TENNESSEE DIVISION OF WATER RESOURCES

FISCAL YEAR 2015-2016 SURFACE WATER MONITORING AND ASSESSMENT PROGRAM PLAN

FINAL December 2015



Tennessee Department of Environment and Conservation
Division of Water Resources
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EXECUTIVE SUMMARY

The purpose of this document is to establish overall goals and objectives for key elements of the Tennessee Department of Environment and Conservation (TDEC), Division of Water Resources Watershed Stewardship and Support Branch, surface water quality monitoring program. Information concerning ground water monitoring will be provided in a separate document by the Water Supply Branch.

The United States Environmental Protection Agency (EPA) is requiring states to implement or commit to developing a monitoring program strategy. The details of this initiative can be found in the document, *Elements of a State Monitoring and Assessment Program*, published in March 2003. This initiative is intended to serve as a tool to assist EPA and the states in determining whether a monitoring program meets the requirements of Clean Water Act Section 106 (e)(1). EPA recommended the following ten elements be included in a state's monitoring program strategy:

- A. A long-term state monitoring strategy
- B. Identification of monitoring objectives
- C. Selection of a monitoring design
- D. Identification of core and non-critical water quality indicators
- E. Development of quality management and quality assurance plans
- F. Use of accessible electronic data systems
- G. Methodology for assessing attainment of water quality standards
- H. Production of water quality reports
- I. Periodic review of monitoring program
- J. Identification of current and future resource needs

Tennessee spent considerable time prior to the publication of EPA's recommendations developing an effective monitoring and assessment strategy, which has been used for many years. Publication of EPA's guidance resulted in the review and refinement of the existing plan to make certain all elements were included.

Tennessee already incorporates all 10 elements in its existing monitoring strategy. Those 10 elements have been outlined in this document. The division agrees that improvements can be made on some aspects of its program; particularly when addressing large rivers, lakes, reservoirs and wetlands.

Tennessee has developed a nutrient criteria development plan. The division has published Quality System Standard Operating Procedures (QSSOP's) for conducting bacteriological, chemical, biological, periphyton stream surveys, as well as, a Quality Assurance Project Plan for 106 Monitoring. These documents can be accessed on the Department's website at http://tn.gov/environment/article/wr-wq-water-quality-reports-publications.

The purpose of the division's water quality monitoring program is to provide an accurate and defensible accounting of Tennessee's progress towards meeting the goals established in the federal Clean Water Act and the Tennessee Water Quality Control Act.

Data are collected and interpreted in order to:

- Assess the condition of the state's waters.
- ♦ Identify problem areas with parameter values that violate Tennessee numerical or narrative water quality standards.
- Identify causes and sources of water quality problems.
- ♦ Document areas with potential human health threats from fish tissue contamination or elevated bacteria levels.
- ♦ Establish trends in water quality.
- Gauge compliance with NPDES permit limits.
- Document damage to streams for enforcement efforts, if appropriate.
- ♦ Document baseline conditions prior to a potential impact or as a reference stream for downstream uses or other sites within the same ecoregion and/or watershed.
- Assess water quality improvements based on site remediation, implementation of Best Management Practices, and other restoration strategies.
- ♦ Identify proper stream-use classification, including antidegradation policy implementation.
- ♦ Identify natural reference conditions on an ecoregion basis for refinement of water quality standards.

Since 1996, Tennessee's monitoring program has been based on a five-year watershed cycle. The first cycle was completed in 2001. A third cycle was completed in 2011. This Fiscal Year the Division is completing the fourth watershed monitoring cycle.

Tennessee relies heavily on ecoregion reference data to assess impairment and has spent much effort in developing regional reference guidelines for wadeable streams. In 2008, the division initiated monitoring to establish reference guidelines for headwater streams. A future challenge is to develop similar guidelines for rivers, lakes and reservoirs. A major limiting factor to this goal is funding and staff availability.

Note: All activities are funded by Section 106 Grant Funds unless otherwise noted.

I. ELEMENTS OF TENNESSEE'S SURFACE WATER MONITORING AND ASSESSMENT PROGRAM

A. Monitoring Program Strategy

The Division of Water Resources (DWR) has a comprehensive monitoring program that serves its water quality management needs and addresses all the state's surface waters including streams, rivers, lakes, reservoirs and wetlands.

In 1996, the Division of Water Pollution Control, currently DWR, adopted a watershed approach that reorganized existing programs and focused on place-based water quality management. The primary goals of the watershed approach are:

- 1. Provide for more focused and comprehensive water quality monitoring and assessment.
- 2. Assist in the calculation of pollutant limits for permitted dischargers.
- 3. Develop watershed water quality management strategies that integrate controls for regulated and non-regulated sources of pollution.
- 4. Increase public awareness of water quality issues and provide opportunities for public involvement.

There are 55 USGS eight-digit hydrologic units (HUC) in the state that have been divided into five monitoring groups for assessment purposes. One group, consisting of between 9 and 16 watersheds, is monitored and another is assessed each year. This allows intense monitoring of a limited number of watersheds each year with all watersheds monitored every five years. The watershed cycle provides for a logical progression from data collection and assessments through TMDL development and permit issuance. The watershed cycle coincides with the development of permits that are issued to industries, municipalities, mining and commercial entities.

The key activities involved in each five-year cycle are:

- 1. **Planning.** Existing data and reports from appropriate federal, state, and local agencies and citizen-based organizations are compiled and used to describe the quality of rivers and streams, and to determine monitoring priorities
- 2. **Monitoring.** Field data is collected by DWR staff for streams previously prioritized. These results supplement existing data and are used for water quality assessment.
- 3. **Assessment**. Monitoring data is used to determine if the streams support their designated uses based on stream classifications and water quality criteria. The assessment is used to create the 303(d) List and the 305(b) Report.
- 4. **Wasteload Allocation/TMDL**. Monitoring data are used to determine pollutant limits for permitted dischargers releasing treated wastewater to the watershed. Limits are set to ensure that water quality is protective. TMDLs are studies that determine the point and nonpoint source contributions of a pollutant in the watershed and propose strategies to achieve water quality standards.

- 5. **Permits.** Issuance and expiration of all discharge permits is synchronized to the five-year watershed cycle. Approximately 1,400 individual permits are issued by Tennessee under the federal National Pollutant Discharge Elimination System (NPDES).
- 6. Watershed Water Quality Management Plans. These watershed plans include a general watershed description, water quality assessment summary results, inventory of point and nonpoint sources, water quality concerns, federal, state, and local initiatives, and management strategies. Completed plans can be accessed on TDEC's website at http://tn.gov/environment/topic/wr-ws-basin-watersheds-by-basin

One of the advantages of this approach is that it considers all sources of pollution including discharges from industries and municipalities as well as runoff from agriculture and urban areas. Another advantage is the coordination of local, state and federal agencies and the encouragement of public participation.

B. Monitoring Objectives

The purpose of the division's water quality monitoring program is to provide a measure of Tennessee's progress towards meeting the goals established in the federal Clean Water Act and the Tennessee Water Quality Control Act. To accomplish this task, data are collected and interpreted in order to:

- 1. Assess the condition of the state's waters.
- 2. Identify problem areas with parameter values that violate Tennessee numerical or narrative water quality standards.
- 3. Identify causes and sources of water quality problems.
- 4. Document areas with potential human health threats from fish tissue contamination or elevated bacteria levels.
- 5. Establish trends in water quality.
- 6. Gauge compliance with NPDES permit limits.
- 7. Document baseline conditions prior to a potential impact or as a reference stream for downstream or other sites within the same ecoregion and/or watershed.
- 8. Assess water quality improvements based on site remediation, enforcement, Best Management Practices, and other restoration strategies.
- 9. Identify proper stream-use classification, plus assist in the implementation of the Antidegradation Statement.

- 10. Identify natural reference conditions on an ecoregion basis for refinement of water quality standards.
- 11. Identify and protect wetlands.

C. Monitoring Design

The state of Tennessee incorporates several approaches in its monitoring design. The primary monitoring design is a five-year rotational cycle (Figure 1) based on USGS eight-digit Hydrologic Unit Code (HUC) sized watersheds.

1. Watersheds

The watershed approach serves as an organizational framework for systematic assessment of the state's water quality. By viewing the entire drainage area as a whole, the division is better able to address water quality problems through an organized schedule. This unified approach affords a more in-depth study of each watershed and encourages coordination of public and governmental organizations.

The watershed approach is a five-year cycle that has the following features:

- 1. Commits to a monitoring strategy that result in an accurate assessment of water quality.
- 2. Partners with other agencies to obtain the most current water quality and quantity data.
- 3. Reassesses water quality based on most recent data and water quality standards.
- 4. Establishes TMDLs by integrating point and non-point source pollution.
- 5. Synchronizes discharge permit issuance to coincide with the development of TMDLs.

In attaining the watershed goals mentioned above, four major objectives are to be met:

- 1. Attain good representation of all local interests at public meetings and continue a dialogue with local interest throughout the five-year cycle.
- 2. Develop a watershed water quality management plan.
- 3. Monitor water quality intensively within each watershed at the appropriate time in the five-year watershed cycle.
- 4. Establish TMDLs based on best available monitoring data and sound science.

The 55 USGS eight digit HUC codes found in Tennessee are addressed by groups on a five-year cycle that coincides with permit issuance. Each watershed group contains between 9 and 16 watersheds. (Table 1). Six watershed groups in middle Tennessee were revised in 2012 to better distribute monitoring loads between field offices:

- ♦ Stones River Watershed moved from Group 1 to Group 2
- ♦ Wheeler and Pickwick Watersheds moved from Group 2 to Group 1
- ◆ Collins River Watershed moved from Group 2 to Group 3
- Upper Duck River Watershed moved from Group 3 to Group 4
- ◆ Cordell Hull Watershed moved from Group 4 to Group 5



Figure 1: Graphic Representation of the Watershed Approach.

More details may be found on the DWR home page http://tn.gov/environment/article/wr-ws-watershed-management-approach

The watershed management groups and timeline are shown in Figure 2 and Table 1.

Monitoring activities are coordinated with Tennessee Valley Authority (TVA), Department of Energy (DOE), Tennessee Department of Agriculture (TDA), Tennessee Wildlife Resources Agency (TWRA), United States Geological Survey (USGS), and United States Army Corps of Engineers (USACE) to avoid duplication of effort and increase watershed coverage.

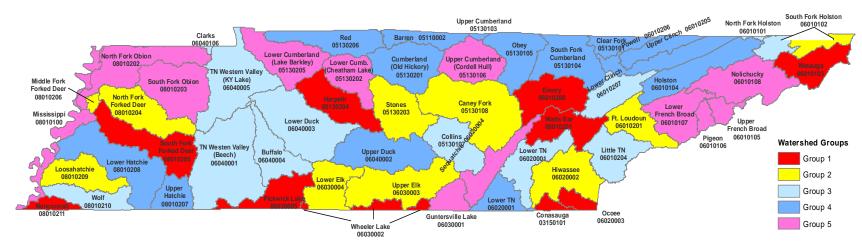


Figure 2: Tennessee Watershed Management Groups

Table 1. Watershed Groups and Monitoring Years

Group /Year	Watershed	HUC	EFO	Watershed	HUC	EFO
1	Conasauga	03150101	СН	Ocoee	06020003	СН
	Harpeth	05130204	N	Pickwick Lake	06030005	CL, J
1996	Watauga	06010103	JC	Wheeler Lake	06030002	CL
2001 2006	Upper TN (Watts Bar)	06010201	K, CH, CK	South Fork of the Forked Deer	08010205	J
2011 2016	Emory	06010208	K, CK	Nonconnah	08010211	M
2	Caney Fork	05130108	CK, CH, N	Upper Elk	06030003	CL
	Stones	05130203	N	Lower Elk	06030004	CL
1997 2002 2007	S. Fork Holston (u/s Boone Dam)	06010102	JC	North Fork Forked Deer	08010204	J
2012 2017	Upper TN (Fort Loudoun)	06010201	K	Forked Deer	08010206	J
	Hiwassee	06020002	СН	Loosahatchie	08010209	M
	Collins	05130107	CK, CH, CL	TN Western Valley (Beech)	06040001	J
3	N. Fork Holston	06010101	JC	Lower Duck	06040003	CL
1998 2003	S. Fork Holston (d/s Boone Dam)	06010102	JC	Buffalo	06040004	CL, N
2008 2013 2018	Little Tennessee (Tellico)	06010204	K	TN Western Valley (KY Lake)	06040005	N, J
2018	Lower Clinch	06010207	K	Wolf	08010210	M
	Tennessee (Chickamauga)	06020001	СН	Clarks	06040006	J
	Barren	05110002	N	Holston	06010104	JC, K
4	Clear Fork of the Cumberland	05130101	K, MS	Upper Clinch	06010205	JC, K
1999	Upper Cumberland	05130103	CK	Powell	06010206	JC, K
2004 2009	South Fork Cumberland	05130104	K	Tennessee (Nickajack)	06020001	СН
2014	Obey	05130105	CK	Upper Duck	06040002	CL
2019	Cumberland (Old Hickory Lake)	05130201	N	Upper Hatchie	08010207	J
	Red	05130206	N	Lower Hatchie	08010208	J,M

Group /Year	Watershed	HUC	EFO	Watershed	HUC	EFO
5 2000 2005 2010 2015 2020	Lower Cumberland (Cheatham)	05130202	N	Nolichucky	06010108	JC, K
	Lower Cumberland (Lake Barkley)	05130205	N	Sequatchie	06020004	СН
	Upper Cumberland (Cordell Hull)	05130106	CK, N	Guntersville	06030001	CH, CL
	Upper French Broad	06010105	K	Mississippi	08010100	M, J
	Pigeon	06010106	K	Obion	08010202	J
	Lower French Broad	06010107	K	Obion South Fork	08010203	J

Key to EFOs:

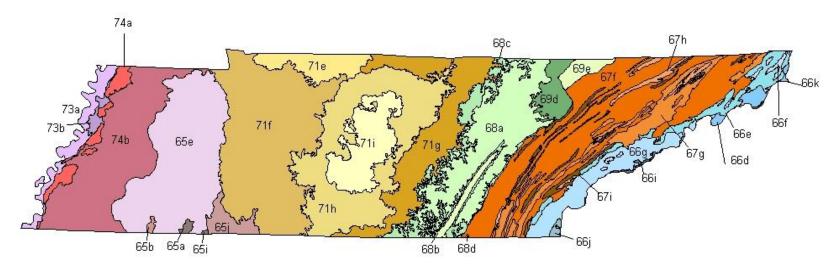
CH	Chattanooga	J	Jackson	M	Memphis
CK	Cookeville	JC	Johnson City	N	Nashville
CL	Columbia	K	Knoxville		

2. Ecoregions

Tennessee relies heavily on ecoregions to serve as a geographical framework for establishing regional water quality expectations (Arnwine et al, 2000). Tennessee has 31 Level IV ecoregions (Figure 3).

Since 1999, sites have been monitored as part of the five-year watershed cycle. New reference sites are added as they are located during watershed monitoring, while some of those originally selected sites have been dropped due to increased disturbances or unsuitability. Periphyton is also collected as a second biological indicator. In 2009, headwater streams were added to the reference monitoring program. There are currently approximately 190 active and candidate reference sites being monitored. This reference database has been used to establish regional guidelines for wadeable streams.

Six additional subregions have been delineated out of the original 25 in ecoregions 66, 68, 69 and 73 resulting in 31 Level IV ecoregions in Tennessee. In addition, the names of four subregions have been revised (65e, 66d, 69d and 73a). With the exception of 69e, the majority of new subregions are very small or the streams originate in a different subregion. Therefore, it may not be necessary or even possible to find reference streams. Until such time as reference sites can be established these subregions will be treated as part of their original subregion and/or bioregion for assessment purposes.



65a Blackland Prairie	66k Amphibolite Mountains	69e Cumberland Mountain Thrust Block
65b Flatwoods/Alluvial Prairie Margins	67f Southern Limestone/Dolomite Valleys	71e Western Pennyroyal Karst
	and Low Rolling Hills	
65e Northern Hilly Gulf Coastal Plain	67g Southern Shale Valleys	71f Western Highland Rim
65i Fall Line Hills	67h Southern Sandstone Ridges	71g Eastern Highland Rim
65j Transition Hills	67i Southern Dissected Ridges & Knobs	71h Outer Nashville Basin
66d Southern Crystaline Ridges and	68a Cumberland Plateau	71i Inner Nashville Basin
Mountains		
66e Southern Sedimentary Ridges	68b Sequatchie Valley	73a Northern Holocene Meander Belts
66f Limestone Valleys and Coves	68c Plateau Escarpment	73b Northern Pleistocene Valley Trains
66g Southern Metasedimentary Mountains	68d Southern Table Plateaus	74a Bluff Hills
66i High Mountains	69d Dissected Appalachian Plateau	74b Loess Plains
66j Broad Basins		

Figure 3: Level IV Ecoregions in Tennessee

D. Monitoring Priorities

The division maintains a statewide monitoring system consisting of approximately 7000 stations (Figure 4). In addition, new stations are created every year to increase the number of assessed streams. Approximately 600 stations will be monitored in FY 15-16 (Figure 5 and Appendix A, in Section II). Stations are sampled monthly, quarterly, bimonthly, semi-annually, or annually depending on the objectives of the project. Within each watershed cycle, monitoring stations are coordinated between the central office and staff in the eight Environmental Field Offices (EFOs) and the Mining Unit located across the state, based on the following priorities.

Prior to developing workplans, field staff should fully coordinate with other monitoring agencies within the watershed in order to maximize resources and avoid duplication of efforts.

1. Antidegradation Monitoring: Before the Division can authorize degradation in Tennessee waterbodies, the appropriate category under the Antidegradation Policy must be determined. These categories are (1) Available or (2) Unavailable Parameters, (3) Exceptional Tennessee Waters, or (4) Outstanding National Resource Waters (ORNLs). ORNLs can only be established by promulgation by the Tennessee Board of Water Quality, Oil and Gas. The other three categories must be established by division field or permitting staff. Complicating matters further, waterbodies can be in more than one category at a time, due to the parameter-specific nature of categories 1 and 2 above.

If a permit application requesting authorization to degrade water quality is for a stream without recent water quality data and the applicant is unwilling or unable to provide the needed information, these surveys must be done by field office staff. Because the identification of antidegradation status must be determined prior to permit issuance, this work must be done on the highest priority basis.

Streams are evaluated as needed in response to requests for new or expanded NPDES and ARAP permits, or water withdrawal applications. Streams are evaluated for antidegradation status based on a standardized evaluation process, which includes information on specialized recreation uses, scenic values, ecological consideration, biological integrity and water quality. Since permit requests generally cannot be anticipated, these evaluations are generally not included in the workplan. The number of antidegradation evaluations conducted by the state is steadily increasing as the process becomes more refined and standardized.

2. Posted Streams: When the Department issues advisories due to elevated public health risks from excessive pathogen or contaminant levels in fish, it accepts a responsibility to monitor changes in those streams. In the case of fishing advisories, in conjunction with the monitoring cycle, field office staff should determine when tissue samples were collected most recently and if appropriate, notify the central office that the state lab should be contracted to sample in the upcoming year, unless another agency like TWRA or TVA are willing to do the collections. This should be coordinated with the central office.

For pathogen advisories, monthly E. coli samples, plus a minimum of one geo mean

sample (5 in 30) must be scheduled and accomplished. If another entity (such as an MS4 program) has already planned to collect samples, that effort can substitute for division sampling, if staff have confidence that the other entity can meet data quality objectives. However, field office staff must confirm that this sampling is taking place, remembering that the ultimate responsibility to ensure that sampling is done remains with the division.

As fish tissue or pathogen results are received, field office staff should alert the central office if it appears that an advisory might be lifted. Additionally, field office staff have the primary responsibility to ensure that existing signs on posted waterbodies are inspected periodically and replaced if damaged or removed.

3. Ecoregion Reference Streams, Ambient Monitoring Stations, and Southeastern Monitoring Network Trend Stations (SEMN): Established ecoregion or headwater reference stations are monitored in conjunction with the watershed cycle. Each station is sampled quarterly for chemical quality and pathogens as well as in spring and fall for macroinvertebrates and habitat. Periphyton is sampled once during the growing season (April – October). Both semi-quantitative and biorecon benthic samples are collected to provide data for both biocriteria and biorecon guidelines. If watershed screening efforts indicate a potential new reference site, more intensive reference stream monitoring protocols are used to determine potential inclusion in the reference database.

Ambient Monitoring Sites are the division's longest existing trend stations and any disruption in sampling over time reduces our ability to make comparisons. Regardless of monitoring cycle, all ambient stations must be sampled quarterly according to the set list of parameters established for this sampling effort.

Southeastern Monitoring Network Stations: Like ambient stations, SEMN stations within each field office area must be sampled according to the project plan and grant for this project, regardless of watershed cycle. See Chapter 2, section F for additional details.

4. 303(d) Listed segments: The 303(d) List is a compilation of the streams and lakes in Tennessee that are "water quality limited" and need additional pollution controls. Water quality limited streams are those that have one or more properties that violate water quality standards. They are considered impaired by pollution and not fully meeting designated uses.

Like posted streams, by identifying these streams as not meeting water quality standards, the Division accepts responsibility to develop control strategies and to continued monitoring in order to track progress towards restoration.

Impaired waters are monitored, at a minimum, every five years coinciding with the watershed cycle. Waters that do not support fish and aquatic life are sampled once for macroinvertebrates (semi-quantitative sample preferred) and monthly for the listed pollutant(s).

Streams with impacted recreational uses, such as those impaired due to pathogens are sampled monthly for *E. coli*. Another acceptable sampling strategy for *E. coli* is called the

Horton Rule. In this approach, an initial geometric mean within the first quarter is collected (5 samples within a 30-day period). If the results are well over the existing water quality criterion of 126 colony forming units, no addition sampling needs to be done. If the results meet the water quality criterion, staff will continue with monthly samples during the remainder of the monitoring cycle.

For parameters other than pathogens, resource limitations or data results may sometimes justify fewer sample collections. For example, there are cases where pollutants are at high enough levels that sampling frequency may be reduced while still providing a statistically sound basis for assessments. In other cases, monitoring may be appropriately bypassed during a monitoring cycle. (Chapter II, Section C).

When developing workplans prior to the next monitoring cycle, field office staff should coordinate with the Division of Remediation to confirm that any CERCLA sites are being monitored by either Remediation or the permittee. Remediation should be specifically asked if the site continued to violate water quality standards. If not, sampling should be designed to document improvement and provide a rationale for delisting.

5. Sampling downstream of Major Dischargers and CAFO's: During each monitoring cycle, the major dischargers should be identified. Stations should be established at those waterbodies, if the facility does not currently have in-stream monitoring requirements built into their permit. (Note: stations may not be required for dischargers into very large waterways such as the Mississippi River or large reservoirs.) Parameters should include those being discharged, plus a SQSH survey if the stream is wadeable. Stations downstream of STPs or industries that discharge nutrients should include a SQSH, plus monthly nutrient monitoring.

Stations should also be established downstream of CAFOs with individual permits or others in which water quality based public complaints have been received. The emphasis on monitoring should be on monitoring biointegrity (SQSH survey if the stream is wadeable or in a region in which SQBANK surveys can be done) and monthly nutrient and pathogen monitoring.

- **6. TMDL:** Waterbody monitoring is required to develop TMDLs. Monitoring for scheduled TMDLs in the watershed group is coordinated between the Watershed Management Unit (WMU) manager and the EFOs to meet objectives for each TMDL. The frequency and parameters monitored for TMDL monitoring depends on the specific TMDL. Detailed information about TMDLs can be found in the department's 106 Monitoring QAPP (TDEC 2015), and in the document *Monitoring to Support TMDL Development* (2001).
- 7. **Special Project Monitoring**: Occasionally, the division is given the opportunity to compete for special EPA grant resources for monitoring and other water quality research projects. If awarded, activities related to these grants become a high priority because the division is under contract to achieve the milestone set out in the workplan. Federal funds might have to be returned if the division fails to meet project goals. Additionally, failure

to meet grant obligations may result in a loss of competitiveness for future grant opportunities.

Normally, monitoring activities related to these projects is contracted out to the state lab. However, if problems arise, field offices might be called upon if unable to fulfill the commitment. Examples of historical special studies include: sediment oxygen demand surveys, nutrient studies, ecoregion delineation, coalfield studies, air deposition surveys, reference stream monitoring, and various probablilistic monitoring designs.

8. Watershed Monitoring: In addition to the previous priorities, each EFO should monitor additional stations to confirm continued support of designated uses and to increase the number of assessed waterbodies. Macroinvertebrate biorecons, habitat assessments, and field measurements of DO, specific conductance, pH and temperature are conducted at the majority of these sites. These priorities include:

Previously assessed segments that would likely revert to Category 3 unassessed status. (Note that a single site per assessed segment is normally adequate if assessment was supporting and no changes are evident).

Sites below ARAP activities in wadeable streams where biological impairment is suspected. Emphasis is placed on unpermitted activities, violations and those that are large scale or where there is a dense concentration of smaller alterations.

Stream reaches receiving extensive non-point source pollution for example large scale development, clusters of stormwater permits or an increase of more than 10% impervious surfaces.

Unassessed reaches in third order or larger streams or in disturbed headwaters.

Pre-restoration or BMP monitoing. In most cases this sampling would be to document improvements, but might also be needed to confirm that the stream is a good candidate for such a project. This protects against the possibility that a good stream could be harmed by unnecessary

In addition to monitoring conducted by EFO staff in conjunction with the watershed cycle, other types of monitoring include:

- **a. Fish Consumption Advisory**: Fish tissue monitoring for fishing advisories is planned by a workgroup consisting of staff from DWR-TDEC, TVA, ORNL and TWRA. The workgroup historically met annually to coordinate a monitoring strategy.
- **b. NPDES Monitoring**: Tennessee is requiring some permitted dischargers to conduct upstream and downstream biological and habitat monitoring consistent with the division's macroinvertebrate QSSOP (TDEC, 2011). These data are submitted to the state for evaluation. In this way, Tennessee can supplement its monitoring program and permitted dischargers can take the lead in providing information about their receiving stream.
- **c. Reservoir Monitoring:** Tennessee is dependent on TVA and USACE for these data. Timeline for monitoring is dependent on availability of these agencies or federal funding if they are not available.

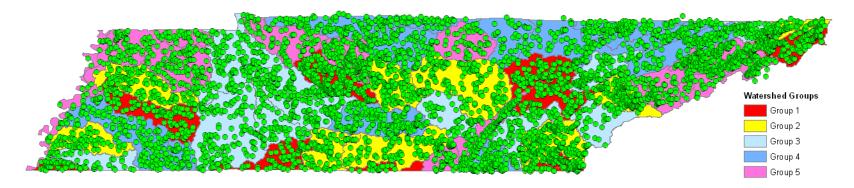


Figure 4: Water Quality Monitoring Stations in Tennessee. Includes biological, chemical and bacteriological stations.

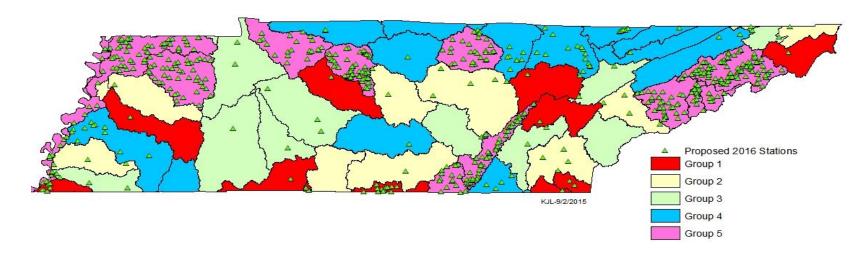


Figure 5: Monitoring stations scheduled to be collected between July 2015 and June 2016. (Includes biological, chemical and bacteriological stations.)

Large Reservoirs (> 1000 acres)

Tennessee has 29 large reservoirs ranging from the 1,749 acre Chilhowee Reservoir on the Little Tennessee River to the 99,500 acre Kentucky Lake on the Tennessee River. Twenty-seven of these reservoirs are managed by the Tennessee Valley Authority (TVA) (Table 2) or the U.S. Army Corps of Engineers (USACE) (Table 3). All but four are routinely monitored. Seven are shared with other states. These shared lakes include Kentucky Lake, Lake Barkley and Dale Hollow (Kentucky), South Holston Lake (Virginia), Guntersville Lake (Alabama), Pickwick Lake (Alabama and Mississippi), and Calderwood Lake (North Carolina). Expertise and data are available from TVA, USACE and Alcoa Power Generating Incorporated (APGI).

Table 2: Reservoirs sampled by TVA

Beech	Melton Hill
Blue Ridge	Nickajack
Boone	Normandy
Cherokee	Norris
Chickamauga	Parksville
Douglas	Pickwick
Ft. Loudoun	South Holston
Ft. Patrick Henry	Tellico
Great Falls	Tims Ford
Guntersville	Watauga
Hiwassee	Watts Bar
Kentucky	Wheeler

Table 3: Reservoirs sampled by USACE

Dale Hollow	Old Hickory
Center Hill	Cheatham
J. Percy Priest	Barkley
Cordell Hull	

TVA samples reservoirs in three areas: the inflow area, which is generally riverine in nature, the transition zone or mid-reservoir, and the forebay. Due to meteorological conditions and year-to-year variation, TVA samples the reservoirs for five consecutive years. After that initial consecutive five years of sample collection, sampling occurs on an every other year basis (Table 4).

Table 4: TVA Sample Schedule

Ecological indicators	Sampling Frequency
benthic	Late autumn/early winter
macroinvertebrates	
chlorophyll	Monthly
dissolved oxygen	Monthly
fish assemblage	In autumn
sediment	Once in mid-summer

Medium Reservoirs (251- 1000 acres)

Tennessee has 16 reservoirs falling in this category. Six are fishing or recreational lakes managed by the TWRA. Eight reservoirs are managed by TVA, with 3 of these routinely monitored by TVA's Vital Signs Monitoring Program. One reservoir is monitored by Alcoa Aluminum for power production and one is municipal water supply reservoir.

Small Reservoirs (< 250 acres)

Tennessee has 1,302 documented reservoirs smaller than 250 acres (a total that only includes reservoirs that are permitted under the Safe Dams or ARAP programs). There are probably many more. These include one TVA managed reservoir (Wilbur Lake), municipal lakes, state parks, city parks, resorts, community developments, agricultural ponds and private lakes. There is little historic data on many of these impoundments. Although they are small, they are often in headwater areas and have the potential to affect downstream reaches. In 2006, downstream reaches of 75 of these small impoundments were monitored as part of a probabilistic study funded by 104(b)3 (Arnwine, et.al., 2006)

E. Critical and Secondary Water Quality Indicators

1. Biological Water Quality Indicators

a. Critical Biological

The state relies heavily on macroinvertebrate monitoring for assessing fish and aquatic life use support. Two types of biological monitoring represent the critical biological indicators in Tennessee.

Semi-quantitative Single Habitat macroinvertebrate samples (SQSH) are used for stream antidegradation category evaluations, TMDLs, permit compliance and enforcement, as well as reference stream monitoring to refine biocriteria guidelines. Regional biointegrity goals based on a multi-metric index composed of seven biometrics have been calculated and provide guidelines for each bioregion (TDEC, 2011).

The seven semi-quantitative single habitat (SQSH) indices are:

- 1. Taxa Richness
- 2. EPT Richness
- 3. EPT Density *Cheumatopsyche* spp.
- 4. North Carolina Biotic Index (NCBI)
- 5. Density of Oligochaetes and Chironomids
- 6. Density of Clingers
- 7. Density of Tennessee nutrient tolerant organisms

Macroinvertebrate biorecons are a screening tool used for routine watershed assessments. Biorecons have been performed at reference streams to refine biorecon guidelines. At test streams, a multi-metric index comprised of three descriptive biometrics is calculated and compared to reference guidelines for the bioregion.

The three biorecon biometrics are:

- 1. Taxa Richness
- 2. EPT Richness
- 3. Intolerant Taxa Richness

b. Secondary Biological

- ♦ Fish IBI
- Periphyton (has been added to reference monitoring and may become critical at
- nutrient impaired streams once guidelines are developed).
- ♦ Chlorophyll *a*

2. Habitat/Physical

a. Critical

Habitat assessments adapted from protocols by Barbour et al. (1999) are conducted in conjunction with all biological monitoring and some chemical monitoring. The division has found these especially useful in assessing impairment due to riparian loss, erosion and sedimentation. The division's macroinvertebrate QSSOP (TDEC, 2011) defines regional expectations based on reference streams for each of the parameters addressed in the assessment.

