissippi Parkway.	State Scenic River (Class III - Developed River Area).	35.88528	35.99231	-84.3003
Portion in House Mountain State Natural Area. Tributary flows into Brice Branch at river mile 1.6.	House Mountain State Natural Area	36.1108	36.1123	-83.7568
Portion in House Mountain State Natural Area. Tributary flows into Brice Branch at river mile 1.8.	House Mountain State Natural Area	36.1074	36.109	-83.7607
Portion in House Mountain State Natural Area. Tributary flows into river mile 7.9 of Flat Creek.	House Mountain State Natural Area	36.1229	36.1231	-83.7477
From Melton Hill Dam (river mile 23.1) to Pellissippi Parkway (river mile 43.7).	State Scenic River (Class III Developed River Area)	35.8854	35.9928	-84.3002

To Long	Inclusion D Revision Date
-83.7679	
-83.6363	
-83.5387	
-83.581	
-84.1594	JAN-16-2008
-84.1941	MAR-16-2009
-83.7587	MAR-18-2009
-83.7635	MAR-18-2009
-83.7509	MAR-18-2009
-84.1942	MAR-19-2009

APPENDIX H:

ARAP GENERAL PERMIT FOR UTILITY LINE CROSSINGS; TERMS AND CONDITIONS

Tennessee Department of Environment and Conservation
General Aquatic Resource Alteration Permit for
Utility Line Crossings

Effective Date: April 7, 2015
Expiration Date: April 6, 2020

Activities Covered by this Permit

This general permit authorizes the construction, maintenance, repair, rehabilitation or replacement of utility line crossings of streams and wetlands, including subsurface crossings by directional drill or bore. The cumulative number of crossings that may be authorized under this general permit is dependent on the trenching technique, and line alignment in relation to water resources. For example, a greater number of crossing points may be authorized for utility line types that typically involve directional drilling and do not follow surface topography, such as fiber optic, gas transmission, and electric lines, than for gravity sewer lines utilizing traditional blasting or hoe-ramming trenching techniques.

In addition, certain activities may be performed without submittal of an application or written authorization from the division prior to the commencement of work, provided the work is performed in accordance with the applicable terms and conditions of this general permit:

a) Utility line activities employing non-invasive technologies such as pipe bursting, or slip-lining.
b) Up to 3 crossings (boreholes) utilizing horizontal directional drilling, provided no Federal or State-listed deemed in need of management, threatened, or endangered aquatic species are located within one-mile of the project location, and all special conditions, including subparts of condition #4 are met.
c) Utility lines suspended from a culvert, bridge, or similar structure.

Certain activities due to size, location or potential water quality impacts are not covered under this general permit, as described in both the Special and General Conditions sections. Activities not qualifying for authorization under this general permit may be authorized by a standard (individual) permit provided that all requirements of the *Tennessee Water Quality Control Act of 1977* (the *Act*) are met.

Special Conditions

1. No blasting will be permitted in the excavation of trenches that parallel or lie within 50 feet of a stream or wetland, including all stream crossings.

2. In the case of proposed utility lines that follow the stream gradient or otherwise parallel the stream channel, the number of crossings shall be minimized to the maximum extent practicable

3. Flowable fill trench plugs will be placed throughout any trench running parallel within 50 feet of a stream channel, spaced at a maximum of 200 linear feet apart, or halfway between stream crossings, if less than 400 feet. Trench plugs will be at least ten feet in length, and extend to approximately 6 inches below normal surface elevation

4. Crossings that utilize horizontal directional drilling are authorized, provided that:

    a. Entry and exit locations are at least 50 feet from the stream bank or wetland margin.

    b. The depth of bore below the streambed is sufficient to reasonably prevent release of drilling fluid, based on the parent material.

c. A site-specific contingency and containment plan for inadvertent release of drilling fluid must be established prior to commencement of work. This plan must include notification to the division upon release to surface waters.

5. For open trenching techniques, jack and bore, and auger boring, up to 5 crossings may be authorized. For gravity sewer lines, groundwater loss will be prevented by backfilling all open trench stream crossings with flowable fill or concrete between manholes on either side of the stream. Manholes shall not be located in wetlands.

6. For gravity sewer line installations, as-builts or record drawings of the line installation will be submitted to the division 45 days after completion of the project.

