State of Tennessee
Continuing Planning Process

Section 303(e) of the Clean Water Act & 40 C.F.R. § 130.5

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Tennessee Department of Environment and Conservation
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I. Introduction

Tennessee's Continuing Planning Process (CPP) document has been compiled to demonstrate compliance with the state's obligations under Section 303(e) of the Clean Water Act (CWA) and the United States Environmental Protection Agency's (EPA) implementing regulations, 40 C.F.R. § 130.5.

EPA rules identify nine required components to be included in the state's CPP, and also allows states to include other components at their discretion:

1. The process for developing effluent limitations and schedules of compliance at least as stringent as those required by Sections 301(b)(1) and (2), 306 and 307 of the CWA, and at least as stringent as any requirements contained in applicable water quality standards in effect under authority of Section 303 of the CWA. (40 C.F.R. § 130.5(b)(1))
    - Section III Part B Surface Water/Water Supply Permitting
    - Section IV Water Resource Protection
    - Section V Part A Designated Uses, Water Quality Criteria & Antidegradation

2. The process for incorporating elements of any applicable areawide waste treatment plans under Section 208 of the CWA, and applicable basin plans under Section 209 of the CWA. (40 C.F.R. § 130.5(b)(2))
    - Section V Part B Watershed Management

3. The process for developing total maximum daily loads (TMDLs) and individual water quality-based effluent limitations for pollutants in accordance with Section 303(d) of the CWA and §130.7(a). (40 C.F.R. § 130.5(b)(3))
    - Section V Part B Watershed Management

4. The process for updating and maintaining Water Quality Management (WQM) plans, including schedules for revision. (40 C.F.R. § 130.5(4))
    - Section V Part B Watershed Management

5. The process for assuring adequate authority for intergovernmental cooperation in the implementation of the State WQM program. (40 C.F.R. § 130.5(5))
    - Section VI Public Outreach and Grants

6. The process for establishing and assuring adequate implementation of new or revised water quality standards, including schedules of compliance, under section 303(c) of the CWA. (40 C.F.R. § 130.5(6))
    - Section V Part A Designated Uses, Water Quality Criteria & Antidegradation
    - Section VI Part C Public Participation in Division Processes

7. The process for assuring adequate controls over the disposition of all residual waste from any water treatment processing. (40 C.F.R. § 130.5(7))
    - Section III Permitting, Plans Review & Authorizations
    - Section IV Water Resource Protection

8. The process for developing an inventory and ranking, in order of priority of needs, for construction of waste treatment works required to meet the applicable requirements of sections 301 and 302 of the CWA. (40 C.F.R. § 130.5(8))
    - Section VI Part B State Revolving Fund
    - Section III Part G Plans Review

9. The process for determining the priority of permit issuance. (40 C.F.R. § 130.5(9))
    - Section III Permitting, Plans Review & Authorizations
    - Section V Part B Watershed Management

With over 60,000 miles of streams and nearly 600,000 acres of lakes and reservoirs (based on medium resolution national hydrography dataset (NHD)), the state of Tennessee has an abundance of water resources. The Tennessee Department of Environment and Conservation (TDEC or Department), Division of Water Resources (Division) is responsible for managing, protecting and enhancing the quality of the state's water resources through voluntary, regulatory and educational programs. While addressing each of the nine elements required by the CWA Section 303(e) and 40 C.F.R. § 130.5, this document will also explains the processes the state uses to administer all of its water programs and describes the framework through which the Division handles its responsibilities to protect, maintain and improve the quality of the state's waters. Lastly, this document outlines how the Division sets priorities for TMDL development, monitoring, assessment and permitting

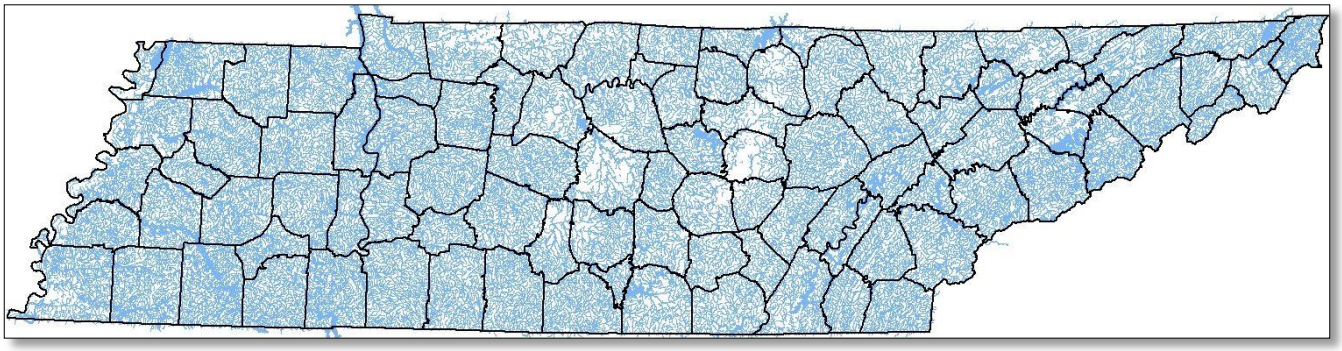


Figure 1 There are Over 60,000 miles of streams and 600,000 acres of lakes in Tennessee

For this document, the Division's responsibilities are broken down into five main areas of focus:

1. Permitting, Plans Review and Authorizations
2. Water Resource Protection
3. Water Resource Assessment
4. Public Outreach & Grants
5. Training, Licensing and Certification

All of these areas of focus combined gives a comprehensive overview of how this Division works to fulfill TDEC's mission to "enhance the quality of life for citizens of Tennessee and to be stewards of the natural environment" and the Division's specific mission of protecting and enhancing the quality of the state's water resources.

Tennessee's CPP will be updated by the Division from time to time as the Division's programs continue to evolve.

II. Division of Water Resources Organizational Structure

A. Overview

1. Department Structure

TDEC is organized and administered by a commissioner and several deputy commissioners who oversee different parts of the Department. The Department is comprised of the Bureau of Parks and Conservation, the Bureau of Environment and an Administration group as well as an Office of External Affairs.

RULE 0400-40-01-.03 Commissioner's Responsibilities & Authority

2. Division Structure

In 2011, a major reorganization of TDEC's regulatory programs occurred. As a result, the regulatory programs of the Divisions of Water Pollution Control, Water Supply and Groundwater Protection, became one consolidated Division of Water Resources. Housed in the Bureau of Environment, authority for the Division of Water Resources comes from the Tennessee Water Quality Control Act and other statutes. The Division is led by a director, a deputy director of operations, a deputy director of field office operations, a deputy director of water quality and a deputy director of engineering services who also serves as the Division's chief engineer. In addition, the Division has three technical fellows. Together, these individuals lead a team of around 300 technical, managerial, and administrative staff across the state of Tennessee.

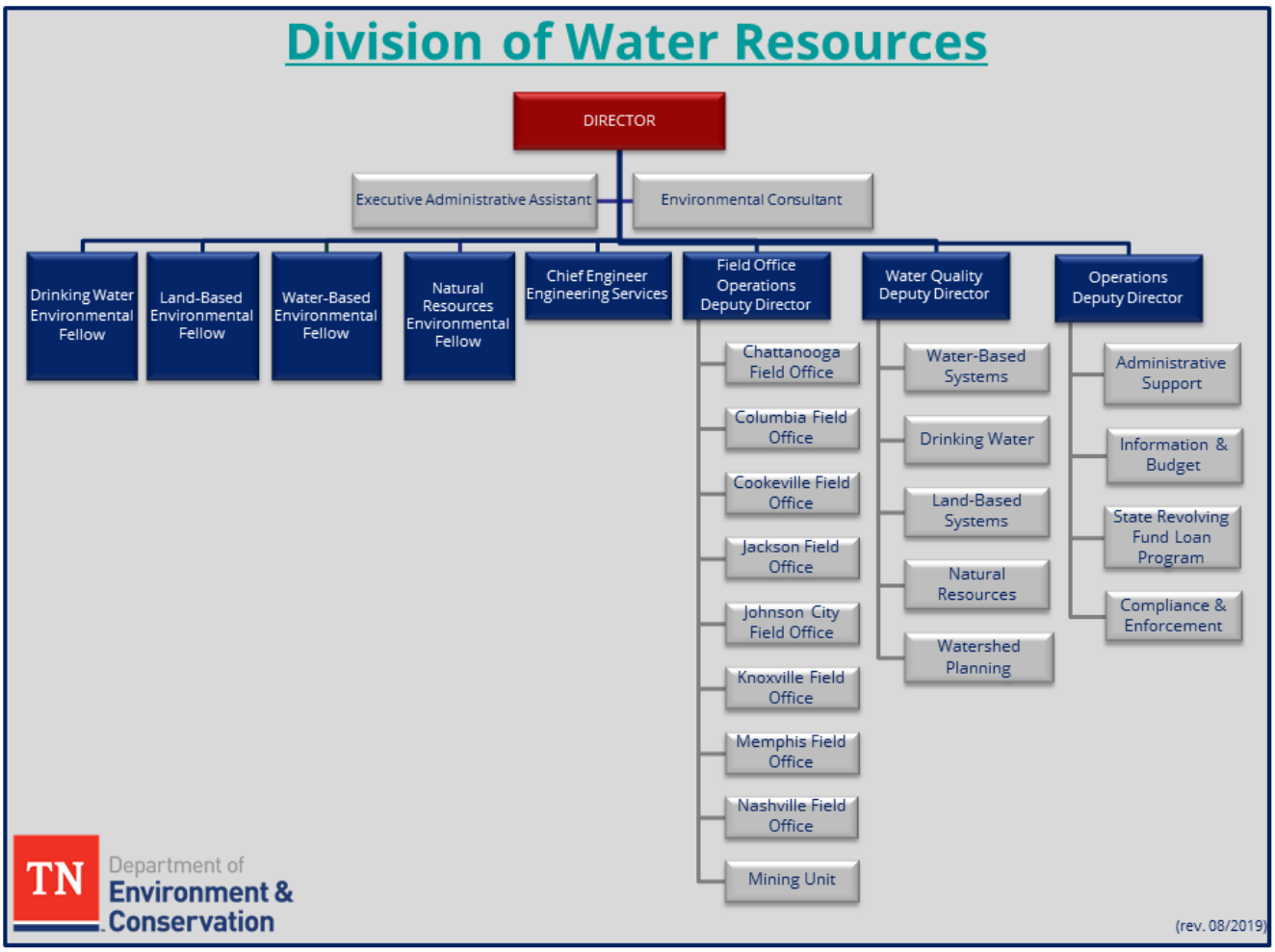


Figure 2 - Division of Water Resources Basic Organizational Chart

3. Responsibilities

The Division is an administrative agent for key statutes and corresponding rules in Tennessee:

- Tennessee Water Quality Control Act (T.C.A. § 69-3-101)
- Water and Sewerage Acts (T.C.A. §§ 68-221-101 to -1319), including:
  - Construction of Sewage Treatment Works (T.C.A. § 68-221-201 et seq.)
  - Subsurface Sewage Disposal Systems (T.C.A. § 68-221-401 et seq.)
  - Waterworks Construction Loan Act (T.C.A. § 68-221-501 et seq.)
  - Tennessee Safe Drinking Water Act (T.C.A. § 68-221-701) et seq.)
  - Wastewater Treatment Works Construction Grant Act (T.C.A. § 68-221-801 et seq.)
  - Water and Wastewater Operator Certification Act (T.C.A. § 68-221-901 et seq.)
  - Wastewater Facilities (T.C.A. § 68-221-1001 et seq.)
  - Drinking Water Revolving Fund Act (T.C.A. § 68-221-1201 et seq.)
- Safe Dams Act (T.C.A. § 69-11-101)
- Tennessee Water Well Act (T.C.A. § 69-10-101)
- Water Withdrawal Registration Act (T.C.A. § 69-7-301)

Each program area within the Division works with various parts of the Tennessee Division of Water Resources' rules. Following is a brief description of each of the Division's program areas and the rules that govern their activities. Additional information about each program area is described in detail throughout this document.

B. Water-Based Systems Unit

1. Overview

The water-based system unit is responsible for managing the surface water permitting program, except for mining permits, which are managed by the mining unit. This includes individual and general National Pollutant Discharge Elimination System (NPDES) permits that authorize discharge of pollutants into surface waters as well as the stormwater permitting program. This unit also issues state operating permits for non-discharging activities.

2. Associated Rules

- 0400-40 Water Pollution Control
    - Plans Review
    - Permits (Effluent Limitations)
    - National Pollutant Discharge Elimination System (NPDES)
    - Environmental Protection Funds Fees
    - Interbasin Water Transfer
    - Pretreatment
    - Public Sewerage Systems

C. Land-Based Systems Unit

1. Overview

The land-based system unit is responsible for managing several types of programs. Included in this unit are programs that are responsible for the protection of groundwater and surface water.

2. Associated Rules

- 0400-40 Water Pollution Control
    - Biosolids Management
    - Animal Feeding Operations
    - State Operating Permits
- 0400-45 Water Supply
    - Underground Injection Control (Large Capacity Septic Systems)
- 0400-48 Groundwater Protection

D. Drinking Water Unit

1. Overview

The drinking water unit is responsible for managing several types of programs. Included in this unit are programs responsible for the protection of groundwater, water well management, source water and well head protection, drinking water laboratory certification and general supervision over construction and operation of public water systems.