- 1. Epifaunal Substrate/Available Cover
- 2. Embeddedness of Riffles
- 3. Channel Substrate Characterization
- 4. Velocity Depth Regimes
- 5. Pool Variability
- 6. Sediment Deposition
- 7. Channel Flow Status
- 8. Channel Alteration
- 9. Frequency Re-oxygenation Zones
- 10. Channel Sinuosity
- 11. Bank Stability
- 12. Bank Vegetative Protection
- 13. Riparian Vegetative Zone Width

b. Secondary Physical/Habitat

- ♦ Canopy Cover
- ♦ Stream Profile
- ♦ Particle Count
- ♦ Flow

3. Critical and Secondary Chemical/Toxicological

The type of chemical sampling depends on the monitoring needs. Minimally, the following are collected:

- ◆ Routine Watershed Screenings: Critical: dissolved oxygen, pH, temperature, specific conductance. Parameters are found in Table 11.
- 303(d) list: Including, but not limited to the parameters the segment is listed for.
- ♦ Fish Consumption: Metals and/or priority organics. Metals may be limited to mercury only.
- ♦ Contact Advisory: Critical: E. coli, Non-critical: fecal coliform.
- Permit Compliance/Enforcement: Parameters limited in permit.
- Reference Streams: Ecoregion and FECO site parameters are found in Table 11.
- ◆ TMDL: Monitoring to support the TMDL program depends on the type of TMDL needed.

F. Quality Management and Assurance Plans

TDEC DWR has developed three Quality System Standard Operating Procedures (QSSOP) for use as guidance for collecting water pollution control data and appropriate quality control in the state. The QSSOP for Macroinvertebrate Stream Survey (TDEC, 2011) was first published in March of 2002 and was revised in October 2006 and June 2011. The QSSOP for Chemical and Bacteriological Sampling of Surface Waters was first published in March of 2004 and revised in 2009 and June 2011 (TDEC, 2011). The QSSOP for Periphyton Stream Surveys was completed in 2010 (TDEC, 2010). Each year, the division submits a Quality Assurance Project Plan to EPA (TDEC 2015). This document describes monitoring, analyses, quality control, and assessment procedures used by the division to develop TMDLs, 305(b) and 303(d) assessments.

All documents are reviewed annually and revised as needed. A copy of any document revisions made during the year is sent to all appropriate stakeholders and posted on the website. A report is made to the Deputy Commissioner and Quality Assurance Manager of any changes that occur.

Division staff are trained on field techniques outlined in the documents during the division's annual meeting. Biological and chemical samples are analyzed by the TDH Environmental Laboratories. The biological laboratory follows the QSSOP for macroinvertebrate (TDEC, 2011) and for periphyton (TDEC, 2010) sample analysis. The chemistry laboratory has standard operating procedures which follow approved EPA methodologies. EPA audits both laboratories on a regular schedule.

Quality Assurance Guidelines for Macroinvertebrate Surveys as specified in the 2011 QSSOP:

- 1. 10% of habitat assessments and biological samples are repeated by a second investigator.
- 2. Chain of custody is maintained on all biological samples.
- 3. A digital sample log with backup is maintained for biological samples.
- 4. 10% of all biological samples are re-sorted and re-identified by a second taxonomist.
- 5. Reference collections are maintained at the central laboratory for each taxon found in Tennessee. New specimens are verified by outside experts.
- 6. A minimum of 10% of all data entry and statistical calculations are verified.
- 7. Staff are trained and updated on new techniques as a group during the division's annual meeting or biologists training workshop.

Quality Assurance Guidelines for Periphyton Stream Surveys as specified in the 2010 QSSOP:

The same quality assurance required for macroinvertebrate surveys is necessary for periphyton surveys, with the exception of the reference collections. A master collection of images of all taxa identified in the state is maintained at the central Laboratory. As with macroinvertebrates, new specimens are verified by outside experts.

Quality Assurance for Chemical Field Collections as specified in the 2011 QSSOP:

- 1. Duplicates, field, trip, and equipment blanks, are collected at 10% of sites.
- 2. Temperature blanks are included in each sample cooler.
- 3. Water quality probes are calibrated daily and include daily post-calibrations (at the beginning and end of the trip for overnight sampling). Duplicate measurements are recorded at each station.
- 4. Flow measurements are duplicated at 10% of sites.
- 5. Chain of custody is maintained on all samples.
- 6. Staff are trained and updated on new techniques as a group during the division's annual meeting or biologists training workshop.

G. Data Management through Electronic Data Systems

The division uses EPA's Assessment Database (ADB) to store assessment information. The ADB currently holds information on approximately 5,700 waterbody segments, which represent the state's streams, rivers, lakes and reservoirs.

The public has access to assessment information through an online assessment database. The website links information in the assessment database to an interactive map using the Geographic Information System (GIS) http://bg0119054wa006.net.ads.state.tn.us/flexviewers/tdecwpc/ The department also partners with EME Environmental Solutions to power a Stream.and.watershed Information Management GIS mapping tool to reflect previous, current and potential stream mitigation projects across the state. The information for both maps is updated regularly.

In the early 1970s, EPA developed the national water quality STOrage and RETrieval database called STORET. This database allowed for easy access to bacteriological and chemical information collected throughout the state and nation. TDEC Water Pollution Control station locations and chemical and bacteriological data were uploaded into the database quarterly. In September 2009, EPA ceased support of the current format that data are uploaded to STORET. The last data upload from TDEC WPC was sent to EPA the end of September 2009. The historical STORET data is found at http://www.epa.gov/storet/dw_home.html.

To replace STORET, EPA developed the Water Quality Exchange (WQX), which is a framework that is intended to make it easier for States, Tribes, and others to submit and share water quality monitoring data over the Internet. Subsequently, Tennessee Department of Health (TDH) state laboratory has begun submitting chemical and bacteriological data electronically to TDEC-DWR. DWR then uploads chemical and bacteriological data through the web application to WQX. Close to 130,000 chemical and bacteriological records are uploaded to EPA WQX WEB through the web portal. Data submitted to EPA after 2009 may be found at http://www.epa.gov/storet/wqx/.

Chemical, bacteriological, flow, macroinvertebrate, periphyton, fish tissue and habitat data collected from stations specified in the workplan are stored in the division's Access water quality database. There are approximately 62,000 records in this database, which includes data collected from 1996 to the present. The database also includes detailed station information for approximately 7,300 monitoring stations.

The amount of data has outgrown the capabilities of the current Access Database. Therefore DWR is in the process of migrating data from the Access Database platform to an Oracle platform. EPA requires states to enter all monitoring data collected using 106 funds (including chemical, biological, fish, habitat, tissue, toxicity, physical and sediment chemistry) into STOrage and RETrieval (STORET) data warehouse using the Water Quality Exchange (WQX) network. In order to meet EPA reporting requirements to upload of all surface water data to WQX TDEC has developed the following plan.

In 2012 Tennessee was awarded a 106 supplemental grant (I-95494911) for development of an electronic data transfer system. A portion of that money was used to test the feasibility of using the EQuiS software for monitoring program needs, electronic data transfer from the state laboratory and upload to WQX. The software proved insufficient to meet these goals. TN was has been able to electronically transfer chemical and bacteriological data from the lab and upload to WQX through the WEB application.

In order to achieve Division of Water Resources (DWR) and EPA reporting goals in the most cost-effective and timely manner, TDEC is adapting the database used by the state of Kentucky (K-WADE). The remaining 2012 grant money is being used for data clean-up and mapping between the Tennessee, WQX and K-WADE databases as well as to develop electronic spreadsheets for biological data transfer from the state laboratory into the new data system.

Tennessee is requesting FY 2015/16 supplemental funds to complete modifications of the Kentucky database to meet Tennessee program needs, initiate electronic transfer of biological data from laboratory and upload chemical, macroinvertebrate, periphyton, habitat, tissue, physical and sediment data to WQX.

Goals:

- 1. Adapt Kentucky database (K-Wade) to accept Tennessee chemical, macroinvertebrate, fish tissue, periphyton and habitat data.
- 2. Develop reporting functions for all data types.
- 3. Develop electronic data deliverables (EDDs) for laboratory reporting of all data types.
- 4. Successfully export al data-types to WQX-STORET.

Time Line

Phase 1 (2015)

- a. Modify tables and field views in K-WADE database to meet TDEC program needs for water chemistry.
- b. Create an Excel based batch import process that would allow lab information to be uploaded to database.
- c. Create an Interactive report that would allow staff the ability to query and retrieve data from the database without direct IT staff involvement.
- d. Clean-up macroinvertebrate, habitat, periphyton, field assessments and fish tissue data in TN WQ and EDAS databases.
- e. Map fields between K-WADE TNWQDB and WQX. Verify all required WQX data elements for biological data are currently included in K-WADE. Identify missing fields in TN database.
- f. Identify taxa not currently in WQX reference tables and provide necessary citations for inclusion.
- g. Clean up chemical data collected 2004 2009.

Phase 2 to be completed by September 2016

Use anticipated 2016 106 supplemental funds to contract modifications to further adapt the K-WADE data system for TDEC program use as well as develop a less labor intensive method of uploading water chemistry data and facilitate upload of biological and habitat data to WQX.

- a. Complete any remaining data clean-up.
- b. Modify reference tables and view fields in K-WADE to accommodate TN data and WQX required fields.
- c. Upload all historical macroinvertebrate, periphyton, fish tissue, habitat and physical data to database.

- d. Successfully export all data-types (biological and chemical) through WQX node or other standard shared services methodology that is made available through EPA and track the meta-data for information sent to EPA.
- e. Develop .NET based reporting functions for macroinvertebrate, habitat assessment, fish tissue, periphyton and field data. Expand initial chemical reporting function.
 - 1. Reporting function must allow for calculation of biological metrics using expressions found in EDAS as starting point and must be open to allow DWR staff to edit and manipulate metric calculations as needed.
 - 2. Query results should show one row of data for the combined station and date (or Log number) for sampling event(s).
 - 3. Query tool should allow filters.
 - 4. Data should be exportable to well-structured Excel/CSV formats for import into desktop applications.
 - 5. Query tool must have flexibility to select any field for report.
- f. Allow user upload of multiple samples by Excel spreadsheet or single entry through view screens for additions, corrections or replacement of data. There should also be a deletion/inactivation capability for removal of data records that are not valid.

H. Data Analysis/Assessment of Water Quality

The water quality assessment process in Tennessee consists of four parts:

- 1. Development of clean water goals (water quality standards) either by promulgating national numeric criteria, statewide narrative criteria, or regional goals based on reference conditions.
- 2. Implementation of a statewide water quality monitoring program, based on a watershed cycle.
- 3. Comparison of data to water quality standards for each waterbody in order to assess water quality and to categorize use support.
- 4. Geographic referencing of all water resources with the National Hydrography Dataset (NHD).

Water Quality Standards

The *Tennessee Water Quality Control Act* requires the protection of water quality in Tennessee. Tennessee first adopted water quality standards in 1967 and has amended them several times thereafter. Water quality standards consist of two principle regulations:

- 1. "Use Classifications for Surface Waters", Chapter 0400-40-04
- 2. "General Water Quality Criteria", Chapter 0400-40-03

The three essential elements comprising water quality standards as defined by Section 303 of the Federal Clean Water Act, PL 95-217, are stream use classifications, water quality criteria and the antidegradation statement.

Classification + Criteria + Antidegradation = Standards

In September 2009 the Water Quality Control Board (WQCB) voted to initiate the rulemaking process for the triennial review of water quality standards. This process was initiated when the division filed a notice for the Tennessee Administrative Register with the Secretary of State's Office in November 2009. At the same time, a set of proposed revisions to the regulations were posted on the department's webpage.

Following public hearings in December 2009 -January 2010 and a public comment period, a proposed final set of revisions were presented to the WQCB. After the WQCB approves the water quality standards the Attorney General's Office certifies the rules. The rules will then be filed with the Secretary of State for the required 75-day waiting period and were submitted to EPA for formal review. In November, 2011, at the request of the Water Quality Control Board, the previously revised water quality standards were again put on public notice and an additional review period was undertaken in the winter of 2011 and early spring of 2012. The standards were approved by EPA in January 2015.

1. Stream-use Classification

Tennessee's criteria specify baseline values for particular parameters of water quality necessary for the protection and maintenance of a prescribed use classification. The State has established seven principal uses of the waters for which criteria of quality are defined.

- a. Fish and Aquatic Life (FAL) Criteria protect fish and other aquatic life such as macroinvertebrates. These criteria are based on two types of toxicity. The first is acute toxicity, which refers to the level of a contaminant that causes death in organisms in a relatively short time. The other type is chronic toxicity. Chronic criteria are based on a lower level of a contaminant that causes death over a longer period of time or has other effects such as reproductive failure or the inhibition of growth. Fish and aquatic life criteria are generally the most stringent criteria for toxic substances.
- b. Recreation This classification protects the use of streams for swimming, wading, and fishing. Threats to the public's recreational uses of waters include loss of aesthetic values, elevated pathogen levels, and the accumulation of dangerous levels of metals or organic compounds in fish tissue. Tennessee coordinates with TVA, ORNL and TWRA to monitor levels of contaminants in fish. Waterbodies that pose an unacceptable risk to human health are posted for bacteriological or fish consumption advisories.
- **c. Irrigation** Irrigation criteria protect the quality of water so it may be used for agricultural needs.

- d. Livestock Watering and Wildlife These criteria protect farm animals and wildlife.
- e. **Drinking Water Supply** Drinking water criteria insure that water supplies contain no substances that might cause a public health threat, following conventional water treatment. Since many contaminants are difficult and expensive to remove, it is more cost-effective to keep pollutants from entering the water supply in the first place.
- **f.** Navigation This use is designed to protect navigational rivers and reservoirs from any alterations that would adversely affect commercial uses.
- **g. Industrial Water Supply** These criteria protect the quality of water used for industrial purposes.

Tennessee has approximately 60,000 stream miles and over 570,000 publicly owned lake and reservoir acres. Most are classified for at least four public uses: protection of fish and aquatic life, recreation, irrigation, and livestock watering and wildlife. These minimum use classifications comply with the Federal Water Pollution Control Act, which requires that all waters provide for the "protection and propagation of a balanced population of fish and wildlife, and allow recreational activities in and on the water" (U.S. Congress, 2000).

Specific designated Use Classifications for Surface Waters in Tennessee are listed in the Rules of TDEC, Chapter 0400-40-04 (TDEC-WQOGB, 2013). All surface waters that are not specifically listed in the regulations are classified for fish and aquatic life, recreation, irrigation, livestock watering and wildlife.

2. Water Quality Criteria and Assessment Methodologies

The Water Quality Oil and Gas Board (WQOGB) has assigned specific water quality criteria to each of the designated uses. These criteria establish the level of water quality needed to support each of the designated uses. There are two types of criteria:

- ♦ Numeric criteria Establish measurable thresholds for physical parameters and chemical concentrations to support classified uses.
- ♦ Narrative criteria Are written descriptions of water quality. These descriptions generally state that the waters should be "free from" particular types or effects of pollution. To help provide regional interpretations of narrative criteria, guidance documents have been developed by the division for biological integrity, habitat and nutrient narrative criteria.

The regulations require that the most stringent criteria be applied to the waterbody. Typically, the most stringent criteria are for the protection of fish and aquatic life or recreational uses. General Water Quality Criteria for surface waters in Tennessee are listed in the Rules of TDEC, Chapter 0400-40-03 (TDEC-WQOGB, 2013).

Water quality assessments are the application of water quality criteria to ambient monitoring results to determine if waters are supportive of all designated uses. To facilitate this process, several provisions have been made:

To help the division interpret water quality expectations for biological integrity, nutrients and habitat, guidance documents for wadeable streams have been developed. These documents are referred to in the General Water Quality Criteria (TDEC-WPCB, 2013).

- ♦ Numeric criteria define physical and chemical conditions that are required to maintain designated uses.
- In order to make defensible assessments, data quality objectives must be met. For some parameters, a minimum number of observations are required in order to have increased confidence in the accuracy of the assessment.
- Provisions in the water quality criteria instruct staff to determine whether violations are caused by man-induced or natural conditions. Natural conditions are not considered pollution.
- ♦ The magnitude, frequency and duration of violations are considered in the assessment process.
- Streams in some ecoregions naturally go dry or subterranean during prolonged periods of low flow. Evaluations of biological integrity differentiate whether streams have been recently dry or have been affected by man-induced conditions.
- ♦ Waterbodies on the 303(d) list remain on the list until sufficient recent data provide a rationale for removing the waterbody from the list.

The following guidelines are used for determining specific causes of pollution:

a. Metals and Organics Criteria

One or two chemical samples are not considered an accurate representation of stream conditions. Therefore, more than two observations are used in assessments. Acute fish and aquatic life protection criteria are used, unless a site has 12 or more chemical collections. If a site has 12 or more chemical collections, chronic criteria are applied.

Metals data are appropriately "translated" according to the water quality standards before being compared to criteria. For example, toxicity of metals is altered by stream hardness and the amount of total suspended solids in the stream. Widely-accepted methodologies are used to make these and other translations of the data. The division consults with EPA concerning the latest revisions to the national criteria and updates the state criteria as appropriate.

b. Pathogens

Waterbodies are not assessed as impaired due to high bacteria levels with less than three water samples. The only waters assessed with one or two observations are those previously listed due to elevated bacteria levels or streams with obviously gross conditions, such as failing animal waste lagoons.

E. coli data are generally considered more reflective of true pathogen risk than are fecal coliform data. During the 1997 triennial review process, Tennessee added *E. coli* criteria to its existing fecal coliform criteria. This gave the regulated community time to become accustomed to the new criteria before fecal coliform were removed during the 2003 review.

If flow data are available, low flow, dry season data are considered more meaningful than high flow, wet season data. In the absence of flow data, samples collected in late summer and fall are considered low flow or dry season samples. Wet season pathogen samples are not disregarded. They are simply given less weight than dry season pathogen samples.

c. Dissolved Oxygen

For streams identified as trout streams, including tailwaters, the minimum DO standard is 6.0 mg/L. Streams designated as supporting a naturally reproducing population of trout have a DO standard of not less than 8.0 mg/L. This also includes tributaries to naturally reproducing trout streams as well as all streams in the Great Smoky Mountains National Park. If the source of the low DO is a natural condition, such as ground water, spring, or wetland, then the low DO is considered a natural condition and not pollution.

d. Nutrients

Regional nutrient goals were developed based on reference condition and are used for guidance when assessing wadeable streams (Denton et al., 2001). Streams are not generally assessed as impaired by nutrients unless biological or aesthetic impacts are also documented. The division has developed a 10-year plan for developing nutrient guidelines in large rivers, lakes and reservoirs. (TDEC, 2007)

One or two chemical nutrient observations are considered a valid assessment only if they are supported by evidence of biological impairment. For example, if the macroinvertebrate community in a stream is very poor and/or the amount of algae present indicates organic enrichment, then one or two nutrient samples could be used to identify a suspected cause of pollution.

e. Suspended Solids/Siltation

Historically, silt has been one of the primary pollutants in Tennessee waterways. The division has experimented with multiple ways to determine stream impairment due to siltation. These methods include visual observations, chemical analysis (total suspended solids), and macroinvertebrate/habitat surveys. Biological surveys that include a habitat assessment have proven to be the most satisfactory method for identification of impairment.

Through monitoring reference streams, staff found that the appearance of sediment in the water is often, but not always, associated with loss of biological integrity. Additionally, ecoregions vary in the amounts of silt that can be tolerated before aquatic life is impaired. Thus, for water quality assessment purposes, it is important to establish whether or not aquatic life is being impaired. For those streams where loss of biological integrity can be documented, the habitat assessment can determine if the stream has excessive amounts of silt.

The division has developed regional expectations based on reference data for the individual habitat parameters most associated with sedimentation including embeddedness and sediment deposition. These values are published in the macroinvertebrate QSSOP (TDEC, 2011) and reviewed annually.

f. Biological Criteria

Biological surveys using macroinvertebrates as the indicator organisms are the preferred method for assessing support of the fish and aquatic life designated use in wadeable streams. Two standardized biological methods, biorecons and semi-quantitative single habitat (SQSH) samples, are used to produce a biological index score. These methods are described in the macroinvertebrate QSSOP (TDEC, 2011). As part of the 10-year nutrient criteria development plan, the division will be addressing biological integrity goals in large rivers, lakes and reservoirs.

The most frequently utilized biological surveys are qualitative biorecons. Biological scores are compared to descriptive metric values obtained in ecoregion reference streams. The principal metrics used are the total families (or genera), the number of mayfly, stonefly and caddisfly (EPT) families (or genera), and the number of pollution intolerant families (or genera) found in a stream. The biorecon index is scored on a scale that goes from 1 - 15. A score less than or equal to 5 is considered impaired. A score equal to or greater than 11 is considered supporting. Scores between 5 and 11 are ambiguous and must be supplemented with other information such as chemical data, habitat data or a more intensive biological survey.

If a more definitive assessment is needed in a wadeable stream, a single habitat, semi-quantitative sample is collected. To be comparable to ecoregions guidance, streams must have the same order as the reference streams in a given ecoregion and must have been sampled similarly and at least 80 percent of the upstream drainage in that ecoregion. If both biorecon and single habitat semi-quantitative data are available, and the assessments do not agree, more weight is given to the single habitat semi-quantitative samples. Streams are considered impaired where biological integrity falls below the expected range of conditions found at reference streams.

g. Habitat

Division staff use a standardized scoring system developed by EPA to rate the habitat in a stream (Barbour, et. al., 1999). The macroinvertebrate QSSOP (TDEC, 2011) provides guidance for completing a habitat assessment and how to evaluate the results. Habitat scores calculated by division biologists are compared to the guidelines developed from the ecoregion reference stream data.

Streams with habitat scores lower than the guidance for the region are considered impaired, unless biological integrity meets expectations. If biological integrity meets ecoregional expectations, then poor habitat is not considered impairment.

h. pH

Reference data collected over the last 20 years has shown that natural pH conditions vary by ecoregion. Some ecoregions support a healthy biological community at a lower pH than others. The pH criterion for wadeable streams is now 6.0 - 9.0. For nonwadeable rivers, streams, reservoirs and wetlands the pH criterion remains 6.5 - 9.0. Waterbodies with pH values outside these ranges are considered impaired.

3. Antidegradation

As one of the elements comprising Tennessee's water quality standards, the antidegradation statement has been contained in the criteria document since 1967. EPA has required the states, as a part of the standards process, to develop a policy and an implementation procedure for the antidegradation statement.

"Additionally, the Tennessee Water Quality Standards shall not be construed as permitting the degradation of high quality surface waters. Where the quality of Tennessee waters is better than the level necessary to support propagation of fish, shellfish, wildlife, and recreation in and on the water, that quality will be maintained and protected unless the state finds, after intergovernmental coordination and public participation, that lowering water quality is necessary to accommodate important economic or social development in the area in which the waters are located" (TDEC-WQOGB, 2013).

A three-tiered antidegradation statement was incorporated into Tennessee's 1994 revisions. In the 1997 triennial review, the three tiers were more fully defined. A procedure for determining the proper tier of a stream was developed in 1998. The evaluation took into account specialized recreation, scenic considerations, ecology, biological integrity and water quality.

Tennessee further refined the antidegradation statement in 2004 specifying that alternatives analyses must take place before new or expanded discharges can be allowed in Tier I waters.

In 2006 the antidegradation statement was revised and the Tier designations were replaced by the following categories. (TDEC-WQCB, 2007). The antidegradation statement has been revised in the 2010 version of the Water Quality Standards. (TDEC-WQOGB, 2013).

- a. **Unavailable parameters** exist where water quality is at, or fails to meet water quality criteria in Rule 0400-40-03 (the criterion for one or more parameters)
- b. **Available parameters** exist where water quality is better than the levels specified in the water quality criteria in Rule 0400-40-03.
- c. **Exceptional Tennessee Waters (ETW)** are waters that are in any one of the following categories:

- ♦ Waters within state or national parks, wildlife refuges, wilderness areas or natural areas.
- ◆ State Scenic Rivers or Federal Wild and Scenic Rivers.
- Federally-designated critical habitat or other waters with documented nonexperimental populations of state or federally-listed threatened or endangered aquatic or semi-aquatic plants or animals.
- Waters within areas designated Lands Unsuitable for Mining.
- ♦ Waters with naturally reproducing trout.
- ♦ Waters with exceptional biological diversity as evidenced by a score of 40 or 42 on the TMI (or a score of 28 or 30 in subregion 73a), provided that the sample is considered representative of overall stream conditions.
- Other waters with outstanding ecological or recreational value as determined by the Department.
- d. Outstanding National Resource Waters (ONRWs) These Exceptional Tennessee Waters constitute an outstanding national resource due to their exceptional recreational or ecological significance. In 1998, the Water Pollution Control Board voted to accept six of the eight streams proposed for listing as ONRWs. The following streams or portions of the streams are designated as ONRWs are: Little River, Abrams Creek, Little Pigeon River, West Prong Little Pigeon River, Big South Fork Cumberland River and Reelfoot Lake.

In 1999, the Obed River was conditionally added as an ONRW. The condition placed upon the designation was that if the Obed were identified as the only viable drinking water source for Cumberland County, it would revert back to ETW status.

Information on waterbodies that have been evaluated and are identified as Exceptional Tennessee Waters is entered in the Waterlog database and is located on the TDEC website http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34304:1963060327755:::::

4. Categorization of Use Support and Assessment Process

In order to determine use support, it must be decided if the stream, river or reservoir meets water quality criteria. Monitored waters are compared to the most restrictive water quality standards to determine if they meet their designated uses. Generally, the most stringent criteria are for recreational use and support of fish and aquatic life.

To facilitate these analyses, all major rivers, streams, reservoirs and lakes have been placed into georeferencing sections called waterbody segments. These waterbody segments are given unique identification numbers that reference an eight-digit watershed Hydrologic Unit Code (HUC), plus a reach, and segment number.

All available water quality data are considered, however, not all data comply with state quality control standards and approved collection techniques. Assessments must be founded on

scientifically sound monitoring methodologies. After use support is determined, waterbodies are placed in one of the five categories recommended by EPA.

- Category 1 waters are those waterbody segments which have been monitored and meet water quality criteria. The biological integrity of Category 1 waters is comparable with reference streams in the same subecoregion and pathogen criteria are met. Previously these waterbodies were reported as fully supporting.
- Category 2 waters have only been monitored for some uses and have been assessed as fully supporting of those uses, but have not been assessed for the other designated uses. Often these waterbodies have been assessed and are fully supporting of fish and aquatic life, but have not been assessed for recreational use. In previous assessments, these waters were assessed as fully supporting.
- Category 3 waters have insufficient or outdated data and therefore have not been assessed. These waters are targeted for future monitoring. In previous assessments, these waterbodies were identified as not assessed.
- Category 4 waters are waters that have been monitored and found to be impaired for one or more uses, but a TMDL is not required. These waters are included in the 303(d) impaired waters list. Category 4 has been subdivided into three subcategories. Previously, these waters were reported as either partially or nonsupporting.
 - Category 4a impaired waters have had all necessary TMDLs approved by EPA.
 - Category 4b impaired waters do not require TMDL development since "other pollution control requirements required by local, State or Federal authority are expected to address all water-quality pollutants" (EPA, 2003).
 - Category 4c waters are those in which the impacts are not caused by a pollutant (e.g. certain habitat alterations).
- Category 5 waters have been monitored, and found not to meet one or more water quality standards. In previous assessments, these waters have been identified as partially supporting or not supporting designated uses. Category 5 waterbodies are moderately to highly impaired by pollution and need the development of TMDLs for known impairments.

TDEC strongly prefers to base assessments on recently collected data. Judgments based on modeling or land use information are much harder to defend. With given resources, it is not possible to monitor all of Tennessee's waterbodies every two years for 305(b) reporting purposes. Therefore, monitoring and assessments are conducted on the five-year rotating schedule.

The division continues to increase its reliance on rapid biological assessments. These assessments provide a quick and accurate assessment of the general water quality and aquatic life use support in a stream. However, biological assessments do not provide information to pinpoint specific toxic pollutants or bacterial levels in water. The challenge in the next few years will be to combine biological assessments with chemical and bacteriological data so that both use support status and accurate cause and source information can be generated.

5. Data Sources

The division uses all reliable data gathered in the state for the assessment of Tennessee's waterways. These include data from TDEC, other state and federal agencies, citizens, universities, the regulated community, and the private sector. Every year, the division issues public notices requesting water quality data for use in the statewide water quality assessment. In addition other state and federal agencies known to have data are contacted directly for monitoring information. Tennessee regularly receives data from TVA, USGS, TWRA, and USACE. Biological and habitat data submitted by NPDES dischargers as part of permit requirements are also used.

All submitted data are considered. If data reliability cannot be established, submitted data are used to screen streams for future studies. If the data from the division and another reliable source do not agree, more weight is given to the division's data unless the other data are considerably more recent.

6. Data Use

The division's goal is to make assessments by quantifiable measures (objective) and therefore, require less professional (subjective) judgment (Table 5). DWR is accomplishing this goal as follows:

Criteria have been further refined to assist in the assessment of water quality data. The ecoregion project has dramatically reduced the uncertainty associated with the application of statewide narrative and numerical criteria.

By use of geographic referencing tools such as the National Hydrography Dataset (NHD), water segments have been further refined to allow more precise water quality assessments. Data from a sampling point are extrapolated over a much shorter distance than in the past. The decision on how far the information is applicable is made on a site-by-site basis using factors such as amount and type of data and the uniformity of the stream.

Minimum data requirements for some of the specific types of data have been set.

Critical periods have been determined for various criteria. Certain collection seasons and types of data have proven more important for the protection of specific water uses. For instance, the critical period for parameters like toxic metals or organics is the low flow season of late summer and early fall. Water contact activities like swimming and wading are most likely to occur in the summer.

Table 5. Types of Data Used in the Water Quality Assessment Process

Chemical Data	Biological Data	Physical Data	Sediment And Tissue Data
Compliance monitoring performed at the nearly 2,000 permitted dischargers in Tennessee. Data collected as a result of complaint investigations, fish kills, spills, and in support of enforcement activities.	Rapid biological surveys completed in association with the watershed project. These are performed primarily in tributary streams as a means of monitoring biological integrity.	Temperature and flow data collected throughout Tennessee.	Sediment and fish tissue data collected at various sites across Tennessee.
Over 7000 stations are established by the division to support the watershed approach.	Ecoregion biological monitoring. Benthic and fish IBI scores calculated at many sites.	Quantitative assessments of habitat made in conjunction with biological surveys.	EPA's report The Incidence and Severity of Sediment Contamination in Surface Waters of the United States.
Data collected at the division's 87 ecoregion reference sites. (These stations provide a baseline to which other sites within that ecoregion can be compared.)	Bioassay studies of effluent toxicity at most major NPDES dischargers. Many minor facilities also do this type testing.	Time-of-travel studies of flow, dissolved oxygen sags and BOD decay rates.	Locations of existing fishing advisories in Tennessee.
Chemical data collected by other entities.	Biological data collected by other entities.	Physical data collected by other entities.	Sediment and tissue data collected by other entities.

Future Assessment Goals

The division is committed to the ecoregion approach, particularly for the assessment of wadeable rivers and streams. The use of regional reference streams has proven a valuable tool in establishing guidelines for use in determining whether waterbodies meet their designated uses. The division goals, which are to continue to improve the assessment process, are listed in Table 6.