7. The alignment of new utility line crossings shall intersect the stream channel as close to 90 degrees or as perpendicular as possible. Alignment shall be no less than 45 degrees angle from the centerline of the stream.

8. New utility line crossings shall be located such as to avoid permanent alteration or damage to the integrity of the stream channel or wetland. Large trees, steep banks, rock outcroppings etc., should be avoided.

9. The crossing shall be designed to prevent the impoundment or loss of normal or base flows. Base flow is the usual or normal flow of the stream that is supplied primarily by groundwater from springs and seeps, but not affected by rapid runoff during and after rainfall. In the case of streams with bedrock streambeds, special provisions shall be made to prevent the loss of stream flow due to fracturing of the bedrock.

10. The excavation and fill activities associated with the utility line crossing of non-navigable streams shall be kept to a minimum and shall be separated from flowing waters. The crossing shall be constructed in the dry to the maximum extent practicable, by diverting flow utilizing cofferdams, berms, temporary channels or pipes. Temporary diversion channels shall be protected by non-erodible material and lined to the expected high water level. For navigable streams as defined by §10 of the *Rivers and Harbors Act of 1899*, the excavation and fill activities associated with utility line crossing may be accomplished within the flowing water.

11. Maintenance, repair and rehabilitation of existing utility lines in wetlands are authorized provided that all of the following special provisions are met.

    a. the total amount of excavation or fill within wetlands, including temporary equipment access roads does not exceed 50 cubic yards;

    b. the wetlands alteration is located within the right of way of the existing utility line; and

    c. Temporary impacts to wetlands shall be mitigated by the removal and stockpiling of the first 12 inches of topsoil, prior to construction. Upon completion of construction activities, all temporary wetland impact areas are to be restored to pre-construction contours, and the stockpiled topsoil spread to restore these areas to pre-construction elevation. Other side-cast material shall not be placed within the temporary impact locations. Permanent vegetative stabilization using native species of all disturbed areas in or near the wetland must be initiated within 14 days of project completion (see also *Landscaping with Natives* at tneppc.org). Non-native, non-invasive annuals may be used as cover crops until native species can be established

12. All spoil material from trench excavation, bore pits and other earth disturbing activities shall be deposited in an upland location and stabilized within 7 days in order to prevent erosion into waters of the state.

13. All dewatering activities shall be conducted in such a manner as to prevent the discharge of sediment-laden water into waters of the state.

General Conditions

1. All activities must be accomplished in conformance with the approved plans, specifications, data and other information submitted in support of the ARAP application (form CN-1091) and the limitations, requirements and conditions set forth herein. Failure to comply with the terms and conditions of this permit is a violation of the Tennessee Water Quality Control Act of 1977 (the Act), and is subject to penalty in accordance with T.C.A. §69-3-115.

2. Activities, either individually or cumulatively, that may result in greater than *de minimis* degradation to waters of the state are not covered. This general permit shall not be used incrementally to combine with other activities resulting in a net loss of water resource values.

3. Clearing, grubbing, and other disturbance to riparian vegetation shall be kept at the minimum necessary for slope construction and equipment operations. Unnecessary riparian vegetation removal, including trees, is prohibited. Non-native, non-invasive annuals may be used as cover crops until native species are established. Native riparian vegetation must be reestablished after work is completed. Coverage under this permit does not serve to waive any local riparian buffer protection requirement, and permittees are responsible for obtaining any necessary local approval.

4. This activity may not result in the permanent disruption to the movement of fish or other aquatic life.

5. Activities that adversely affect wetlands, or impair surface water flow into or out of any wetland areas are prohibited.

6. Activities located in a component of the National Wild and Scenic River System or waters designated as Outstanding National Resource Waters are not covered.

7. Activities occurring in known or likely habitat of state or federally listed threatened, endangered, deemed in need of management, or species of special concern may not be authorized without prior coordination with the Tennessee Wildlife Resources Agency (TWRA) and TDEC Division of Natural Areas (DNA) to determine if any special conditions are required to avoid and/or minimize harm to the listed species or their habitat. Adverse effects to federally listed threatened and endangered species are not permitted without prior authorization from the United States Fish and Wildlife Service (USFWS) as required by Section 7 or Section 10 under the Endangered Species Act.