2. Associated Rules

- 0400-45 Water Supply
    - Public Water Systems
    - Underground Injection Control
    - Water Well Licensing Regulations and Well Construction Standards
    - Rules of the Board of Groundwater Management

E. Natural Resources Unit

1. Overview

The natural resources unit responsible for overseeing the safe dams program in Tennessee as well as any permits required for physical alteration to streams, rivers, lakes and wetlands, which also constitutes Section 401 certifications where applicable. This unit is also responsible for overseeing the program which certifies hydrologic professionals for conducting official hydrologic determinations.

2. Associated Rules

- 0400-40 Water Pollution Control
    - Aquatic Resource Alteration
    - Silviculture Activity
    - Certification of Hydrologic Professionals
    - Environmental Protection Funds Fees
    - General Water Quality Criteria
    - Use Classification for Surface Waters

- 0400-45 Water Supply
    - Safe Dams

F. Watershed Planning Unit

1. Overview

The Division's Watershed Planning Unit implements a statewide watershed approach to a decision making process that reflects a strategy that is based on the concept that many water quality problems are best addressed at the watershed level (8-digit U.S. Geological Survey Hydrologic Unit Code (HUC) level) . This unit helps the Division to develop watershed based pollution control strategies (Total Maximum Daily Load reports and alternative restoration plans) in order to meet clean water goals and CWA requirements. The unit performs the necessary water quality and hydrologic modeling necessary to make recommendations to NPDES permit writers about assimilative capacity for new or revised permit limits.

Additionally, the Watershed Planning Unit is responsible for completing and compiling many planning documents, water quality standards, coordination and training for surface water quality monitoring, data management, quality control, water quality assessments and reporting to the EPA via the Water Quality Data Exchange. Documents include:

- Quality Assurance Plan for 106 Monitoring in the Division of Water Resources
- Surface Water Monitoring and Assessment Program Plan
- List of Impaired Waters
- Quality Systems Standard Operating Procedures for Chemical and Bacteriological Sampling of Surface Waters
- Quality Systems Standard Operating Procedures for Macroinvertebrate Stream Surveys
- Quality Systems Standard Operating Procedures for Periphyton Stream Surveys
- Consolidated Assessment and Listing Methodology and
- The EPA's Water Quality Exchange and TDEC's Ambient Monitoring chemical data

2. Associated Rules

- 0400-40 Water Pollution Control
    - General Water Quality Criteria
    - Use Classifications for Surface Waters

G. State Revolving Fund Loan Program Unit

1. Overview

The SRF program administers low interest loan programs to cities, counties, utility districts and water/wastewater authorities for the planning, design and construction of drinking water and wastewater facilities.

2. Associated Rules

- 0400-46 State Revolving Fund
    - Priority Ranking
    - State Grants
    - State Loans

H. Mining Unit

1. Overview

The Mining Unit, based in Knoxville, is a statewide program that is responsible for administering programs related to mining operations and mining disturbances. This program implements the NPDES permitting program for surface water discharges from mine sites. It is also the program that issues surface mining permits under the Tennessee Surface Mining Law and oversees the reclamation of those mining sites.

2. Associated Rules

- 0400-40 Water Pollution Control
    - Plans Review
    - Permits (Effluent Limitations)
    - Aquatic Resource Alteration
    - National Pollutant Discharge Elimination System (NPDES)
    - Environmental Protection Funds Fees
    - Rock Harvesting

- 0400-42 Surface Mining

I. Environmental Field Offices

1. Overview

There are eight Environmental Field Offices across the state of Tennessee. These offices, spaced evenly across the state, are often the first line of communication with citizens and organizations. Each field office has a Regional Director of External Affairs who assist citizens with questions, concerns, or complaints they might have regarding the state's natural resources. Each field office is also comprised of technical and administrative staff who provide customer service for permitting needs, outreach functions and environmental guidance. Field office staff perform many tasks including water quality monitoring, hydrologic determinations, septic tank inspections, permitting inspections, audits, complaint investigations and much more.

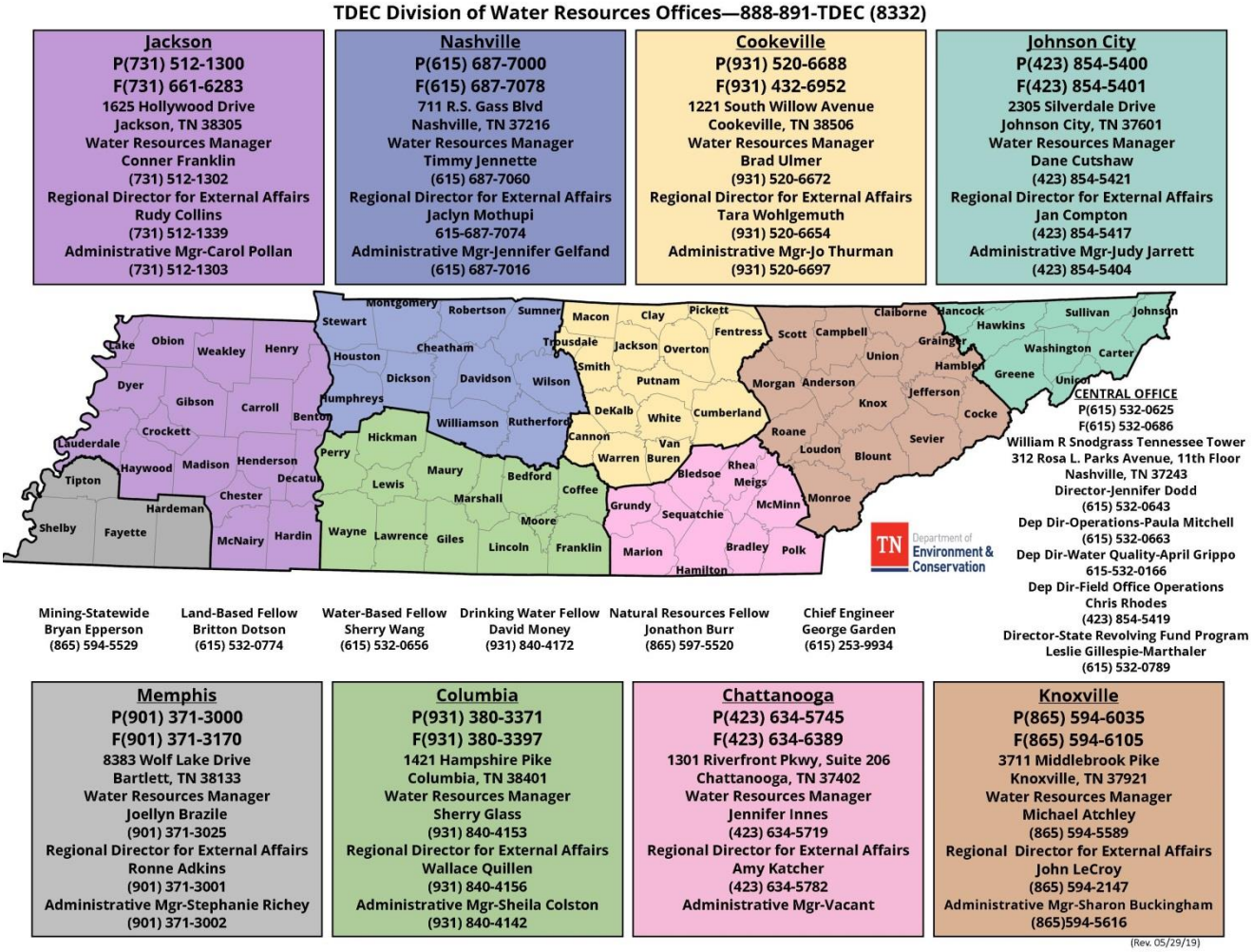


Figure 3 - Division of Water Resources Environmental Field Office Contacts

III. Permitting, Plans Review and Authorizations (40 C.F.R. § 130.5(b)(1), (7), (9))

A. Introduction

The Division is responsible for a wide range of permitting, plans review, and authorization programs. The state's water quality permitting programs exist to reduce existing pollution and prevent future pollution consistent with the goal of maximizing the use and enjoyment of water resources. .

Tennessee strives to have a responsible, clearly defined regulatory structure that is protective of natural resources. In 2008, the Tennessee General Assembly enacted new legislation that the Division uses as a structure for the timelines involved in the permitting process. The Bill of Rights for Permit Applicants is codified at T.C.A. § 69-3-141. This bill of rights affords applicants the right to assistance from the Department, a clear permitting process and timely permit processing.

B. Surface Water / Water Supply Permitting

1. National Pollutant Discharge Elimination System (NPDES) Individual Permits

a. Overview

The NPDES program was established by Congress in 1972 to regulate, reduce, and ultimately eliminate pollutants that were being discharged into waters of the United States. According to the CWA, no one may discharge pollutants from a point source into jurisdictional waters except in accordance with the requirements of an NPDES permit.

The EPA can delegate implementation of the NPDES program to states, which then take the lead in the permitting, administration and enforcement of the program within their state. Tennessee became a delegated state in 1977.

b. Individual Discharge Permits

In Tennessee, persons discharging pollutants from point sources to surface waters must obtain and comply with an NPDES permit from the Division of Water Resources. To do that, they must apply for the permit and include detailed information about their proposed discharge on the EPA forms. These permits establish effluent limitations to protect water quality and ensure compliance with technology based standards as well as monitoring and reporting requirements. Each individual permit has specific provisions for each permitted site.

NPDES permits may not be issued for longer than five-year terms. An updated application must be submitted for permittees who wish to continue discharging beyond the five-year term. This application must be submitted a minimum of 180 days prior to the expiration date of their permit. If the Division receives a complete application, but does not reissue the permit prior to the expiration date, the existing permit is generally "administratively continued."

- RULE 0400-40-01, 03, 04 & 05
- T.C.A. § 69-3-108

c. Individual NPDES Construction Permits

Stormwater is the water collected on the ground after a precipitation event. This water flows across the ground and can pick up pollutants as it washes over loose soil or stored materials that are often found on a construction site. Sediment, debris, and chemicals that can be found in that loose soil can then be transported to water resources via the stormwater flow. Permitted activities might include construction of residential, commercial and industrial buildings, golf courses, utility lines, sewage treatment plants, or roads. Various land clearing activities such as borrow pits for fill material might also be covered under this type of permit. Operators of construction sites involving clearing, grading or excavation that result in an area of disturbance of one or more acres, and activities that result in the disturbance of less than one acre if it is part of a larger common plan of development or sale may need to apply for an individual permit if they cannot abide by the terms and conditions of the general permit described below. In those cases, the permittee shall submit an individual application in accordance with the requirements of 40 C.F.R. § 122.26(c)(1)(ii), with reasons supporting the request.

- T.C.A. § 69-3-108

d. Individual Concentrated Animal Feeding Operation (CAFO) NPDES Permits

A CAFO is defined by the EPA as an agricultural enterprise where animals are kept in confined situations. Feed is brought to the animals rather than allowing them to graze. Any individual who operates an operation that meets the regulatory definition of a CAFO must have a Division issued NPDES Permit if they have a discharge.

- RULE 0400-40-05-.14 Animal Feeding Operations
- T.C.A. § 69-3-108 Permits

e. Individual NPDES Municipal Separate Storm Sewer System (MS4) Permits

Similar to construction sites, stormwater in municipal areas flows over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and has the potential to pick up pollutants like chemicals, oils, dirt/sediment and trash that can harm rivers, streams, lakes, and wetlands.

Federal, state and local governments have passed laws and regulations to address the problem of polluted runoff.

The EPA stormwater regulations require NPDES permit coverage for stormwater discharges from certain medium and large municipal separate storm sewer systems (MS4s) located in incorporated places or counties with populations of 100,000 or more. In Tennessee, the Phase I program affects 4 cities (Nashville, Chattanooga, Memphis, and Knoxville) and TDOT, and requires them to obtain coverage under an individual stormwater discharge permit and to implement a set of programs to manage the quality of stormwater runoff from the storm sewer systems

2. NPDES General Permits

While an NPDES individual permit is written to reflect specific conditions at a particular site, a general permit is written to cover multiple dischargers across the state that all have similar operations and types of discharges. Individual permits are issued directly to an individual discharger while a general permit is issued for an activity that allows for multiple dischargers to obtain coverage under it.