Table 6. Future Assessment Goals

Goal	Milestone	Future Plans
Dissolved oxygen in	Published study of regional	Continued regional
wadeable streams	dissolved oxygen patterns in	monitoring to enhance
	2003 based on diurnal and	existing data. Incorporate
	daylight monitoring.	criteria base on diurnal
	Proposed regional minimum	patterns (duration and
	DO criteria based on	frequency of minimum).
	reference monitoring in	Consideration of criteria
	2003.	based on diurnal DO swings
		in future triennial reviews.
Nutrients in wadeable	Published guidance	Continued refinement.
streams	document for regional limits	
	of total phosphorus and	
	nitrate + nitrite in 2001.	
	Incorporated guidance in	
	2004 WQS.	
Nutrients in lakes, rivers and	Developed criteria	As resources allow, compose
non-wadeable streams	development plan in 2004	study group of appropriate
	with revisions in 2007 and	professionals. Target
	2009. Established biomass	reservoir for pilot project.
	criterion in Pickwick	Review existing data and
	Reservoir in 2007.	look for data gaps. Begin
		development of criteria
D: '.'	D 11:1 1 ' 1 .	guidelines.
Biocriteria	Published macroinvertebrate	Continue testing wadeable
	guidelines for wadeable	streams guidelines. Develop
	streams in 2001 which were	guidelines for lakes, reservoirs, rivers and
	updated in 2004, 2006 and	headwater and intermittent
	2011. Incorporated guidelines in 2004 WQS.	streams. Develop periphyton
	Began monitoring of	guidelines.
	headwater reference streams	guidennes.
	in 2009. Began monitoring	
	of periphyton at reference	
	streams in 2008.	
	Sucams in 2000.	

I. Water Quality Reports

The division continues to submit quarterly reports describing monitoring activities to EPA. Waterbodies will continue to be monitored to fulfill data needs for water quality standards, TMDLs, 303(d), 305(b), and special projects.

The Mid-Year Review and End-of-Year Review processes will be utilized by EPA Region 4 as the primary mechanism for evaluating performance and progress in implementing workplan commitments. To comply with EPA Region 4's semi-annual progress reporting requirement, EPA's Mid-Year Review Report will serve as the first of the two semi-annual reports required. TDEC will prepare the second report and submit by December 31, 2015.

The 305(b) report details the status of Tennessee waters as well as sources and causes of pollution. The 2012 305(b) Report was finalized in December 2012. The report and assessment database were supplied to EPA Region 4 staff for inclusion in the 305(a) Report to Congress. The report, as well as an interactive database, is provided to the public through the TDEC website

http://environment-online.tn.gov:8080/pls/enf reports/f?p=9034:34304:1963060327755

The 303(d) list is a compilation of streams in Tennessee that are not currently meeting water quality standards in spite of the implementation of best available technology (BATs) or best management practices (BMPs). The Proposed Final 2014 303(d) list has been submitted to EPA and may be found on TDEC's website.

http://tn.gov/assets/entities/environment/attachments/2014-proposed-final-303d-list.pdf
The draft 2012 303(d) list was submitted to EPA in June 2012. The proposed final 2012 303(d) list was submitted to EPA in November 2012. The 303(d) list was approved by EPA in January 2014. Subsequently the proposed final 2014 303(d) list has been submitted to EPA for approval. Tennessee's water quality standards require the incorporation of the antidegradation policy into regulatory decisions (Chapter 0400-40-03-06). Part of the responsibility the policy places on the division is identification of Exceptional Tennessee Waters. In Exceptional Tennessee Waters, degradation cannot be authorized unless (1) there is no reasonable alternative to the proposed activity that would render it non-degrading and (2) the activity is in the economic or social interest of the public.

The division has compiled a list of streams based on the characteristics of Exceptional Tennessee Waters set forth in the regulation by the Tennessee Board of Water Quality, Oil and Gas. In general, these characteristics are streams with good water quality, important ecological values, valuable recreational uses, and/or outstanding scenery. Wherever possible, the division has utilized objective measures to apply these characteristics and the basis for each listing is provided. The list is on the TDEC website. http://tdec.tn.gov:8080/pls/enf_reports/f?p=9034:34304:0::NO

Reports routinely produced by the division include technical publications, informational publications, criteria development reports, and standard operating procedures. In addition to reports, the division is committed to communicating information effectively. To reach this goal, the following products, among others, are provided as part of the reporting process:

- ◆ Access to water quality data
- ♦ Water quality assessment reports and on-line assessment database
- ♦ Data and interpretation for NPDES permit support
- ♦ Technical data sets for consultants/researchers
- Spatial and mapping data using Geographical Information System (GIS) tools
- ♦ Public outreach information, including the Internet
- Presentations at professional, scientific, citizen and school group meetings

J. Monitoring Program Evaluation

The division evaluates its monitoring program during each planning and assessment cycle and incorporates changes as needed to provide the most comprehensive and effective plan possible with available resources.

1. Evaluation of Monitoring Program Strategy

During development of the annual monitoring workplan, both central office and EFO staff provide input into monitoring needs:

- a. The monitoring plan is reviewed to make sure all sampling and assessment priorities are covered.
- b. The ADB is used to look for unassessed segments which are incorporated into the monitoring plan whenever possible.
- c. During the monitoring plan development, Central Office and EFO staff coordinates location of monitoring stations and type of samples collected to insure adequate information is provided during that cycle.
- d. The location of monitoring stations is coordinated with other state and federal agencies to eliminate duplication of effort.
- e. At the end of each monitoring cycle, the plan is reviewed to make sure monitoring needs were covered. Uncompleted sampling or data gaps are incorporated into the next monitoring cycle or might be contracted to the state laboratory for completion.

2. Monitoring Objectives

During evaluation of monitoring objectives, the division strives to:

- a. Determine where additional or more current data are needed to enhance the assessment process.
- b. Target unassessed segments or those that were originally assessed qualitatively. Incorporate biological monitoring whenever possible to assess fish and aquatic life use support.
- c. Develop or refine guidelines for narrative criteria: Refine wadeable streams and develop criteria for rivers, lakes and reservoirs (see nutrient workplan for details).
- d. Biological: Refine wadeable streams and develop criteria for rivers, lakes and reservoirs.
- e. Habitat: Refine wadeable streams and develop criteria for rivers, lakes and reservoirs.
- f. Continue to refine regional numeric criteria whenever possible. Develop diurnal guidelines for dissolved oxygen levels.
- g. Revisit monitoring sites every five years to look for changes.
- h. Monitor below sites where BMPs or other restoration activities have taken place to assess effectiveness of improvement strategy.
- i. Look for opportunities to analyze trends in water quality.

3. Monitoring Design

The division reviews the monitoring program during each cycle to ensure it is efficient and effective in generating data that serve management decision needs and meets the state's water quality management objectives.

- a. Probabilistic monitoring results are compared to targeted monitoring results to check for bias in watershed assessment. Results from both types of monitoring are used in an integrated approach.
- b. The antidegradation survey process is reviewed and updated based on feedback from field staff.
- c. Ecoregion reference sites are re-evaluated annually. New sites are added whenever possible. Existing sites are dropped if data show the water quality has degraded, the site is not typical of the region, or does not reflect the best attainable conditions. Data from other states are used to test suitability of reference sites. Currently the state is reviewing river, lake and reservoir data to target reference conditions in these systems.
- d. Watershed groupings are reviewed and revised if needed to ensure staffing is available for adequate coverage.

4. Critical and Non-Critical Water Quality Indicators

The division reviews both critical and non-critical water quality indicators minimally every three years as part of the triennial review process.

- a. Biological guidelines for wadeable streams New biometrics are tested for possible inclusion or replacement of existing index metrics. Additional reference data are incorporated and biometric ranges are adjusted if needed. Bioregions are tested and boundaries are adjusted if appropriate. Guidelines for rivers, lakes and reservoirs are currently in the initial development stage.
- b. Nutrient guidelines Additional reference data are incorporated and regional guidelines are adjusted if appropriate. Nutrient regions are tested and boundaries are adjusted if needed. Regional recommendations are tested against biological community data to test protectiveness. Guidelines for rivers, lakes and reservoirs are currently in the initial development stage.
- c. Habitat guidelines Additional reference data are incorporated and regional guidelines are adjusted if appropriate. Regional recommendations are tested against biological community data to test protectiveness. Guidelines for rivers, lakes and reservoirs are currently in the development stage.
- d. Other narrative criteria are reviewed to determine whether guidelines can be developed using regional reference data.
- e. Dissolved oxygen criteria Regionalized dissolved oxygen criteria are being tested and refined as additional data are collected for wadeable streams. Regional recommendations are tested against biological community scores to evaluate effectiveness.

f. Incorporation of national numeric criteria. Changes are incorporated into the state criteria during the triennial review process. Criteria are reviewed to determine effectiveness of statewide approach versus regionalization.

5. Quality Assurance

The division is committed to ensuring the scientific quality of its monitoring and laboratory activities.

The division developed and implemented a document entitled *Quality Systems Standard Operating Procedures for Macroinvertebrate Surveys* (including collections, habitat assessments and laboratory analyses) in 2002. This manual will be reviewed annually and updated if needed. The manual was last revised in 2011. Staff are trained on protocols during the annual statewide meeting or during the biologists workshops.

The division developed and implemented a document entitled *Quality Systems Standard Operating Procedures for Chemical and Bacteriological Sampling of Surface Waters* in 2011. This manual will be reviewed annually and updated if needed. Staff are trained on protocols during the annual statewide meeting or during the biologists workshops.

The division has developed a document entitled *Quality Standard Operating Procedures for Periphyton Stream Surveys* in 2010. This manual will be reviewed annually and updated if needed. Staff are trained on protocols during the annual statewide meeting or during the biologists workshops.

As time and staff allows the division will develop SOPs for Habitat Streams Surveys, antidegradation policy implementation, water quality assessments and data. The division uses the state laboratory for chemical, bacteriological and biological analyses. The division also used contract laboratories. The state laboratory has developed standard operating procedures that meet the division's needs and are in accordance with EPA policy. EPA routinely inspects the state laboratory. The division has a policy to maintain chain of custody on all samples.

Duplicate collections are completed at 10% of biological and chemical monitoring stations. Trip blanks, field blanks and equipment blanks are collected at 10% of stations. The division developed and implemented a document entitled *Quality Assurance Project Plan* in 2015. This manual will be reviewed annually and updated if needed. Staff are trained on protocols during the annual statewide meeting or biologists workshop.

6. Data Management

The division uses electronic formats to store data and assessment information.

The state water quality database is reviewed continuously and updated as needed to increase comprehensiveness and ease of use.

- ◆ New updates for STORET/WQX, ADB and GIS are incorporated as they become available and time allows with the states IT divisions assistance.
- ♦ The division is working with the state laboratory to develop the ability to electronically transfer data.
- ♦ The online assessment database is updated regularly to provide current public access to water quality information.

7. Reporting

The division uses feedback from EPA, other state and federal agencies as well as the private and public sectors to improve and enhance the reporting process whenever possible.

K. Support and Infrastructure Planning and Resource Needs

An organizational chart for the Division of Water Resources is illustrated in Figure 6. The division has nine Central Office Sections, eight Environmental Field Offices (EFOs) and the Mining Section (MS) with statewide responsibility.

In 2012 the department created the Division of Water Resources, combining Water Pollution Control, Water Supply and Ground Water Protection.

The division currently has 291 full-time staff with a budget for 301 positions. There are also 12 members of the Water Quality, Oil and Gas Board. The division staff are divided by activities associated with Clean Water Act, Safe Drinking Water Act and various state program efforts including Safe Dams, Oil and Gas Well Drilling, Abandoned Mine Reclamations, Water Well driller regulation, Underground Waste Disposal, Operator Certifications and training and the activities associated with the State Revolving Loan Fund.

The division's full-time central office staff process permits, develop water quality planning documents and water quality standards, develop standard operating procedures, oversee quality assurance programs, prepare special recovery plans called Total Maximum Daily Loads (TMDLs), track compliance and prepare enforcement documents as needed, manage data, review plans and manage administrative needs of the division.

Water quality monitoring, especially fixed-station and compliance, is generally performed by EFO staff. Data management and review take place both in the central office and in the EFOs. Water quality assessment is also a collaborative effort.

Tennessee has upgraded its accounting and personnel management software to a data system called EDISON. This will improve the state's personnel, fiscal, travel, training, property and inventory into a single integrated system and should allow better tracking of program expenditures.

Program accomplishments are tracked by each field office and most sections in the division with data entry through the Water Pollution Control Information Management System (WaterLog).

These data are used by the state's performance based budgeting measurements and for the division's reports to the Water Quality, Oil and Gas Board, Bureau of Environment, and to EPA. Performance-based measures of the department are summarized quarterly for each environmental division and reported to the Department of Finance and Administration.

A summary annual report is produced prior to development of the next year's budget by the governor. It is available for review by the state's General Assembly when the budget is acted upon. Additional management use of data is important to the division to support expenditure state appropriation revenue and fee collections.

1. Current Funding

The cost of a full time technical employee including benefits will be about \$78,000 for the year, with indirect costs approximately \$16,600.

In 1991, the state legislature passed a law creating the Environmental Protection Fund (EPF) which requires the division to charge fees for certain services such as the annual maintenance of NPDES permits, plans and specs reviews, issuance of aquatic resource alteration permits (ARAP), and gravel dredging permits. Money collected from civil penalties and damage assessments, natural resource damage assessments are added to this fund as well. EPF funds have been used to add staff and upgrade the salaries of existing staff. The collection for EPF in state Fiscal year (July 1, 2014- June 30, 2015) was \$7,342,957 for the regulatory program areas for water pollution control.

The division matched only the required amount for our Clean Water Act §106 grant money for the federal FY'15 grant. State funds that are not explicitly reflected in the grant application will not be tracked with the CWA §106 grant, but these funds are still available for Division of Water Resources state program efforts. Further, for the federal FY'16 and following years, the State of Tennessee will be using performance partnership grants (PPG) that include the water pollution effort under CWA§106 as part of the PPG. The state continues to use substantial effort funded with state dollars to address water quality assessments and regulation for water pollution control within Tennessee, but we are in the process of changing the way the grants are done in Tennessee.

604 (b) Planning Funds awarded to Tennessee will be used in accordance with requirements of the Clean Water Act of 1987, and in accordance with recent Environmental Protection Agency guidance (EPA). In FY-16 the 40% pass-through funds were distributed to local and regional planning agencies for watershed management projects. The division intends on working with the development districts in FY-16 to distribute pass-through funds.

Special projects such as probabilistic monitoring, Southeast Monitoring Network, nutrient criteria development and dissolved oxygen criteria refinement are generally funded by 104(b) (3) grants.

2. Salary Ranges

The division has been historically plagued by two problems generally associated with low salaries: the inability to retain trained staff and the inability to recruit well-qualified replacements. Salary adjustments in the past have come from "across the board" raises as outlined by legislative action on the state budget. No salary adjustments were allocated this year. In addition some employees received a salary adjustment for the position and years of service in that position Table 7 reflects the current FY salary information from 2015. The following table reflects new position classes that the division technical personnel are being transitioned into.

Table 7. Salary Grades for Positions in TDEC DWR (updated 9/3/2015)

Class	Class	Salary	Minimum	Maximum
Code	Title	Grade	Salary	Salary
075243	ACCOUNTANT 3	031	\$3,333.00	\$5,331.00
073121	ADMIN ASSISTANT 1	023	\$2,256.00	\$3,608.00
073122	ADMIN ASSISTANT 2	025	\$2,486.00	\$3,978.00
002943	ADMIN SECRETARY	021	\$2,045.00	\$3,273.00
073162	ADMIN SERVICES ASSISTANT 2*	024	\$2,369.00	\$3,789.00
073163	ADMIN SERVICES ASSISTANT 3	027	\$2,742.00	\$4,386.00
073166	ADMIN SERVICES ASSISTANT 4	029	\$3,023.00	\$4,835.00
073164	ADMIN SERVICES ASSISTANT 5	031	\$3,333.00	\$5,331.00
073165	ADMIN SERVICES MANAGER	035	\$4,050.00	\$6,480.00
077843	BIOLOGIST 3*	029	\$3,023.00	\$4,835.00
077844	BIOLOGIST 4	031	\$3,333.00	\$5,331.00
077853	CHEMIST 3	029	\$3,023.00	\$4,835.00
002532	CLERK 2	016	\$1,604.00	\$2,564.00
002533	CLERK 3	019	\$1,856.00	\$2,968.00
073004	ENV ASSISTANCE PROG	033	\$3,673.00	\$5,877.00
	MANAGER 1			
072974	ENV FIELD OFFICE MANAGER	036	\$4,252.00	\$6,804.00
072975	ENV PROGRAM ADMINISTRATOR	120	\$6,648.00	\$11,961.00
072973	ENV PROGRAM DIRECTOR	118	\$6,027.00	\$10,849.00
072971	ENV PROGRAM MANAGER 1	036	\$4,252.00	\$6,804.00
072970	ENV PROGRAM MANAGER 2	038	\$4,689.00	\$7,501.00
072972	ENV PROGRAM MANAGER 3	040	\$5,170.00	\$8,270.00
076551	ENV PROTECTION SPECIALIST 1*	030	\$3,173.00	\$5,077.00
076553	ENV PROTECTION SPECIALIST 3*	034	\$3,857.00	\$6,171.00
076557	ENV PROTECTION SPECIALIST 4	036	\$4,252.00	\$6,804.00
076554	ENV PROTECTION SPECIALIST 5	037	\$4,466.00	\$7,144.00
076555	ENV PROTECTION SPECIALIST 6	038	\$4,689.00	\$7,501.00
072922	ENV SPECIALIST 3*	028	\$2,879.00	\$4,605.00
072923	ENV SPECIALIST 4	030	\$3,173.00	\$5,077.00

Class	Class	Salary	Minimum	Maximum
Code	Title	Grade	Salary	Salary
072926	ENV SPECIALIST 5	032	\$3,498.00	\$5,598.00
072924	ENV SPECIALIST 6	034	\$3,857.00	\$6,171.00
072972	Environmental Program Manager 3	40	\$5,170.00	\$8,270.00
077453	GEOLOGIST 3	028	\$2,879.00	\$4,605.00
077454	GEOLOGIST 4	030	\$3,173.00	\$5,077.00
073353	GRANTS ANALYST 3	031	\$3,333.00	\$5,331.00
076182	OPERATIONS SPECIALIST 2*	034	\$3,857.00	\$6,171.00
077163	SOILS CONS REGIONAL SUPERVISOR	030	\$3,173.00	\$5,077.00
077161	SOILS CONSULTANT 2*	028	\$2,879.00	\$4,605.00
072937	STATE REVOLVING FUND DIRECTOR	114	\$4,959.00	\$8,925.00
072918	TDEC CHF DPTY DIR WATER RES	119	\$6,329.00	\$11,391.00
073021	TDEC-ENV CONSULTANT 1	034	\$3,857.00	\$6,171.00
073022	TDEC-ENV CONSULTANT 2	036	\$4,252.00	\$6,804.00
073023	TDEC-ENV CONSULTANT 3	036	\$4,689.00	\$7,501.00
073024	TDEC-ENV CONSULTANT 4	038	\$5,170.00	\$8,270.00
073014	TDEC-ENVIRONMENTAL FELLOW	118	\$6,027.00	\$10,849
073010	TDEC-ENVIRONMENTAL MANAGER 1	034	\$3,857.00	\$6,171.00
073011	TDEC-ENVIRONMENTAL MANAGER 2	036	\$4,252.00	\$6,804.00
073012	TDEC-ENVIRONMENTAL MANAGER 3	036	\$4,689.00	\$7,501.00
073013	TDEC-ENVIRONMENTAL MANAGER 4	038	\$5,170.00	\$8,270.00
073018	TDEC-ENVIRONMENTAL SCIENTIST 1*	026	\$2,369.00	\$3,789.00
073019	TDEC-ENVIRONMENTAL SCIENTIST 2*	028	\$2,879.00	\$4,605.00
073020	TDEC-ENVIRONMENTAL SCIENTIST 3	030	\$3,173.00	\$5,077.00
072930	TDEC PROGRAM COORDINATOR	036	\$4,252.00	\$6,804.00
072918	TDEC CHF DPTY DIR WATER RES		\$6,329.00	\$11,391.00

^{*} Flex position that will re-classify to a more advanced working position after completion of probationary period.

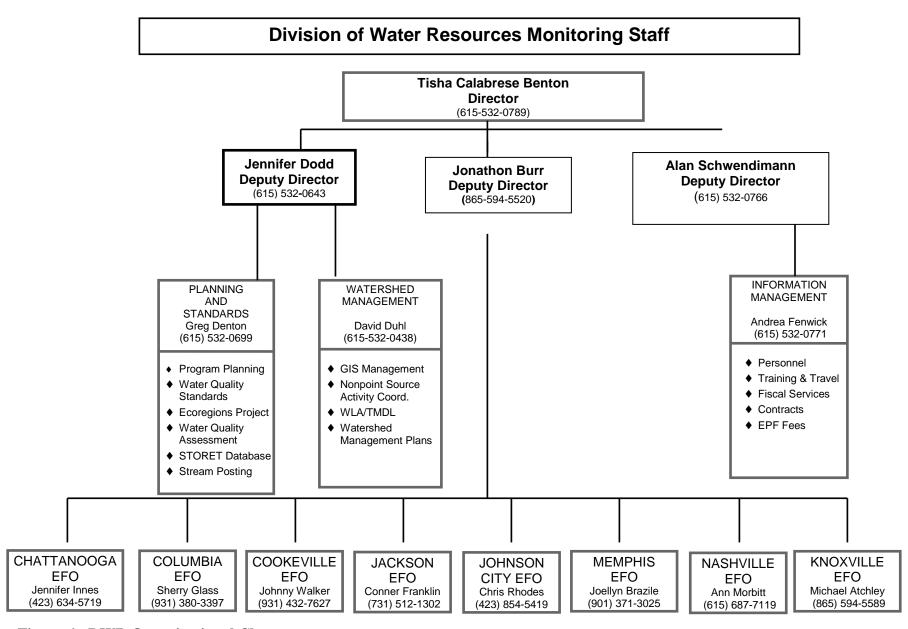


Figure 6: DWR Organizational Chart

3. Future Planning and Needs Assessment for Tennessee's Water Monitoring and Assessment Program

Tennessee has traditionally had a strong water quality monitoring and assessment program. In the last 16 years, water quality chemical and bacteriological monitoring have increased sixfold and biological monitoring has over doubled (Table 8). New procedures such as diurnal dissolved oxygen monitoring, rapid periphyton surveys and probabilistic monitoring have been used to supplement targeted biological and chemical monitoring.

It is evident that Tennessee already spends a great deal of time, effort and money on water quality monitoring. However, a significant funding gap does exist if EPA requirements and guidance are to be met. Without a steady source of federal funding in addition to current funding, it is not likely that program activities will expand or that any significant increase in the percentage of waterbodies monitored and assessed will be feasible. Additional staffing and funding must be permanent and not in the form of competitive or temporary grants to expand programs. Tennessee is not expecting additional funding from other sources for these activities over the next ten years. Therefore, federal funding increases would be vital to implementation of all or part of the following water quality monitoring goals (Table 9).

Section 106 grant project activities in Tennessee are funded by state appropriation and EPA grant dollars. The grant has \$1,758,580 million, (\$1.5 million federal), obligated for employee salaries and benefits in support of this program in the state in FY 2014-2015. Another \$304,820 is allocated to travel, printing, utility, communication, maintenance, professional service, rent, insurance, vehicle, and equipment expenses. Indirect charges are \$374,930.

Tennessee has had a voluntary buy-out program effective July 1, 2014 to reduce state staffing costs. The positions involved in the buy-out are not being eliminated as in past employee buy-out efforts but will remain as empty positions with the water program until funds are secured for the positions to be filled. TDEC hopes to fill some of the 13 positions we lost in this buy-out when funding becomes available. In addition the position classifications are being revised and the above chart will change and employees are moved into new positions.

TDEC has re-negotiated sampling costs with the Tennessee Department of Health Environmental Labs which has reduced the costs for laboratory sampling efforts for the division by about \$300,000. In addition, the state will use some private laboratories for select analyses. Otherwise, operational costs are seeing savings in some areas with increases in others. The department hopes to reduce some costs of record keeping and publication with electronic solutions that move us away from paper.

Table 8. Water Quality Monitoring From 1998 to 2014

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*	2014
Chemical &	705	1386	2805	2758	2615	2921	3540	3205	3302	3981	3600	4000	3600	3700	4482	>3392	4876
Bacteriological																	
Sample																	
Collections																	
Quality	76	66	196	159	339	325	628	585	763	941	900	713	776	930	618	>423	
Assurance																	
Sample																	
Collections																	
Rapid Biological	86	394	602	672	318	365	183	162	285	248	338	318	223	288	157	>323	335
Stations																	
(Biorecon)																	
Intensive	150	100	222	176	94	330	113	256	226	267	332	353	367	257	247	>190	192
Biological																	
Stations (SQSH)																	
Habitat	236	494	824	848	412	695	504	386	462	497	612	597	512	525	361	>446	530
Assessments																	
Periphyton	0	0	94	14	80	154	121	0	2	120	60	72	22	55	10	>27	54
Stations																	
Antidegradation	2	5	11	5	5	49	33	17	97	81	2	59	51	18	12	>15	7
Surveys																	
Probabilistic	0	0	50	50	75	95	313	2	0	90	0	0	90	0	0	0	0
Monitoring																	
Stations																	

Table 9. Projected funds necessary to increase wadeable stream assessment by 5% annually

Year	Approximate number of assessed stream miles reassessed annually if plan is funded	Additional stream miles to achieve 5% increase from previous year	Additional stations added (based on average 1 station per 11 stream miles)	Additional staff needed (Personnel Costs)	Indirect Costs (Based on 0.23%)	Additional laboratory analysis including QC	Cumulative federal dollars needed above existing funding
2006	6,059	303	28	2 Field = \$154,800	\$35,604	\$38,000	\$223,510
2007	6,362	318	29	2 CO (1 PAS, 1 TMDL) = \$154,800	\$35,604	\$43,000	\$430,740
2008	6,680	334	30			\$44,000	\$475,020
2009	7,014	351	32	2 Field = \$154,800	\$35,604	\$46,000	\$684,970
2010	7,365	368	33			\$47,000	\$731,970
2011	7,733	387	35			\$53,000	\$784,970
2012	8,120	406	37	2 Field and 2 CO (1 PAS, 1 TMDL) = \$309,600	\$71,208	\$55,000	\$1,189,709
2013	8,256	426	39			\$57,000	\$1,246,709
2014	8,952	448	41			\$60,000	\$1,306,709
2015	9,400	470	43	2 Field = \$154,800	\$35,604	\$62,000	\$1,511,659
2016	9,870	493	45			\$68,000	\$1,579,659
2017	10,363	518	47			\$70,000	\$1,649,659
2018	10,881	544	49	2 Field = \$154,800	\$35,604	\$72,000	\$1,885,619
2019	11,425	571	52			\$75,000	\$1,960,619
2020	11,996	600	54			\$78,000	\$2,038,619

II. RIVER, STREAM, RESERVOIR, LAKE, AND WETLAND MONITORING

The division maintains a statewide monitoring system consisting of approximately 7000 stations. In addition, new stations are created every year to increase the number of assessed streams. Approximately 600 stations will be monitored in FY 15-16. Stations are sampled monthly, quarterly, and semi-annually, depending on the requirements of the project long-term trend monitoring (ambient), 303(d), ecoregion, TMDLs, and watershed. A list of these stations is located in Appendix A. Additional streams may be added for sampling as the monitoring year progresses. Most large streams have at least one station. A list of parameters to be sampled is provided in Table 11.

After determining the watersheds to be monitored in a given year, monitoring resources are prioritized as follows:

- 1. Antidegradation Monitoring
- 2. Posted Waters
- 3. Ecoregion Reference Streams/Ambient Monitoring Stations/SEMN
- 4. 303(d) Listed Segments Monitoring
- 5. Sampling downstream Major Dischargers and CAFO's
- 6. TMDL Development Monitoring
- 7. Special Projects
- 8. Watershed Monitoring
 - a. Previously Assessed Streams
 - b. Sites downstream large scale or dense ARAP activities
 - c. Non-point source
 - d. Unassessed Stream Reaches

Details of the priorities are described in Chapter I, Section D.

A. Monitoring Frequency

1. Antidegradation Monitoring Frequency

Since permit requests generally cannot be anticipated, antidegradation surveys are conducted as needed. Streams are evaluated for antidegradation status based on a standardized evaluation process, which includes information on specialized recreation uses, scenic values, ecological consideration, biological integrity and water quality

2. Posted Waters Monitoring Frequency

Waterbodies posted for pathogens advisories are sampled monthly for *E. coli* with at least one geomean (5 samples in 30 days). Streams posted for water contact must be monitored at a minimum every five years. If another responsible party will be monitoring the stream, then the EFO does not need to sample the stream. The failure of another party to sample the stream places the burden back on the EFO to monitor the stream. There is no acceptable reason for failure to monitor a stream posted for water contact.

3. Ecoregion Reference Stream, Ambient and SEMN Monitoring

Ecoregion and First Order (FECO) Reference streams within the watershed group are sampled quarterly for physical, chemical and pathogen. Macroinverebrates are collected spring and fall and periphyton are collected once. Ecoregion and FECO reference streams located in the Group 5 Watersheds in FY-16, Appendix A.

Physical, chemical and pathogen (E. coli) samples are collected at all long term monitoring or ambient stations quarterly regardless of watershed group. Ambient stations are included in Appendix A.

All Southeastern Monitoring Stations regardless of watershed are monitored every year. See Section ____ for monitoring plan and station list.

4. Monitoring Frequency for 303(d) Listed Waters

Streams, rivers or reservoirs that have one or more properties that violate water quality standards and thus do not meet the designated uses are included in the 303(d) List. Impaired waters are monitored, at a minimum, every five years coinciding with the watershed cycle.

Monitoring impaired waters provides a great deal of information:

- ♦ Documentation of current conditions, which may change from year to year. This documentation can provide a rationale for "delisting" a stream from the 303(d) list or may just confirm the water's impairment status.
- ♦ Sampling can provide data for pre or post TMDL evaluation. Data can be used for model calibration.
- Surveys can document the need for enforcement actions.
- ◆ Data can assist in the evaluation of the effectiveness of BMPs or help target BMP installation for maximum effectiveness.
 - Results over time can provide insight into historical water quality trends.
 - ♦ Conditions may represent a human health threat.

For these reasons, the monitoring of impaired waters is identified as a high priority for division field staff. The division's intended goal is to always collect new data on these waters, unless there is a compelling reason for not doing so.

Waters that do not support fish and aquatic life are sampled once for macroinvertebrates (semi-quantitative sample preferred) and monthly for the listed pollutant(s). Streams with multiple listed segments should be sampled monthly for the listed pollutant for each segment.

Streams with impacted recreational uses, such as those impaired due to pathogens are sampled monthly for *E. coli* unless a geomean(5 *E. coli* in 30 days) collected in the first quarter is well over 126 MPN. If the geomean is near 126 or less monthly *E. coli* samples will be collected the remainder of the year.

Resource limitations or data results may sometimes justify fewer sample collections. For example, there are cases where pollutants are at high enough levels that sampling frequency may be reduced while still providing a statistically sound basis for assessments. In some other cases, monitoring may be appropriately bypassed during a monitoring cycle.

a. 303(d) Listed sites requiring no additional monitoring

All impaired streams in targeted watersheds must be accounted for in the annual monitoring workplan. If a field office is proposing to bypass monitoring of an impaired stream, an appropriate rationale must be provided and included in the workplan (Table 7).

It is recommended that the EFO verify the condition of the stream at least every other cycle. Streams impacted by poor biology, habitat alterations, or siltation due to habitat alterations must still be monitored at least once (habitat assessment, plus SQSH or biorecon). Streams posted for water contact must be monitored every cycle.

There are individual sites where conditions may justify retaining the impaired status of the stream without additional sampling during an assessment cycle. The reasons may include, but are not limited to, the following:

- Data have been collected by the division or another agency within the last five years and water quality is thought to be unchanged. If another division or agency has collected stream samples the EFO should follow up with that division or agency to retrieve the data and forward it to PAS.
- ♦ Another agency or a discharger has accepted responsibility for monitoring the stream and will provide the data to the division. During the planning process for each watershed cycle, field staff should recommend to the permitting section those streams where it would be appropriate for monitoring to be performed by a discharger. Where permits are up for renewal, such conditions could be added.
- ◆ The stream is known to be dry or without flow during the majority of the year that sampling is being scheduled. Should an impaired stream be dry during two consecutive cycles, consideration should be given to requesting the stream be delisted on the basis of low flow.
- Impounded streams impacted by flow alteration with no change in management of hydrology.

b. Impaired streams where additional sampling may be limited or discontinued

There are individual sites where initial results may justify a discontinuation of sampling. The reasons are limited to the following:

- Where emergency resource constraints may require that sampling be restricted after a monitoring cycle is initiated, but before it is completed. Discontinuation of monitoring on this basis must be approved in advance by the Deputy Director. Before requesting a halting of sampling in impaired streams, assistance from the Department of Health's Aquatic Biology section should be considered. Such requests should be coordinated through the Planning and Standards Section.
- ♦ Initial stream sampling documents elevated levels of pollutants indicating, with appropriately high statistical confidence, that the applicable water quality criteria are still being violated. (Note − rain event sampling is inappropriate for this purpose.)
- ♦ The levels of pollutants that indicate continued water quality standards violations with statistical confidence are provided in Table 10. For example, if three samples are collected and all three values exceed the levels in the far right hand column, then sampling for that parameter may be halted, as there is a very high probability that criteria would be exceeded in future sampling. If all three samples do not exceed the level provided in the table, then at least four more samples must be collected. If all seven samples exceed the levels in the middle column of the table, then sampling may cease. If all seven samples do not exceed the value in the table, then all sampling must be completed.