8. Work shall not commence until the permittee has obtained all necessary authorizations pursuant to applicable provisions of §10 of The Rivers and Harbors Act of 1899; §404 of The Clean Water Act and §26a of The Tennessee Valley Authority Act, as well as any other federal, state or local laws.

9. Backfill activities must be accomplished in a manner that stabilizes the streambed and banks to prevent erosion. All contours must be returned to pre-project conditions to the extent practicable, and the completed activities may not disrupt or impound stream flow.

10. The use of monofilament-type erosion control netting or blanket is prohibited.

11. This permit does not authorize impacts to cultural, historic or archaeological features or sites.

12. This permit does not authorize access to private property. Arrangements concerning the use of private property shall be made with the landowner.

13. Where practicable, all activities shall be accomplished in the dry. All surface water flowing towards this work shall be diverted using cofferdams and/or berms constructed of sandbags, clean rock

(containing no fines or soils), steel sheeting, or other non-erodible, non-toxic material. All such diversion materials shall be removed upon completion of the work.

14. All activities must be carried out in such a manner as will prevent violations of water quality criteria as stated in TDEC Rule 0400-40-03. This includes, but is not limited to, the prevention of any discharge or use of materials that may be harmful to humans, terrestrial or aquatic life, or causes a condition in which visible solids, bottom deposits or turbidity impairs the designated uses of waters of the state.

15. Erosion prevention and sediment control measures must be in place and functional before any earth moving operations begin, and shall be designed according to the department's *Erosion and Sediment Control Handbook* (www.tn.gov/environment/wpc/sed_ero_controlhandbook/). Permanent vegetative stabilization using native species of all disturbed areas in or near the stream channel must be initiated within 15 days of project completion (see also *Landscaping with Natives* at tneppc.org). Non-native, non-invasive annuals may be used as cover crops until native species can be established.

16. The permittee is responsible for obtaining coverage under the National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges from Construction Activities* where clearing, grading or excavation results in an area of disturbance of one or more acres, or activities that result in the disturbance of less than one acre if it is part of a larger common plan of development or sale.

17. Stream beds shall not be used as linear transportation routes for construction equipment. Temporary stream crossings shall be limited to one point in the construction area and erosion control measures shall be utilized where stream bank vegetation is disturbed. The crossing shall be constructed so that stream or wetland flow is not obstructed. Following construction, all materials used for the temporary crossing shall be removed and disturbed stream banks shall be restored and stabilized if needed.

Obtaining Permit Coverage

Utility Line Crossing activities requiring written notification and authorization may obtain coverage by submitting a signed and completed application (form CN-1091), along with any other required information, to the division. Work shall not commence until a written Notice of Coverage (NOC) from the division is received. As noted above, not all activities may be eligible for coverage under this general permit and coverage may be denied when appropriate.

Each Notice of Coverage under this general permit is valid until the expiration date specified on the NOC. If the expiration date on an NOC extends beyond the date the General Permit is modified, reissued, or revoked, and the permittee has commenced or is under contract to commence this activity before the expiration date, the permittee may have up to twelve (12) months from the date of the modification, reissuance, or revocation of the General Permit to complete the activity under the present terms and conditions of the general permit.

An application fee as established in Rule 0400-40-11-.02 will be assessed to applicants intending to receive an NOC to conduct activities under this general permit. An annual maintenance fee will be assessed to those individuals holding general permit coverage unless a Notice of Termination (NOT) form is received prior to the one-year anniversary of the issuance date of the NOC, or the NOC was issued for less than a one-year term. An NOT form can be downloaded from the division's ARAP webpage (http://www.tn.gov/environment/permits/arap.shtml).

APPROVED: _____ DATE: 10/8/15

Tisha Calabrese Benton
Director, Division of Water Resources

APPENDIX I:
BRIAN HEMEL'S TN EPSC LEVEL II CERTIFICATE

Water Resources Research Center

The University of Tennessee

Brian Hemel

Has Successfully Completed the two-day course on
Design Principles for Erosion Prevention and Sediment Control
for Construction Sites
04/27 & 04/28/2016

John Buchanan, Ph.D., P.E.

TN Department of Environment & Conservation

For the Tennessee Department of Environment and Conservation
This certificate entitles the recipient to 16.0 Professional Development Hours

TN EPSC