- RULE 0400-40-10 National Pollutant Discharge Elimination System General Permits

a. General Permit for Construction Stormwater

This general permit is designed with requirements that help prevent construction sites from becoming sources of pollution from stormwater runoff. Operators of construction sites as described in the individual construction permit section of this document, who can meet the terms and conditions of this general permit may apply for coverage under the general permit.

b. General Permit for Industrial Stormwater

Just as stormwater can collect pollutants from traveling across construction sites the same is true for industrial sites. Material handling, storage, equipment maintenance, cleaning and other processes at industrial facilities are often exposed to the weather. The wastewater discharges at these sites may contain pollutants at levels that could affect the quality of receiving waters or even interfere with publicly owned treatment works (POTWs) that receive those discharges. The Tennessee Stormwater Multi-Sector General Permit is required for facilities that have significant industrial materials exposed to rainfall and resulting stormwater.

c. General Permit for Phase II Municipal Separate Storm Sewer Systems (MS4s)

The EPA stormwater regulations require NPDES permit coverage for stormwater discharges from certain small municipal separate storm sewer systems (MS4s). In Tennessee, the Phase II program affects about 100 cities and counties by requiring them to obtain coverage under a general stormwater discharge permit and to implement a set of programs to manage the quality of stormwater runoff from the storm sewer systems.

d. Qualifying Local Program (QLP)

The EPA stormwater regulations describe provisions allowing for streamlining and coordination among programs at the state and local levels, including construction site runoff. The qualifying local program provision for the management and oversight of stormwater runoff from construction activities allows for this streamlining. Under this provision, the State of Tennessee, which has been delegated NPDES authority, can formally recognize a municipal program that meets or exceeds the provisions of its own construction general permit. When this occurs, a permittee, responsible for a project within the jurisdiction of a recognized municipality, would follow that municipality's requirements for stormwater management.

Per 40 C.F.R. 122.44(s), the Division can formally recognize a regulated Municipal Separate Storm Sewer System (MS4) as a QLP that has been shown to meet or exceed the provisions of the General NPDES Permit for Discharges of Stormwater Associated with Construction Activities (CGP). If a construction site has submitted a program specific Notice of Intent (NOI) to a participating QLP, and has obtained a Notice of Coverage (NOC), the operator of the construction activity is authorized to discharge under the CGP without the submittal of an NOI, Stormwater Pollution Prevention Plan (SWPPP), or related permit fee to the Division.

The Tennessee QLP program was developed through a grant-funded stakeholder driven process, with the intent of creating an effective program that incentivizes participation. Resultant incentives include streamlined QLP minimum requirements, a standardized interagency enforcement protocol, and recognition of QLP status as an alternative measurement of MS4 permit effectiveness. Obtaining QLP status is optional, but all regulated (MS4) are encouraged to consider participation. Benefits of the QLP program include:

- a more streamlined and efficient process for managing construction stormwater by eliminating permit and review duplication at the local and state levels;
- eliminating additional effort at the state level for construction site operators by providing only one set of requirements to follow; and
- a more effective construction stormwater program resulting in greater water quality protection.

e. General Permit for Filter Backwash & Sedimentation Basin Washwater from Water Treatment Plants

Backwashing a drinking water system filter means reversing and increasing the water's flow to flush out accumulated debris and particles. This process is preventative maintenance and is vital to the life of a filter and fundamental to the quality of water coming out of the filter. Any individual who discharges filter backwash and sedimentation basin washwater from water treatment plants to the waters of Tennessee must obtain coverage under an NPDES general permit for such discharge.

f. General Permit for Hydrostatic Testwater

Hydrostatic test water refers to water placed in pipelines, tanks, etc. (new/unused or used) and raised to greater than atmospheric pressure to check for leaks and/or the structural integrity of these facilities. Hydrostatic test water also includes tanks and pipelines filled with water to test for leaks without raising pressure to above atmospheric pressure.

Any individual who discharges hydrostatic test water to the waters of Tennessee must file for coverage under this general permit. This includes discharges from new, unused facilities or operating facilities including, but not limited to, boilers, pipelines, flowlines, storage tanks used for the transportation or storage of natural gas, crude oil, or liquid.

g. General Permit for the Application of Pesticides

Point source discharges of biological pesticides, and chemical pesticides that leave a residue into waters of the state, constitutes the discharge of pollutants under the CWA. Permit coverage is generally required for the type of discharges associated with the following pesticide use patterns:

- mosquito and other flying insect pest control;
- weed and algae control;
- animal pest control; and
- forest canopy pest control.

Anyone who exceeds any annual treatment area thresholds identified in the general permit, must obtain coverage under this permit.

h. General Permit for Ready Mixed Concrete Facilities

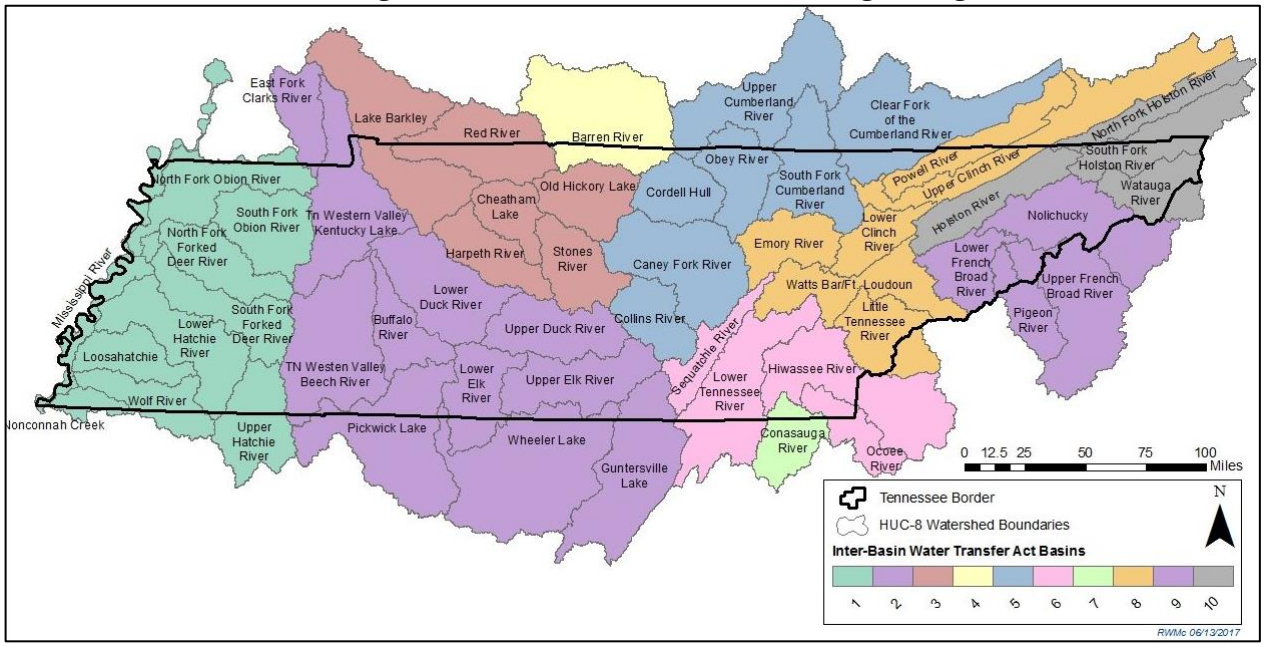
Ready-mixed concrete is manufactured in a batch plant, according to a set engineered mix design. These batch plants combine a precise amount of rock, sand, water and cement together by weight, allowing specialty concrete mixtures to be developed and implemented on construction sites. An operator of a ready mixed concrete facility with discharges of washwater, stormwater, or a no-discharge recycle system must file for coverage under the Division's General NPDES Permit for Discharges of Storm Water Runoff and Process Waste Water Associated with Ready Mix Concrete Facilities

i. General Permit for Underground Storage Tank (UST) Remediation

A UST that has a leak involves the release of a fuel product from that tank and has the potential to contaminate surrounding soil, groundwater, or surface waters. The EPA's federal UST regulations require that contaminated UST sites be cleaned up to restore and protect groundwater resources and create a safe environment for those who live or work around these sites. Any individual who discharges effluent to surface waters from the treatment of groundwater that has been contaminated by petroleum from a UST must obtain coverage under this general permit for such discharge.

3. Inter-Basin Transfer Permit

Anyone who proposes to transfer water out of a major river basin for the benefit of (or to supply) a public water system is required to obtain an Inter-Basin Transfer Permit. The Inter-basin transfer permit is authorized by Rule 0400-40-13 which regulates water withdrawals from basins in Tennessee which discharge into basins different than the originating basins.



- RULE 0400-40-13 Inter-Basin Water transfers
- T.C.A. § 69-7-201

C. Groundwater Permitting Including Underground Injection Control

1. Septic System Permitting

Septic systems are underground wastewater treatment structures, commonly used in rural areas without centralized sewer systems. A typical septic system consists of a septic tank and a drainfield, or soil absorption field. The septic tank itself is a watertight box, usually made of concrete or fiberglass, with an inlet and outlet pipe. Wastewater flows from the home to the septic tank through the sewer pipe where it is held long enough that the solids settle down to the bottom of the tank. The layers of sludge and scum remain in the septic tank where bacteria found naturally in the wastewater work to break the solids down.

- RULE 0400-48-01 Subsurface Sewage Disposal Systems

a. Septic Tank Pumping Contractor Permit

Anyone engaged in the business of removing and disposing of domestic septage from septic tanks, holding tanks, portable toilets or other similar sewage treatment or disposal facilities must obtain a septic tank pumping contractor license from the Division. Septic Tank Pumping Contractors are authorized under the domestic septage removal permit to pump the contents of the subsurface disposal systems and dispose of that waste in an approved manner.

b. Domestic Septic Disposal Site Permit

Any person who proposes to land dispose of domestic septage from septic tanks or other sewage treatment or disposal facilities must obtain a domestic septage disposal site permit. The operator of the site must obtain this permit and is responsible for the use of the site.

c. Septic System Installer Permit

Any person engaged in the business of installing, altering, extending, or repairing a subsurface sewage disposal (septic) system needs a Subsurface Sewage Disposal System Installer Permit which is issued by the Department.

d. Septic System Construction Permit

Any individual or property owner who desires to have a subsurface sewage disposal (septic) system installed on their property or requiring repair to an existing faulty system must get a Septic System Construction Permit. A permit may be denied in places where there is an accessible public sewerage system.

2. Underground Injection Control Authorization/Permit (Class I, II, III, IV & V)

Anyone who intentionally directs industrial/commercial wastes or stormwater into a subsurface system other than city sewers is required to secure an underground injection control (UIC) permit or authorization by rule from the Division's Drinking Water Unit.

- RULE 0400-45-06 Underground Injection Control

D. Aquatic Resource Alteration Permitting

1. Introduction

Persons who plan to alter waters of the state, such as a stream, river, lake or wetland must first obtain a water quality permit. Physical alterations to properties of waters of the state require an Aquatic Resource Alteration Permit (ARAP) and/or a Section 401 Water Quality Certification (§ 401 certification). Examples of alterations that require a permit from the Division include, but are not limited to:

- dredging, excavation, channel widening, or straightening;
- bank sloping; stabilization;
- channel relocation;
- water diversions or withdrawals;
- dams, weirs, dikes, levees or other similar structures;
- flooding, excavating, draining and/or filling a wetland;
- road and utility crossings;
- structural fill; and
- stream & wetland enhancement.

Additionally, Section 401 of the CWA, (33 U.S.C. §1341), provides that an applicant for a federal license or permit for a discharge into the waters of the U.S. (including a Section 404 permit) must provide a certification from the State in which the discharge originates, and that any such discharge will comply with the applicable provisions of §§ 301, 302, 303, 306 and 307 of the CWA. The ARAP services as the Section 401 certification where applicable.

- RULE 400-40-07 Aquatic Resource Alteration
- T.C.A. § 69-3-108

2. General ARAP

General ARAPs are developed and maintained by the Division to provide a streamlined, expedited means of authorizing projects that singularly or cumulatively propose minor impacts to water resources, cause only *de minimis* degradation, and do not require compensatory mitigation. When there are specific categories of activities that are substantially similar in nature that do not cause more than *de minimis* degradation or an appreciable permanent loss of resource values, a general permit can be issued. General permits are issued on a statewide basis and contain standards, conditions or provisions that are specific to that activity. It is expected that activities covered under general ARAPs will have minimal and temporary impact to the resources. The Division issues general permits for the following activities:

a. Alteration of Wet Weather Conveyances

This general permit authorizes alterations to wet weather conveyances, which are defined in the Water Quality Control Act in part as "man-made or natural watercourses, including watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff...." The Tennessee General Assembly recently enacted T.C.A. § 69-3-108(q), which authorizes these impacts directly. Accordingly, this general permit is proposed to be rescinded.

b. Bank Stabilization

This general permit authorizes alterations associated with actively eroding stream and reservoir banks. Stabilization techniques include soil bioengineering, in-stream structures, and hard armor treatments.

c. Construction & Removal of Minor Road Crossings

This general permit authorizes the construction and/or removal of minor road crossings of streams by a bridge, culvert, pipe or fords as well as authorizing other similar transportation crossings such as railroads and linear crossings of greenway trails. Stream encapsulations must be kept to the minimum amount necessary, and the least environmentally impactful structure practicable should be selected (e.g. bridge, bottomless culvert).

d. Construction of Launching Ramps and Public Access Structures

This general permit authorizes the construction of boat launching ramps and other access structures such as fishing piers, boardwalks, handicap access ramps and greenway trails.

e. Construction of Intake and Outfall Structures

This general permit authorizes the construction, maintenance, repair, rehabilitation or replacement of intake and outfall structures in waters of the state. The outfall structures may be conveyances that are used for the discharge of wastewater, stormwater, cooling water etc. and the intake structures are generally used for the intake of water for a domestic water supply, irrigation or cooling water. This permit is intended for the structure only and does not apply to the withdrawal or release of water.