Important notes about this process:

- ♦ This process only applies to chemical parameters or bacteriological results. Streams impacted by poor biology, habitat alterations, or siltation due to habitat alterations must still be monitored at least once (habitat assessment, plus SQSH or biorecon), flow permitting.
- Rain event samples cannot be used to justify a reduction in sampling frequency.
- ♦ The division is not establishing new criteria with Table 10 and the numbers in the table should not be used independently to assess streams. These numbers, which are based on the actual criteria, simply indicated the statistical probability that the criteria have been exceeded by a dataset when the numbers of observations are considered.
- ♦ Where streams are impacted by multiple pollutants, all parameters must exceed the values in Table 10 before sampling can be halted.

Table 10. Sampling Frequency Guidance for Parameters Associated with Impaired Streams

Nutrient Sampling

Nitrite-Nitrate		Number of San	nples
	10	7	3
73a	< 0.49	0.49 - 0.68	>0.68
74a, 65j, 68a	< 0.28	0.28 - 0.40	>0.40
74b	< 1.49	1.49 - 2.08	>2.08
65a, 65b, 65e, 65i	< 0.43	0.43 - 0.60	>0.60
71e	< 4.35	4.35 - 6.09	>6.09
71f	< 0.32	0.32 - 0.56	>0.56
71g, 71h, 71i	< 1.15	1.15 - 1.61	>1.61
68b	< 0.54	0.54 - 0.75	>0.75
69d	< 0.34	0.34 - 0.47	> 0.47
67f, 67g, 67h, 67i	< 1.53	1.53 - 2.14	>2.14
66d	< 0.63	0.63 - 0.88	>0.88
66e, 66f, 66g, 68c	< 0.38	0.38 - 0.54	>0.54
Total Phosphate		Number of San	nples
	10	7	3
73a	< 0.25	0.25 - 0.44	>0.44
74a	< 0.12	0.12 - 0.21	>0.21
74b	< 0.10	0.1 - 0.18	>0.18
65a, 65b, 65e, 65i, 65j, 71e, 68b, 67f, 67h, 67i	< 0.04	0.04 - 0.07	>0.07
71f, 71g	< 0.03	0.03 - 0.053	>0.053
71h. 71i	< 0.18	0.18 - 0.32	>0.32
68a, 68c, 69d, 66f	< 0.02	0.02 - 0.035	>0.035
67g	< 0.09	0.09 - 0.16	>0.16
66d, 66e, 66g	< 0.01	0.01 - 0.018	>0.018

Pathogen Sampling

E Coli	Number of Samp	oles	
	10	7	3
Statewide	<941	941 - 1647	>1647

Total Suspended Solids Sampling

TSS	Number of Samples				
	10	7	3		
65a, 67i, 73a	<64	64 - 112	>112		
65e, 65i, 74b	<29	29 - 51	>51		
65b, 67g, 68c, 71e, 71g, 71i, 74a	<13	13 - 23	>23		
65j, 66d, 66e, 66f, 66g, 67f, 67h, 68a, 68b, 69d, 71f,					
71h	<10	10 - 18	>18		

Metals Sampling

Metals		Number of Samp	oles
	10	7	3
Chromium (hexavalent)	<11	11 - 19.5	>19.5
Mercury	< 0.77	0.77 - 1.35	>1.35
Aluminum	<338	338 - 592	>592
Iron	<1218	1218 - 2132	>2132
Manganese	<185	185 - 325	>325
Copper* 65e, 65j, 66d, 66e, 66g, 68a, 74b	<1.25	1.25 - 2.19	>2.19
Copper* 66f, 71f	<4.44	4.44 - 7.77	>7.77
Copper* 67f, 67h, 67i, 68b, 68c, 71g, 71h, 73a	<11.6	11.6 - 20.3	>20.3
Copper* 67g, 71e, 74a	<18.0	18.0 - 31.5	>31.5
Lead* 65e, 65j, 66d, 66e, 66g, 68a, 74b	< 0.19	0.19 - 0.33	>0.33
Lead* 66f, 71f	<1.02	1.02 - 1.79	>1.79
Lead* 67f, 67h, 67i, 68b, 68c, 71g, 71h, 73a	<3.51	3.15 - 6.14	>6.14
Lead* 67g, 71e, 74a	< 6.07	6.07 - 10.6	>10.6
Zinc* 65e, 65j, 66d, 66e, 66g, 68a, 74b	<16.8	16.8 - 29.4	>29.4
Zinc* 66f, 71f	<58.9	58.9 - 103	>103
Zinc* 67f, 67h, 67i, 68b, 68c, 71g, 71h, 73a	<153	153 - 268	>268
Zinc* 67g, 71e, 74a	<237	237 - 415	>415

^{*} Dependent on Hardness

5. Sampling Downstream of Major Discharges and CAFO's

Water quality information is needed downstream of Major Facilities with NPDES permits and CAFO's. Parameters sampled should include those being discharged (including nutrients if WWTP) and SQSH. If the facility has in-stream monitoring requirements in their permits their data may be used. (Note: stations may not be required for dischargers into very large waterways such as the Mississippi River or large reservoirs.)

Stations should also be established downstream of CAFOs with an emphasis on monitoring biointegrity (SQSH survey if the stream is wadeable) and monthly nutrient and pathogen monitoring.

6. TMDL Development Monitoring

Waterbody monitoring is required to develop TMDLs. The frequency and parameters monitored for TMDL monitoring depends on the specific TMDL and is coordinated with the Watershed Management Branch.

7. Special Projects

Most special project monitoring activities will be contracted to TDH State Lab.

8. Watershed Stream Monitoring

Group 5 watershed streams will be monitored by EFOs (Appendix A) in FY 2016. Previously assessed segments that would likely revert to unassessed are the first priority. A single site per assessed segment is adequate if assessment was supporting and no changes are evident.

The next priority are sites below ARAP activities in wadeable streams where biological impairment is suspected. Emphasis is placed on unpermitted activities, violations and those that are large scale or where there is a dense concentration of smaller alterations. The third priority are stream reaches suspected of non-point source pollution for example large scale development, clusters of stormwater permits or an increase of more than 10% impervious surfaces. Unassessed reaches (fish and aquatic life) especially in third order or larger streams or in disturbed headwaters are surveyed with the remaining resources.

Table 11 provides the parameters list for each project for sampling. The *QSSOP for Chemical and Bacteriological Sampling of Surface Water* (TDEC, 2011) describes chemical and bacteriological sampling, field parameter readings, and flow measurement procedures. The *QSSOP for Macroinvertebrate Stream Surveys* (TDEC, 2011) describes protocols for collection of benthic macroinvertebrate samples and habitat assessment. The *QSSOP for Periphyton Stream Surveys* (TDEC, 2010) describes protocols for collection of periphyton sampling.

9. Watershed Monitoring Projects 319(h) and 106 Grant Funds

Selected watershed sites will be monitored as part of a watershed strategy integrating point and non-point sources of pollution. These sites and strategies are described more completely in specific 319(h) and 106 grant applications. TDEC's partnership with the Non-point Source Program at the Tennessee Department of Agriculture has resulted in several contracts being awarded to TDEC involving:

- Watershed monitoring
- Unified Watershed Assessment (UWA), designated watersheds monitoring
- ♦ TMDL support

Table 11. Parameter List for the Water Column

(same list as 2015 OAPP)

Parameter			TMDLs		Ref. Sites ECO & FECO	303(d)*	Long Term Trend Station	Watershed Sites	Trip and Field Blanks
	Metals† /pH	DO	Nutrients	Pathogens			S		
Acidity, Total	X (pH)							О	
Alkalinity, Total	X (pH)				X	0	X	О	
Aluminum, Al	X†					0	X	0	
Ammonia Nitrogen as N		X	X		X	0	X	0	
Arsenic, As	Χ†				X	0	X	0	0
Cadmium, Cd	X†				X	0	X	О	0
Chromium, Cr	X†				X	0	X	О	0
CBOD ₅		X				0		О	
Color, Apparent					X		X		
Color, True					X		X		
Conductivity (field)	X	X	X	X	X	X	X	X	
Copper, Cu	Χ†				X	О	X	О	
Dissolved Oxygen (field)	X	X	X	X	X	X	X	X	
Diurnal DO		X	X						
E. Coli				X	0	0	X	0	¥
Flow	О	O	0	О	X	0		0	
Iron, Fe	Χţ				X	0	X	0	0
Lead, Pb	X†				X	0	X	0	0
Manganese, Mn	X†				X	0	X	0	0
Mercury, Hg	X†					0	X	0	0
Nickel, Ni	Χţ					0	X	0	0
Nitrogen NO ₃ & NO ₂		X	X		X	0	X	0	0
pH (field)	X	X	X	X	X	X	X	X	
Residue, Dissolved					X	0	X	0	
Residue, Settleable						0	X	0	
Residue, Suspended	X		X	X	X	0	X	О	
Residue, Total						О	X	О	
Selenium, Se	X				X	0	X	О	0
Sulfates					X (69de & 68a)	O	X	0	О
Temperature (field)	X	X	X	X	X	X	X	X	
Total Hardness	X	Λ	Λ	Λ	X	0	X	0	0
	Λ	37	37						
Total Kjeldahl Nitrogen		X	X		X	0	X	0	0
Total Organic Carbon	X		X		X	О	X	О	0
Total Phosphorus (Total Phosphate)		X	X		X	О	X	О	О
Turbidity			X	X	X	О	X	О	О
Zinc, Zn	Χţ				X	О	X	О	О
Biorecon					X			X (or SQSH)	
SQSH			X(or biorecon)		X	X (or biorecon) unless listed for pathogens			
Habitat Assessment					X	X		X	
Chlorophyll <i>a</i> (Non-wadeable)		R	X			O (required for nutrient)			
Periphyton (Wadeable)		R	X		X	R			

Optional (O) – Not collected unless the waterbody has been previously assessed as impacted by that substance or if there are known or probable sources of the substance.

R – Recommended if time allows.

^{* -} Minimally parameters for which stream is 303(d) listed must be sampled.

^{¥ -} Sample E. coli for Field Blanks, QC sites. only if E. coli is collected for routine sample.

B. Monitoring Activities

1. Macroinvertebrate Surveys

There are several levels of stream surveys undertaken by the division to fulfill various information needs. These surveys are a very important source of information for the 305(b) report, toxics monitoring, compliance and enforcement activities, and other division information needs.

The division utilizes standardized stream survey methodologies. The surveys performed rely heavily on biological data instead of chemical data. The *QSSOP for Macroinvertebrate Stream Surveys* (TDEC, 2011) describes protocols for collection of benthic macroinvertebrate samples and habitat assessment. The Planning and Standards Section is responsible for the coordination of survey activities. Macroinvertebrate sampling is listed in Appendix A.

A biological reconnaissance (Biorecon) is often performed when a brief visit to a stream is appropriate. The biorecon is a field based assessment that yields relatively small amounts of data in a short amount of time. These surveys can be used for a water quality assessment in which the presence or absence of clean water indicator organisms reflects the degree of support of designated uses.

A more intensive survey, collecting a Single Habitat Semi-Quantitative Bank (SQBANK) or Single Habitat Semi-Quantitative Kick (SQKICK), is used when a quantifiable assessment of the benthic community is needed. Biometrics using relative abundance can be calculated. This method can be compared to the division's numeric translators for biocriteria. Both biorecon and intensive surveys are valuable when information beyond long-term trend monitoring is needed concerning a specific location.

2. Fish Tissue Monitoring

Fish tissue samples are often the best way to document chronic low levels of persistent contaminants. In the mid-1980's, sites were selected that had shown significant problems in the past and would benefit from regularly scheduled monitoring, one to five year cycle. A list of established fish tissue stations appears in Table 12. Parameters to be sampled are listed in Table 13. TDEC DWR, TVA, TWRA and DOE regularly discuss fish monitoring surveys in the state. Data from these surveys help the division assess water quality and determine the issuance of fishing advisories.

Table 12. Locations Of Fish Tissue Sampling Sites (same list in 2015 QAPP)

STATION ID	ON ID RESERVOIR NAME/STREAM LOCATION PARAMETER NAME		PARAMETER	LAST FY SAMPLED	SAMPLING AGENCY
BEECH000.5WE	Beech Ck	Beech Creek embayment	Metals, Organics, Dioxin, PCBS	2008	TDH ABS
BEECH002.0WE	Beech Ck	U/S Morrison Creek	Organics, PCBS	1994	TDEC
BEECH036.0HE	Beech Res	Near Lexington	Metals	2015	TVA
BFORK002.5WA	Barren Fork Rv	Near Spring Cave McMinnville	Metals, Organics, PCBS	1995	TDEC
BFORK005.0FR	Tims Ford Res/Boiling Fork	Hwy 41 at Manchester	Metals, Organics, Dioxin, PCBS	1993	TDEC
BRADL000.0CE	Woods Res/Bradley Ck	Bradley Creek Embayment	PCBS	1989	TDEC
BRUMA000.0FR	Woods Res/Brumalow Ck	200' U/S old Brick Church Rd	Metals, Organics, PCBS	1999	TDEC
BSAND007.4HN	Kentucky Res/Big Sandy Rv	D/S Poplar Creek	Metals, Organics, PCBS	2015	TVA
BSAND015.1BN	Kentucky Res/ Big Sandy Rv	D/S of levee at dewatering area	Metals	2014	TDH ABS
BSAND021.1BN	Kentucky Res/ Big Sandy Rv	U/S Hwy 641/70	Metals	2014	TDH ABS
BSAND038.4BN	Kentucky Res/ Big Sandy Rv	Hwy 114	Metals	2014	TDH ABS
BUFFA017.7PE	Buffalo Rv	Old Hwy 14 D/s Lobelville	Metals, Organics, PCBS	2015	TVA
BUFFA026.0PE	Buffalo Rv	U/S Lobelville STP	Metals	2008	TWRA
BUFFA041.0PE	Buffalo Rv	Hwy 412 Linden	Metals	2008	TWRA
BUFFA073.1WE	Buffalo Rv	Hwy 13 near Flatwoods	Metals	2008	TWRA
BUFFA098.1LS	Buffalo Rv	Hwy 99 near Oak Grove	Metals	2008	TWRA
CFORK028.0DB	Center Hill Res	near Center Hill Dam	Metals, Organics, PCBS	1993	TDEC
CFORK058.9DB	Center Hill Res	Hwy 70/ Sligo Bridge	Metals, Organics, Dioxin, PCBS	1994	TDEC
CHATT000.9HM	Chattanooga Ck	Rendering Plant	Metals, Organics, Dioxin, PCBS	1999	TDEC
CLINC001.2RO	Watts Bar Res/Clinch River	Near Kingston	Metals	2009	TWRA

	RESERVOIR			LAST FY	SAMPLING
STATION ID	NAME/STREAM NAME	LOCATION	PARAMETER	SAMPLED	AGENCY
CLINC002.3RO	Watts Bar Res/Clinch Rv	Brashear Island	Metals, Organics	2004	DOE
CLINC006.8RO	Watts Bar Res/Clinch Rv	U/S Young Creek	Metals	2003	TVA
CLINC008.0RO	Clinch Rv	2 mi d/s of Brashear Island	Metals	2009	TWRA
CLINC010.0RO	Watts Bar Res/Clinch Rv	D/S Gallaher Bridge	Metals	2009	TWRA
CLINC014.5RO	Watts Bar Res/Clinch Rv	U/S East Fork Poplar Creek	Metals	2003	DOE
CLINC017.9RO	Watts Bar Res/Clinch Rv	Grubbs Island	Metals	2003	DOE
CLINC019.0RO	Watts Bar Res/Clinch Rv	Jones Island	Metals, PCBs	2013	TVA
CLINC022.0RO	Watts Bar Res/Clinch Rv	U/S Hwy 321	Metals	2004	TVA
CLINC024.0RO	Melton Hill Res/Clinch Rv	1 mi U/S Melton Hill Dam	PCBS	2013	TVA
CLINC043.5AN	Watts Bar Res/Clinch Rv	Solway Bridge	Metals	2007	DOE
CLINC045.0AN	Melton Hill Res/Clinch Rv	Near Hwy 62	PCBS	2013	TVA
CLINC048.0AN	Melton Hill Res/Clinch Rv	Bull Run Steam Plant	Metals,	2004	DOE
CLINC080.0CA	Norris Res/Clinch Rv	Near Dam	Metals, Organics, Dioxin, PCBS	2009	TVA
CLINC120.5UN	Norris Res/Clinch Rv	Hwy 33	Metals	2008	TWRA
CLINC125.0CL	Norris Res/Clinch Rv	D/S Straight Creek	Metals	2007	TWRA
CLINC128.0CL	Clinch Rv	Black Fox Area	Organics, PCBS	2009	TWRA
CLINC172.4HK	Clinch Rv	D/S Swan Island	Metals, Organics, PCBS	2006	TVA
CUMBE185.7DA	Cheatham Res/Cumberland Rv	Bordeaux Metals, and Rv Bridge Organics, Dioxin, PCBS		2007	TDEC
CUMBE191.1.DA	Cheatham Res/Cumberland Rv	Shelby Street Metals,		2007	TDEC
CUMBE216.2DA	Old Hickory Res/Cumberland Rv	Near dam Metals, Organics, Dioxin, PCBS		1993	TDEC
DUCK002.0HU	Kentucky/Duck Rv	Embayment	Metal, 2008 Organics, PCBS		TWRA
DUCK022.0HU	Duck Rv	Hite Ford	Mercury	2015	TVA

	RESERVOIR			LAST FY	SAMPLING
STATION ID	NAME/STREAM NAME	LOCATION	PARAMETER	SAMPLED	AGENCY
DUCK026.0HU	Duck Rv	D/S Tumbling Creek	Metal, Organics, PCBS	2011	TVA
DUCK032.2HI	Duck Rv	Hwy 22 near Only	Metal, Organics, PCBS	2008	TWRA
DUCK064.0HI	Duck Rv	Hwy 50, D/S Centerville	Metal, Organics, PCBS	2008	TWRA
DUCK113.9MY	Duck Rv	Hwy 50 @ Williamsport	Metal, Organics, PCBS	2008	TWRA
DUCK249.5CE	Normandy Res/Duck RV	Near dam		2014	TDH ABS
DUCK255.1CE	Normandy Reservoir	Near pumping station	Hg,Se	2014	TDH ABS
EFPOP007.0RO	East Fork Poplar Ck	U/S Gum Hollow Road	Metals, Organics, Dioxin, PCBS	1998	TDEC
ELK036.5GS	Elk Rv	Prospect	Metals, Organics, PCBS	2008	TDEC
ELK041.5GS	Elk Rv d/s Richland Creek at Hanna Ward Bridge			2014	TDH ABS
ELK077.1LI	Elk Rv	Off Hwy 273 D/S Fayetteville	Metals, Organics, PCBS	2008	TDEC
ELK135.0FR	Tims Ford Res/Elk Rv	Near Marble Plains	Hg, Se	2014	TDH ABS
ELK150.0FR	Tims Ford Res/Elk Rv	Hwy 41, Maple Bend	Hg, Se	2014	TDH ABS
ELK176.0FR	Woods Res/Elk Rv	Near Hwy 127 causeway	Metals, Organics, PCBS	1999	TDEC
EMORY021.4MG	Emory Rv	Camp Austin Bridge Deermont Rd	Mercury, PCBs	2013	TVA
EMORY027.7MG	Emory Rv	Nemo Br	Mercury	2008	TWRA
FBROA051.0JE	Douglas Res/French Broad Rv	Near Indian Creek and Douglas Estates	Metals, Organics, PCBS	2008	TVA
FBROA061.0CO	Douglas Res/French Broad Rv	Taylor Bend D/S Allen Ck	Dioxin	1993	TDEC
FBROA071.4CO	Douglas Res/French Broad Rv	Rankin Bridge			TDH ABS
FBROA077.5CO	French Broad Rv	Hwy 321 bridge at junction with Hwy 160 NE of Newport	321 bridge Metals 2 nction with 160 NE of		TDH ABS
FBROA083.5CO	French Broad Rv	Hwy 70 east of Newport	Metals, Organics, Dioxin, PCBS	2014	TDH ABS

STATION ID	RESERVOIR NAME/STREAM NAME	LOCATION	PARAMETER	LAST FY SAMPLED	SAMPLING AGENCY
FBROAD033.0SV	Douglas Res/French Broad Rv	Near dam	Metals, Organics, Dioxin, PCBS	2008	TWRA
FWATE005.2PU	Center Hill Res/Falling U/S Cookeville Boatdock		Metals, Organics, PCBS	1993	TDEC
GREEN011.0WE	Green Rv			2008	TWRA
HARPE110.7WI	D/S General Metals Smelting		Metals	1999	TDEC
HATCH001.2TI	Hatchie Rv		Metals, Organics, PCBS	2007	TWRA
HIWAS007.4ME	Chickamauga Res/Hiwassee Rv	Bridge on TN Hwy 58	Metals, Organics, PCBS	2012	TVA
HIWAS012.0BR	Chickamauga Res/Hiwassee Rv	Near Rogers Ck	Metals	1990	TVA
HIWAS015.4MM	Chickamauga Res/Hiwassee Rv	I-75, D/S/ Bowaters	Metals, Organics, Dioxin, PCBS	2007	TDEC
HIWAS018.6MM	Chickamauga Chickamauga Res/Hiwassee Rv B		Metals, Organics, Dioxin, PCBS	2008	OCEAN
HIWAS037.0PO	Hiwassee Rv	Patty Station Rd	Metals	2012	TVA
HIWASS057.5PO	Hiwassee Rv	Mouth of Coker Creek	Metals	2013	TDH ABS
HOLST055.0GR	Holston Rv	forebay	Metals	2015	TVA
HOLST076.0HA	Holston Rv	Mid-reservoir	Metals	2015	TVA
HOLST097.5HS	Holston Rv	Cherokee Lake at Malinda Br		2009	TWRA
HOLST118.7HS	Holston Rv	U/S Cox Island Near Surgoinsville	Metals	2015	TVA
HOLST121.0HS	Holston Rv	Phipps Bend	Metals	2007	TWRA
HOLST131.5HS	Holston Rv	Near Goshen Valley bridge	Metals	2007	TWRA
HOLST135.0HS	Holston Rv	D/S Holston Army Ordinance near Goshen Valley	Metals, Organics, Dioxin, PCBS	2007	TDEC
LITTL001.0BT	Fort Loudon/Little River	rt Loudon/Little Near East Metals,		1993	TDEC
LOOSA001.5SH	Loosahatchie Rv	Benjestown Road	Metals, Organics, Dioxin, PCBS	2015	TDH ABS
LOOSA005.0SH	Loosahatchie Rv	Watkins Rd	Metals, Organics, Dioxin, PCBS	2015	TDH ABS
LOOSA017.0SH	Loosahatchie Rv	Hwy 14	Metals, Organics, Dioxin, PCBS	2015	TDH ABS

	RESERVOIR			T A COT EXT	GAMPI DIG
STATION ID	NAME/STREAM NAME	LOCATION	PARAMETER	LAST FY SAMPLED	SAMPLING AGENCY
LSEQU001.3MI	Little Sequatchie Rv	Hwy 28 Bridge	Hg, Se	2014	TDH ABS
LSEQU009.0MI	Little Sequatchie Rv	Off Coppinger Cove Rd	Hg, Se	2014	TDH ABS
LTENN001.0LO	Tellico Res/Little Tennessee River			2014	TDH ABS
LTENN015.0LO	Tellico Res/Little Tennessee River	· · · · · · · · · · · · · · · · · · ·		2014	TDH ABS
MCKEL001.8SH	McKellar Lake	McKellar Lake	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI724.6SH	Mississippi Rv	Memphis South Plant	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI735.0SH	Mississippi Rv	I-40	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI754.0TI	Mississippi Rv	Meeman-Shelby S.P.	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI786.0LE	Mississippi Rv	Osceola	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI817.8LE	Mississippi Rv	Blytheville	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI846.0LA	Mississippi Rv	Caruthersville	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
MISSI873.0LA	Mississippi Rv	Tiptonville	Metals, Organics, Dioxin, PCBS	2014	TDH ABS
NFFDE009.8DY	North Fork Forked Deer Rv	Hwy 412 Linden	Metals	2013	TDH ABS
NFFDE020.5DY	North Fork Forked Deer Rv	Hwy 104	Metals, Organics, PCBS	2014	TDH ABS
NFHOL004.6SU	North Fork. Holston Rv	Bridge at Cloud Ford	Metals	2015	TVA
NOLIC008.5HA	Nolichucky Rv	Hurley Island	Hg, Se	2014	TDH ABS
NOLIC072.5WN	Nolichucky Rv	Jonesboro Water Plant Intake	Metals, Organics, PCBS	1992	TDEC
NOLIC097.5UC	Nolichucky Rv	Chestoa Bridge			TDH ABS
OBED021.1CU	Obed River	Potters Bridge		2010	TWRA
OBEY008.0CY	Dale Hollow Res/Obey Rv	Near dam	Organics, Dioxin, PCBS	1993	TDEC
OBION002.0DY	Obion River	Near Hwy 181	Metals, Organics, Dioxin	2007	TWRA

STATION ID	RESERVOIR NAME/STREAM	LOCATION	PARAMETER	LAST FY	SAMPLING
STATIONID	NAME NAME	LOCATION	TAKAMETEK	SAMPLED	AGENCY
OCOEE012.5PO	Parksville Res/Ocoee Rv	Near dam (Ocoee # 1)	Metals, Organics	2010	TVA
OCOEE014.0PO	Parksville Res/Ocoee	Near FR 17	Metals,	1002	TDEC
OCOEE014.0PO	Rv Rv	(Ocoee #1)	Organics	1992	TDEC
OCOEE031.0PO	Parksville Res/Ocoee	Near Tumbling	Metals,	1994	TDEC
	Rv	Creek Ocoee #3	Organics, Dioxin, PCBS		
PIGEO007.6CO	Pigeon Rv	Tannery Island u/s of Newport	Hg, Se 106 organics, dioxin	2014	TDH ABS
PIGEO008.2CO	Pigeon Rv	Tannery Island	Metals,	2008	TWRA
		·	Organics, Dioxin, PCBS		
PIGEO016.5CO	Pigeon Rv	Denton Greasy Cove Road	Hg, Se 106 organics, dioxin	2014	TDH ABS
PIGEO024.7CO	Pigeon Rv	Waterville	Hg, Se 106	2014	TDH ABS
11020021.700	1 igeon itv	Powerhouse	organics, dioxin	2011	10117105
POPLA000.1RO	Watts Bar Res/Poplar	Watts Bar	Metals,	1998	TDEC
	Ck	Embayment D/S DOE-25 plant	Organics, PCBS		
POWEL030.0UN	Norris	Stiners Woods	Metals	2009	TVA
	Reservoir/Powell Rv				·
REELF00002LA	Reelfoot Lake	Rays Camp	Metals,	1993	TDEC
			Organics,		
DEET F000000	D 10 X 1	T 11 G 1	Dioxin	1002	mp.r.c
REELF000030B	Reelfoot Lake	Indian Creek Embayment	Metals, Organics,	1993	TDEC
		Embayment	Dioxin		
REELF000050B	Reelfoot Lake	Walnut Log	Metals,	1993	TDEC
		Ditch	Organics,		
			Dioxin		
RICHL024.3GS	Richland Creek	Pulaski, U/S	Metals	2008	TDEC
		Lowhead dam and STP			
ROLLI000.0FR	Woods Res/Rollins Ck	Embayment	Metals,	2008	TDEC
			Organics,		
			Dioxin, PCBS		
SEQUA006.3MI	Sequatchie River	Valley Ebenezer		2011	TVA
SEQUA023.0MI	Sequatchie River	Road Near Whitwell	Metals	2008	TDEC
SEQUA048.8SE	Sequatchie River	Hwy 111 near	Metals	2008	TDEC
		Dunlap			
SFHOL001.1SU	South Fork Holston	Ridgefields	Metals,	2008	TDEC
	River	Bridge in	Organics,		
CEITOT 003 OCT	Couth Fouls II-1-t	Kingsport	Dioxin, PCBS	2008	TDEC
SFHOL002.9SU	South Fork Holston River	Hwy 126 bridge near Kingsport	Metals, Organics,	2008	TDEC
	RIVOI	near Kingsport	Dioxin, PCBS		
SFHOL007.7SU	South Fork Holston	D/S Ft. Patrick	Metals,	1998	TDEC
	River	Henry Dam	Organics,		
			Dioxin, PCBS		

STATION ID	RESERVOIR NAME/STREAM NAME	LOCATION	PARAMETER	LAST FY SAMPLED	SAMPLING AGENCY
SFHOL008.5SU	Ft. Patrick Henry Res/South Fork Holston Rv	Ft. Patrick Lake at Dam	Metals, Organics, PCBS	2009	TVA
SFHOL018.8SUB	Boone Res/South Fork Dam Metals, Holston Rv Organics, Dioxin PCI		Organics, Dioxin PCBS	2009	TVA
SFHOL022.5SU	Holston Rv	Boone Res/South Fork Holston Rv Mouth of Wagner Creek Organics, Dioxin, PCB:		2007	TDEC
SFHOL027.0SU	Boone Res/South Fork Holston Rv	Boone Res/South Fork South Holston Metals,		2009	TVA
SFHOL050.0SU (51.)	Lake Dam		Metals	2015	TVA
SFHOL062.7SU (62.5)	South Fork Holston	TN/VA line over South Holston Lake	Metals	2015	TVA
TENNE085.0HU	Kentucky/Tennessee Rv	D/S Turkey Creek (and transition QA)	Metals, Organics, PCBS	2015	TVA
TENNE097.0HU	Kentucky/Tennessee D/S Dupont- Metals, Rv Johnsonville Organics,			2008	TDEC
TENNE200.0HD	Kentucky/Tennessee Rv	Near Hamburg and Inflow QA	Metals, Organics, PCBS	2008	TVA
TENNE206.7HD	Tennessee River			2011	TVA
TENNE230.0_AL	Tennessee River			2011	TVA
TENNE417.1MI	Guntersville/Tennessee Rv	South Pittsburg Waterworks Intake	Metal, Organics, PCBS	1992	TDEC
TENNE425.5MI	Nickajack Res/Tennessee Rv	Near dam	Metals, Organics, PCBS	2009	TVA
TENNE457.2HM	Nickajack Res/Tennessee Rv	D/S Moccasin Bend WWTP	Metals, Organics, Dioxin, PCBS	2004	TVA
TENNE469.0HM	Nickajack Res/Tennessee Rv			2009	TVA
TENNE472.3HM	Chickamauga Res/Tennessee Rv	les/Tennessee Rv Forebay near Organics, lighted buoy Dioxin, PCBS		2009	TVA
TENNE489.8HM	Chickamauga Res/Tennessee Rv	Opossum Ck Light	Metals, Organics, PCBS	2009	TVA
TENNE518.0ME	Chickamauga Res/Tennessee Rv	Hwy 30	Metals, Organics, PCBS	2009	TVA
TENNE529.5HM	Chickamauga Res/Tennessee Rv	Below Watts Bar Dam	Metals, Organics, PCBS	2003	TVA

STATION ID	RESERVOIR NAME/STREAM NAME	LOCATION	PARAMETER	LAST FY SAMPLED	SAMPLING AGENCY	
TENNE531.0RH	Watts Bar Res/Tennessee Rv	Near dam	Metals, PCBS	2013	TVA	
TENNE560.8RO	Watts Bar Res/Tennessee Rv	Near Bullet Branch	Metals, PCBS	2012	TVA	
TENNE600.0LO	Watts Bar Res/Tennessee Rv	D/S/ Ft. Loudon/Tellico Reservoirs near Lenoir City	Metals, PCBS	2013	TVA	
TENNE602.0LO	Watts Bar Res/Tennessee Rv	Ft. Loudon dam tailrace	Metals, Organics, PCBS	2007	TWRA	
TENNE604.0LO	Ft. Loudoun Res/Tennessee Rv	Forebay	Metals, Organics	2011	TVA	
TENNE624.6KN	Ft. Loudoun Res/Tennessee Rv	D/S Lackey Creek near Lakeview	Metals, Organics, PCBS	2011	TVA	
TENNE643.3KN	Ft. Loudoun Res/Tennessee Rv	Marine Base	Metals, Organics, Dioxin, PCBS	1999	TDEC	
TENNE652.0KN	Ft. Loudoun Res/Tennessee Rv	D/s Confluence French Broad River	Metals, Organics, PCBS	2011	TVA	
WATAU003.0SU	Boone Res/Watauga Rv	Watuaga arm near Deerlick Bend	Metals, Organics, Dioxin, PCBS	2007	TDEC	
WATAU006.0SUB	Boone Res/Watauga Rv	Watauga Rv Arm At Pickens Bridge	Metals, Organics, PCBs	2009	TVA	
WATAU036.6CT (37.4)	Watauga Rv	Watauga Lake at dam (forebay)	Metals	2015	TVA	
WATAU045.6JO (45.5)	Watauga Rv	Near Elk River Embayment (mid reservoir)	Metals	2015	TVA	
WOLF000.5SH	Wolf Rv	North Plant Pipe crossing	Organics, PCBS	1992	TDEC	
WOLF001.8SH	Wolf Rv	Hwy 51 near mouth	Metals, Organics, Dioxin, PCBS	2014	TDH ABS	
WOLF009.3SH	Wolf Rv	Hwy 14	Metals, Organics, Dioxin, PCBS	1998	TWRA	
WOLF015.3SH	Wolf Rv	Walnut Grove Road	Organics	2014	TDH ABS	

Table 13. Analyses for Fish Tissue

Parameter	Parameter	Parameter
Weight (Pounds)	Chlordane, total	Methoxychlor
Length (Inches)	CIS Chlordane	Dioxins
Lipid Content (Percent)	Trans Chlordane	Selenium
PCBs	CIS Nonachlor	Zinc
Aldrin	Trans Nonachlor	Furans
Dieldrin	Alpha BHC	
DDT, total	Gamma BHC	
O, P - DDE	Hexachlorobenzene	
P, P - DDE	Arsenic	
O, P - DDD	Cadmium	
P, P - DDD	Chromium	
O, P - DDT	Copper	
P, P - DDT	Mercury	
Endrin	Lead	

^{*} Fish Tissue results reported in mg/kg (ppm), wet weight. Analyzed by Tennessee Department of Health (TDH), Laboratory Services or a contract laboratory.