f. Emergency Infrastructure Repair

This general permit authorizes alterations to streams and/or wetlands in the case of immediate danger to public health, safety or the environment. This allows for quick repairs to infrastructure such as roads, railways, water courses, runways, utilities and other critical structures. Authorization under this permit is not intended to address long term or chronic problems, the failure of which does not represent a significant danger to public safety, health or the environment.

g. Maintenance Activities

This general permit authorizes the maintenance of existing, currently serviceable structures or fills such as dams, intake and outfall structures, utilities, culverts, and bridges. Currently serviceable means the structure or fill that is existing and can be used as is or with some maintenance. The structure or fill can only be repaired or restored to the same size, design, location and function as the existing structure.

h. Minor Alterations to Wetlands

This general permit authorizes minor temporary or permanent alterations of wetlands, where avoidance is not possible. The individual or cumulative amount of alteration can be up to a quarter of an acre within a common plan of development that may be authorized is based on the degree of resource value impacted. Resource value can be determined by using the Tennessee Rapid Assessment Methodology (TRAM) document or other scientifically valid assessment methodology approved by the Division.

i. Minor Dredging and Filling

This general permit authorizes minor dredging and filling activities in reservoirs. Minor dredging activities typically include excavation of a lakebed for boat access for private or commercial use. Minor filling includes discharges of materials such as concrete, sand, rock, etc. into tightly sealed forms or cells where the material will be used as a structural component of standard pile-supported structures such as bridges, transmission line footings, and walkways, or for general navigation such as mooring cells.

j. Gravel Removal

This general permit authorizes a landowner to remove limited amounts of gravel from dry gravel bars for noncommercial use on their private farm or residence. Gravel harvesting should not be intended to change natural flow patterns in a channel which can have unintended consequences downstream.

k. Recreational Prospecting

This general permit authorizes various methods of recreational prospecting for gold or other precious or semi-precious ores, metals and minerals in the waters of Tennessee. Prospecting is divided into two categories in this permit, manual and mechanical. The two categories have different limits and conditions under which the work may be carried out.

l. Sediment Removal for Stream Remediation

This general permit authorizes stream remediation activities focused on removing recent sediment deposits from stream beds, stream banks and riparian lands resulting from inadvertent releases such as failed erosion protection and sediment control (EPSC) measures at construction sites, dam breaches, and drilling fluid loss. The deposits must be confined within areas that can be readily accessed and removed without causing additional harm to the shape, stability, and ecology of the stream.

m. Stream & Wetland Habitat Enhancement

This general permit authorizes activities associated with the improvement of the habitat and ecological function of altered or degraded streams, wetlands, and riparian lands. The activities authorized under this permit, such as buffer enhancement, vegetative bank stabilization, in-stream habitat structures and removal of channel obstructions, are designed to improve hydrology, native vegetation, water quality, and habitat functions.

n. Surveying & Geotechnical Exploration

This general permit authorizes scientific surveys and geotechnical exploration (excluding oil and gas drilling and excavation)in waters of the state for activities such as core sampling, seismic exploratory operations, soil surveys, and historic resource surveys. This permit allows the placement, operation, and removal of scientific measurement devices such as staff gages, water recording devices, water quality testing devices, and similar structures..

o. Utility Line Crossing

This general permit authorizes the construction, maintenance, repair, rehabilitation, or replacement of utility line crossings of streams and wetlands. The number of stream and wetland crossings that may be authorized differ based on method which can include open-trench cutting, directional drill, or bore.

p. Wetlands Restoration and Enhancement

This general permit authorizes activities that are associated with improvements being made to the habitat and ecological functions or altered or degraded streams, wetlands and riparian lands. The activities authorized under this permit are designed to improve hydrology, native vegetation and habitat functions. Activities include buffer enhancements, vegetative bank stabilization, in-stream habitat structures, or the removal of small obstructions in a stream channel.

q. Minor Stream Grade Stabilization

This general permit authorizes alterations associated with the repair and protection of actively degrading stream beds in destabilized, previously channelized watersheds located in the western third of the state. Stream grade stabilization involves activities that result in the prevention, arresting, or restoration of an active head cut within an aggressively degrading stream channel.

3. Individual ARAP

Individual ARAPs are required when an activity requires special conditions specifically tailored to the activity being authorized, including any alteration for which compensatory mitigation is required. Individual permits are required when the proposed activities, either individually or cumulatively, would cause more than *de minimis* degradation to water quality, cannot meet all requirements of a general permit, or there is no general permit that would authorize that type of activity. If a proposed project has multiple points of impact, which combined would cause an appreciable permanent loss of resource values, then an individual permit is necessary. Where a single impact of a given scale might only require coverage under a general permit, multiple impacts of the same scale may require coverage under an individual permit, due to the cumulative effects. Compensatory mitigation is required when the impacts cause an appreciable loss of resource values.

Compensatory mitigation means the restoration, creation, enhancement, and/or preservation of aquatic resources for the purposes of offsetting unavoidable impacts to waters of the state. The intent is to result in no overall net loss of resource values. If a proposed activity requires compensatory mitigation, applicants must propose mitigation sufficient to replace the loss of resource value through banks, in-lieu-fee programs, or permittee-responsible mitigation. Mitigation banks and in-lieu fee mitigation typically involve off-site mitigation activities generally conducted and overseen by a third party. Permittee responsible mitigation (PRM) is when the applicant proposes mitigation either on-site or at another location and the permittee retains the legal responsibility for the implementation and success of the mitigation project.

E. State Operating Permitting

The Division issues state operating permits (SOPs) for a number of activities that involve sewerage systems, land application of wastewater, and other types of wastewater management. SOPs do not authorize discharges to waters of the state, so some systems covered by SOPs also require underground injection control permits.

1. Biosolids State Operating Permit

Biosolids are organic materials produced during the wastewater treatment process. These materials can be applied to the land for different uses, primarily to supply nutrients back to soil. The term exceptional quality is used to characterize biosolids that meet low-pollutant, minimal chance of pathogens criteria. This general permit authorizes the application of non-exceptional quality biosolids. Non-exceptional biolsolids are those that do not necessarily meet the criteria to be classified as exceptional quality.

- RULE 0400-40-15 Biosolids Management

2. Animal Feeding Operations (AFO) General State Operating Permit

Permitting AFOs is in the process of changing due to Public Chapter No. 523, which went into effect July 1, 2018. This law reduces the population of AFOs in the state that are required to obtain permit coverage. Only large AFOs that manage manure in liquid form are now required to obtain a state permit.

3. Water Quality State Operation Permit

This permit is required for the operation of a sewage, industrial waste or other collection and/or treatment system that does not have a point source discharge to any surface or subsurface waters. Types of activities include the operation of a wastewater collection system package plant, land application treatment systems, pump and haul operations, holding ponds, and mobile wash operations..

- RULE 0400-40-05 Permits, Effluent Limitations & Standards

F. Mineral Test Hole, Surface Mining and Oil & Gas Permitting / Abandoned Mine Land (AML) Reclamation Program

1. Mineral Test Hole Permit

Persons who drill a hole in excess of one hundred (100) feet deep for the specific purpose of exploring for minerals must obtain a permit from the Division's Mining Unit. This excludes oil and gas drilling and/or gas and water and drilling in conjunction with active mining or quarrying operations. It also excludes drill holes for the exploration of oil, structural foundations, and seismic surveys.

- RULE 0400-43-01.03 Mineral Test Holes
- T.C.A. § 60-1-501 to 511 Mineral Test Hole Regulatory Act

2. Surface Mining Permit

Persons who engage in mining and surface disturbances related to mining require a state mining permit which is obtained from the Division's Mining Unit. In all counties mining of the following minerals requires a Tennessee Surface Mining permit: clay, stone, phosphate rock, metallic ore and any other solid material or substance of commercial value found in natural deposits on or in the earth. This does not include limestone, coal, marble, chert, gravel, sand or dimension stone, except in counties with populations over 600,000 (Shelby and Davidson Counties) for which sand and gravel must also obtain a permit..

- RULE 0400-42-02 Requirements for Surface Mining Permits
- T.C.A. § 59-8-201 Tennessee Mineral Surface Mining Law

3. Oil & Gas Permitting

The Division's Oil and Gas Program is responsible for managing, protecting, and conserving minerals and mineral rights of the landowners in Tennessee. This responsibility is set forth in statute under T.C.A 601-1-101 and by Rule Chapters 0400-51-01 through 0400-58-01. The Oil and Gas Program issues permits for persons or businesses who drill, deepen or reopen oil and gas wells in the state of Tennessee. As part of the permitting process, applicants are required to submit financial assurance for plugging and reclamation in an amount that is based on the

number of wells and their depth. Oil and Gas inspectors conduct inspections of active drilling sites, surface casing jobs, and plugging of abandoned wells. They also oversee reclamation releases and well treatments.

- RULE 0400-51-01-.01 through 0400-58-01-.10
- T.C.A. § 60-1-101

4. Abandoned Mine Land (AML) Reclamation Program

The Abandoned Mine Land Reclamation Program is responsible for reclaiming coal mine sites that have been designated as "abandoned," meaning those sites which have were mined prior to surface mining laws or the Surface Mining Control and Reclamation Act of 1977 (SMCRA), those sites with no reclamation bond, or those sites where the mine operator has no continuing obligation to. Abandoned coal mines pose serious threats to public health, safety, and welfare and degrade the environment. Both appropriated state dollars and federal grant dollars from the U.S. Department of Interior's Office of Surface Mining are used to reclaim the sites. Land Reclamation staff is responsible for identifying potential reclamation project sites, designing reclamation plans and specifications for those sites, awarding reclamation contracts, and inspecting the reclamation work as it progresses.

- T.C.A. § 59-8-324 Tennessee Mineral Surface Mining Law

G. Plans Review

1. General Principles

By statute, the Department must review and approve construction plans for water and wastewater plants and their associated systems. Tennessee rules provide that the Division's review is governed by its design criteria. The Rules authorize and require the Department to define construction plans for review and approval and also to develop document review criteria for those plans that is to be made available to the public. The design criteria provide the generally accepted water and wastewater engineering practice standards. Under the criteria, it is the responsibility of the design agent to justify any departure from accepted criteria. The design criteria make the review process more efficient while insuring that new technologies and treatment advances can be accommodated.

2. Wastewater Treatment Plant Plans Review

Whenever there are any new wastewater treatment projects or changes to existing works, those design and construction documents must be submitted by a registered engineer and presented to the Division for review and approval. To expedite the process and to make it run more smoothly, the Division conducts a preliminary project discussion with the project engineer, permittee and Division permitting and plans review staff. This coordination is held as soon as possible in the process and may include representatives from funding agencies (including the Division's State Revolving Fund Unit staff). The preliminary project discussion endeavors to define the path forward for a coordinated permitting and plans review process including identification of alternatives to be examined in the Preliminary Engineering Report (PER) combining discharge investigations and engineering treatment proposals. The process emphasizes a preliminary engineering submission rather than just the final construction document review. The draft permit must be in place before the Division approves the preliminary plans and engineering report (basis of design) and authorizes final design to commence. This emphasis at the preliminary design phase ensures that adequate characterization of treatment plant influent has been performed and that sufficient treatment capabilities will be proposed to meet permit limits.

Conventional centralized wastewater treatment plants, decentralized wastewater treatment facilities, land application, and reuse are (or will be) included in the treatment plant procedures. Land application and beneficial reuse of treated wastewater in an irrigation mode is currently being allowed under published EPA guidance while rules and design criteria are being developed.

Wastewater Treatment Plant Plans Review:

- RULE 0400-40-02 Regulations for plans, submittal, and approval, control of construction, control of operation
- RULE 0400-40-16 Public Sewerage Systems
- Design Criteria for the Review of Sewerage Works, Construction Plans and Documents
- EPA/625/R-06/016, Process Design Manual – Land Treatment of Municipal Wastewater Effluents, September 2006

3. Collection System Plans Review

Division staff will use the current Design Criteria for the review and approval of collection system plans which must be prepared under the supervision of a Tennessee registered professional engineer. The only difference between the design reviews for collection systems and treatment plants is that the review for collection systems only occurs at the final engineering document submission unless prior Division review is requested. The Division has delegated authority to some municipalities and utility districts to review plans and specifications for sewer line work and sewer rehabilitation projects. Agencies receiving this delegation are required to certify that their review, by a registered professional engineer on staff, is based on the current Design Criteria used by the Division or their own standards, whichever are more stringent.

- RULE 0400-40-02 Regulations for plans, submittal, and approval, control of construction, control of operation
- RULE 0400-40-16 Public Sewerage Systems
- Design Criteria for the Review of Sewerage Works, Construction Plans and Documents

4. Public Water System Plans Review

Persons who construct or modify a public water system are required to obtain an approval from the Division. Typical applicants include municipalities and utility districts relying on wells, springs, or surface water sources. Persons who intend to bottle and sell spring water must also obtain approval from the Division. Water withdrawals themselves are permitted under the Aquatic Resource Alteration Permitting Process.