C. Stream and Reservoir Posting

The TDEC Commissioner is identified in the Tennessee Water Quality Control Act as having the authority to post bodies of water based on public health concerns. The Commissioner has delegated authority to the Director of the Division of Water Resources. This authority is carried out with assistance from TWRA and TVA. Bacteriological contamination is the major reason for posting a stream against water contact recreation. The major reason for posting a stream against the consumption of fish is bioaccumulation of carcinogens. The most current list of posted streams can be found in on

http://tn.gov/assets/entities/environment/attachments/water_fish-advisories.pdf The list is also published in the 305(b) Report which is published every two years.

D. Sediment Sampling

The division collected a considerable number of sediment samples from 1984 - 1994. However, analysis of the data has been handicapped by a lack of sediment criteria. When criteria become available, analysis of sediment samples will be a more widely used component of long-term trend monitoring. During FY-15, sediment samples will be collected on an as-needed basis.

E. Wetlands Monitoring

Tennessee has approximately 787,000 acres of wetlands. The division has identified 54,811 impacted wetland acres. Historically, the largest single cause of impacts to existing wetlands was loss of hydrologic function due to channelization and leveeing. Presently development such as roads, subdivisions and commercial centers are impacting wetlands more than other activities.

Tennessee received a grant from EPA to develop a protocol for wetland assessment and to apply the state's antidegradation rules to wetlands permitting issues. Tennessee has completed its development of a rapid assessment methodology for wetlands. The Tennessee Rapid Assessment Methodology (TRAM) is based on models developed as part of the Hydrogeomorphic (HGM) approach for assessing wetland function in Tennessee. Tennessee has now developed HGM models for depressional, riverine, flat and slope wetlands.

The TRAM will allow for the identification of exceptional wetlands, impaired wetlands, aid in assessing the ecological consequences of §401 and ARAP permitting decisions, and assist in implementation the state's antidegradation rules. The Division of Water Resources Waterlog database will enable the permitting program to track compliance and provide a source of wetland impact and mitigation data for use by agencies involved in wetland's monitoring and research.

In 2010 Tennessee partnered with U.S. Army Corps of Engineers (COE) and The Nature Conservancy to undertake one pilot watershed approach project in Tennessee to fulfill the requirements of the 2008 COE/ EPA Compensatory Mitigation Rule. The pilot Watershed Approach project in Tennessee was targeted for completion by the end of calendar year 2012. The project has not been completed yet. The end product of this project will be 1) a watershed plan that identifies viable/potential wetland and stream restoration and preservation priorities in the selected 8-digit watershed; and 2) a report that summarizes the methodology utilized to apply the Watershed Approach in development of the plan. The report will be designed to serve as a guide for the application of the Watershed Approach in the region.

Tennessee Tech University was awarded an EPA grant to assess wetland mitigation in Tennessee and update their previous study from the late 1990's. The division is assisting in this assessment.

In 2013 TDEC was awarded an EPA Wetland Program Development Grant to build a sustainable and focused wetland program for the state of Tennessee. A key component of the grant is to develop a Wetland Program Plan built on the EPA's Core Elements Framework. This plan will outline the major provisions of the grant and the steps TDEC will take to accomplish them. Some of the primary goals are training personnel on the use of the Tennessee Rapid Assessment Method, the development of a Qualified Wetland Professional (QWP) Program, development of a stream functional assessment to guide compensatory mitigation projects, additional emphasis on enforcement and compliance, and the development of water quality standards for wetlands.

F. Southeast Monitoring Network Sites in Tennessee FY 106 Supplemental Monitoring Initiatives

During the Southeastern Water Pollution Biologist Association(SWPBA) annual meeting, in November 2011, the potential for stream community changes resulting from variations in hydrology and termperature as a result of changing climate was a focus of the Southeastern Water Pollution Biologist Association (SWPBA). The result was the creation of an interagency workgroup consisting of freshwater biologists from the eight EPA region IV states and the Tennessee Valley Authority (TVA) interested in developing a joint reference stream monitoring network. Staff from EPA, USFS and USGS are also on the committee to provide technical support and advise. Although two goals of the group are to assess existing responses to climate change and identify climate-sensitive indicators, it was agreed that a reference network with consistent sampling methodology would be useful for establishing regional reference conditions and consistency in assessments of shared watersheds and ecoregions.

Each of the region IV states and TVA agreed to target and monitor reference streams beginning in 2013 and continue annual monitoring indefinitely. Existing monitoring programs will be adjusted at key reference sites to include additional parameters so that monitoring will be consistent for all sites in the network. At a minimum, sampling will include macroinvertebrates, habitat assessments, field parameters, flow and continuous temperature monitoring. Some agencies, including TN intend to add periphyton, water quality, channel profiles and continuous flow. TVA has agreed to sample fish at sites draining into the Tennessee River. Protocols and selection of vulnerable streams were based on studies done by the Northeast Regional Monitoring Network. Existing data will be mined where available.

The goal is to establish a minimum of 30 reference sites in protected watersheds where land-use is not expected to change significantly for at least 20 years. Tennessee has agreed to monitor 10 sites in ecoregions 66, 67, 68 and 71 (Table 14). Ten sites will enable some statistical determinations using sate data in addition to analysis of grouped data.

1. Project Objectives

- a. Establish annual monitoring at 10 reference streams consistent with protocols agreed upon by Southeast Monitoring Network.
- b. Develop a formal interagency partnership to develop a monitoring program that is done consistently, long-term and can withstand changes in staff.
- c. Combine data with other SE states for statistical interpretation of current reference condition and changes over time in undisturbed systems.
- d. Determine whether stream communities are being affected by variables such as changes in hydrology, temperature or riparian vegetation species.
- e. Distinguish natural variation from other stressors.
- f. Isolate biometrics/taxa that would be related to extreme weather events.

g. Detect changes early in a way that informs management strategies such as restoration and adaption.

Table 14. Southeast Monitoring Network Sites – Tennessee

Station	Stream	EF	Lat	Long	HUC	ECOIV	Drainage	% E	Protected
ECO66E09	Clark Creek	JC	36.15077	-85.5291	TN06010108	66E	sq mi. 9.2	Forest 96	Sampson Mtn. Wilderness Cherokee NF
ECO66G05	Little River	K	35.65333	-83.5773	TN06010201	66G	34.9	100	Great Smoky Mtns. NP
ECO66G12	Sheeds Creek	СН	35.00305	-84.6122	TN03150101	66G	5.7	99	Big Frog Wilderness Cherokee NF
ECO66G20	Rough Creek	СН	35.05386	-84.48031	TN06020003	66G	6.04		
ECO6702	Fisher Creek	JC	36.4900	-82.9403	TN06010104	67F	11.6		
ECO67F06	Clear Creek	K	36.21361	-84.0597	TN06010207	67F	4.59		
ECO67F13	White Creek	K	36.34361	-83.89166	TN06010205	67F	3.1	91	Chuck Swann Wildlife Manageme nt Area
ECO68A03	Laurel Fork Station Camp Creek	MS	36.51611	-84.6981	TN05130104	68A	5.9	90	Big South Fork NRRA
ECO68C20	Crow Creek	СН	35.1155	-85.9111	TN06030001	68C	18.4	95	Carter State Natural Area
ECO71F19	Brush Creek	CL	35.4217	-87.5355	TN06040004	71F	13.3		
ECO71F29	Hurricane	N	35.99393	87.7554	TN06040003	71f	21.5		
ECO71H17	Clear Fork Creek	CK	35928651	- 85.992117	TN05130108	71H	14.3		
MYATT00 5.1CU	Myatt Creek	CK	36.1299	-84.9827	TN06010208	68A	5.1		

2. Methodology

- a. Develop a joint inter-agency monitoring plan.
- b. Select 10 established reference sites based on agreed upon reference criteria in ecoregions 66, 67, 68 and 71.
- c. Deploy two continuous monitoring temperature and water level (barometric pressure) probes at each site (both water and air).
- d. Monitor each site in April and September for macroinvertebrates and periphyton in April. Conduct habitat assessments concurrent with biological monitoring (Table 15).
- e. Analyze biological data to species level.
- f. Monitor each site four times annually (January, April, July, September) for standard TN ecoregion reference water quality parameters as well as any additional parameters specified by SE monitoring group.
- g. Measure flow and field parameters quarterly at each site.

All field sampling and sample collection will be conducted by trained Environmental Specialists and Biologists with Tennessee Department of Environment and Conservation (TDEC), Division of Water Resources. Macroinvertebrate analyses to species level will be contracted to Aquatic Resources Center through the Aquatic Biology Section, Tennessee Department of Health (TDH). Periphyton analysis will be conducted the Aquatic Biology Section. Chemical analysis will be completed by the Inorganic Chemistry Section, TDH. Data will be maintained and publicly available in a joint database with data from other agencies in the monitoring network.

III. WATER QUALITY PLANNING AND WASTE LOAD ALLOCATION/TMDL DEVELOPMENT

A. Water Quality Planning and Standards (Section 604(b) Grant Activity)

Consistent with federal requirements, Tennessee maintains a policy to review its water quality standards every three years through the Triennial Review process. After the division plans and proposes a set of revisions, the public is afforded an opportunity to voice concerns with the existing standards and the proposed revisions. These standards can either be approved or revised by the Tennessee Board of Water Quality, Oil and Gas. The Standards are then submitted to the Secretary of State's Office and to the Environmental Protection Agency for final approval.

Funds from the FY-16 Section 604 (b) Grant will be used to fund staff to develop the 305(b) report, develop the 303(d) list, review and analysis of water quality data collected for assessment of conditions and interpretation of information included in EPA's Assessment database, and develop the water quality standards. Additionally, analysis of data collected for special surveys and development of ecoregion standards are also included in their assignments. This grant will cover 40% of the expenses for two staff members; one Environmental Program Manager 1 and one Environmental Specialist 5, from July 2015 – June 2016. Also, the division intends to pass through funds to development districts for the purpose of enhancing water quality management planning. Details on those plans will be submitted in another document.

Tennessee first adopted water quality standards in 1967 and has amended them several times thereafter. The last revisions to standards were finalized in 2012.

Water quality standards consist of two principle regulations:

- 1. The "General Water Quality Criteria," Rule 0400-40-03
- 2. The "Use Classifications for Surface Waters", Rule 0400-40-04.

The three essential elements comprising water quality standards as defined by Section 303 of the Federal Clean Water Act, PL 95-217, are water quality criteria, stream use classifications, and the Antidegradation statement.

Tennessee's criteria specify baseline values for particular parameters of water quality necessary for the protection and maintenance of a prescribed use classification. The State has established seven principal uses of the waters for which criteria of quality are defined: 1) domestic water supply, 2) industrial water supply, 3) fish and aquatic life, 4) recreation, 5) irrigation, 6) livestock watering and wildlife, and 7) navigation. Trout streams and streams with naturally reproducing trout have specific criteria, however, these criteria are listed as a subset under the fish and aquatic life protection criteria.

B. Wasteload Allocations/TMDL Development – (state appropriations, 106 funds, and 319(h) funds)

Prior to issuance of NPDES permits, the limits for specific chemical constituents of the effluent must be determined. This process, known as a wasteload allocation, is based on the amounts of pollutants that the receiving waters can assimilate without adversely affecting the uses of the water.

Wasteload allocations are performed using computer models that represent the complicated physical and chemical processes occurring in the receiving waters. Variables in this mathematical model are often assumed, but would ideally be confirmed and verified by performing a field study called an assimilative capacity survey. EPA's consent decree requires that all 792 water quality segments and associated pollutants on the 1998 303(d) list be addressed either by the division developing a TMDL, EPA developing a TMDL, or EPA determining that a TMDL is no longer needed (Table 15). The development of the TMDLs by the division is funded by state appropriations, 106 funds, and 319(h) funds. Streams to be sampled for TMDLs in FY-16 appear in Appendix A.

Table 15. Cumulative Percent and Number of TMDLs

	Cumulative % of TMDLs to be	Cumulative Number of TMDLs
Year	Submitted that appear on the	to be Submitted that appear on
	1998 303(d) List	the 1998 303(d) List
2002	5%	40
2003	10%	80
2004	15%	120
2005	20%	160
2006	25%	200
2007	40%	319
2008	55%	438
2009	70%	557
2010	85%	676
2011	100%	792

^{*}Agreement between TDEC and EPA (May 1998). If unexpected circumstances warrant it, TMDLs may be written regardless of their scheduled development.

IV. COMPLAINTS, FISH KILLS, WASTE SPILLS AND OTHER EMERGENCIES

A. Complaints

The division investigates and attempts to resolve over 3000 complaints each year. Most of these are filed by private citizens who wish to convey information concerning suspected pollution events. As such, these complaint investigations are an important source of information. The division places a high priority on the investigation of these reports. Staff are assigned to this activity for the investigation to be accomplished in a timely and efficient manner. Due to its sporadic nature, complaint investigations are difficult to plan and often divert staff from other program needs.

On occasion, a formal 118(a) complaint is filed with the Commissioner's office. When the complaint involves water pollution, a formal process coordinated by the Enforcement and Compliance Section is begun. The division investigates the complaint and develops a formal response, which is then approved by the Commissioner's office.

B. Fish Kills, Waste Spills, and other Emergencies

The Federal Emergency Management Agency (FEMA) requires that each state have an Emergency Management Plan (EMP). Employees of the State are required to serve under emergency situations. The State has instituted the Tennessee Emergency Management Agency (TEMA) program for coordinating emergency response to spills of materials that may adversely affect Tennessee's waters. The main responsibilities are to respond in all emergency situations including, but not limited to:

- 1. Disasters, including natural and accidental; for example, truck wrecks or train derailment, structural or mechanical failure, fish kills due to spills or bypassing from wastewater treatment plants, etc.
- 2. War-related emergency (conventional or nuclear)
- 3. Resource crises (for example, shortage of water treatment plant chemicals)

When a fish kill is reported to the division, the ensuing investigation is often a joint effort between the division and the Tennessee Wildlife Resources Agency (TWRA). When arriving on-site, a preliminary attempt is made to determine whether the fish kill is due to natural conditions or human causes. If the fish kill appears related to pollution, division staff members collect samples, take photographs, and inspect nearby facilities for potential pollutant sources. The TWRA officer counts and identifies the dead fish, and calculates a monetary value of the damage to the fishery. An enforcement package is prepared if a source can be identified and turned over to the Enforcement and Compliance Section of DWR. A detailed list of waste spills and fish kills will be kept for environmental indicator purposes.

Organizational changes in TDEC have resulted in the creation within each EFO of an Emergency Response Team (ERT). If a waste spill has occurred, the ERT responds to major emergencies; teams usually have a DWR staff member and staff from other divisions. Moderate emergencies may be handled by DWR or the ERT, depending on the ERT's decision. Minor emergencies are handled by DWR. As soon as the major emergency is over, the ERT turns over the follow-up activities and remediation efforts to DWR or Solid Waste Management (SWM) as appropriate. DWR may recommend containment and mitigation efforts on-site.

V. COMPLIANCE MONITORING

A. Facility Inspection Schedule

The information in Appendix B reflects the proposed activities in the areas of compliance assurance and operation and maintenance (O & M) inspections for FY-16. These inspections have been coordinated to fulfill the data needs of the permits, O & M, and enforcement programs. Major facilities generally have a higher compliance rate than minors and do not necessarily need a compliance evaluation every year. Facilities in noncompliance with permit limits will be given priority scheduling. Inspections should be entered into Waterlog and into PCS (ICIS-NPDES). The DWR NPDES inspection year was changed to reflect EPA's fiscal year, October 1, 2015 – September 30, 2016.

Counts toward inspection commitment:

CBI = Compliance Biomonitoring
Inspection
CSI = Compliance Sampling Inspection
RMCP = ready mix concrete plant TMSP
Tennessee Multi-Sector General Permit

CEI = Compliance Evaluation Inspection CSIX = A CSI Toxic

PAI = Performance Audit Inspection RI (REC) = Reconnaissance (does not count toward inspection commitment)

B. Pretreatment Inspections and Audits

As part of the state's NPDES permit program, the division has developed and administers the pretreatment program. The intent of the pretreatment program is to prevent interference with, or inhibitions of, the pollutant removal performance of the wastewater treatment facility; provide protection for sludge disposal, provide protection for the receiving stream; and enforce categorical pretreatment standards.

Currently the division has 105 active pretreatment programs. The progress of each developing program is being tracked.

The State has the approval authority to overview the POTW's (Publicly Owned Treatment Works) pretreatment program to (1) determine whether the POTW is properly implementing and enforcing pretreatment program requirements, (2) identify any pretreatment program areas that may require improvement subsequent to program approval and (3) evaluate program progress and need for modifications.

C. Distribution of Audits to be Performed

The division is on a five-year cycle for pretreatment audits. During a five-year cycle, Central Office staff will perform a pretreatment audit on each POTW pretreatment program. In the remaining four years, the EFO staff will be responsible for conducting two pretreatment compliance inspections (PCIs) and two technical assistance visits (TAVs).

The TAVs conducted at sites with approved programs will, at a minimum, require the inspector to gather enough information to properly complete the WENDB (Water Enforcement National Data Base) data sheet and the RNC/SNC (Reportable Non-Compliance/Significant Non-Compliance) worksheet from the PCI form. It is recommended that PCIs be conducted the first and third year following an audit, and TAVs be conducted the second and fourth years. TAVs will also be conducted at sites under development to answer any questions that the municipality may have, plus at sites that have been inactivated to verify status.

The proposed quarterly audit, PCI and TAV schedules are listed in Table 16.

The Central Office will perform some pretreatment audits and technical assistance visits of developing/reactivating programs.

Table 16. Pretreatment Audit/Inspection Schedule

Chattanooga Environmental Field Office

Chartanooga En in ommentan 11010 Olliet								
	#	NPDES	OCT-	JAN-	APR-	JULY		
FACILITY	SIU	NUMBER	DEC	MAR	JUN	-SEPT		
	S							
Athens	7	TN0024201		TAV				
Chattanooga	77	TN0024210	Audit					
Cleveland	18	TN0024121	PCI					
Dayton	6	TN0020478			TAV			
Decatur	3	TN0058521			TAV			
Etowah Utilities	2	TN0063771			TAV			
Jasper	6	TN0054585		TAV				
Niota	2	TN0025470	PCI					
Pikeville	2	TN0025054		PCI				
South Pittsburg	2	TN0024295	Audit					
Spring City	1	TN0021261				PCI		

Columbia Environmental Field Office

u Ollic					
#	NPDES	OCT-	JAN-	APR-	JUL-
SIU	NUMBER	DEC	MAR	JUN	SEP
S					
1	TN0024937			TAV	
5	TN0056103				TAV
1	TN0020508		PCI		
3	TN0021814				Audit
1	TN0020087	TAV			
5	TN0022551			PCI	
7	TN0022888	Audit			
0	TN0025101	PCI			
5	TN0025038		PCI		
1	TN0020800	TAV			
5	TN0021687		TAV		
2	TN0024180			TAV	
3	TN0023469		Audit		
1	TN0021857	_		TAV	_
	# SIU s 1 5 1 3 1 5 7 0 5 1 5 2 3	# NPDES SIU NUMBER s 1 TN0024937 5 TN0056103 1 TN0020508 3 TN0021814 1 TN0020087 5 TN0022551 7 TN0022888 0 TN0025101 5 TN0025038 1 TN0025038 1 TN0021687 2 TN0024180 3 TN0023469	# NPDES DEC SIU NUMBER DEC 1 TN0024937 5 TN0056103 1 TN0020508 3 TN0021814 1 TN0020087 TAV 5 TN0022551 7 TN0022888 Audit 0 TN0025101 PCI 5 TN0025038 1 TN0025038 1 TN0021687 2 TN0024180 3 TN0023469	# NPDES OCT- JAN- SIU NUMBER DEC MAR 1 TN0024937 5 TN0056103 1 TN0020508 PCI 3 TN0021814 1 TN0020087 TAV 5 TN0022551 7 TN0022888 Audit 0 TN0025101 PCI 5 TN0025038 PCI 1 TN0020800 TAV 5 TN0021687 TAV 2 TN0024180 3 TN0023469 Audit	# NPDES NUMBER DEC MAR JUN 1 TN0024937 TAV 5 TN0056103 PCI 3 TN0021814 1 TN0020087 TAV 5 TN0022551 PCI 7 TN0022888 Audit 0 TN0025101 PCI 5 TN0025038 PCI 1 TN0020800 TAV 5 TN0021687 TAV 2 TN0024180 TAV 3 TN0023469 Audit

Cookeville Environmental Field Office

	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU	NUMBER	DEC	MAR	JUN	SEP
	S					
Cookeville	5	TN0024198	PCI			
Crossville	5	TN0024996			TAV	
Livingston	3	TN0021873			PCI	
McMinnville	2	TN0023591			PCI	
Monterey	2	TN0064688				PCI
RBS	1	TN0067547			PCI	
Smithville	1	TN0065358			TAV	
Sparta	3	TN0061166				Audit
West Warren-Viola UD	1	TN0025372				PCI

Jackson Environmental Field Office

Jackson Environmental Field	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU		DEC	MAR	JUN	SEP
_	S					
Adamsville	2	TN0064785	PCI			
Bells	1	TN0026247			PCI	
Brownsville	6	TN0062367				Audit
Bruceton		TN0062014				PCI
Camden	2	TN0064611		TAV		
Dyersburg	7	TN0023477			Audit	
Halls	0	TN0057291	PCI			
Henderson	1	TN0064220	PCI			
Humboldt	5	TN0062588			TAV	
Huntingdon	2	TN0026174		TAV		
Jackson	18	TN0024813	TAV			
Lexington	9	TN0024341			TAV	
Martin	1	TN0062545			Audit	
McKenzie	5	TN0020613		PCI		
Middleton	1	TN0062642				PCI
Milan	1	TN0062375		PCI		
Newbern	5	TN0062111		PCI		
Paris	4	TN0061271	TAV			
Parsons	0	TN0061727			PCI	
Ripley	3	TN0078191		TAV		
Savannah	2	TN0061565			PCI	
Selmer	6	TN0062308			PCI	
Union City	6	TN0021580			TAV	

Johnson City Environmental Field Office

	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU	NUMBER	DEC	MAR	JUN	SEP
	S					
Bristol	19	TN0023531				Audit
Church Hill	11	TN0021253				TAV
Elizabethton	4	TN0023515	PCI			
Erwin	6	TN0023001				PCI
Greeneville	9	TN0021229				TAV
Johnson City	10	TN0024244				PCI
Jonesborough	2	TN0021547			PCI	
Kingsport	4	TN0020095			TAV	
Mosheim	10	TN0059366		TAV		
Rogersville	3	TN0020672				Audit

Knoxville Environmental Field Office

	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU	NUMBER	DEC	MAR	JUN	SEP
	S					
Caryville-Jacksboro	2	TN0026263			TAV	
Claiborne Co. UD	2	TN0024791			Audit	
Clinton	2	TN0026506			Audit	
Knoxville UB	29	TN0023582		PCI		
Lenoir City	3	TN0020494		TAV		
Loudon	9	TN0058181	PCI			
Maryville	5	TN0020079	TAV			
Morristown	30	TN0023507		Audit		
Newport	5	TN0020702		TAV		
Oak Ridge	7	TN0024155				TAV
Oneida	4	TN0064424			PCI	
Sevierville	4	TN0063959	PCI			
Sweetwater	9	TN0020052			PCI	
TASS (Monroe CO.)	4	TN0058238	PCI			
TRDA	2	TN0059897		PCI		
Wartburg	2	TN0028622				PCI
West Knox UD	3	TN0060020		PCI		

Memphis Environmental Field Office

	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU	NUMBER	DEC	MAR	JUN	SEP
	S					
Arlington	4	TN0078603			TAV	
Collierville	2	TN0057461			PCI	
Covington	6	TN0020982				Audit
Memphis	93	TN0020711				PCI
Rossville	1	TN0064092			TAV	

Nashville Environmental Field Office

	#	NPDES	OCT-	JAN-	APR-	JUL-
FACILITY	SIU	NUMBER	DEC	MAR	JUN	SEP
	S					
Clarksville	11	TN0020656			Audit	
Dickson	11	TN0066958		Audit		
Dover	1	TN0022667	TAV			
Franklin	3	TN0028827	PCI			
Gallatin	5	TN0020141				TAV
Greenbrier	1	TN0020621	TAV			
Lebanon	4	TN0028754	TAV			
McEwen	1	TN0021741				PCI
Murfreesboro	5	TN0022586				TAV
Nashville	63	TN0020575				TAV
Portland	6	TN0021865			Audit	
Smyrna	5	TN0020541	Audit			
Springfield	4	TN0024961				PCI
Watertown	1	TN0025488	TAV			

PCA = Performance Compliance Audit
RI (REC) = Reconnaissance (does not
count toward inspection commitment)
TAV = Technical Assistance Visit
PCI = Performance Compliance Inspection
A = Audit

D. Whole Effluent Toxicity Testing

Biomonitoring in Tennessee has two distinct stages. For the first ten years of biomonitoring (1978 - 1988), the division documented the presence of toxicity in industrial and municipal effluents and established the need to include whole effluent toxicity (WET) limits in NPDES permits. The science and need for this program are well established and most discharger permits incorporate these limits. The division's biomonitoring efforts have shifted more toward compliance assurance and enforcement activities. The state will require EFOS to conduct 10 % of inspections of major or minor facilities with WET limits to be monitored. A list of permitted bioassays proposed for FY-16 appears in Table 17. The tests will be administered by TDH, Aquatic Biology Section. Toxicity tests will be sent to Marinco Bioassay Laboratory in Florida for analyses in 2015-2016.

Table 17. Permitted Bioassay Toxicity Schedule FY 2015-2016

SAMPLE COLLECTION DAYS	EFO	FACILITY Name and Permit #	Test Type (Acute or Chronic)	Outfall	CONTACT
Feb 29, March 2, 4	CLEFO	Jack Daniel	Chronic		DeWitt Logsdon
	CLEFO	Shelbyville STP	Shelbyville STP Chronic		DeWitt Logsdon
March 14, 16, 18	JEFO	Savannah STP, TN0061565	Chronic		B. Smith
April 4, 6, 8	KEFO	Sevierville WWTP	Chronic	1	J. West
	KEFO	Morristown WWTP	Chronic	1	J. West
April 18, 20, 22					
May 2, 4, 6					
May 16, 18, 20	_				
June 6, 8, 10	CKEFO	Sparta STP TN 0061166	Chronic	1	Oakley Hall
June 20, 22, 24					

Each week either 3 chronic tests or 1 chronic and 1 acute test can be run – per lab.