Public water systems that meet all of the following criteria are not regulated if they:

- consist only of distribution and storage facilities, and do not have any collection and treatment facilities;
- obtain all its water from a public water system, but is not owned or operated by that public water system;
- do not sell water to any person; and
- are not a carrier that conveys passengers in interstate commerce.

Industries using groundwater or surface water for non-potable uses are not required to obtain approval from the Division as public water systems, but, some water withdrawals may require an Aquatic Resources Alteration Permit.

- RULE 0400-45-01-.05
- T.C.A.68-221-706

Community public water systems are regulated by Tennessee drinking water rules. Guidance for submission and review of construction documents is outlined in design criteria. Source water quality investigations and source water protection is covered in the drinking water rules.

- RULE 0400-45-01 Public Water Systems
- Community Public Water Systems Design Criteria

H. Approvals, Authorizations & Registrations

1. Certificate of Approval & Safety of Dams

The construction, alteration, removal or operation of a non-federal dam must obtain approval from the Division. A dam requiring a permit is defined as a structure at least 20 feet high or holding 30 acre-feet or more of water at maximum pool. Dam that meet the size requirements but are used exclusively as a farm pond not used by the public, are not regulated by the Division.

- RULE 0400-45-07 Rules and Regulations Applied to the "Safe Dams Act of 1973"
- T.C.A. § 69-11-101 Dams

2. Dye Trace Registration

Any person must notify the Division prior to running a dye trace which may impact a public water system. Applicants provide information about the owner/operator of the facility necessitating the trace, person/company performing the trace, property owner at the injection site, the reason for the trace, and the types and amounts of dyes to be used.

- RULE 0400-45-01 Public Water Systems

3. Class V Underground Injection Control Authorization

Class V wells generally are authorized by rule. However, applications are still reviewed by the Division and if the proposed project is complex, the Division may issue an individual permit rather than an authorization by rule, which is a type of general permit.

- RULE 0400-45-06 Underground Injection Control
- 40 C.F.R. § 144 Underground Injection Control Program

4. Wellhead Protection Plan Approval

All public water systems that use groundwater as a source of water are required to develop a Wellhead Protection Plan that is reviewed and approved by the Division. The plan should include the wellhead area delineation, an inventory of all potential contaminant sources, photographs, hazardous chemical use and storage, spill response notification and contingency planning and the steps that will be taken to protect the area around the wellhead.

- RULE 0400-45-01-.34

IV. Water Resource Protection

A. Source Water Protection

All states were required by Congress in the 1996 Safe Drinking Water Act Amendments to develop a Source Water Assessment Program for the assessment of the potential contamination of public water system ground water and surface water sources. Tennessee's Source Water Assessment Program was approved by the EPA in November of 1999 and Tennessee completed the source water assessments for all public water systems in August of 2003. The resulting report defined how the state would delineate source water protection areas, inventory significant contaminants in those areas, and determine susceptibility of each public water supply to contamination.

- RULE 0400-45-01 Public Water Systems

B. Pretreatment Program (40 C.F.R. § 403)

The national pretreatment program is a part of the NPDES program. The EPA authorized Tennessee's pretreatment program so the Division could approve local municipalities to perform permitting, administrative, and enforcement tasks for indirect discharges into the municipalities' publicly owned treatment works (POTWs). Oversight of pretreatment programs generally consists of conducting inspections, providing technical assistance, and reviewing and approving various pretreatment documents. The program is designed to:

- protect POTWs infrastructure, and
- reduce conventional and toxic pollutant levels discharged by industries and other nondomestic wastewater sources into municipal sewer systems and into the environment.

The national pretreatment program requires nondomestic indirect dischargers to comply with pretreatment standards to ensure the goals of the CWA are attained.

The objectives of the program are to:

- prevent the introduction of pollutants into a POTW that will interfere with its operation, including interference with its use or disposal of municipal sludge,
- prevent the introduction of pollutants into a POTW that will pass through the treatment works or otherwise be incompatible with it, and
- improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

The national pretreatment program identifies specific indirect discharge standards and requirements that apply to sources of nondomestic wastewater flowing into to a POTW. By reducing or eliminating waste at the industries ("source reduction"), fewer toxic pollutants flow to POTWs.

- RULE 0400-40-14 Pretreatment Requirements

C. Point Source Pollution Prevention (40 C.F.R. § 130.5(b)(1))

Sections 301, 306, and 307 of the CWA refer to limits that are set for pollutants that are discharged from POTWs, industries, and other point source dischargers.

In the state of Tennessee, water quality standards required by Section 303 of the CWA are established through rule-making by the Tennessee Board of Water Quality, Oil and Gas. The Board's authority is described in the Tennessee Water Quality Control Act of 1977.

Sources of pollutants to waters are generally divided into point and nonpoint source classifications. Point source discharges are defined in the CWA as "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, or vessel or other floating craft, from which pollutants are or may be discharged."

Any point source discharge to surface waters of the United States requires an NPDES permit. An NPDES permit establishes effluent limitations, as well as monitoring and reporting requirements. The Division is charged with preparing NPDES permits for those facilities intending to discharge pollutants to waters of the state of Tennessee. Tennessee's Water Quality Control Act, T.C.A. § 69-3-108(g), prohibits the Division from issuing a water quality permit "for an activity that would cause a condition of pollution either by itself or in combination with others" and requires that all such permits impose "(1) The most stringent effluent limitations and schedules of compliance, either promulgated by the board, required to implement any applicable water quality standards, necessary to comply with an areawide waste treatment plan, or necessary to comply with other state or federal laws or regulations." Tennessee's detailed procedures for developing effluent limitations, either technology-based or water quality-based, as well as for establishing schedules of compliance, can be found in RULE Chapter 0400-40-05.

When developing effluent limitations for an NPDES permit, limits based on both the technology available to control the pollutants (technology-based effluent limitations) and limits that are protective of the water quality standards of the receiving water (water quality-based effluent limitations) must be considered In addition, NPDES permits for new or increased discharges may require more stringent limits based on antidegradation review, while effluent limits in renewed NPDES permits must comply with antibacksliding requirements. Permits will be based on the most stringent of the effluent limitations based on all of these requirements.

Technology-Based Effluent Limitations: Technology-based effluent limitations represent a minimum level of treatment for industrial and municipal point sources that must be achieved based on currently available treatment technologies. These limitations are implemented through the NPDES permitting program. This includes conventional and non-conventional pollutants as well as toxic pollutants. Toxic pollutants are defined in the CWA in section 307(a)(1) and in 40 C.F.R. § 401.15.

As described in 40 C.F.R. § 401.12, the CWA establishes technology-based performance levels and compliance dates for different types of dischargers:

- New Sources (CWA § 306)
- Existing Sources (CWA § 301 and §304)
- Indirect Dischargers (CWA §307)

Water Quality-Based Effluent Limitations: Whenever it is determined that technology-based effluent limitations are not stringent enough to meet water quality standards, water quality-based effluent limitations must then be developed. These limitations must be protective based on designated uses that have been established for that water body.

Water quality-based effluent limitations are determined by selecting the most stringent of the effluent limits calculated using all applicable water quality criteria for a specific point source to a specific receiving water for a given pollutant. Where a water body is designated for more than one use, the most stringent criterion would apply. The water quality criteria are composed of both numeric and narrative criteria. Accordingly, water quality-based effluent limitations may be imposed in narrative form when it is not feasible to develop numeric limits.

- RULE 0400-40-03 General Water Quality Criteria
- RULE 0400-40-05 Permits, Effluent Limitations & Standards

D. Non-Point Source (NPS) Pollution Protection

The protection of water resources from NPS can be difficult as it comes from many diffuse sources, is spread out and often difficult to identify and control. These sources of pollution, caused by rainfall or snowmelt, do not have a single point of origin. Thus, as runoff moves, it carries pollutants ultimately to rivers and lakes. According to the EPA, the National Water Quality Assessment shows that NPS pollution is the nation's leading source of water quality problems.

Common nonpoint sources of pollution include:

- inappropriate agricultural Practices;
- inappropriate silvicultural Practices;
- loss of riparian habitat;
- inappropriate land development practices;
- inappropriate road construction practices;
- urban runoff;
- failing septic systems; and
- inappropriate household management practices.

Common Impairments caused by nonpoint sources of pollution:

- sedimentation (from channel and/or bank erosion, agriculture, and silviculture);
- pathogen contamination (from failing septic systems);
- excessive nutrients/low dissolved oxygen (from urban runoff, fertilizers, faulty septic systems);
- toxins and other materials (from urban runoff, improper waste disposal, improper application of chemicals); and
- habitat alterations (from land development, Impoundments, riparian vegetation removal, draining or filling wetlands, livestock).

Management of NPS pollution can be difficult. The following are some tools Tennessee can use to manage these sources and minimize the amount of pollution that comes from them:

regulatory approaches:

- permits;
- protective regulations;
- improved zoning guidelines/building codes; and
- Section 319 Program implementation

non-regulatory approaches:

- agricultural and urban best management practices;
- financial assistance for water quality improvement activities;
- greenways and streamside buffer zones;
- public education; and
- community planning.

The Nonpoint Source Program, funded by the EPA through Section 319 of the CWA, was established by Congress to address the issue of NPS pollution. In Tennessee, the Section 319 program is administered by the Tennessee Department of Agriculture (TDA).

The TDA-NPS Program is non-regulatory and focuses on promoting voluntary, incentive-based solutions. It is a cost-share program, paying for 60% of the cost of a project. The remaining 40% must be provided by the grantee in cash or in-kind services. This program provides funds for:

- BMP Implementation Projects. Improve an impaired waterbody, or prevent a non-impaired water from becoming placed on the 303(d) List. Projects of this type receive highest priority for funding. All projects involving BMPs must be based on an approved Watershed Based Plan. Small projects can be funded to write these plans.
- Monitoring Projects. Up to 20% of the available grant funds may assist water quality monitoring efforts in Tennessee streams, both in the state's 5-year watershed monitoring program, and also in performing before-and-after BMP installation (effectiveness monitoring) so that water quality improvements can be verified.
- Educational Projects funded through TDA-NPS that raise public awareness of practical steps that can be taken to eliminate NPS pollution.

Eligible applicants include non-profit organizations, local governments, state agencies, soil conservation districts, and universities.

The TDA uses TDEC’s assessment results to help prioritize project funding. Priority is given to projects that target waters of the state that have been assessed as impaired from nonpoint source pollution and are placed on the state’s list of impaired waters.

E. Compliance and Enforcement

1. Overview

The Department strives to be fair, consistent, and effective in any enforcement to ensure compliance with Tennessee's environmental laws and regulations in a manner that promotes the health and well-being of the state's citizens and protects its environment. The Division's Compliance and Enforcement Unit carries out those actions for water resources in Tennessee in partnership with field office staff. The state first makes efforts to work with permittees to ensure compliance with environmental regulations and proceeds with increasing levels of enforcement action as necessary to return the facility to compliance.

2. Compliance

Environmental compliance entails facilities conforming to environmental laws, permits, regulations, and other requirements. The compliance section oversees monitoring data from facilities that are required to report data into federal systems. Those federal systems are the Integrated Compliance and Information System (ICIS) for the NPDES permits and the Safe Drinking Water Information System (SDWIS) for the Safe Drinking Water Act. The section works with the EPA to ensure inspection commitments are met, and reports back to the EPA on those commitments. Compliance staff also train both internal and external customers on the data systems and work with state computer programmers to ensure that data is properly flowing between the systems and that data errors are promptly corrected. Compliance staff also complete calculations to determine violation status; ensure that the status is accurately reflected in the various data systems; issue notices of violation; and recommend enforcement for those facilities that meet federal requirements for enforcement.

3. Enforcement

The primary goals of enforcement are to return the entity to a compliant status, provide a deterrent to other potential violators, and establish a level playing field for the regulated community by ensuring that violators do not gain an economic advantage.

Violations of the Water Quality Control Act, SDWA, Water Wells Act, and Safe Dams Act are referred to this unit from all the field offices as well as other central office units for enforcement. Facilities and individuals referred for enforcement have generally received a Notice of Violation (NOV) prior to referral for enforcement. Field offices often hold compliance review meetings as well, in an effort to return a facility to compliance before making the enforcement referral. Enforcement is also initiated by the Compliance and Enforcement Manager when significant non-compliance occurs in the NPDES program or a score of 11 or greater is reached using the enforcement targeting tool for drinking water facilities. This unit also coordinates and prepares responses to formal complaints filed pursuant to Section 118(a) of the Water Quality Control Act, which must be responded to within 90 days of receipt, and to 60-day notices of intent to sue under the Clean Water Act.

V. Water Resource Assessment

A. Designated Uses, Water Quality Criteria & Antidegradation (40C.F.R.§130.5(b)(6))

Water Quality Standards (WQS) are the cornerstone for water pollution control in Tennessee. The WQS consist of three parts:

1. designated uses;
2. water quality criteria; and
3. the Tennessee Antidegredation Statement.

The Tennessee Board of Water Quality, Oil and Gas is responsible for designating the uses for all waters of the state. In Tennessee, there are seven designated uses.

1. Fish and Aquatic Life – This use classification is assigned to all streams in Tennessee for the protection of fish and other aquatic life such as aquatic insects, snails, clams, and crayfish.
2. Recreation – This use classification is assigned to all streams in Tennessee for the protection of the public's ability to swim, wade and fish.
3. Irrigation - This use classification is assigned to most waterbodies to protect the ability of farmers to use streams or reservoirs as a water source to irrigate crops.
4. Livestock Watering and Wildlife – This use classification protects waterbodies used as an untreated drinking water source for livestock and wildlife.
5. Drinking Water Supply –This use classification is assigned to waterbodies that are currently or are likely to be used for domestic water supply.
6. Navigation – This use classification is designated to protect navigable waters from any alterations that would adversely affect commercial uses.
7. Industrial Water Supply - This use classification is assigned to waters used for industrial water supplies.

All Tennessee streams are classified for at least four uses: fish and aquatic life, recreation, irrigation and livestock watering and wildlife. Each waterbody may also have other uses assigned to it and may have several criteria for each pollutant. When multiple criteria are assigned for different uses on a waterbody, the most stringent criterion must be met.

The Tennessee Board of Water Quality, Oil and Gas also assigns specific water quality criteria to each designated use. The criteria are established to describe the conditions needed to support each designated use. The state has adopted both numeric and narrative criteria. Multiple criteria may be applicable for every waterbody, since each one has multiple designated uses. The standard for each waterbody is based on the most stringent criterion for the uses assigned to it. The protection of fish and aquatic life, recreation and drinking water typically impose the most stringent criteria.

1. Fish and Aquatic Life – The criteria for the protection of fish and aquatic life focus on acute (level of contaminant that causes death in an organism in a short period of time) and chronic (level of contaminant is lower, but causes death or ill effects over a long period of time) toxicity and contains both numeric and narrative criteria. This classified use has the most protective numeric criteria for many parameters.
2. Recreation – The criteria for the protection of recreational uses of waters in Tennessee are established to keep the waters safe for swimming and consumption of fish. The recreation use support criteria for pathogens and carcinogens are the most protective of all of the designated uses. Tennessee uses E. coli as the primary indicator for presence of pathogens in the water. The criteria for carcinogens are designed to prevent the accumulation of dangerous levels of certain metals or organic compounds in the water or sediment that could accumulate in fish tissue.
3. Irrigation – The criteria for the use of waters of the state for irrigation are mostly narrative and are used for agricultural irrigation purposes.
4. Livestock Watering and Wildlife - The criteria for protection of waters of the state for the purpose of providing an untreated drinking water source for livestock and wildlife are mostly narrative.
5. Drinking Water Supply – The criteria for protecting waters of the state for the use of domestic drinking water supply are focused on pollutants that could cause a threat to public health if not removed by conventional water treatment. The goal is to prevent contaminants from entering the water supply at all. These criteria use the Maximum Contaminant Levels (MCLs) recommended by the EPA for finished water as goals for surface waters that are used for drinking water sources.
6. Navigation – The criteria for the protection of waters of the state that are used for navigational purposes are narrative.
7. Industrial Water Supply – The criteria for the protection of waters of the state that are used for industrial purposes are both narrative and numeric.

The third component of Tennessee's water quality standards is the establishment of provisions to protect and prevent future degradation to water quality. These provisions are also known as the state's Antidegradation Statement.

The antidegradation policy fully protects the existing uses of all surface waters in Tennessee. In those waters that are designated as high quality, degradation can only be allowed if is in the public interest and there are no other reasonable alternatives available. For waters that have been deemed impaired, measurable degradation cannot be authorized for the parameters that caused the original impairment. High quality includes those waters designated as Exceptional Tennessee Waters as well as those designated as Outstanding Natural Resources Waters as described in the Rules listed below.

- RULE 0400-40-03 General Water Quality Criteria
- RULE 0400-40-04 Use Classification for Surface Waters
- 40 C.F.R. §131 Water Quality Standards

B. Watershed Management Program

1. Overview of Watershed Management Approach (40 C.F.R. § 130.5(b)(2), (4), and (9))

Four main features are typical of a Watershed Approach: 1) identifying and prioritizing water quality challenges in the watershed, 2) developing increased public involvement, 3) coordinating activities with other agencies, and 4) measuring success through increased and more efficient monitoring and other data gathering. An additional characteristic of the Watershed Approach is that it complements and coordinates other environmental activities allowing for close cooperation with local citizen groups, local governments, and other state and federal agencies. When all permitted dischargers are considered together, agencies are better able to focus on the controls necessary to produce measurable improvements in water quality. This also results in a more efficient process: It encourages agencies to focus staff and financial resources on prioritized geographic locations and makes it easier to coordinate between agencies and individuals with an interest in solving water quality problems.

In 1996, Tennessee initiated a watershed approach to doing business. The approach is based on the concept that many water quality problems are best addressed at the watershed level with the goals of making the processes more Efficient (administratively), more Effective (consistent with basic ecological principles), and more Equitable (increase consistency in management decisions). The Division continues to apply these 3-E principles to synchronize planning, monitoring, water quality assessment, TMDL development, and permitting activities through the watershed cycle.

Figure 4 - Watershed Management Cycle

HUC-8 Watersheds are appropriate as organizational units because they have identifiable landscape features with readily identifiable boundaries.

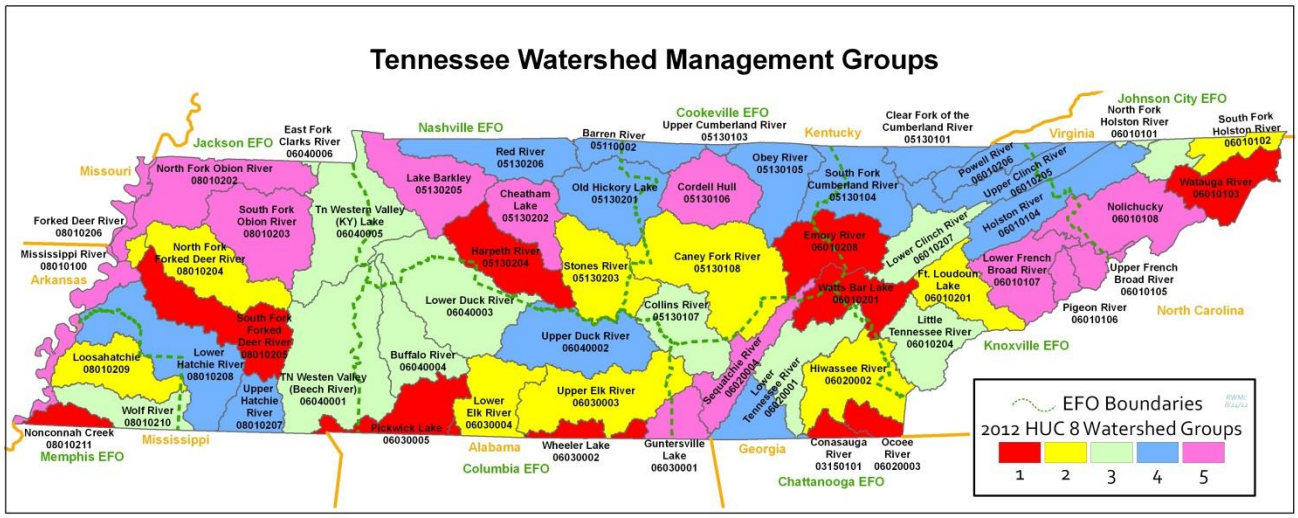


Figure 5 - Tennessee's Watershed Management Groups

As illustrated in Figure 4, the watersheds in Tennessee have been organized into five groups based on the year of implementation in a five-year cycle. The Division bases its activities for each group by the group's position in the cycle. One or more key activities are occurring in each of the 5 watershed groups each year.

Key activities that occur throughout the watershed cycle are:

- **Planning and Data Review**: Existing data and reports from appropriate agencies and organizations are compiled and used to assess the current conditions and status of rivers and streams. Review of all data and comparison of agency work plans guide the development of an effective monitoring strategy and help to determine where there is a need for more data.
- **Water Quality Monitoring**: Field data are collected for streams in the watershed and follow-up collection may occur at a later date (approximately 1 year) if needed.
- **Water Quality Assessment**: Monitoring data are used to determine the designated use support status of streams and lakes in the watershed by comparing data to the water quality standards.
- **TMDL / Alternative Restoration Plans**: A TMDL is part of a plan for water bodies to re-attain water quality standards. When appropriate, alternative plans are developed where a plan, or set of actions, pursued in the near term are designed to meet water quality standards.
- **Permit Issuance:** The issuance and expiration dates of individual discharge permits are synchronized based on the watershed cycle.

The Section 208 of the CWA was developed to assist and encourage the development and implementation of areawide waste treatment management plans to help states reach clean water goals established in 1972. In 1975, areas and agency designations for the Section 208 Areawide Management Program were approved by the EPA. Four designations were made for Tennessee: Memphis, Nashville, Knoxville and Chattanooga.

Following those designations, Tennessee prepared Basin Plans for the major hydrologic basins in Tennessee. These plans were designed to aid in coordinating a basin-wide water quality management program to attain and protect water quality in the region. Beginning in 1996, under the Watershed Program, Tennessee has established Watershed Water Quality Management Plans for 54 of Tennessee's 55 watersheds.

Tennessee has also developed a statewide water quality management plan framework that updated annually.

2. Total Maximum Daily Load Program (40 C.F.R. § 130.5(b)(3))

Section 303(d) of the CWA requires states to develop TMDLs for those waterbodies not attaining water quality standards. The objective of a TMDL is to allocate loads among all of the known pollutant sources throughout a watershed so that appropriate control measures can be implemented and water quality standards can be achieved.

The TMDL process quantifies the amount of a pollutant that can be assimilated in a waterbody, identifies the sources of the pollutant, and recommends regulatory or other actions to be taken to achieve compliance with applicable water quality standards based on the relationship between pollutant sources and instream water quality conditions. A TMDL can be expressed as the sum of all point source loads (waste load allocations), nonpoint source loads (load allocations) and an appropriate margin of safety, and is represented by this relationship:

TMDL = Sum of Point Sources + Sum of Nonpoint Sources + Margin of Safety

The basic TMDL process involves several steps:

1. review of available data;
2. calibration and running of models;
3. drafting the TMDL report;
4. internal review process;
5. review of report by the EPA;
6. review, response to, and incorporation of public comments; and
7. approval by the EPA.

In 2014, the EPA and states began a process to modernize the TMDL program. Like other states, Tennessee submitted a priority framework for TMDLs and TMDL alternatives that Tennessee has committed through 2022. Tennessee has identified subwatersheds (HUC-12s) with source water protection areas and nutrient impaired streams as its priority, and has submitted a list of sixteen such waterbodies to be addressed by 2022. How Tennessee implements the priority goal for TMDL development under the CWA long-term vision is described in Tennessee's prioritization framework document.

C. Drinking Water and Sanitary Survey

According to 40 C.F.R. Part 142, sanitary surveys are onsite reviews of water sources, facilities, equipment, operation, maintenance and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations to ensure the distribution of safe drinking water. These surveys are conducted by Division staff, who provide technical assistance to the communities as well.

VI. Public Outreach and Grants

A. Overview

The Division has many different methods of public outreach, both required and in place for the purpose of providing more transparency in processes while educating citizens. Required mechanisms, such as public notices, keep the public informed about decisions that the Division is making and gives it an opportunity to be involved. Other processes are in place in order to teach citizens about how the Division works to protect resources and how they can participate in the process.

In addition, the Division is involved in loan and grant programs. Low interest loans to communities in need help them to build or fix necessary community water and wastewater infrastructure. This infrastructure is necessary for communities to grow, protects public health, and is essential for protection of natural resources. Grants to other agencies, educational institutions, and non-profit organizations also assist with the protection and improvement of resources.

B. State Revolving Fund Loan Program (40 C.F.R. § 130.5(b)(8))

1. Overview

The State Revolving Fund (SRF) Loan program includes Tennessee's Clean Water (CWSRF) and Drinking Water (DWSRF) loan programs. Each program was created to provide low interest loans to cities, counties, utility districts and water/wastewater authorities. Loans are given to finance new water and wastewater facilities, upgrades to existing facilities, and expansions.

- RULE 0400-46 State Revolving Fund Program

2. Eligibility

a. CWSRF Eligibility

Eligible projects include new construction or the upgrading/expansion of existing facilities and may encompass wastewater treatment plants, pump stations, force mains, collector sewers, interceptors, elimination of combined sewer overflows, and/or nonpoint source pollution remedies, storm water construction, recycled water, decentralized wastewater treatment, green infrastructure, water conservation/efficiency/reuse, energy initiatives and efficiency, and/or environmentally innovative wastewater projects.

b. DWSRF Eligibility

Seven categories of eligible drinking water projects have been established. These categories include water quality problems, source or capacity, water storage, leakage problems, pressure problems, replacement or rehabilitation projects, and water line extensions. Projects that are not eligible for DWSRF loan funding include dams, reservoirs, purchase of water rights, laboratory fees for monitoring, operation and maintenance (O&M) expenses, and projects primarily intended for future growth, economic development, and fire protection. DWSRF loans cannot be used to provide assistance to any system that is in significant noncompliance with any national drinking water regulation or variance unless the State conducts a review and determines that the project will enable the system to return to compliance and the system will maintain an adequate level of technical, managerial and financial capability to maintain compliance.