VI. LITERATURE CITED

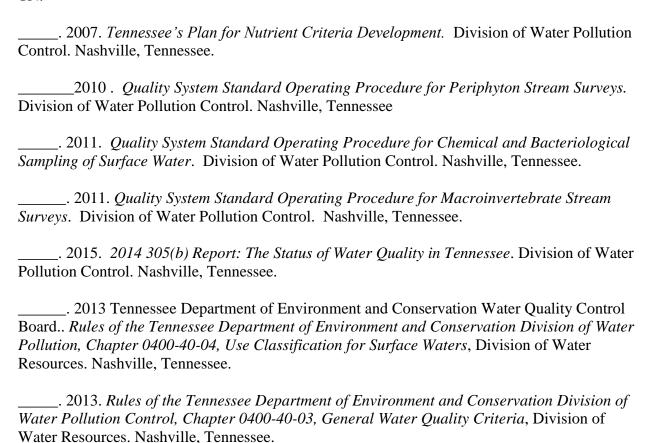
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APPENDIX A:

TDEC DIVISION OF WATER RESOURCES PROJECTED MONITORING STATIONS FOR FISCAL YEAR 2015 - 2016

Monitoring Stations for 2015-2016

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
ECO66G12	SEMN	TN0315010 1012_0500	CHEFO	4		2	2	
PINEY005.0RH	Ambient	TN0601020 1041-1000	CHEFO	4	4			
TENNE444.0MI	Ambient	TN0602000 1001-1000	CHEFO	4	4			
SCHIC000.4HM	Ambient	TN0602000 1007-1000	CHEFO	4	4			
TENNE503.3RH	Ambient	TN0602000 1020-1000	CHEFO	4	4			
TENNE477.0HM	Ambient	TN0602000 1020-1000	CHEFO	4	4			
TENNE529.5RH	Ambient	TN0602000 1020-1000	CHEFO	4	4			
TENNE416.5MI	Ambient	TN0602000 1055-1000	CHEFO	4	4			
CHATT000.9HM	Ambient	TN0602000 11244-1000	CHEFO	4	4			
HIWAS013.4MM	Ambient	TN0602000 2008-1000	CHEFO	4	4			
CANE001.5MM	Ambient	TN0602000 2081-0100	CHEFO	4	4			
OOSTA028.4MM	Ambient	TN0602000 2083-3000	CHEFO	4	4			
OCOEE001.0PO	Ambient	TN0602000 3001-1000	CHEFO	4	4			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
OCOEE019.6PO	Ambient	TN0602000 3013-1000	CHEFO	4	4			
ECO66G20	SEMN	TN0602000 30207_0400	CHEFO	4		2	2	
TOWN000.2MI	Watershed	TN0602000 4001_0100	CHEFO	12	12	1		
FECO68B01	FECO	TN0602000 4001_0110	CHEFO	4		2	2	
STAND000.9MI	303d	TN0602000 4001_0120	CHEFO	12	12		1	
PCOVE0.5T1.3MI	303d	TN0602000 4001_0121	CHEFO				1	
WHITW000.1MI (In Access is SEQUA22.2T0.1MI)	Watershed	TN0602000 4001_0200	CHEFO	12	12	1		
SEQUA30.7T0.8MI	303d	TN0602000 4001_0600	CHEFO	12	12		1	
GRAYS000.8MI	Watershed	TN0602000 4001_0700	CHEFO				1	
SHELT0.1T1.0T0.1M	303d	TN0602000 4001_0910	CHEFO	12	12		1	
SEQUA006.3MI	303d/Ambie nt	TN0602000 4001_1000	CHEFO	12	12			
SEQUA17.2T0.1MI	303d	TN0602000 4001_1100	CHEFO	12	12		1	
SHILO000.1MI	303d	TN0602000 4001_1200	CHEFO	12	12		1	
PECK000.3MI	303d	TN0602000 4001_1300	CHEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
SEQUA025.1MI	303d	TN0602000 4001_2000	CHEFO	12	12		1	
COOPS001.0SE	303d	TN0602000 4005_0100	CHEFO	12	12		1	
COOPS001.7SE	303d	TN0602000 4005_0100	CHEFO	12	12		1	
FECO68C02	FECO	TN0602000 4005_0150	CHEFO	4		2	2	
MCWIL001.9SE	303d	TN0602000 4005_0500	CHEFO	12	12		1	
MCWIL003.5BL	303d	TN0602000 4005_0500	CHEFO				2	
WELCH000.5SE	Watershed	TN0602000 4005_0510	CHEFO			1		
SEQUA041.5SE	Watershed	TN0602000 4005_1000	CHEFO	12	12	1		
FLATW000.4BL	Watershed	TN0602000 4007_0200	CHEFO	12	12	1		
SEQUA80.9T0.8BL	Watershed	TN0602000 4007_0300	CHEFO	12	12	1		
HALL000.5BL	303d	TN0602000 4007_0400	CHEFO	12	12		1	
CSCOV000.5BL	Watershed	TN0602000 4007_0500	CHEFO			1		
LITTL000.6BL	Watershed	TN0602000 4007_0600	CHEFO	12	12	1		
BROWN000.9BL	303d	TN0602000 4007_0640	CHEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
SWAFF000.2BL	303d	TN0602000 4007_0800	CHEFO	12	12		1	
STEPH000.2BL	303d	TN0602000 4007_0900	CHEFO	12	12		1	
SEQUA062.5BL	Watershed	TN0602000 4007_1000	CHEFO			1		
SEQUA085.5BL	303d	TN0602000 4007_1000	CHEFO	12	12		1	1
GCOVE001.1CU	303d	TN0602000 4007_1100	CHEFO	12	12		1	
MANNI000.2CU	303d	TN0602000 4007_1200	CHEFO	12	12		1	
SEQUA99.9T0.4BL	303d	TN0602000 4007_1400	CHEFO	12	12		1	
ECO68B09	ECOREGION/ 303d	TN0602000 4007_1500	CHEFO	12	12	2	2	
SKILL000.5BL	303d	TN0602000 4007_2200	CHEFO	12	12		1	
ECO68B01	ECOREGION	TN0602000 4007_2300	CHEFO	12	12	2	2	
MAISE000.7BL	303d	TN0602000 4008_0200	CHEFO	12	12		1	
CANNO000.3BL	Watershed	TN0602000 4008_1000	CHEFO	12	12	1		
LBRUS001.8SE	Watershed	TN0602000 4009_0100	CHEFO	12	12	1		
GLADY000.2SE	303d	TN0602000 4009_0500	CHEFO				1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
GLADY001.4SE	303d	TN0602000 4009_0500	CHEFO				1	
GLADY3.5T0.1SE	Watershed	TN0602000 4009_0510	CHEFO			1		
BBRUS004.2SE	303d	TN0602000 4009_1000	CHEFO	12	12		1	
BBRUS017.0SE	303d	TN0602000 4009_2000	CHEFO				1	
BBRUS018.7SE	Watershed	TN0602000 4009_3000	CHEFO				1	
STONE001.0SE	Watershed	TN0602000 4012_0200	CHEFO			1		
WOODC006.0SE	Watershed	TN0602000 4012_1000	CHEFO	12	12	1		
KELLE002.2SE	Watershed	TN0602000 4013_0100	CHEFO				1	
FECO68B04	FECO	TN0602000 4014_0100	CHEFO	4		2	2	
DANIE000.5MI	303d	TN0602000 4014_0100	CHEFO	12	12			
GRIFF001.2MI	Watershed	TN0602000 4014_1000	CHEFO	12	12	1		
GRIFF006.0MI	Watershed	TN0602000 4014_1000	CHEFO	12	12	1		
FECO68B02	FECO	TN0602000 4015_0100	CHEFO	4		2	2	
OSPRI001.2MI	Watershed	TN0602000 4015_0200	CHEFO	12	12	1		

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
SAWMI000.2MI	Watershed	TN0602000 4015_0300	CHEFO	12	12	1		
DIXON000.9MI	Watershed	TN0602000 4015_0400	CHEFO	12	12	1		
SCOTT001.3GY	Watershed	TN0602000 4015_0710	CHEFO	12	12	1		
LSEQU001.3MI	Watershed	TN0602000 4015_1000	CHEFO	12	12			
LSEQU009.8MI	Watershed	TN0602000 4015_1000	CHEFO			1		
POCKE004.5MI	Watershed	TN0602000 4015_1200	CHEFO	12	12	1		
HALL001.0MI	Watershed	TN0602000 4015_1300	CHEFO	12	12	1		
GRAHA001.2MI	303d	TN0603000 1055T_0100	CHEFO	12	12		1	
SWEDE001.8MI	303d	TN0603000 1057_0100	CHEFO	12	12		1	
GOURD3.6G0.MI	Watershed	TN0603000 1057_0121	CHEFO				1	
BEENE_G1.3MI	Watershed	TN0603000 1057_0140	CHEFO				1	
TATE1.4G0.6G0.24 MI	Watershed	TN0603000 1057_0200	CHEFO				1	
DSCOV000.5MI	Watershed	TN0603000 1057_0600	CHEFO	12	12	1		
LAURE0.5T0.8MI	303d	TN0603000 1057_0611	CHEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CCOVE000.6MI	Watershed	TN0603000 1057_0700	CHEFO			1		
HCOVE000.9MI	Watershed	TN0603000 1057_0800	CHEFO			1		
BFGIZ004.1MI	Watershed	TN0603000 1057_0900	CHEFO			1		
LFGIZ000.2GY	Watershed	TN0603000 1057_0920	CHEFO	12	12	1		
LFGIZ000.8GY	303d	TN0603000 1057_0920	CHEFO	12	12		1	
LFGIZ1.1T0.5GY	303d	TN0603000 1057_0921	CHEFO	12	12		1	
LFGIZ1.1T0.4T0.1GY	303d	TN0603000 1057_0922	CHEFO	12	12		1	
LFGIZ1.8T0.2GY	303d	TN0603000 1057_0923	CHEFO	12	12		1	
SPHOL000.5	303d	TN0603000 1057_0923	CHEFO	12	12		1	
LFGIZ002.2GY	303d	TN0603000 1057_0925	CHEFO	12	12		1	1
LGIZZ003.7MI	Watershed	TN0603000 1057_0930	CHEFO	12	12	1		
BFGIZ013.6GY	Watershed	TN0603000 1057_0950	CHEFO	12	12	1		
BATTL008.2MI	Watershed	TN0603000 1057_1000	CHEFO	12	12			
ECO68B10	ECOREGION	TN0603000 1057_2000	CHEFO	4		2	2	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CLUCK_G001.0MI	303d	TN0603000 1065_0100	CHEFO				1	
DRY002.4MI	Watershed	TN0603000 1065_1000	CHEFO			1		
CROSS001.2FR	Watershed	TN0603000 1067_0600	CHEFO			1		
HFLAT_G005.0MI	303d	TN0603000 1067_0700	CHEFO				1	
ECO68C20	ECOREGION/ SEMN	TN0603000 1067_1000	CHEFO	4		2	2	
	Watershed	TN0603000 1LAURELLK_ 1000	CHEFO					
PROCTO00.1CY	Watershed	TN0513010 3001_0100	CKEFO				1	
CUMBE381.1CY	Ambient	TN0513010 3001_1000	CKEFO	4	4			
ROCK024.8PI	303d	TN0513010 4010_1000	CKEFO	9	9		Collected 2015	
CROOK000.1FE	Watershed	TN0513010 4026_0800	CKEFO				1	
CROOK010.1FE	Watershed	TN0513010 4026_0800	CKEFO				1	
OBEY002.1CY	303d	TN0513010 5001_1000	CKEFO	4	4			
CUB000.70V	303d	TN0513010 5015_0300	CKEFO	9	9		1	
WFOBE008.00V	Watershed	TN0513010 5015_1000	CKEFO				1	

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WFOBE016.5OV	Watershed	TN0513010 5015_2000	CKEFO				1	
LLAUR000.4FE	303d	TN0513010 5019 _1310	CKEFO	9	9		collected 2014	
MEADO011.9CU	303(d)	TN0513010 5019_0950	CKEFO				1	
BLAUR004.7FE	303d	TN0513010 5019_1300	CKEFO	9	9		1	
BPINE000.1FE	303d	TN0513010 5019_1400	CKEFO	9	9		1	
EFOBE025.8FE	303(d)	TN0513010 5019_2000	CKEFO				1	
EFOBE039.6OV	303(d)	TN0513010 5019_3000	CKEFO				1	
ECO71H03	ECO	TN0513010 6004_1000	CKEFO	4	4(0)	2	2	
DEFEA006.2SM	Watershed	TN0513010 6005T_0100	CKEFO	12	12		1	
SLICK002.7JA	Watershed	TN0513010 6005T_0200	CKEFO				1	
WARTR003.0JA	Watershed	TN0513010 6005T_0300	CKEFO				1	
KNOB001.5CY	Watershed	TN0513010 6005T_0700	CKEFO				1	
SHANK003.0CY	Fully Supporting (FAL)	TN0513010 6005T_0800	CKEFO				1	
SUGAR001.4JA	Watershed	TN0513010 6005T_1100	CKEFO				1	

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LINDI002.0SM	Watershed	TN0513010 6005T_1400	CKEFO	12	12		1	
ECO71G03	ECO & 303d	TN0513010 6007_0500	CKEFO	4	5(12)	2	2	
FECO71G01	ECO & 303d	TN0513010 6007_0550	CKEFO	4	5(12)	2	2	
CARR004.60V	303(d)	TN0513010 6007_0700	CKEFO	12	12		1	
CARR001.00V	303d	TN0513010 6007_0700	CKEFO	12	12		1	
TOWN000.70V	303(d)	TN0513010 6007_0710	CKEFO	12	12		1	
COLLI_G0.3OV	Watershed	TN0513010 6007_0750	CKEFO				1	
COPLA_G1.3OV	Watershed	TN0513010 6007_0750	CKEFO				1	
HARTS_G0.10V	Watershed	TN0513010 6007_0750	CKEFO				1	
ROARI009.4JA	Watershed	TN0513010 6007_1000	CKEFO				1	
MORRI000.7JA	Watershed	TN0513010 6007_1100	CKEFO				1	
ROARI021.80V	Watershed	TN0513010 6007_2000	CKEFO	12	12		1	
EBLAC002.1PU	Watershed	TN0513010 6008_0200	CKEFO				1	
WBLAC002.2PU	Watershed	TN0513010 6008_0300	CKEFO				1	

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ECO71G14	ECO & 303d E. coli	TN0513010 6008-1000	CKEFO	4	5(12)	2	2	
BEAR000.20V	Watershed	TN0513010 6010_0300	CKEFO				1	
MILL000.8PU	Watershed	TN0513010 6010_0400	CKEFO				1	
SPRIN000.1JA	Fully Supporting (FAL)	TN0513010 6010_1000	CKEFO	12	12		1	
ECO71G04	ECO & 303d E. coli	TN0513010 6010_2000	CKEFO	4	5(12)	2	2	
MILL006.6CY	303d	TN0513010 6018_1000	CKEFO	12	12		1	
MILL014.80V	303d	TN0513010 6018_2000	CKEFO	12	12		1	
PLICK000.8JA	Watershed	TN0513010 6021_0900	CKEFO	12	12		1	
JENNI012.0JA	Watershed	TN0513010 6021_1000	CKEFO				1	
MARTI004.2PU	Fully Supporting (FAL)	TN0513010 6043_1000	CKEFO				1	
CFORK011.2SM	Ambient	TN0513010 8001_1000	CKEFO	4	4			
ECO71H17	SEMN	TN0513010 8004_0220	CKEFO	4		2	2	
MILL000.1PU	Watershed	TN0513010 8043_0200	CKEFO				1	

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CALFK040.4	Watershed	TN0513010 8043_4000	CKEFO				1	
FWATE009.6PU	Ambient	TN0513010 8045_1000	CKEFO	4	4			
TAYLO000.2WH	303d	TN0513010 8053_1000	CKEFO				1	
MYATT005.1CU	SEMN	TN0601020 8008_0100	CKEFO	4		2	2	
BARNE002.4FR	303d	TN0603000 1067_0410	CLEFO				1	
TMILE0.5T0.2FR	303d	TN0603000 1067_0421	CLEFO				1	
FECO68C01	FECO	TN0603000 1067_0500	CLEFO	4	4	2	2	
HFLAT_G000.4FR	303d	TN0603000 1067_0700	CLEFO			1		
CROW020.7FR	Watershed	TN0603000 1067_1000	CLEFO			1		
LIMES043.8LI	Watershed	TN0603000 2089_1000	CLEFO	12	12	1		
COTTS003.4LW	Watershed	TN0603000 2103-0200	CLEFO	12	12	1		
SECON022.0LW	Watershed	TN0603000 2103-1000	CLEFO	12	12	1		
HESTE007.2LI	303d	TN0603000 21124_1000	CLEFO	12	12	1		
CSPRI000.6LI	303d	TN0603000 21149_0100	CLEFO	12	12	1		

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FECO71G05	FECO	TN0603000	CLEFO	4	4	2	2	
		21149_0110						
HARBI000.4LI	303d	TN0603000	CLEFO	12	12		1	
		21149_0200						
TROTT000.5LI	303d	TN0603000	CLEFO	12	12		1	
		21149_0300						
BHUCK000.2LI	303d	TN0603000	CLEFO	12	12		1	
		21149_0600						
LHUCK000.7LI	303d	TN0603000	CLEFO	12	12		1	
		21149_0610						
FLINT059.9LI	303d	TN0603000	CLEFO	12	12		1	
		21149_1000						
MASON000.1LI	Watershed	TN0603000	CLEFO	12	12		1	
		211490110						
FOWL004.8LI	Watershed	TN0603000	CLEFO	12	12		1	
		21216_0100						
WALKE002.8LI	303d	TN0603000	CLEFO	12	12		1	
		21216_0200						
WASHB000.LI	303d	TN0603000	CLEFO	12	12		1	
		21216_0210						
HARPE001.2LI	303d	TN0603000	CLEFO	12	12		1	
		21216_0211						
HANCO1.3T0.2LI	303d	TN0603000	CLEFO				1	
		21216-0221						
ELK133.0FR	Ambient	TN0603000	CLEFO	4	4			
		3015_1000						
SHOAL032.2LW	Ambient	TN0603000	CLEFO	4	4			
		5078_1000						

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DUCK248.0BE	Ambient	TN0604000	CLEFO	4	4			
		2030_1000						
BBIGB008.5MY	Ambient	TN0604000	CLEFO	4	4			
		3019_2000						
DUCK113.9MY	Ambient	TN0604000	CLEFO	4	4			
		3024_1000						
BUFFA073.1	Ambient	TN0604000	CLEFO	4	4			
		4002_1000						
ECO71F19	SEMN	TN0604000	CLEFO	4		2	2	
		4013_0400						
MOON000.9GE	303D	0601010801	JCEFO			1		
		0_0400						
CEDAR000.5GE	303D	0601010803	JCEFO	4	5	1		
		0_0100						
CLEAR001.4WN	303D	0601010803	JCEFO	4	5		1	
		0_0400						
MUDDY001.2WN	303D	0601010803	JCEFO		5		1	
		0_0430						
MUD000.3GE	303D	0601010803	JCEFO	6	10	1		
		5_0400						
CLEAR000.5GE	303D	0601010803	JCEFO	4	5		1	
		5_1900						
MUD000.5GE	303D	06010108D	JCEFO			1		
		CTRIBS_050						
		0						
EFRIC000.1GE	303D	TN0102_04	JCEFO	6		1		
		00						
NFHOL004.6SU	AMB	TN0601010	JCEFO	4	4			
		1001_1000						

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NINDI001.2UC	Watershed	TN'0601010 1029_1000	JCEFO	1		1		
NINDI010.5UC	Watershed	TN0601010 1029_2000	JCEFO	1		1		
SFHOL001.1SU	AMB	TN0601010 2001_1000	JCEFO	4	4			
BEAVE001.0SU	AMB	TN0601010 2042_1000	JCEFO	4	4			
BEAVE015.3SU	AMB	TN0601010 2042_2000	JCEFO	6	5			
DOE001.1CT	AMB	TN0601010 3013_1000	JCEFO	4	4			
HOLST131.5HS	AMB	TN0601010 4011_2000	JCEFO	4	4			
ECO6702	SEMN	TN0601010 4015-0100	JCEFO	4		2	2	
PAINT000.9GE	Watershed	TN0601010 5071_1000	JCEFO	4	4	1		
NOLIC015.5GE	303D	TN0601010 8001_3000	JCEFO				1	
NOLIC020.8GE	AMB	TN0601010 8001_3000	JCEFO	4	4			
PRIVE000.1GE	303D	TN0601010 8005_0310	JCEFO			1		
GREGG000.6GE	303D	TN0601010 8005_0500	JCEFO			1		
SHELT000.2GE	303D	TN0601010 8005_0710	JCEFO			1		

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NOLIC027.8GE	Watershed	TN0601010 8005_1000	JCEFO	4	4		1	
	combine with 3000	TN0601010 8005_2000	JCEFO					
NOLIC039.3GE	303D	TN0601010 8005_3000	JCEFO	4	4		1	
LMEAD000.1GE	303D	TN0601010 8007_0100	JCEFO		5		1	
MEADO000.4GE	303D	TN0601010 8007_1000	JCEFO		5		1	
CEDAR000.1GE	303D	TN0601010 8009_0300	JCEFO	1			1	
COVE003.4GE	Watershed	TN0601010 8009_1000	JCEFO	1		1		
HOLLE000.5GE	303D	TN0601010 8010_0200	JCEFO	6			1	
COLLE000.3GE	303D	TN0601010 8010_0300	JCEFO	6			1	
PUDDI000.2GE	303D	TN0601010 8010_0500	JCEFO				1	
RIPLE000.3GE	303D	TN0601010 8010_0600	JCEFO				1	
RHEAT001.1GE	303D	TN0601010 8010_0750	JCEFO				1	
SNAPP000.2WN	303D	TN0601010 8010_0900	JCEFO			1		
NOLICO60.6GE	303D	TN0601010 8010_1000	JCEFO				1	

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ASBUR000.1WN	303D	TN0601010 8010_1100	JCEFO				1	
KNAVE000.5WN ds	303D	TN0601010 8010_1200	JCEFO	6	6		1	
KEPLI000.5WN ds	303D	TN0601010 8010_1300	JCEFO			1		
LEBAN000.1WN	303D	TN0601010 8010_1400	JCEFO			1		
MARTI000.3UC	Watershed	TN0601010 8010_1900	JCEFO	6	5		1	
SPRIN000.1UC	303D	TN0601010 8010_1910	JCEFO	6	5		1	
NOLICO70.6WN	303D	TN0601010 8010_3000	JCEFO	6	5		1	
ECO66E09	ECOREGION	TN0601010 8010_3200	JCEFO	4	4	2	2	
FECO66E01	FECO	TN0601010 8010_3210	JCEFO	4	4	2	2	
WOLF000.5GE	303D	TN0601010 8010_3800	JCEFO	6		1		
NOLIC089.9WN	Watershed	TN0601010 8010_4000	JCEFO	6	6		1	
NOLIC098.1UC	303D	TN0601010 8010_5000	JCEFO				1	
NOLIC097.5UC	AMB	TN0601010 8'010_5000	JCEFO	6	6			
FECO66D06	ECOREGION	TN0601010 8013_0230	JCEFO	4	4	2	2	

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ROCKY000.2UC	Watershed	TN0601010 8013_0900	JCEFO	4	5		1	
SINDI000.5UC	Watershed	TN0601010 8013_1000	JCEFO	1		1		
ECO66E11	ECOREGION	TN0601010 8013_1300	JCEFO	4	4	2	2	
SINDI010.0UC	Watershed	TN0601010 8013_2000	JCEFO	1		1		
TSPRI000.3UC	303D	TN0601010 8029_0900	JCEFO	6	5		1	
JOCKE000.1WN	303D	TN0601010 8030_0200	JCEFO	6	5		1	
CARSO000.1WN	303D	TN0601010 8030_0220	JCEFO	6	5		1	
BLACK000.1WN	303D	TN0601010 8030_0410	JCEFO		5		1	
CLEAR4.2T0.3WN	303D	TN0601010 8030_0420	JCEFO				1	
LEESB000.1WN	303D	TN0601010 8030_0431	JCEFO	6			1	
BLIME000.1GE	303D	TN0601010 8030_1000	JCEFO				1	
BLIME000.5GE	AMB	TN0601010 8030_1000	JCEFO	4	5			
BLIME004.0WN	303D	TN0601010 8030_2000	JCEFO	6	5		1	
BUFFA000.1GE	303D	TN0601010 8033_0100	JCEFO			1		

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PIGEO000.9GE	303D	TN0601010 8033_1000	JCEFO			1		
LCHUC004.1GE	Watershed	TN0601010 8034_1000	JCEFO	6	5		1	
POTTE000.3GE	303D	TN0601010 8035_0200	JCEFO	6	5		1	
LICK000.9WN [SO TINY]	303D	TN0601010 8035_0700	JCEFO			1		
PCAMP001.5GE	303D	TN0601010 8035_0900	JCEFO	6	5	1		
LICK001.0GE	303D / AMB	TN0601010 8035_1000	JCEFO	6	5		1	
BABB000.7GE	303D	TN0601010 8035_1110	JCEFO	6	5		1	
GARDN002.5GE	303D	TN0601010 8035_1400	JCEFO	6	10	1		
WATTE000.1GE	303D	TN0601010 8035_1410	JCEFO	6	5		1	
PYBOR000.1GE	303D	TN0601010 8035_1800	JCEFO	6	5		1	
LICK003.8GE	combine with 1000	TN0601010 8035_2000	JCEFO					
HORSE000.5GE	303D	TN0601010 8035_2300	JCEFO	6	10		1	
DAVIS000.3GE	303D	TN0601010 8035_2320	JCEFO	4	10	1		
HOODL000.7GE	303D	TN0601010 8035_2400	JCEFO	6	10		1	

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ROARI001.0GE	Watershed	TN0601010 8035_2500	JCEFO		5		1	
POSSU001.3GE	303D	TN0601010 8035_2521	JCEFO			1		
GRASS000.2GE	303D	TN0601010 8035_2600	JCEFO		5	1		
MINK001.0GE	303D	TN0601010 8035_2800	JCEFO		5		1	
POND000.1GE	303D	TN0601010 8035_2810	JCEFO	6	10	1		
LICK006.5GE	combine with 1000	TN0601010 8035_3000	JCEFO					
WOLF000.6GE	303D	TN0601010 8035_3100	JCEFO				1	
LICK015.5GE	303D	TN0601010 8035_4000	JCEFO	6	5		1	
LICK024.2GE	303D	TN0601010 8035_5000	JCEFO	6	5		1	
LICK033.6GE	303D	TN0601010 8035_6000	JCEFO	6	5		1	
LICK045.2GE	combine with 6000	TN0601010 8035_7000	JCEFO					
LICK052.3 GE	303D	TN0601010 8035_8000	JCEFO	6	5		1	
LICK061.0GE	303D	TN0601010 8035_9000	JCEFO	6	5		1	
WHITE001.2HS	303D	TN0601010 8042_0610	JCEFO	6	10	1		

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COLDS000.3HS	303D	TN0601010 8042_0612	JCEFO			1		
SINKI000.5GE	303D/AMB	TN0601010 8064_1000	JCEFO	4	5		1	
SINKI003.0GE	303D	TN0601010 8064_2000	JCEFO	4	5		1	
HORSE000.7GE	303D	TN0601010 8088_1000	JCEFO	1	5		1	
HORSE007.0GE	Watershed	TN0601010 8088_2000	JCEFO	1	5		1	
RICHL1.4T0.4GE	303D	TN0601010 8102_0100	JCEFO	6		1		
SIMPS000.1GE	303D	TN0601010 8102_0200	JCEFO				1	
TIPTO000.1GE	303D	TN0601010 8102_0300	JCEFO			1		
RICHL001.3GE	303D	TN0601010 8102_1000	JCEFO	6	5		1	
DRY000.7GE	303D	TN0601010 8456_0200	JCEFO				1	
BROWN000.1WN	303D	TN0601010 8510_0100	JCEFO			1		
BACON000.4WN	303D	TN0601010 8510_0200	JCEFO	6		1		
FEIST000.4WN	303D	TN0601010 8510_0300	JCEFO			1		
HOMIN000.2WN	303D	TN0601010 8510_0400	JCEFO	6	5		1	

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ONION000.2WN	303D	TN0601010 8510_0500	JCEFO			1		
LLIME000.1WN	303D	TN0601010 8510_1000	JCEFO	6	5		1	
LLIME007.0WN	303D/ AMB	TN0601010 8510_2000	JCEFO	6	5		1	
LLIME011.4WN	Watershed	TN0601010 8510_3000	JCEFO	6	5		1	
LCHER000.1WN	303D	TN0601010 8536_0200	JCEFO	6	6		1	
DCROCK	303D	TN0601010 8DCROCKET T 1000	JCEFO	No Boat				
MUTTO000.5GE	303D	TN0601010 8DCTRIBS_0 100	JCEFO	4	5		1	
JOHNS000.1GE	303D	TN0601010 8DCTRIBS_0 200	JCEFO				1	
FLAG000.7GE	303D	TN0601010 8DCTRIBS_0 600	JCEFO				1	
CLINC189.9HK	AMB	TN0601020 5016_1000	JCEFO	4	4			
ECO67F14	AMB	TN0601020 6007_2000	JCEFO	4	4			
BEECH010.0DE	Ambient	TN0604000 1802-1000	JEFO	4	4			
TENNE066.3HN	Ambient	TN0604000 5020-1000	JEFO	4	4			

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BSAND015.3BN	Ambient	TN0604000 5027-1000	JEFO	4	4			
ECO73A03	ECOREGION	TN0801010 0001_0400	JEFO	4	4	2	2	
HARRI000.5LA	303d	TN0801010 0001-0100	JEFO					1
OGRAV002.0LA	303d	TN0801010 0001-0110	JEFO					1
BBANK001.2LA	303d	TN0801010 0001-0200	JEFO	12	12		1	
ECO73A02	ECOREGION	TN0801010 0001-0300	JEFO	4	4	2	2	
COLD006.3LE	303d	TN0801010 0001-0320	JEFO	12	12			1
ECO73A01	ECOREGION	TN0801010 0001-0450	JEFO	4	4	2	2	
JOHNS001.5DY	303d	TN0801020 2001-0200	JEFO					1
GRASS000.80B	303d	TN0801020 2001-0700	JEFO	12	12		1	
OBION020.9DY	303d	TN0801020 2001-1000	JEFO	12	12			1
OBION062.5OB	303d	TN0801020 2001-2000	JEFO					1
OBION044.3DY	303d	TN0801020 2001-3000	JEFO	12	12			1
OBION071.20B	303d	TN0801020 2001-4000	JEFO	12	12			1

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CSPRI002.4DY	303d	TN0801020 2003-0100	JEFO	12	12		1	
REEDS001.6DY	303d	TN0801020 2003-1000	JEFO	12	12			1
ECO74B04	ECOREGION	TN0801020 2009_0600	JEFO	4	4	2	2	
ECO74B01	ECOREGION	TN0801020 2009_0800	JEFO	4	4	2	2	
FECO74B03	FECO	TN0801020 2009_0800	JEFO	2	2	2	2	
SHILL001.5HN	Watershed	TN0801020 2009_1700	JEFO			1		1
NFOBI018.0WY	Watershed	TN0801020 2009_2000	JEFO			1		
NFOBI8.5T2.6OB	303d	TN0801020 2009-0100	JEFO	12	12		1	
TOMMY001.8WY	303d	TN0801020 2009-0200	JEFO					1
HURRI000.0WY	303d	TN0801020 2009-0710	JEFO	12	12		1	
NFOBI005.9OB	Ambient	TN0801020 2009-1000	JEFO	4	4			1
MAYO000.9WY	303d	TN0801020 2009-1900	JEFO					1
NFOBI010.7OB	Ambient	TN0801020 2009-2000	JEFO	4	4			
STRAW000.3WY	303d	TN0801020 2014-0400	JEFO					1

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CLAYP000.3WY	303d	TN0801020 2014-0400 _0300	JEFO					1
OWL000.1WY	303d	TN0801020 2014-0500	JEFO					1
CYPRE003.8WY	303d	TN0801020 2014-1000	JEFO	12	12		1	
KENNE000.4WY	Watershed	TN0801020 2018_0200	JEFO			1		
CLOVE6.7T0.5OB	303d	TN0801020 202028- 0100	JEFO	12	12		1	
WOLF000.30B	303d	TN0801020 2024-0100	JEFO					1
WGROV000.20B	303d	TN0801020 2024-0200	JEFO					1
TROUB001.2WY	303d	TN0801020 2024-0300	JEFO					1
JONES001.5WY	303d	TN0801020 2024-0400	JEFO					1
RICHL002.10B	303d	TN0801020 2024-1000	JEFO					1
HFEFO001.8OB	Watershed	TN0801020 2025_1000	JEFO			1		
TROY003.10B	Watershed	TN0801020 2026_0100	JEFO				1	
RICHL002.2OB	303d	TN0801020 2027-1000	JEFO					1

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CLOVE001.4OB	303d	TN0801020 2028-1000	JEFO					1
ECO74A08	ECOREGION	TN0801020 2029_0100	JEFO	4	4	2	2	
FECO74A02	FECO	TN0801020 2029_0200	JEFO	2	2	2	2	
FECO74A03	FECO	TN0801020 2029_0300	JEFO	2	2	2	2	
RREEL003.7DY	303D	TN0801020 2029-1000	JEFO	12	12		1	
CANE000.1OB	Watershed	TN0801020 2036_0140 0220	JEFO			1		
KILHA002.5OB	Watershed	TN0801020 2036_0220	JEFO			1		
SCOWL000.2OB	Watershed	TN0801020 2036_0220?	JEFO				1	
ROGER001.6OB	Watershed	TN0801020 2036_0230	JEFO			1		1
FECO74A05	FECO	TN0801020 2036_0400?	JEFO	2	2	2	2	
TULL000.3OB	303d	TN0801020 2036-0120	JEFO					
TAYLO000.7OB	303d	TN0801020 2036-0160	JEFO					
REELF004.2OB	303d	TN0801020 2036-1000	JEFO	12	12			1
NREEL003.00B	303d	TN0801020 2036-1000	JEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
SREEL001.70B	303d	TN0801020 2036-1000 0200	JEFO	12	12		1	
REELFS01OB REELF00004OB?	303d	TN0801020 2040_2000?	JEFO	4				
REELFS01LA	303d	TN0801020 2040-1000	JEFO	4				
REELFS02OB	303d	TN0801020 2040-3000	JEFO	4				
INDIA000.30B	303d	TN0801020 2040T-0500	JEFO					
FECO73A01	FECO	TN0801020 2041_0100	JEFO	2	2	2	2	
ECO73A04	ECOREGION	TN0801020 2041-1000	JEFO	4	4	2	2	
CLOVE002.0OB	303d	TN0801020 2048-1000	JEFO					1
BIFFL003.5DY	303d	TN0801020 2054-1000	JEFO					1
HOOSI002.80B	303d	TN0801020 2419-1000	JEFO					1
CYPRE002.7OB	303d	TN0801020 2500-1000	JEFO	12	12		1	
TODD002.2CR	303d	TN0801020 3001_0700	JEFO					1
BEAR001.3WY	303d	TN0801020 3001-0300 0500	JEFO					1