3. Application Process

a. CWSRF Application Process

To obtain an SRF loan, the project must first be included on a priority ranking list. The Priority Ranking List is developed based on the State Priority Ranking System Rules, Chapter 0400-46-01. The priority ranking system provides a clear objective order of ranking wastewater projects. The basic criteria established under these rules place emphasis on water quality and public health concerns.

Applicants who wish to place projects on the Priority Ranking List for CWSRF loan funding must submit (1) a letter of request for funding to include a detailed project description, cost estimate including additional funding sources, estimated construction start and completion dates, desired loan award date, and project justification; and (2) a completed ranking questionnaire.

b. DWSRF Application Process

Applicants for DWSRF loan funding must submit (1) a letter of request for funding to include a detailed project description, cost estimate including additional funding sources, estimated construction start and completion dates, desired loan award date, and project justification; and (2) a completed ranking questionnaire. The state must develop a list of projects eligible to receive funding. The DWSRF Priority List contains information detailing the name of the projects to be funded and the related assigned points, description, expected terms of financial assistance and population of the system's service area. Projects are prioritized by risk to human health and compliance with SDWA. Upon a request for funding, projects are evaluated and assigned from 20 to 100 points depending on the health and compliance problems addressed by the project. Projects demonstrating the greatest risk to human health will receive the highest priority followed by projects addressing compliance problems and then projects addressing other needs.

4. Additional Funding Information

Loan applicants must pledge security for loan repayment, agree to adjust user rates as needed to cover debt service and fund depreciation, and maintain financial records that follow governmental accounting standards. The interest rate will be based on the community's Ability to Pay Index (ATPI). Interest rates vary from 0 to 100% of the interest rate reported on the 20-year Bond Buyer Index and the Municipal Market Data General Obligation Yields. The affordability criteria are based on the ATPI established by the University of TN Center for Business and Economic Research. The allocation formula uses a broad definition of fiscal capacity such as income, unemployment data, population trends, per capita property tax base, and per capita sales. The intent is to measure fiscal capacity in terms of the available resources for paying for services.

Communities that fall within the lower economic scale of the index will be eligible for a lower interest rate. Interest rates for utility districts and water/wastewater treatment authorities that services more than one county will be determined by using the lowest ATPI of the county that will directly benefit from the proposed project. Interest rates are fixed for the life/term of the loan. The maximum loan term for the DWSRF is 20 years or the design life of the proposed wastewater or drinking water facility, whichever is shorter. For proposed wastewater facilities, the maximum loan term is 30 years or the design life of the facility, whichever is shorter.

Because both CWSRF and DWSRF loans include federal funds, every project requires a fiscal review, the development of a facilities plan, an environmental review, opportunities for minority and women-owned business participation, a state-approved Sewer Use Ordinance (CWSRF only), a state-approved Plan of Operation (CWSRF only), and Interim and Final Construction Inspections to be conducted by the SRF Loan program's technical staff.

Additional Loan requirements:

- Davis-Bacon wage rate requirements (CWSRF & DWSRF)
- American Iron and Steel requirements (CWSRF & DWSRF)
- Fiscal Sustainability Planning (CWSRF)
- Cost and Effective Analysis (CWSRF)

5. Project Ranking

a. CWSRF Ranking

CWSRF loans are awarded to those projects that have met the CWSRF technical, financial, and administrative requirements, and are ready to proceed. Funding priority is given to projects that are ready to proceed with construction. To the extent possible, subsidy will be awarded to projects that are ready to proceed. Funding will also be set aside for small communities and green infrastructure projects. Only those projects that have been identified on the ranking list are eligible to receive financial assistance through this program.

b. DWSRF Ranking

The SRF Loan Program also maintains a priority ranking list for the funding of planning, design and construction of drinking water facilities. The SDWA requires states to utilize DWSRF funds to address risks to human health, to maintain compliance with the Act, and to assist systems most in need on a per-household basis. Tennessee's Priority Ranking System forms the basis for eligibility determinations and the allocation of loans. The Priority Ranking System assigns priority points to proposed drinking water projects using a 100-point scale. Only those projects that address serious, acute risks to human health are eligible for the maximum award of 100 points. Other projects will be assigned 20, 40, 60 or 80 points, depending on the severity of the problem and whether a compliance problem exists.

Only those proposed projects identified on the SRF Loan Program's Project Priority List are eligible to receive financial assistance through this program.

6. Facilities Plan

A Facilities Plan must be developed for all projects seeking funding from the SRF Program. The plan must demonstrate the need for a proposed action, evaluate viable alternatives, and select the most cost-effective (DWSRF only), implementable, and environmentally-sound solution that will meet the public needs over the design life of the facility. The chosen alternative should also include an evaluation of the wastewater treatment works for areas of improved water and energy efficiency and implement these conservation efforts as much as practicable with the selected alternative. There is no requirement that the least-cost alternative is selected. The selected or best alternative can be chosen by equally weighting cost and effectiveness.

Analyzing the cost and effectiveness of a proposed project or activity will usually involve comparing a set of alternatives that achieve a given water quality objective or address a given need based on a common set of monetary and non-monetary factors. Monetary factors are often evaluated using a present worth analysis. Non-monetary factors are influenced by national, regional, state, and/or local considerations and priorities and may include climate-related considerations, storm water management priorities, specific contaminants of concern, socioeconomic factors, etc.

The selected alternative should discuss reliability, fiscal sustainability, and process complexity. For example, the analysis of alternatives could describe revenue-generating applications, reduction or recovery of energy, water efficiency, reuse of treated wastewater, compatibility with current infrastructure, or other relevant factors.

The facilities plan must include an evaluation of the current and future population of the facilities planning area and its water or wastewater needs. The plan must also present a comprehensive evaluation of the current environment in the planning and project areas, potential impacts to the environment caused by the construction of the proposed project, and actions necessary to prevent potential negative environmental impacts. Public participation in the decision-making process must be demonstrated and documented.

Subsequent to the successful completion of the technical and environmental reviews of the Facilities Plan, the Plan of Operation, and the public participation process, either a Categorical Exclusion (CE), a Finding of No Significant Impact (FNSI) including an Environmental Assessment, or an Environmental Impact Statement is issued for public and agency review and comment. The review process is complete only after comments have been addressed.

7. Interdisciplinary Environmental Review

The technical staff of the SRF Loan Program completes an environmental and technical review of every proposed CWSRF project. The environmental and technical information prepared by the CWSRF loan applicant´s consulting engineer and presented in the Facilities Plan is reviewed to ensure compliance with various, applicable federal and state requirements.

The SRF Loan Program´s technical staff coordinates an Interdisciplinary Environmental Review (IER) during the early stages of the Planning Phase. The IER is presented to eleven state and federal environmental agencies for review and comment.

Comments, if any, that are received from the reviewing agencies may necessitate special CWSRF loan conditions requiring the loan recipient to mitigate the respective agency´s concerns subsequent to award of the CWSRF loan and prior to the approval of the plans and specifications for the proposed project.

C. Public Participation in Division Processes (40 C.F.R. § 130.5(5)(6))

1. Permitting

The Division has several mechanisms for notifying the public about proposed permitting actions and giving stakeholders an opportunity to participate at various points throughout the process.

For individual NPDES permits, SOPs, and individual UIC permits, once the permit has been drafted, there is a period of public notice during which stakeholders can review the draft and submit comments and/or request a public hearing. Similarly, ARAPs – which also serve as Section 401 certifications where applicable – are subject to public notice and comment prior to issuance. The Division keeps a list of interested individuals and organizations who wish to be notified about draft permits that go on public notice, posts notices on its website, requires signage at the site, and when required, provides newspaper notices.

The issuance of general NPDES permits and general ARAPs are also subject to public notice and comment. UIC authorizations by rule for Class V injection wells are another type of general permit. The issuance of coverage under general permits is not subject to public notice and comment.

If a public hearing is requested and the Division decides to hold one due to demonstrated public interest, then a new public notice will be given to let people know about the hearing. The scheduling of the hearing automatically extends the period of public comments until the close of the hearing or a later date.

The public notice of the preparation of a draft permit must allow at least 30 days for public comment. The public notice of a public hearing must be given at least 30 days before the hearing. The two notices may be combined and given at the same time, which happens when the Division is already aware of significant public interest in the proposed action.

Once all comments have been considered and evaluated, TDEC makes an informed decision on the issuance of the permit and notifies interested parties of that action.

2. Revisions to Water Quality Standards

The CWA requires that states hold a public hearing(s) to review their Water Quality Standards at least every three years and to make revisions if needed. Through this process, Tennessee seeks comments from all stakeholders, including the public, regulated entities, and other government agencies. Federal agencies commonly participating are the United State Fish and Wildlife Service (USFWS), the USCOE and the Tennessee Valley Authority (TVA). Revisions are reviewed and approved by the EPA.

3. Updates to Impaired Waters Listing

The state's list of impaired waters as required by the CWA Section 303(d) is submitted to the EPA for approval every two years. This includes the list of waters that do not meet water quality standards, the cause and source of the pollution, TMDL priority, a summary of the data that was used in making the listing determination, a description of the state's process, the rationale for any proposed de-listings and any additional relevant information. Based on the watershed management cycle, approximately 20% of watersheds are assessed each year. Once the list is compiled, the public has an opportunity to comment on the list and associated TMDL priorities through the Department's public notice process. Comments about critical habitat and a summary of federally listed threatened and endangered aquatic species are included after consultation with the USFWS. Updates are reviewed and approved by the EPA.

4. TMDL Development

As described above, the Division conducts studies on impaired waterbodies throughout the state. Once a TMDL has been drafted, an announcement is made that the draft document is available for review for a minimum of 35 days. The TMDL and all supporting documentation are on file and available for review at the Division's central office. A public notice document is placed on the Division's public participation web page, is posted to the unit's Facebook page and is e-mailed out to interested stakeholders. The public notice document includes contact information, the timeframe for submitting comments, and a link to the draft TMDL document for the public to review. The Division has also made available an online form that citizens can use to submit comments on proposed TMDLs. All timely comments are reviewed. The comments, along with responses, are incorporated into a revised TMDL report for final submittal to the EPA.

5. Rulemaking Processes

a. Overview

The state uses a variety of tools to protect the environment in Tennessee. The promulgation of rules is a part of this process to ensure that applicable legal requirements are clear, concise, and enforceable while also ensuring that the public has an opportunity to review and comment. There are different reasons that the rulemaking process might be initiated. For example, legislation may require it, state or federal law may require regular (*e.g*. every three years) review of existing rules, there may be changes in federal-law applicable to programs delegated to the state, the public may petition for it or the Department may identify a need for change. Division rulemaking is done in accordance with Tennessee's Uniform Administrative Procedures Act and the rules established by the Tennessee Secretary of State.

b. Notice of Rulemaking Hearing

This process is the most commonly followed process by the Department and includes a public notice, at least one public hearing, an opportunity to comment, Division review, approval by the agency (typically a board), and a final filing with the Secretary of State. A Notice of Rulemaking Hearing is required whenever an agency is required by law to hold a public hearing as part of its rulemaking process. Pursuant to T.C.A. § 4-5-203(a)(2)(b), the agency or department is required to transmit a notice of such hearing to the Secretary of State for publication on the Tennessee Administrative Register website. Hearings must be held at least 52 days after the date of the filing. This notice includes a redline copy of the draft rules or amendments and a narrative overview.

c. Proposed Rules

Although it is not commonly done in the Division, proposed rules may also be submitted directly to the Secretary of State without holding a hearing. The intent of this expedited process is for the agency to promulgate the proposed rules without a hearing if there may be very little public interest or a need for a hearing. However, a petition requesting a hearing can be filed within sixty (60) days from the first day of the month subsequent to the filing of the proposed rule with the Secretary of State.

d. Rulemaking Hearing Rules

Rulemaking Hearing Rules are filed as a result of a public hearing pursuant to T.C.A. § 4-5-202 and after the agency adopts the rules. They become effective 90 days from the date of filing in the office of the Secretary of State, which occurs after the Attorney General has approved the rules.

e. Emergency Rules

An agency may, when deemed necessary, proceed without prior notice or hearing to adopt an emergency rule pursuant to T.C.A. §4-5-208, if the agency finds that:

- an immediate danger to the public health, safety or welfare exists, and the nature of this danger is such that the use of any other form of rulemaking authorized by the chapter would not adequately protect the public;
- the rule only delays the effective date of another rule that is not effective;
- it is required by the constitution or court order;
- it is required by an agency of the federal government and adoption of the rule through ordinary rulemaking procedure described in this chapter might jeopardize a federal program or funds; or,
- the agency is required by an enactment of the general assembly to implement rules within a prescribed period of time that precludes utilization of rulemaking procedures described elsewhere for the promulgation of permanent rules.

Emergency Rules are effective from the date of filing for a period up to 180 days, during which time the normal rulemaking hearing process is undertaken.

f. Stay of Effective Date of Rules

Prior to the effective date of a rule, the agency proposing the rule may stay the running of the ninety-day period required by T.C.A §4-5-207 for a period of time not to exceed seventy five (75) days. The stay shall become effective at such time as the agency files written notice with the Secretary of State and shall specify the length of the effectiveness of the stay. Prior to the expiration date of the stay, the stay may be withdrawn by the agency. Withdrawal or expiration of the stay shall reactivate the running of the balance of the ninety-day period that remained upon the date the stay was filed.

g. Withdrawal of Rules

An agency may, after filing, withdraw a rule before the rule becomes effective. The withdrawal shall take effect upon written notification to the Secretary of State. Prior to its expiration, a stay may be withdrawn by the agency.

D. Grants

1. Overview

A government grant is a financial award given by the federal, state or local government to a grantee that meets certain requirements as defined by the grant program. These funds are not expected to be repaid, but may require some funds to be matched by the applicant's organization.

The Division administers several grant programs supporting other agencies, educational institutions, and non-profit organizations working for the protection and improvement of water resources in Tennessee. Grants are administered for on-the-ground projects as well as for special studies and monitoring.

2. 604(b)

This grant program is authorized under Section 604(b) of the CWA and supports water quality assessment and management planning. The Division receives this funding from EPA and utilizes 60% of the funds for internal planning and special projects. The Division then uses the other 40% of the funds to award 1-3 grants each year for planning activities proposed by Tennessee Development Districts. (The Development Districts were established by the General Assembly to establish a statewide system of regional planning and economic development organizations and to promote intergovernmental cooperation.) The grants typically range from $15,000 to $85,000. Applicants must be a development district and the grant must be used for planning only. Additionally, the grantees must follow the same rules and regulations as the Division, including Title VI requirements.

3. 106

Under Section 106 of the Clean Water Act, the EPA provides assistance to states to establish and implement water pollution control programs. This grant requires that states establish methods and procedures to collect, compile, and analyze water quality data and then report to the EPA.

- The EPA 106 Grant Program

4. Tennessee Healthy Watershed Initiative

The Tennessee Healthy Watershed Initiative (THWI) is a collaboration of federal, state and nonprofit organizations committed to maintaining and improving water resources in Tennessee watersheds. The THWI was launched in 2011 under a Memorandum of Understanding (MOU) executed by TDEC, TVA, The Tennessee Chapter of the Nature Conservancy (TNC), and West Tennessee River Basin Authority (WTRBA). The MOU signatories recognized that many groups, both governmental and non-governmental, have a shared interest in the health of Tennessee watersheds. This initiative provides a structure to bring those interested parties together.

Today, under the leadership of TDEC, the THWI continues to be a strong collaboration of those founding THWI partners. This initiative is utilized to continue to provide a forum for communication, collaboration, and thoughtful planning among a broad partnership of agencies and interests. TDEC continues to coordinate implementation of protection and improvement efforts for Tennessee's water resources.

The overall goals of Tennessee Healthy Watershed Initiative are to:

- establish and nurture partnerships that lead to the implementation of critical projects to protect and improve the state of watersheds in Tennessee, prevent watersheds from becoming impaired, and accelerate restoration of impaired streams;
- encourage the exchange of information, coordination, and planning among agencies, citizens, and communities to achieve healthy watersheds;
- encourage the application of good science to comprehensive and collaborative strategies for healthy watershed planning; and
- focus stakeholder programs and resources toward collaborative initiatives, promote better spending decisions, and increase the opportunity to protect and improve multiple resources and watersheds.

E. Outreach

As discussed above, the Division uses a watershed approach in coordinating many activities. The Division endeavors to increase public awareness and public involvement through education and outreach. To do this, the Division coordinates outreach events. These events first began in 1996 with the Division presenting to the stakeholders within the watersheds about what the Division was doing and educating them on the status of water quality within their watershed. These events went on for many years, with the Division traveling across the state to reach out to the local communities and help them better understand their watersheds.

In 2014, the Division took a slightly different approach to outreach. Rather than the Division presenting to the communities, the Division invited many different agencies and local non-profit groups within each watershed community to also come to the events to share how they are working to protect and improve the water resources within that specific watershed. This type of event has been very successful at connecting agencies and allowing them to work together to coordinate and work toward marked water quality improvements. Additionally, the Division continually looks for avenues to partner with other groups and agencies to better focus on solving water quality issues and to be more efficient in those processes.

Outside of the official watershed cycle, the Division's environmental field offices across the state also participate in many other types of outreach events. Division staff often attend school events to share with the school children different aspects of a healthy watershed and healthy waters. Teaching children about the environment is an effective way to reach out to the community and instill good environmental stewardship at a young age. Division staff also attend many Earth Day and similar events across the state as another way to reach out to the communities and educate citizens about how they can do their part to protect water quality in Tennessee.

VII. Training, Licensing and Certification

A. Training

1. Erosion Protection and Sediment Control Training Levels 1 and 2

The Department has teamed up with The University of Tennessee to create a stormwater management program that includes educational and training opportunities for erosion prevention and sediment controls. The program offers two levels of training and education.

The Tennessee Erosion Prevention and Sediment Control Training Program for Construction Sites level 1 – Fundamentals course is required for all persons who are responsible for inspection of development sites covered under the state's construction general permit for stormwater, and by comparable individual permits.

The Tennessee Erosion Prevention and Sediment Control Training Program for Construction Sites level 2 – Design Principles for Erosion Prevention and Sediment Control course is an advanced class designed for stormwater professionals who have completed the level one training. This course is for individuals who will be preparing stormwater pollution prevention plans for construction sites and for those who will be doing site assessment inspections at construction sites that discharge to impaired or Exceptional Tennessee Waters.

2. Training Course for Qualified Hydrologic Professional (QHP)

To facilitate accurate and consistent implementation of the rules and guidance for making hydrologic determinations, the Division has developed a training course which is usually offered two or three times annually based upon demand. Successful completion of the training course is required for certification as a QHP.

- RULE 0400-40-17 Certification of qualified Hydrologic Professionals
- RULE 0400-40-03-.05(9) Standard operating procedures for making stream and wet weather conveyance determinations (hydrologic determinations)

B. Licensing

1. Water Well Licensing

Anyone who drills a well in Tennessee is required to have a license. A license is also needed to install or repair well pumps, filters and treatment devices. The water well supervision program within the Division oversees several different licensures. This program helps to ensure that wells are developed and installed safely and according to standards that are protective of both the resources and the consumers. Licenses are valid for a maximum of one year, expiring on July 31 and require continuing education.

- RULE 0400-45-09 Water Well Licensing Regulations and Well Construction Standards

2. Soil Scientist

The Division maintains a list of approved soil consultants. TDEC works to align its processes with those of the Tennessee Department of Commerce and Insurance (TDCI), as they maintain the Tennessee Professional Soil Scientist Licensing Program. Their program is designed to ensure that only qualified persons are licensed to practice soil science in Tennessee.

According to TDCI, A soil scientist is a professional licensed in the practice of soil science, which is the study of soil as a natural resource on the surface of the earth including soil formation, classification and mapping; physical, chemical, biological, and fertility properties of soils; and these properties in relation to the use and management of soils.

To be eligible for a certificate of licensure as a professional soil scientist, an applicant shall:

> (1) Be a graduate of an accredited college or university with a Bachelor of Science degree or higher in soils, agronomy or a closely related field, with successful completion of 15 hours of course work in soil science;
>
> (2) Have at least 3 years of soil science professional experience. Any combination of the following kinds of education and experience qualify toward accumulating the required 3 years:
>
> > (A) Masters of science degree in soils, agronomy or a closely related field and 2 years professional experience;
> >
> > (B) Doctor of philosophy degree in soils, agronomy or a closely related field and 1 year professional experience; or

(C) Each year of teaching or soil science research by persons teaching upper-level soil science courses at the college level; provided, that teaching or research can be demonstrated to be of a sufficiently responsible nature to be equivalent to a year of professional experience; and

(3) Have successfully passed the examinations.

C. Certifications

1. Operator Certifications

Tennessee offers different types of operator certifications. A certified operator must meet experience requirements, have a high school education or equivalent and score at a minimum 70% on a certification examination. Certifications must be renewed yearly and the operator must also complete continuing education hours every three years to maintain certification. Types of certifications are as follows:

- Biological/Natural Systems Operator
- Wastewater Collection System Operator
- Wastewater Treatment Plant Operator
- Water Distribution System Operator
- Water Treatment Plant Operator
- Very Small Water Systems Operator

2. Septic System Installers and Pumpers

An installer or pumper of septic systems must have written authorization from the TDEC commissioner that licenses the person to do those activities.

- RULE 0400-48-01 Groundwater Protection

3. Laboratory Certification

The Division runs a laboratory certification program for laboratories that will be running analyses on drinking water. The program audits and certifies laboratories for chemistry, microbiology and radiochemistry parameters, as well as *Cryptosporidium.* This ensures that all laboratories that submit monitoring data for public water systems in Tennessee are in compliance with state certification criteria and the EPA laboratory certification criteria and procedures for quality assurance.

4. Erosion Prevention and Sediment Controls, Level 1 and 2

Successful completion of EPSC training results in either a Level 2 or a Level 2 certification. Anyone who completes the Level I EPSC course and passes the exam earns a Level I certification, which is good for three years. The Level II design workshop provides a Level 2 certification and sixteen (16) hours of Professional Development Hours (PDH) credit after attending both days and successfully completing the take-home exam.

5. Qualified Hydrologic Professional Certification

With the passage of Public Chapter Number 464, the Tennessee General Assembly amended the Tennessee Water Quality Control Act to codify the definition of wet weather conveyances. The statute authorizes alterations in wet weather conveyances in accordance with specified requirements without an ARAP, directs the Department to develop new rules and guidance on how to determine the regulatory status of watercourses in Tennessee, and requires the Department to establish qualifications for persons who conduct hydrologic determinations. In this context, a hydrologic determination is the classification of a linear watercourse as either a stream or a wet weather conveyance.

As required by the legislation, the Board has promulgated rules to implement a certification program for QHPs. The QHP certification program is currently facilitated through a partnership with the University of Tennessee's Water Resources Research Center.

The Board has also promulgated another section of rules establishing a standard operating procedure for making hydrologic determinations. Based upon these rules, the Division has also developed a technical manual, "Guidance for Making Hydrologic Determinations," which augments the procedures contained in the rule with specific examples, a Hydrologic Determination Field Data Sheet, and instructions for conducting field investigations. All persons, including Division personnel, must follow established procedures for making valid hydrologic determinations of waters the state of Tennessee.

Successful completion of the training course is one of the requirements for certification as a QHP. Upon successful completion of the training course, a person may be designated as a QHP-In Training if they have not yet fulfilled the necessary education or professional experience requirements.

Hydrologic determinations may be conducted by persons who have successfully completed the training course (certified QHPs, or QHP-ITs); however, the "presumption of correctness" provision contained in Rule 0400-40-17 for a wet weather conveyance determination will only apply to reports submitted by fully-certified QHPs who assert this provision in writing. Currently, it is the Division's policy to require submittal of a hydrologic determination report for review from a successfully trained individual (QHP or QHP-IT), when the determination of the jurisdictional status of water features on site must be established for permitting purposes. The exception to this policy is for activities associated with private farms or individual residences, in which case Division personnel will perform this service for the individual upon request. Hydrologic Determination reports must be submitted to the local TDEC Environmental Field Office for review.

- RULE 0400-40-17 Certification of qualified Hydrologic Professionals

5. Erosion Protection / Sediment Control

The Department has teamed up with The University of Tennessee to create a stormwater management program that includes educational and training opportunities to teach about erosion prevention and sediment controls. The program offers multiple levels of training and education.

Tennessee Erosion Prevention and Sediment Control Training Program for Construction Sites level 1 – Fundamentals course is required for all persons who are responsible for inspection of construction sites covered under the state's general construction permit. The fundamentals class has an exam that upon completion, offers a level 1 certification that is good for three years.

Tennessee Erosion Prevention and Sediment Control Training Program for Construction Sites level 2 – Design Principles for Erosion Prevention and Sediment Control is an advanced class that is designed for engineers and other professionals who have completed the level one training. This course is for individuals who will be preparing stormwater pollution prevention plans for construction sites and for those who will be doing site assessment inspections at construction sites that are discharging to impaired or Exceptional Tennessee Waters. The Level 2 design workshop provides a Certificate of Completion and sixteen (16) hours of Professional Development Hours (PDH) credit after attending both days and successfully completing the take-home exam.

VIII. Acronyms

- AFO – Animal Feeding Operation
- ATPI – Ability to Pay Index
- BMP – Best Management Practices
- CAFO – Concentrated Animal Feeding Operation
- CWA – Clean Water Act
- EPA – Environmental Protection Agency
- EPSC – Erosion Protection and Sediment Control
- HUC – Hydrologic Unit Code
- MS4 – Municipal Separate Storm Sewer System
- NHD – National Hydrography Dataset
- NIWR - National Institutes for Water Resources
- NPDES – National Pollutant Discharge Elimination System
- POTW – Publically Owned Treatment Works
- PRM – Permittee Responsible Mitigation
- QLP – Qualifying Local Program
- SCM – Stormwater Control Measures
- STP – Sewage Treatment Plant
- TRAM - Tennessee Rapid Assessment Methodology
- TDEC – Tennessee Department of Environment and Conservation
- TDCI – Tennessee Department of Commerce and Insurance
- THWI – Tennessee Healthy Watershed Initiative
- TMDL – Total Maximum Daily Load