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CLEAR001.2CR	303d	TN0801020 3001-0900	JEFO	12	12		1	
SPRIN001.3CR	303d	TN0801020 3001-0910	JEFO	12	12		1	
SFOBI005.8OB	Ambient	TN0801020 3001-1000	JEFO	4	4			1
SFOBI15.8T1.5GI	303d	TN0801020 3001-1600	JEFO					1
SFOBI017.4WY	303d	TN0801020 3001-2000	JEFO					1
REEDY011.1CR	303d	TN0801020 3007-2000	JEFO					1
HAWKI002.1CR	303d	TN0801020 3010-0500	JEFO					1
BEAVE004.4CR	303d	TN0801020 3010-1000	JEFO	12	12		1	
BEAVE007.2CR	303d	TN0801020 3010-2000	JEFO	12	12		1	
GUINS002.7CR	Watershed	TN0801020 3011_0100	JEFO			1		
CROOK002.6CR	303d	TN0801020 3011-1000	JEFO	12	12		1	
HILL001.0HN	Watershed	TN0801020 3015_0900	JEFO			1		
TRAIN000.4HN	Watershed	TN0801020 3015_1100	JEFO			1		
CANE001.0WY	303d	TN0801020 3015_1700	JEFO					1

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
TERRE000.6WY	303d	TN0801020	JEFO					1
		3015-0100						
THOMP000.1WY	303D	TN0801020	JEFO	12	12		1	
		3015-0600						
OTOWN002.2HN	303d	TN0801020	JEFO					
		3015-0700						
MFOBI004.5WY	Ambient	TN0801020	JEFO	4	4	1		
		3015-1000						
ARNOL001.1WY	303d	TN0801020	JEFO					
		3015-1300						
SUMME001.2WY	303d	TN0801020	JEFO					1
		3015-1400						
MORRI001.1WY	303d	TN0801020	JEFO	12	12		1	
		3015-1500						
BUCKO000.5WY	303d	TN0801020	JEFO					1
		3015-1800						
MFOBI014.6WY	303d	TN0801020	JEFO	12	12		1	
		3015-2000						
MFOBI026.3HN	303d	TN0801020	JEFO	12	12		1	
		3015-3000						
SPRIN008.7WY	303d	TN0801020	JEFO					1
		3016_2000						
COTTO000.6WY	303d	TN0801020	JEFO					1
		3016-0200						
BOAZ000.1WY	303d	TN0801020	JEFO					1
		3016-0400						
SPRIN002.3WY	303d	TN0801020	JEFO	12	12	1		1
		3016-1000						

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CANE008.5WY	303d	TN0801020 3020_0100	JEFO	12	12		1	
CANE002.0OB	303d	TN0801020 3020-0100	JEFO	12	12		1	
MUD013.0WY	303d	TN0801020 3020-2000	JEFO	12	12		1	
BARDW000.4CR	Watershed	TN0801020 3032_0900	JEFO			1		
RFOBI018.0GI	303d	TN0801020 3032_1000?	JEFO	12	12		1	
RFOBI029.9GI	303d	TN0801020 3032_3000	JEFO	12	12		1	
RFOBI004.9OB	303d	TN0801020 3032-1000	JEFO					1
JOHNS001.5CR	303d	TN0801020 3032-1400	JEFO	1			1	
WOLF001.6GI	303d	TN0801020 3032-1500	JEFO	1		1		
EFWOL000.2GI	303d	TN0801020 3032-1510	JEFO	1		1		1
CAMP001.1GI	303d	TN0801020 3032-1900	JEFO					1
RFOBI024.4GI	303d	TN0801020 3032-2000	JEFO				1	
OWEN001.3GI	303d	TN0801020 3032-2100	JEFO					1
CUMMI001.0GI	303d	TN0801020 3032-2200	JEFO					1

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
EDMUN002.1GI	303d	TN0801020 3032-2300	JEFO					1
NFFDE005.3DY	Ambient	TN0801020 4001-1000	JEFO	4	4			
SFFDE027.7HY	Ambient	TN0801020 5010-1000	JEFO	4	4			
HATCH126.9HR	Ambient	TN0801020 8001-3000	JEFO	4	4			
CLEAR000.3CO	303d	TN0601010 5001-0100	KEFO	12	12			
CLEAR001.2CO	303d	TN0601010 5001-0100	KEFO				1	
LONG000.7CO	303d/Water shed	TN0601010 5001-0200	KEFO		5		1	
FBROA077.5CO	303d	TN0601010 5001-1000	KEFO	12	12		1	
FBROA095.9CO	Watershed	TN0601010 5001-4000	KEFO	12	12	1		
TFBIG000.6CO	Watershed	TN0601010 5003-1000	KEFO		5	1		
JOHNS000.1CO	303d	TN0601010 5003-1100	KEFO		5			
BAKER000.1CO	303d	TN0601010 5003-1110	KEFO		5			
GFBIG002.9CO	Watershed	TN0601010 5003-1300	KEFO		5	1		
PIGEO005.5CO	303d	TN0601010 6001-1000	KEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
ENGLI000.1CO	303d	TN0601010 6001-1100	KEFO		5		1	
PIGEO007.6CO	Watershed	TN0601010 6001-2000	KEFO				1	
PIGEO010.3CO	Watershed	TN0601010 6001-2000	KEFO				1	
PIGEO012.4CO	Watershed	TN0601010 6001-2000	KEFO				1	
PIGEO016.5CO	303d	TN0601010 6001-3000	KEFO				1	
PIGEO024.7CO	303d	TN0601010 6001-4000	KEFO	12	12			
SINKI4.2T0.8CO	303d	TN0601010 6002-0100	KEFO				0	
SINKI000.8CO	303d	TN0601010 6002-1000	KEFO		5		1	
COSBY001.8CO	Watershed	TN0601010 6004-1000	KEFO		5		1	
FBROA003.8KN	Ambient	TN0601010 7001-1000	KEFO	4	4			
KNOB004.3SV	Watershed	TN0601010 7003-0100	KEFO				1	
HAPPY000.8SV	303d/Water shed	TN0601010 7003-0120	KEFO		5		1	
FECO67G05	Ecoregion	TN0601010 7003-0120	KEFO	4	4	2	2	
BOYDS003.7SV	303d	TN0601010 7003-1000	KEFO		5			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
FBROA008.2KN	Watershed	TN0601010 7006-1000	KEFO				1	
FBROA032.2SV	303d	TN0601010 7006-2000	KEFO	12	12			
WEBB000.0SV	Watershed	TN0601010 7007-0400	KEFO		5		1	
FECO66G02	Ecoregion	TN0601010 7007-0440	KEFO	4	4	2	2	
BIRD001.3SV	Watershed	TN0601010 7007-1400	KEFO		5		1	
MIDDL001.1SV	303d	TN0601010 7007-1600	KEFO		5		1	
MIDDL006.3SV	303d	TN0601010 7007-1650	KEFO		5		1	
GISTS001.5SV	Watershed	TN0601010 7007-1700	KEFO		5		1	
LPIGE002.2SV	Watershed	TN0601010 7007-2000	KEFO				1	
LPIGE006.6SV	Watershed	TN0601010 7007-3000	KEFO				1	
LPIGE016.0SV	Watershed	TN0601010 7007-4000	KEFO		5	1		
ECO66G04	Ecoregion	TN0601010 7007-5000	KEFO	4	4	2	2	
GNATT000.1SV	303d	TN0601010 7010-0100	KEFO		5			
BEECH000.1SV	303d	TN0601010 7010-0300	KEFO		5		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
DUDLE000.2SV	303d	TN0601010 7010-0400	KEFO	12	12		1	
BASKI000.1SV	303d	TN0601010 7010-0600	KEFO		5		1	
WPLPI001.7SV	303d	TN0601010 7010-1000	KEFO	12	12		1	
MILL000.2SV	303d	TN0601010 7010-1800	KEFO		5		1	
WALDE000.5SV	303d	TN0601010 7010-1900	KEFO		5		1	
COVE000.5SV	303d	TN0601010 7010-1920	KEFO		5			
WALDE05.3SV	303d	TN0601010 7010-1950	KEFO				1	
WALDE05.3SV	Watershed	TN0601010 7010-1950	KEFO		5			
WALDE10.8SV	303d	TN0601010 7010-1955	KEFO		5			
WPLPI008.7SV	303d	TN0601010 7010-2000	KEFO	12	12		1	
WPLPI0013.6SV	303d	TN0601010 7010-2000	KEFO		5			
WPLPI0015.8SV	303d	TN0601010 7010-3000	KEFO	12	12		1	
WPLPI017.1SV	303d	TN0601010 7010-3000	KEFO		5		1	
WPLPI020.0SV	303d	TN0601010 7010-4000	KEFO		5			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
WILHI000.5SV	303d	TN0601010 7025-0300	KEFO	12	12		1	
WILHI000.3SV	303d	TN0601010 7025-0300	KEFO	12	12		1	
DUNN000.4SV	Watershed	TN0601010 7025-0400	KEFO				1	
EFLPI001.2SV	Watershed	TN0601010 7025-1000	KEFO		5		1	
CLAY000.7CO	303d	TN0601010 7029T-0700	KEFO				1	
CLAY002.9CO	303d	TN0601010 7029T-0700	KEFO		5		1	
CLEAR001.3JE	303d	TN0601010 7029T-1200	KEFO	12	12		1	
CLEAR003.6JE	303d	TN0601010 7029T-1250	KEFO		5			
ECO67G10	Ecoregion	TN0601010 7029T-1300	KEFO	4	4	2	2	
DUMPL000.8SV	303d	TN0601010 7038-1000	KEFO		5		1	
TBD (~RM 13)	303d	TN0601010 7038-1000	KEFO			1		
TUCKA000.9KN	Watershed	TN0601010 7039-1000	KEFO		5			
TUCKA05.1KN	Watershed	TN0601010 7039-1000	KEFO				1	
FLAT000.6HA	303d	TN0601010 8001-0100	KEFO		5		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
NOLIC005.3HA	Watershed	TN0601010 8001-1000	KEFO	12	12			
NOLIC007.5HA	303d	TN0601010 8001-1000	KEFO				1	
NOLIC011.4CO	303d	TN0601010 8001-2000	KEFO				1	
NOLIC013.4CO	303d	TN0601010 8001-2000	KEFO				1	
ECO67G05	Ecoregion	TN0601010 8042_1000	KEFO	4	4	2	2	
MUD000.4HA	303d	TN0601010 8042-0600	KEFO		5			
WHITE000.9HA	303d	TN0601010 8042-0610	KEFO				1	
BENT007.2HA	303d	TN0601010 8042-1000	KEFO		5			
CRIDE000.2JE	303d	TN0601010 8043-0200	KEFO				1	
SARTA000.1JE	303d	TN0601010 8043-0300	KEFO				1	
CARTE000.4JE	303d	TN0601010 8043-0310	KEFO				1	
CEDAR001.0JE	303d	TN0601010 8043-0400	KEFO				1	
LONG000.6HA	303d	TN0601010 8043-1000	KEFO		5			
LONG000.6HA	Watershed	TN0601010 8043-1000	KEFO				1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
TENNE643.3KN	Ambient	TN0601020 1020-1000	KEFO	4	4			
GALLA0002.6BT	Watershed	TN0601020 1022-1000	KEFO				1	
FLAG000.7BT	303d	TN0601020 1028-0500	KEFO				1	
ECO66G05	Ecoregion/ SEMN	TN0601020 1032-3000	KEFO	4	4	2	2	
LTURK002.1KN	303d	TN0601020 1037-1000	KEFO				1	
ECO67F13	Ecoregion/ SEMN	TN0601020 5001T-0300	KEFO	4	4	2	2	
CLINC010.0RO	Ambient	TN0601020 7001-1000	KEFO	4	4			
ECO67F06	Ecoregion/ SEMN	TN0601020 7019-0100	KEFO	4	4	2	2	
ECO74A06	Eco-region	TN0801010 0001_0600	MEFO	12	12	2	2	
FECO74A04	FECO	TN0801010 0001_0810	MEFO	4	4	2	2	
FECO73A03	FECO	TN0801010 0001_0820	MEFO	4	4	2	2	
BALLA000.5TI	Watershed	TN0801010 0001-0500	MEFO	12	12			
BEAR002.1TI	Watershed	TN0801010 0001-0700	MEFO	12	12			
BRINK000.0SH	Watershed	TN0801010 0001-0800	MEFO	12	12			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
WRIVE001.3SH	303(d)	TN0801010 0001-1100	MEFO	12	12			
WRIVE003.0SH	303(d)	TN0801010 0001-1100	MEFO	12	12			
MCKEL001.8SH	303(d)	TN0801010 0001-1200	MEFO	12	12			
MCKEL005.2SH	303(d)	TN0801010 0001-1200	MEFO	12	12			
MCKEL004.4SH	303(d)	TN0801010 0001-1200	MEFO	12	12			
CSPRI002.3LE	303(d)	TN0801020 8001-0200	MEFO		5			
HATCH40.7T1.6LE	303(d)	TN0801020 8001-0300	MEFO		5			
HATCH48.0TI1.2LE	303(d)	TN0801020 8001-0900	MEFO		5			
HATCH009.1TI	Ambient	TN0801020 8001-1000	MEFO	4	4			
HATCH038.6TI	Watershed	TN0801020 8001-2000	MEFO	7	7			
HATCH055.0TI	Watershed	TN0801020 8001-3000	MEFO	6	6			
CANE001.9TI	303(d)	TN0801020 8002-0600	MEFO		5			
INDIA005.0TI	303(d)	TN0801020 8002-1000	MEFO		5			
CAMP001.9LE	303(d)	TN0801020 8003-0100	MEFO		5			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
PRICE002.2FA	Watershed	TN0801020 8007-0100	MEFO	3	3			
TOWN002.3TI	303(d)	TN0801020 8896-1000	MEFO		5			
LOOSA005.0SH	Ambient	TN0801020 9001-1000	MEFO	4	4			
LOOSA1C28.6SH	Ambient	TN0801020 9004-1000	MEFO	4	4			
LOOSA1C53.6FA	Ambient	TN0801020 9011-2000	MEFO	4	4			
WOLF000.7SH	Ambient	TN0801021 0001-1000	MEFO	4	4			
WOLF031.4SH	Ambient	TN0801021 0003-1000	MEFO	4	4			
WOLF072.6FA	Ambient	TN0801021 0009-2000	MEFO	4	4			
CYPRE001.2SH	303(d)	TN0801021 0032-1000	MEFO		4	1?		
CYPRE001.82SH	303(d)	TN0801021 0032-1000	MEFO		4			
CYPRE006.2SH	303(d)	TN0801021 0032-2000	MEFO		4			
HLCUT000.0SH	303(d)	TN0801021 1001-0100	MEFO	12	12			
HLAKE000.0SH	303(d)	TN0801021 1001-1000	MEFO	12	12			
CCSOU001.1SH	303(d)	TN0801021 1001-1000	MEFO	12	12			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
HLAKE004.0SH	303(d)	TN0801021	MEFO	12	12		1	
		1001-2000						
CCSOU004.0SH	303(d)	TN0801021	MEFO	12	12		1	
		1007-1000						
NONCO001.8SH	Ambient	TN0801021	MEFO	4	4			
		100711-						
		1000						
CLEAR037.3CL	Ambient	TN0513010	MEFOS	4				
		1015_						
ROSE000.1CA	NPDES	TN0513010	MEFOS	4				
		1015_0300						
TRACY000.2CL	NPDES	TN0513010	MEFOS	4				
		1015_0500						
VALLE000.1CL	NPDES	TN0513010	MEFOS	4				
		1015_0600						
STRAI000.1CL	NPDES	TN0513010	MEFOS	4				
		1015_0700						
TACKE000.5CA	Ambient	TN0513010	MEFOS	4				
		1015_0800						
CLEAR030.5CA	Ambient	TN0513010	MEFOS	4				
		1015_2000						
ECO68A03	SEMN	TN0513010	MEFOS	4		2	2	
		4016_0100						
PROCK001.0SC	NPDES	TN0513010	MEFOS	4				
		4037_0300						
MONTG000.5SC	NPDES	TN0513010	MEFOS	4				
		4037_0400						
BEECH000.2CA	NPDES	TN0513010	MEFOS	4				
		4037_0600						

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
LIGIA000.5AN	NPDES	TN0513010 4037_0700	MEFOS	4				
NEW008.8SC	NPDES	TN0513010 4037_1000	MEFOS	4				
FECO69D01	FECO/Surfac e mining	TN0513010 4037_1300	MEFOS	4				
INDIA001.0AN	NPDES	TN0513010 4037_1600	MEFOS	4				
SMOKY000.8SC	303(d)	TN0513010 4037_1800	MEFOS	4				
NEW045.0AN	NPDES	TN0513010 4037_2000	MEFOS	4				
STRAI001.9SC	303(d)	TN0513010 4044_0500	MEFOS	4				
BUFFA000.1CL	NPDES	TN0513010 4044_1000	MEFOS	4				
BUFFA004.2SC	NPDES	TN0513010 4044_1000	MEFOS	4				
CUMBE262.9WS	Ambient	TN0513020 1001_1000	NEFO	4	4			
CUMBE158.2CH	Watershed	TN0513020 2001_1000	NEFO		2			
CUMBE174.5DA	Ambient	TN0513020 2001_2000	NEFO	4	4			
CUMBE189.0DA	303d	TN0513020 2001_3000	NEFO		2			
CUMBE191.0DA	Watershed	TN0513020 2001_4000	NEFO		2			

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
CUMBE215.7DA	Watershed	TN0513020 2001_5000	NEFO		2			
FECO71F06	Ecoregion	TN0513020 2001T_0100	NEFO	4	4	2	2	
CUMBE158.3T0.4CH	303d	TN0513020 2001T_0200	NEFO				1	
CUMBE215.7T0.3SR	303d	TN0513020 2001T_0600	NEFO	12	12		1	
CUMBE193.4T0.2D A	303d	TN0513020 2001T_0700	NEFO		5		1	
DAVID000.3DA	303d	TN0513020 2001T_0800	NEFO		5			
OVERA001.3DA	303d	TN0513020 2001T_0900	NEFO		5		1	
SAMS002.7CH	Watershed	TN0513020 2003_1000	NEFO				1	
SIMS000.2DA	303d	TN0513020 2007_0100	NEFO	12	12		1	
SIMS000.8DA	303d	TN0513020 2007_0150	NEFO	12	12		1	
FINLE000.1DA	303d	TN0513020 2007_0300	NEFO	12	12		1	
COLLI000.4DA	303d	TN0513020 2007_0600	NEFO				1	
INDIA000.4DA	303d	TN0513020 2007_0800	NEFO	12	12		1	
OWL000.8WI	303d	TN0513020 2007_0900	NEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
MILL003.3DA	303d	TN0513020 2007_1000	NEFO	12	12		1	
HOLT000.4DA	303d	TN0513020 2007_1100	NEFO	12	12		1	
WHITT001.0DA	303d	TN0513020 2007_1200	NEFO		5		1	
SORGH000.3DA	303d	TN0513020 2007_1300	NEFO		5		1	
SEVEN000.2DA	303d	TN0513020 2007_1400	NEFO	12	12		1	
SHAST000.3DA	303d	TN0513020 2007_1410	NEFO		5			
SEVEN003.8DA	303d	TN0513020 2007_1450	NEFO	12	12		1	
CJO000.8DA	303d	TN0513020 2007_1490	NEFO		5			
PAVIL000.1DA	303d	TN0513020 2007_1500	NEFO		5			
MILL003.3DA	303d	TN0513020 2007_2000	NEFO	12	12		1	
MILL009.6DA	303d	TN0513020 2007_3000	NEFO	12	12		1	
MILL019.7WI	303d	TN0513020 2007_5000	NEFO	12	12		1	
DRAKE000.2DA	303d	TN0513020 2010_0200	NEFO		5		1	
EWING000.8DA	303d	TN0513020 2010_0900	NEFO		5		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
WHITE000.7DA	303d	TN0513020 2010_1000	NEFO	12	12		1	
WHITE003.4DA	303d	TN0513020 2010_2000	NEFO		5		1	
FECO71F04	Ecoregion	TN0513020 2011_0200	NEFO	4	4	2	2	
MARRO003.5CH	Watershed	TN0513020 2011_1000	NEFO				1	
SPRIN000.7CH	Watershed	TN0513020 2014_0100	NEFO				1	
NFSYC000.1RN	Watershed	TN0513020 2014_0500	NEFO				1	
SFSYC000.1DA	Watershed	TN0513020 2014_0600	NEFO				1	
SULPH000.1RN	Ambient	TN0513020 2014_0600	NEFO	4	4			
LONG000.1DA	Watershed	TN0513020 2014_0700	NEFO					
BSPRI000.5CH	303d	TN0513020 2014_0900	NEFO		5			
SYCAM004.7CH	Watershed	TN0513020 2014_1000	NEFO				1	
EFBRO000.2DA	303d	TN0513020 2023_0100	NEFO	12	12		1	
MFBRO000.1DA	303d	TN0513020 2023_0200	NEFO	12	12		1	
WFBRO000.1DA	303d	TN0513020 2023_0300	NEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
BROWN000.4DA	303d	TN0513020 2023 1000	NEFO		5			
BROWN000.4DA	303d	TN0513020 2023_2000	NEFO	12	12		1	
DRY004.3DA	303d	TN0513020 2027_1000	NEFO	11	11		1	
DRY001.1DA	303d	TN0513020 2027_2000	NEFO				1	
POND000.8CH	Watershed	TN0513020 2041_1000	NEFO					
DFORK000.6CH	Watershed	TN0513020 2137_1000	NEFO					
PAGES000.1DA Whites Cr PK	303d	TN0513020 2202_1000	NEFO		5			
COOPE001.5DA	303d	TN0513020 2209_1000	NEFO		5		1	
LOVES???.?DA	303d	TN0513020 2211_1000	NEFO				1	
NEELE???.?DA	303d	TN0513020 2212_0100	NEFO		5			
GIBSO000.1DA	303d	TN0513020 2212_1000	NEFO	11	16		1	
LUMSL000.1DA	303d	TN0513020 2220_0100	NEFO		5			
WALKE000.2DA	303d	TN0513020 2220_0200	NEFO		5			
WALKE2.3T0.3DA	303d	TN0513020 2220_0210	NEFO				1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
BAKER000.1DA	Watershed	TN0513020 2220_0220	NEFO					
SLATE000.3SR	303d	TN0513020 2220_0300	NEFO		5		1	
SLATE001.1SR	303d	TN0513020 2220_0350	NEFO		5			
MADIS000.5SR	303d	TN0513020 2220_0400	NEFO		5		1	
CPOIN000.4SR	303d	TN0513020 2220_0500	NEFO	12	12		1	
MANSK002.8SR	303d	TN0513020 2220_1000	NEFO		5		1	
MANSK006.2SR	303d	TN0513020 2220_2000	NEFO		5		1	
BSPRI000.4DA	303d	TN0513020 2314_0300	NEFO	12	12		1	
SUGAR000.1DA	303d	TN0513020 2314_0400	NEFO	12	12		1	
VGAP000.2DA	303d	TN0513020 2314_0700	NEFO	12	12		1	
VGAP001.2DA	303d	TN0513020 2314_0750	NEFO		5		1	
JHOLL000.2DA	303d	TN0513020 2314_0800	NEFO	12	12		1	
RICHL002.0DA	303d	TN0513020 2314_1000	NEFO	12	12		1	
RICHL005.0DA	303d	TN0513020 2314_2000	NEFO	12	12		1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
RICHL007.8DA	303d	TN0513020	NEFO	12	12		1	
		2314_3000						
STONE003.9DA	Ambient	TN0513020	NEFO	4	4			
		3001_1000						
WFSTO006.2RU	Ambient	TN0513020	NEFO	4	4			
		3018_1000						
HARPE040.5CH	Ambient	TN0513020	NEFO	4	4			
		4009_1000						
CUMBE???.??	303d	TN0513020	NEFO		2			
		5015_1000						
CUMBE124.8MT	Watershed	TN0513020	NEFO		2			
		5015_2000						
DYERS004.0ST	Watershed	TN0513020	NEFO				1	
		5015T_0400						
LEE000.2ST	Watershed	TN0513020	NEFO				1	
		5015T_0700						
WALL000.6MT	303d	TN0513020	NEFO	12	12		1	
		5015T_1100						
ANTIO000.1MT	Watershed	TN0513020	NEFO				1	
		5015T_1910						
BELK002.0ST	Watershed	TN0513020	NEFO				1	
		5015T_2500						
SCROS004.4ST	Watershed	TN0513020	NEFO				1	
		5015T_2600						
LONG004.4ST	Watershed	TN0513020	NEFO				1	
		5015T_2700						
LICK004.4ST	Watershed	TN0513020	NEFO				1	
		5015T_2800						

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
LEATH001.3HO	Watershed	TN0513020 5019_0100	NEFO				1	
YELLO009.0MT	Watershed	TN0513020 5019_1000	NEFO				1	
YELLO018.8HO	Watershed	TN0513020 5019_2000	NEFO				1	
EFORK006.7MT	303d	TN0513020 5020_1000	NEFO		5		1	
FURNA000.1DI	Watershed	TN0513020 5024_0400	NEFO				1	
LBART000.9MT	Watershed	TN0513020 5024_0600	NEFO				1	
LOUIS001.8MT	303d	TN0513020 5024_0700	NEFO		5		1	
BARTO002.7MT	Watershed	TN0513020 5024_1000	NEFO				1	
RACCO000.7CH	303d	TN0513020 5033_0300	NEFO				1	
DFORK001.8CH	Watershed	TN0513020 5033_0400	NEFO				1	
HPONE003.3CH	Watershed	TN0513020 5033_1000	NEFO				1	
BMCAD004.9MT	303d	TN0513020 5038_1000	NEFO	11	11		1	
BARTE001.4MT	303d	TN0513020 5110_0300	NEFO		5			
BATEM000.1HO	Watershed	TN0513020 51735_0200	NEFO				1	

DWR Station ID	Project Name	Waterbody ID	EFO	Chemical Sampling Frequency	Bacteria Sampling Frequency	Benthic Sampling Biorecon Frequency	Benthic Sampling SQSH Frequency	Only Habitat Assessment Frequency
ERIN000.2HO	303d	TN0513020 51735 0400	NEFO		5			
RED025.5MT	Ambient	TN0513020 6002_3000	NEFO	4	4			
ECO71F29	Ecoregion	TN0604000 3061_1000	NEFO	4	4	2	2	

Sampling Frequency Chemical Codes For Appendix A

M = Monthly #X - # min. # of times a site will be sampled Q = Quarterly

APPENDIX B:

COMPLIANCE MONITORING FACILITY INSPECTION SCHEDULE

Facility Inspections

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0061654	Compliance Eval (non-sampling) (CEI)	The Landing STP	Chattanooga	Individual	I
TNG110048	Compliance Eval (non-sampling) (CEI)	Ready Mix USA, L.L.C.	Chattanooga	RMCP	I
TN0060372	Compliance Eval (non-sampling) (CEI)	Monteagle WTP	Chattanooga	WTP	I
TN0078921	Compliance Evaluations (non-NPDES)	Tennessee American Water Company (Whitwell Water Plant)	Chattanooga	WTP	-
TNR053026	Compliance Eval (non-sampling) (CEI)	Air Liquide - Chattanooga ASU	Chattanooga	TMSP	-
TN0065811	Compliance Eval (non-sampling) (CEI)	Dunlap Stone, Inc.	Chattanooga	Mining	I
TN0020478	Pretreatment Compliance (oversight)	Dayton STP	Chattanooga	Individual	M
TN0021261	Pretreatment Compliance (oversight)	Spring City STP	Chattanooga	Individual	M
TN0058521	Pretreatment Compliance (oversight)	Decatur STP	Chattanooga	Individual	I
TNR050054	Compliance Eval (non-sampling) (CEI)	Designed Alloy Products, Inc	Chattanooga	TMSP	I
TN0002844	Compliance Eval (non-sampling) (CEI)	Invista S.Ã .r.l.	Chattanooga	Individual	M
TNR058040	Compliance Eval (non-sampling) (CEI)	Lanes Equipment Rental Inc	Chattanooga	TMSP	-
TNR051675	Compliance Eval (non-sampling) (CEI)	M & J Auto Salvage	Chattanooga	TMSP	I
TN0069744	Compliance Eval (non-sampling) (CEI)	Monteagle Sand Man	Chattanooga	Mining	I
TN0002461	Compliance Eval (non-sampling) (CEI)	Olin Corporation	Chattanooga	Individual	M
TNG110196	Compliance Eval (non-sampling) (CEI)	P & S Ready Mix Concrete	Chattanooga	RMCP	I
TNG110331	Compliance Eval (non-sampling) (CEI)	Ready Mix USA - Jersey Pike Plant	Chattanooga	RMCP	-
TN0002356	Compliance Eval (non-sampling) (CEI)	Resolute FP US Inc.	Chattanooga	Individual	M
TNG110302	Compliance Eval (non-sampling) (CEI)	Sequatchie Concrete Service - Cromwell Road	Chattanooga	RMCP	-
TNG110407	Compliance Eval (non-sampling) (CEI)	Sherman Dixie Concrete Industries	Chattanooga	RMCP	-
TN0027626	Compliance Eval (non-sampling) (CEI)	TDOT I-24 Rest Area (East Bound)	Chattanooga	Individual	I
TN0067491	Compliance Eval (non-sampling) (CEI)	Top Flight, Inc.	Chattanooga	Individual	I
TN0073237	Compliance Eval (non-sampling) (CEI)	W. R. Grace & Company	Chattanooga	Individual	I
TN0059358	Compliance Eval (non-sampling) (CEI)	Copper Basin U.D. STP	Chattanooga	Individual	I
TNR059042	Compliance Eval (non-sampling) (CEI)	Flag & Fieldstone USA, Inc.	Chattanooga	TMSP	-
TNR050104	Compliance Eval (non-sampling) (CEI)	Mid-South Terminals (Serodino)	Chattanooga	TMSP	I
TNR051709	Compliance Eval (non-sampling) (CEI)	Affiliated Transport, Inc.	Chattanooga	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR050251	Compliance Eval (non-sampling) (CEI)	Chattanooga Plating & Machine	Chattanooga	TMSP	I
TNR111237	Stormwater Construction Non-Sampling	City of Dunlap	Chattanooga	CGP	-
TNR111947	Stormwater Construction Non-Sampling	City of Dunlap	Chattanooga	CGP	-
TNR111665	Stormwater Construction Non-Sampling	City of Whitwell	Chattanooga	CGP	-
TNR111505	Stormwater Construction Non-Sampling	Dr. Leslie C. Passons	Chattanooga	CGP	-
TNR111247	Stormwater Construction Non-Sampling	Gerald Gann	Chattanooga	CGP	-
TNR059061	Compliance Eval (non-sampling) (CEI)	Grant Family Trust Property	Chattanooga	TMSP	ı
TNR051834	Compliance Eval (non-sampling) (CEI)	Hunter Oil Company	Chattanooga	TMSP	I
TNR111778	Stormwater Construction Non-Sampling	Lawrence McClendon	Chattanooga	CGP	-
TNR111191	Stormwater Construction Non-Sampling	Patten & Patten, Inc	Chattanooga	CGP	-
TNR111472	Stormwater Construction Non-Sampling	Patten & Patten, Inc	Chattanooga	CGP	ı
TNR056568	Compliance Eval (non-sampling) (CEI)	Pepsi Bottling Group	Chattanooga	TMSP	-
TNR111594	Stormwater Construction Non-Sampling	Professional Group Realtors	Chattanooga	CGP	-
TNR112358	Stormwater Construction Non-Sampling	Quality Builders	Chattanooga	CGP	-
TNR111482	Stormwater Construction Non-Sampling	Riverbend Hills, LLC	Chattanooga	CGP	-
TN0027472	Compliance Eval (non-sampling) (CEI)	TVA Nickajack Hydro Plant	Chattanooga	Individual	I
		TVA Raccoon Mountain Hydro			
TN0031631	Compliance Eval (non-sampling) (CEI)	Power plant	Chattanooga	Individual	I
TN0023396	Compliance Eval (non-sampling) (CEI)	Cumberland Mobile Home Park	Chattanooga	Individual	I
TN0025470	Pretreatment Compliance (oversight)	City of Niota STP	Chattanooga	Individual	I
TN0024121	Pretreatment Compliance (oversight)	Cleveland Utilities STP	Chattanooga	Individual	M
TN0021946	Compliance Eval (non-sampling) (CEI)	Dunlap STP	Chattanooga	Individual	I
TNR050832	Compliance Eval (non-sampling) (CEI)	Marion County Landfill	Chattanooga	TMSP	-
TNR056972	Compliance Eval (non-sampling) (CEI)	Montes Stone	Chattanooga	TMSP	-
TNR056978	Compliance Eval (non-sampling) (CEI)	Mr. Rock, LLC	Chattanooga	TMSP	-
TNR059046	Compliance Eval (non-sampling) (CEI)	Flag and Fieldstone USA, Inc Slatton Mountain	Chattanooga	TMSP	_
TNR051482	Compliance Eval (non-sampling) (CEI)	RockTenn - Sequatchie Valley Folding Carton	Chattanooga	TMSP	-
TN0063711	Compliance Eval (non-sampling) (CEI)	Tri-County Stone Co., Inc. Area 1	Chattanooga	Mining	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		Dixie Industries-Div of Columbus			
TNR058166	Compliance Eval (non-sampling) (CEI)	McKinnon	Chattanooga	TMSP	-
TNR058146	Compliance Eval (non-sampling) (CEI)	Pathway Polymers	Chattanooga	TMSP	-
TNR056879	Compliance Eval (non-sampling) (CEI)	Volunteer Express, Inc.	Chattanooga	TMSP	-
TNR058891	Compliance Eval (non-sampling) (CEI)	Whittenberg Grading Site	Chattanooga	TMSP	-
TN0024201	Technical Assistance Visit and File Review	AUB-Oostanaula Creek STP	Chattanooga	Individual	M
TN0060399	Compliance Eval (non-sampling) (CEI)	Castle's Coin Laundry	Chattanooga	Individual	I
TN0054585	Technical Assistance Visit and File Review	Jasper STP	Chattanooga	Individual	I
TN0025054	Pretreatment Compliance (oversight)	Pikeville STP	Chattanooga	Individual	I
TN0061697	Compliance Eval (non-sampling) (CEI)	Vulcan Construction Materials	Chattanooga	Mining	I
TNR059063	Compliance Eval (non-sampling) (CEI)	Best Buy Stone	Chattanooga	TMSP	-
TNR058282	Compliance Eval (non-sampling) (CEI)	Florida Rock & Tank Lines, Inc.	Chattanooga	TMSP	-
TN0071480	Compliance Eval (non-sampling) (CEI)	Big Fork Mining Co.	Chattanooga	Mining	I
TNR059030	Compliance Eval (non-sampling) (CEI)	D & L Stone, LLC dba L & B Stone	Chattanooga	TMSP	-
TNR058991	Compliance Eval (non-sampling) (CEI)	Kodiak Manufacturing	Chattanooga	TMSP	-
TNR050352	Compliance Eval (non-sampling) (CEI)	Steward Advanced Materials	Chattanooga	TMSP	I
TNR051650	Compliance Eval (non-sampling) (CEI)	Cleveland Chair Company	Chattanooga	TMSP	-
TN0058521	Technical Assistance Visit and File Review	Decatur STP	Chattanooga	Individual	I
TN0021261	Compliance Eval (non-sampling) (CEI)	Spring City STP	Chattanooga	Individual	M
TN0067334	Compliance Sampling (CSI)	Benton STP	Chattanooga	Individual	I
TN0071331	Compliance Eval (non-sampling) (CEI)	Dunlap Stone, Inc.	Chattanooga	Mining	I
TNR058977	Compliance Eval (non-sampling) (CEI)	River Road Borrow Site	Chattanooga	TMSP	-
TNR051303	Compliance Eval (non-sampling) (CEI)	SSM Industries Inc.	Chattanooga	TMSP	-
TNR056941	Compliance Eval (non-sampling) (CEI)	Volunteer Mountain Stone LLC	Chattanooga	TMSP	-
TNR053021	Compliance Eval (non-sampling) (CEI)	Baxwin Metals and Recycling	Chattanooga	TMSP	-
TNR056823	Compliance Eval (non-sampling) (CEI)	C&D Recycling	Chattanooga	TMSP	-
TNR051587	Compliance Eval (non-sampling) (CEI)	Catnapper (Jackson Furniture Industries) Plant 5	Chattanooga	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		Chattanooga - Moccasin Bend WWTP			
TN0024210	Compliance Eval (non-sampling) (CEI)	& Combined Sewer System	Chattanooga	Individual	M
TNR053445	Compliance Eval (non-sampling) (CEI)	Chattanooga Bakery, Inc.	Chattanooga	TMSP	-
TNR051551	Compliance Eval (non-sampling) (CEI)	Conasauga Wood Preservers, Inc.	Chattanooga	TMSP	-
	Technical Assistance Visit and File				
TN0020478	Review	Dayton STP	Chattanooga	Individual	M
		Denso Manufacturing Tennessee, Inc.			
TNR053984	Compliance Eval (non-sampling) (CEI)	-Athens	Chattanooga	TMSP	I
FD 100 (2551	Technical Assistance Visit and File	T. 1 CETT	G1	x 1	
TN0063771	Review	Etowah STP	Chattanooga	Individual	M
TND050042		Innocor, Inc. fka Advanced Comfort	CI	TMCD	
TNR058843	Compliance Eval (non-sampling) (CEI)	Product fka Nufoam	Chattanooga	TMSP	-
TNR050433	Compliance Eval (non-sampling) (CEI)	International Paper	Chattanooga	TMSP	-
TNR051649	Compliance Eval (non-sampling) (CEI)	Jackson Furniture Industries Plant 1	Chattanooga	TMSP	-
EN 10 0 5 6 5 0 4	G II F II (GPT)	Jasper Materials Co., Inc. DBA Sure	G1	Th (GD	
TNR056724	Compliance Eval (non-sampling) (CEI)	Built Galvanizing	Chattanooga	TMSP	-
TNR053961	Compliance Eval (non-sampling) (CEI)	John Henry Automotive	Chattanooga	TMSP	I
TNR051608	Compliance Eval (non-sampling) (CEI)	Lectrus Corporation	Chattanooga	TMSP	-
TNR053141	Compliance Eval (non-sampling) (CEI)	Linde LLC	Chattanooga	TMSP	-
		Link Handle Division - Seymour			
TNR056786	Compliance Eval (non-sampling) (CEI)	Manufacturing	Chattanooga	TMSP	-
TNR053938	Compliance Eval (non-sampling) (CEI)	Maytag C. C. P. Plant # 2	Chattanooga	TMSP	-
TNR051921	Compliance Eval (non-sampling) (CEI)	Midlab, Inc.	Chattanooga	TMSP	-
TNR050836	Compliance Eval (non-sampling) (CEI)	Mill Direct International, LLC	Chattanooga	TMSP	-
TNR054154	Compliance Eval (non-sampling) (CEI)	Omni Service, Inc.	Chattanooga	TMSP	I
TNR053531	Compliance Eval (non-sampling) (CEI)	O'Neil Color & Compounding Corp.	Chattanooga	TMSP	-
TNR058259	Compliance Eval (non-sampling) (CEI)	PI, Inc.	Chattanooga	TMSP	-
TNR058246	Compliance Eval (non-sampling) (CEI)	Renewable Fuels, LLC	Chattanooga	TMSP	-
	1	Rolling Frito-Lay Sales, LP - Athens			
TNR056613	Compliance Eval (non-sampling) (CEI)	Bin	Chattanooga	TMSP	-
TNR050327	Compliance Eval (non-sampling) (CEI)	Seaton Auto Parts	Chattanooga	TMSP	I
TNR058881	Compliance Eval (non-sampling) (CEI)	Seaton Enterprises, LLC	Chattanooga	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR050100	Compliance Eval (non-sampling) (CEI)	Serodino, Inc.	Chattanooga	TMSP	-
TNR053900	Compliance Eval (non-sampling) (CEI)	Southeastern Farmers Cooperative	Chattanooga	TMSP	I
TNR051336	Compliance Eval (non-sampling) (CEI)	Sphere One, Inc.	Chattanooga	TMSP	-
TNR054424	Compliance Eval (non-sampling) (CEI)	Taylor's Machine & Welding Co	Chattanooga	TMSP	-
TNR055070	Compliance Eval (non-sampling) (CEI)	Tennessee Scrap Recycling	Chattanooga	TMSP	-
TNR050603	Compliance Eval (non-sampling) (CEI)	Thomas and Betts	Chattanooga	TMSP	-
TN0026450	Compliance Eval (non-sampling) (CEI)	TVA - Sequoyah Nuclear Plant (SQN)	Chattanooga	Individual	M
TNR051604	Compliance Eval (non-sampling) (CEI)	Unipower LLC. formerly C & D Technologies, Inc.	Chattanooga	TMSP	-
TNR051636	Compliance Eval (non-sampling) (CEI)	Valley Machine & Welding Co.	Chattanooga	TMSP	-
TNR054089	Compliance Eval (non-sampling) (CEI)	Valmont Jasper, Industries	Chattanooga	TMSP	I
TNR051416	Compliance Eval (non-sampling) (CEI)	Variform Inc	Chattanooga	TMSP	-
TNR056940	Compliance Eval (non-sampling) (CEI)	Volunteer Mountain Stone LLC	Chattanooga	TMSP	-
TN0021261	Pretreatment Compliance (oversight)	Spring City STP	Chattanooga	Individual	M
TN0020168	Compliance Eval (non-sampling) (CEI)	TVA - Watts Bar Nuclear Plant	Chattanooga	Individual	M
TNR056939	Compliance Eval (non-sampling) (CEI)	Volunteer Mountain Stone LLC	Chattanooga	TMSP	-
TN0070866	Compliance Eval (non-sampling) (CEI)	Bledsoe County Hwy. Dept.	Chattanooga	Mining	I
TN0024121	Compliance Eval (non-sampling) (CEI)	Cleveland Utilities STP	Chattanooga	Individual	M
TNR050180	Compliance Eval (non-sampling) (CEI)	Tennessee Galvanizing Inc.	Chattanooga	TMSP	I
TNR056938	Compliance Eval (non-sampling) (CEI)	Volunteer Mountain Stone LLC	Chattanooga	TMSP	-
TN0025054	Compliance Sampling (CSI)	Pikeville STP	Chattanooga	Individual	I
TN0020478	Compliance Sampling (CSI)	Dayton STP	Chattanooga	Individual	M
TN0066257	Compliance Eval (non-sampling) (CEI)	Dunlap Stone, Inc. Plateau Sand Mine	Chattanooga	Mining	I
TN0054585	Compliance Eval (non-sampling) (CEI)	Jasper STP	Chattanooga	Individual	I
TN0024937	Pretreatment Audit	Centerville STP	Columbia	Individual	I
TN0021857	Pretreatment Audit	Winchester STP	Columbia	Individual	M
TN0074837	Compliance Eval (non-sampling) (CEI)	Estill Springs Water Treatment Plant	Columbia	WTP	I
TN0061191	Compliance Eval (non-sampling) (CEI)	Metro Utility Department WTP	Columbia	WTP	I
TNG110061	Compliance Eval (non-sampling) (CEI)	imi TN Inc. MANCHESTER	Columbia	RMCP	I
TN0004979	Compliance Eval (non-sampling) (CEI)	Fayetteville Public Utilities	Columbia	WTP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0074853	Compliance Eval (non-sampling) (CEI)	Huntland WTP	Columbia	WTP	I
TN0068462	Compliance Eval (non-sampling) (CEI)	Teal Hollow Springs WTP	Columbia	WTP	I
TN0071251	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc.	Columbia	Mining	I
TN0058939	Compliance Eval (non-sampling) (CEI)	Highland Rim School	Columbia	Individual	I
TN0065498	Compliance Eval (non-sampling) (CEI)	Unity School	Columbia	Individual	I
TN0063151	Compliance Eval (non-sampling) (CEI)	Franklin Industrial Minerals dba Lhoist North America	Columbia	Mining	I
TN0079723	Compliance Eval (non-sampling) (CEI)	Sherwood Mining Company, LLC Sherwood Rock Quarry	Columbia	Mining	I
TN0061387	Compliance Eval (non-sampling) (CEI)	Clifton Lagoon #1	Columbia	Individual	I
TN0079251	Compliance Eval (non-sampling) (CEI)	Rocky Point Rock	Columbia	Mining	I
TN0078387	Compliance Eval (non-sampling) (CEI)	Centerville Water Treatment Plant	Columbia	WTP	I
TN0081426	Compliance Eval (non-sampling) (CEI)	Lobelville Water Treatment Plant	Columbia	WTP	-
TN0020800	Performance Audit (PAI)	Mount Pleasant STP	Columbia	Individual	I
TN0024180	Pretreatment Compliance (oversight)	Shelbyville Power, Water & Sewerage System STP	Columbia	Individual	M
TN0022802	Compliance Eval (non-sampling) (CEI)	Shelbyville Water Treatment Plant	Columbia	WTP	I
TN0077933	Compliance Eval (non-sampling) (CEI)	Spring Hill WTP	Columbia	WTP	I
TN0079171	Compliance Eval (non-sampling) (CEI)	Marshall County Stone, LLC	Columbia	Mining	I
TN0069507	Compliance Eval (non-sampling) (CEI)	Tinsley Asphalt Products	Columbia	Mining	N/A
TN0027537	Compliance Eval (non-sampling) (CEI)	TVA Tims Ford Hydro Plant	Columbia	Individual	I
TN0005037	Compliance Eval (non-sampling) (CEI)	TWRA Flintville Trout Hatchery	Columbia	Individual	I
TN0020818	Compliance Eval (non-sampling) (CEI)	Lobelville STP	Columbia	Individual	I
TN0064670	Compliance Eval (non-sampling) (CEI)	Chapel Hill STP	Columbia	Individual	I
TN0062073	Compliance Eval (non-sampling) (CEI)	Chapel Woods Homeowner's Association	Columbia	Individual	I
TN0066176	Compliance Eval (non-sampling) (CEI)	Lincoln County Highway Department	Columbia	Mining	I
TN0072907	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc	Columbia	Mining	I
TN0065986	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc.	Columbia	Mining	I
TN0056103	Pretreatment Compliance (oversight)	Columbia STP	Columbia	Individual	M
TN0020508	Performance Audit (PAI)	Decherd Water Works STP	Columbia	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Technical Assistance Visit and File				
TN0021814	Review	Fayetteville STP	Columbia	Individual	M
TN0022551	Compliance Eval (non-sampling) (CEI)	Lawrenceburg STP	Columbia	Individual	M
		Shelbyville Power, Water & Sewerage			
TN0024180	Performance Audit (PAI)	System STP	Columbia	Individual	M
TN0075868	Performance Audit (PAI)	Spring Hill STP	Columbia	Individual	M
TN0021857	Compliance Eval (non-sampling) (CEI)	Winchester STP	Columbia	Individual	M
TN0002470	Compliance Eval (non-sampling) (CEI)	Tennessee Dickel Distilling Company	Columbia	Individual	I
TN0067938	Compliance Eval (non-sampling) (CEI)	TWRA - Normandy Fish Hatchery	Columbia	Individual	I
		The University of Tennessee Space			
TN0056430	Compliance Eval (non-sampling) (CEI)	Institute	Columbia	Individual	I
		University of Tennessee Space			
TN0067202	Compliance Eval (non-sampling) (CEI)	Institute	Columbia	Individual	I
TNG110221	Compliance Eval (non-sampling) (CEI)	Smyrna Ready Mix	Columbia	RMCP	I
TN0064394	Compliance Eval (non-sampling) (CEI)	Linden STP	Columbia	Individual	I
TN0066311	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc Cowan Quarry	Columbia	Mining	I
TN0057967	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc.	Columbia	Mining	I
		Tennessee Valley Recycling, LLC			
TN0080063	Compliance Eval (non-sampling) (CEI)	(TVR)	Columbia	Individual	I
TNG110119	Compliance Eval (non-sampling) (CEI)	Mid - South Concrete, Inc.	Columbia	RMCP	I
	Technical Assistance Visit and File				
SOP-09007	Review	City of Hohenwald	Columbia	SOP	-
TN0067415	Compliance Eval (non-sampling) (CEI)	CYTEC Industries, Inc.	Columbia	Individual	M
TN0022888	Pretreatment Audit	Lewisburg STP	Columbia	Individual	M
TN0025101	Pretreatment Compliance (oversight)	Lynchburg WWTP	Columbia	Individual	I
	Technical Assistance Visit and File				
TN0020800	Review	Mount Pleasant STP	Columbia	Individual	I
TN0021687	Performance Audit (PAI)	Pulaski STP	Columbia	Individual	M
TN0078573	Compliance Eval (non-sampling) (CEI)	Smelter Service Corporation	Columbia	Individual	I
TN0023469	Compliance Eval (non-sampling) (CEI)	Tullahoma STP	Columbia	Individual	M
TN0079448	Compliance Eval (non-sampling) (CEI)	Custom Stone, LLC	Columbia	Mining	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNG110004	Compliance Eval (non-sampling) (CEI)	Smyrna Ready Mix	Columbia	RMCP	I
TNG110069	Compliance Eval (non-sampling) (CEI)	imi TN Inc. LEWISBURG	Columbia	RMCP	I
TNG110067	Compliance Eval (non-sampling) (CEI)	imi TN Inc. SPRING HILL	Columbia	RMCP	I
TNG110241	Compliance Eval (non-sampling) (CEI)	B & B Concrete Products, Inc.	Columbia	RMCP	I
TNG110294	Compliance Eval (non-sampling) (CEI)	Smyrna Ready Mix, LLC	Columbia	RMCP	I
TN0021644	Compliance Eval (non-sampling) (CEI)	Cowan STP	Columbia	Individual	I
TN0001538	Compliance Eval (non-sampling) (CEI)	RLF Duck River, LLC	Columbia	Individual	I
TN0061395	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc.	Columbia	Mining	I
TN0002143	Compliance Sampling (CSI)	Coey Tanning Co., Inc.	Columbia	Individual	I
TN0020508	Pretreatment Compliance (oversight)	Decherd Water Works STP	Columbia	Individual	M
TN0025101	Compliance Eval (non-sampling) (CEI)	Lynchburg WWTP	Columbia	Individual	I
TN0025038	Pretreatment Compliance (oversight)	Manchester STP	Columbia	Individual	M
TN0025038	Compliance Eval (non-sampling) (CEI)	Manchester STP	Columbia	Individual	M
	Technical Assistance Visit and File				
TN0021687	Review	Pulaski STP	Columbia	Individual	M
TN0023469	Pretreatment Audit	Tullahoma STP	Columbia	Individual	M
TN0002135	Performance Audit (PAI)	Tyson Farms, Inc.	Columbia	Individual	M
TNG110247	Compliance Eval (non-sampling) (CEI)	River City Concrete, Inc Waynesboro	Columbia	RMCP	I
TN0069329	Compliance Eval (non-sampling) (CEI)	TMC River Operations Inc.	Columbia	Mining	I
TN0071846	Compliance Eval (non-sampling) (CEI)	Deason Quarry	Columbia	Mining	I
TN0058190	Compliance Eval (non-sampling) (CEI)	TN DOC-Turney Center	Columbia	Individual	I
		TDOT I-65 Welcome Center - Giles			
TN0074331	Compliance Eval (non-sampling) (CEI)	County	Columbia	Individual	I
TNG110286	Compliance Eval (non-sampling) (CEI)	Tennessee Valley Ready Mix, LLC	Columbia	RMCP	-
TN0020443	Compliance Eval (non-sampling) (CEI)	Wartrace STP	Columbia	Individual	I
TN0065501	Compliance Eval (non-sampling) (CEI)	Loretto STP	Columbia	Individual	I
TNG110285	Compliance Eval (non-sampling) (CEI)	Tennessee Valley Ready Mix, LLC	Columbia	RMCP	I
	Technical Assistance Visit and File				
TN0024937	Review	Centerville STP	Columbia	Individual	I
TN0056103	Performance Audit (PAI)	Columbia STP	Columbia	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		Jack Daniel Distillery, Lem Motlow			
TN0001953	Compliance Biomonitoring (CBI)	Prop., Inc.	Columbia	Individual	I
TN0022551	Pretreatment Compliance (oversight)	Lawrenceburg STP	Columbia	Individual	M
TN0020800	Compliance Sampling (CSI)	Mount Pleasant STP	Columbia	Individual	I
TN0024180	Compliance Biomonitoring (CBI)	Shelbyville Power, Water & Sewerage System STP	Columbia	Individual	M
TN0024180	Technical Assistance Visit and File Review	Shelbyville Power, Water & Sewerage System STP	Columbia	Individual	M
TN0021857	Technical Assistance Visit and File Review	Winchester STP	Columbia	Individual	M
TNG110065	Compliance Eval (non-sampling) (CEI)	imi TN Inc. WINCHESTER	Columbia	RMCP	I
TN0021695	Compliance Eval (non-sampling) (CEI)	Waynesboro STP	Columbia	Individual	I
TN0068951	Compliance Eval (non-sampling) (CEI)	Franklin County Hwy Dept.	Columbia	Mining	I
TN0020591	Compliance Eval (non-sampling) (CEI)	Bell Buckle STP	Columbia	Individual	I
TN0022756	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc.	Columbia	Mining	I
TNG110351	Compliance Eval (non-sampling) (CEI)	Mid-South Concrete, Inc Lawrenceburg Plant	Columbia	RMCP	-
TNG110307	Compliance Eval (non-sampling) (CEI)	imi TN Inc. COLUMBIA	Columbia	RMCP	-
TN0066273	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc. Lynchburg Quarry	Columbia	Mining	I
TN0069396	Compliance Eval (non-sampling) (CEI)	Custom Stone, LLC	Columbia	Mining	I
TN0081485	CAFO Non-Sampling	Blackjack Ridge Dairy	Columbia	CAFO- Individual	I
TN0024937	Compliance Eval (non-sampling) (CEI)	Centerville STP	Columbia	Individual	I
TN0056103	Technical Assistance Visit and File Review	Columbia STP	Columbia	Individual	M
TN0061841	Compliance Eval (non-sampling) (CEI)	Cornersville STP	Columbia	Individual	I
TN0020508	Compliance Sampling (CSI)	Decherd Water Works STP	Columbia	Individual	M
SOPCD0001	CAFO Non-Sampling	E & E Jones Dairy	Columbia	CAFO-D	-
TN0021814	Pretreatment Audit	Fayetteville STP	Columbia	Individual	M
SOP-13007	CAFO Non-Sampling	Nash Dairy Company	Columbia	CAFO-SOP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0075868	Compliance Sampling (CSI)	Spring Hill STP	Columbia	Individual	M
TN0077755	CAFO Non-Sampling	Tosh Farms - Huntland BGF	Columbia	CAFO- Individual	I
TN0077733	Performance Audit (PAI)	Winchester STP	Columbia	Individual	M
					IVI
TNR058347	Compliance Eval (non-sampling) (CEI)	Eagle Cove Resort	Cookeville	TMSP	-
TNR056924	Compliance Eval (non-sampling) (CEI)	Arreola Stone Sites	Cookeville	TMSP	-
TN0020877	Technical Assistance Visit and File Review	Lafayette STP	Cookeville	Individual	M
TNR056852	Compliance Eval (non-sampling) (CEI)	Mercer, Looney, Walker Stone	Cookeville	TMSP	-
TNR059012	Compliance Eval (non-sampling) (CEI)	Mercer, Looney, and Walker Partnership	Cookeville	TMSP	-
TNR056713	Compliance Eval (non-sampling) (CEI)	White County Landfill	Cookeville	TMSP	-
TN0024996	Pretreatment Compliance (oversight)	Crossville STP	Cookeville	Individual	M
TN0062634	Compliance Eval (non-sampling) (CEI)	Jamestown STP	Cookeville	Individual	M
TNR054496	Stormwater Non-Construction Non-Sampling	Leonard Machine Co	Cookeville	TMSP	-
TN0023591	Technical Assistance Visit and File Review	McMinnville STP	Cookeville	Individual	M
TN0065358	Pretreatment Compliance (oversight)	Smithville STP	Cookeville	Individual	M
TN0072664	Compliance Eval (non-sampling) (CEI)	Tennessee Building Stone	Cookeville	Mining	I
TNR059019	Compliance Eval (non-sampling) (CEI)	Angie Sierra	Cookeville	TMSP	_
TNR058538	Compliance Eval (non-sampling) (CEI)	Highway Materials, Inc Livingston Asphalt Plant	Cookeville	TMSP	-
TNR053267	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc Celina Asphalt Plant	Cookeville	TMSP	-
TNR057099	Compliance Eval (non-sampling) (CEI)	The Presley Company LLC	Cookeville	TMSP	-
TNR057063	Compliance Eval (non-sampling) (CEI)	The Presley Company, LLC	Cookeville	TMSP	-
TN0063886	Compliance Sampling (CSI)	Celina STP	Cookeville	Individual	I
TN0024996	Compliance Eval (non-sampling) (CEI)	Crossville STP	Cookeville	Individual	M
TNR054352	Stormwater Non-Construction Non-Sampling	Dacco Inc.	Cookeville	TMSP	-
TN0061166	Technical Assistance Visit and File Review	Sparta STP	Cookeville	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		USA COE Dale Hollow Lake -			
TN0021393	Compliance Eval (non-sampling) (CEI)	Lillydale Recreation Area	Cookeville	Individual	I
	Technical Assistance Visit and File	West Warren- Viola Utility District			
TN0025372	Review	STP	Cookeville	Individual	I
TNG110035	Compliance Eval (non-sampling) (CEI)	Cumberland Supply Co., Inc.	Cookeville	RMCP	I
TNG110403	Compliance Eval (non-sampling) (CEI)	Flatrock Concrete, LLC	Cookeville	RMCP	-
		Seymour Manufacturing - Crossville			
TNR056787	Compliance Eval (non-sampling) (CEI)	Sawmill	Cookeville	TMSP	-
EN 1000 1007	G II G II (GGT)	Nyrstar Tennessee Mines -	G 1 '11	3.6	
TN0004227	Compliance Sampling (CSI)	Gordonsville, LLC	Cookeville	Mining	M
TN0063525	Compliance Eval (non-sampling) (CEI)	Rogers Group Inc	Cookeville	Mining	I
TNR050260	Compliance Eval (non-sampling) (CEI)	White County Lumber Company Inc.	Cookeville	TMSP	I
TN0072508	Compliance Eval (non-sampling) (CEI)	Livingston Limestone Company, Inc.	Cookeville	Mining	I
TNR054281	Compliance Eval (non-sampling) (CEI)	Savage Lumber Co	Cookeville	TMSP	-
TN0022993	Compliance Eval (non-sampling) (CEI)	Carthage STP	Cookeville	Individual	I
TN0024198	Pretreatment Compliance (oversight)	City of Cookeville WWTP	Cookeville	Individual	M
TNR056835	Compliance Eval (non-sampling) (CEI)	Crossville Raceway, Inc.	Cookeville	TMSP	-
TN0020877	Compliance Eval (non-sampling) (CEI)	Lafayette STP	Cookeville	Individual	M
		Tansi Sewer Utility District of			
TN0080411	Compliance Eval (non-sampling) (CEI)	Cumberland County	Cookeville	Individual	I
TNR058102	Compliance Eval (non-sampling) (CEI)	Wedel Iron & Metal	Cookeville	TMSP	-
TNR051381	Compliance Eval (non-sampling) (CEI)	Rich Lumber Company	Cookeville	TMSP	I
TN0069621	Compliance Eval (non-sampling) (CEI)	Stones River Quarry, LLC	Cookeville	Mining	I
		Turner Brothers Stone Company, Inc.			
TN0072648	Compliance Eval (non-sampling) (CEI)	DBA Cumberland Mountain Stone	Cookeville	Mining	I
		The Burroughs Ross Colville			
TNR050195	Compliance Eval (non-sampling) (CEI)	Company, LLC	Cookeville	TMSP	I
		Nyrstar Tennesse Mines -			
TN0064289	Compliance Sampling (CSI)	Gordonsville, LLC	Cookeville	Mining	M
TNR050522	Compliance Eval (non-sampling) (CEI)	Crossville Hardwoods, LLC	Cookeville	TMSP	-
TNR050342	Compliance Eval (non-sampling) (CEI)	Bob's Auto Salvage	Cookeville	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR050343	Compliance Eval (non-sampling) (CEI)	Bob's Body Shop & Auto Salvage	Cookeville	TMSP	I
TN0062626	Compliance Eval (non-sampling) (CEI)	Byrdstown STP	Cookeville	Individual	I
TNS077623	Stormwater MS4 Audit	McMinnville	Cookeville	MS4	I
TN0059838	Compliance Eval (non-sampling) (CEI)	Nielsen and Bainbridge	Cookeville	Individual	I
TN0077691	Compliance Eval (non-sampling) (CEI)	Spencer STP - Caney Fork	Cookeville	Individual	I
TNR054140	Compliance Eval (non-sampling) (CEI)	Hopper Excavating	Cookeville	TMSP	-
TNR058279	Compliance Eval (non-sampling) (CEI)	Larry's Dozer Service	Cookeville	TMSP	-
TN0029360	Compliance Eval (non-sampling) (CEI)	Nyrstar Tennessee Mines - Gordonsville, LLC	Cookeville	Mining	M
TN0061166	Compliance Biomonitoring (CBI)	Sparta STP	Cookeville	Individual	M
TN0062910	Compliance Eval (non-sampling) (CEI)	American Sand Company LLC	Cookeville	Mining	I
TN0047392	Compliance Eval (non-sampling) (CEI)	APAC Atlantic, Inc. Harrison Division	Cookeville	Mining	I
TN0024996	Technical Assistance Visit and File Review	Crossville STP	Cookeville	Individual	M
TNR050191	Compliance Eval (non-sampling) (CEI)	Kenny's Auto Salvage	Cookeville	TMSP	I
TN0021873	Pretreatment Compliance (oversight)	Livingston STP	Cookeville	Individual	M
TN0023591	Pretreatment Compliance (oversight)	McMinnville STP	Cookeville	Individual	M
TN0067547	Pretreatment Compliance (oversight)	Red Boiling Springs STP	Cookeville	Individual	I
TN0065358	Technical Assistance Visit and File Review	Smithville STP	Cookeville	Individual	M
TN0068802	Compliance Eval (non-sampling) (CEI)	TDEC - Pickett State Park	Cookeville	Individual	I
TNR056989	Compliance Eval (non-sampling) (CEI)	Jamestown Quarries, LLC	Cookeville	TMSP	-
TNR056990	Compliance Eval (non-sampling) (CEI)	BMJ Stone Company,LLC	Cookeville	TMSP	-
TNR059060	Compliance Eval (non-sampling) (CEI)	Rocky Ridge Stone, LLC	Cookeville	TMSP	-
TN0021539	Compliance Eval (non-sampling) (CEI)	Alexandria STP	Cookeville	Individual	I
TN0060054	Compliance Eval (non-sampling) (CEI)	Cane Creek Park	Cookeville	Individual	I
TN0058033	Compliance Eval (non-sampling) (CEI)	Cedar Hill Resort STP	Cookeville	Individual	I
TN0024058	Compliance Eval (non-sampling) (CEI)	Hermitage Springs Elementary School	Cookeville	Individual	I
TNR058381	Compliance Eval (non-sampling) (CEI)	Kerry Ingredients & Flavours	Cookeville	TMSP	-
TN0064688	Pretreatment Compliance (oversight)	Monterey WWTP	Cookeville	Individual	M
TNR054580	Compliance Eval (non-sampling) (CEI)	Royal Oak Enterprises, LLC	Cookeville	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		West Warren- Viola Utility District			
TN0025372	Pretreatment Compliance (oversight)	STP	Cookeville	Individual	I
TN0021873	Compliance Sampling (CSI)	Livingston STP	Cookeville	Individual	M
TN0026409	Compliance Eval (non-sampling) (CEI)	Tiptonville-City Lagoon	Jackson	Individual	I
TN0064220	Compliance Eval (non-sampling) (CEI)	Henderson STP- North Lagoon	Jackson	Individual	I
TN0021563	Compliance Eval (non-sampling) (CEI)	Dyer STP	Jackson	Individual	I
TN0062359	Compliance Eval (non-sampling) (CEI)	Kenton Lagoon	Jackson	Individual	I
SOPC00101	Compliance Eval (non-sampling) (CEI)	Brevard - T & T	Jackson	CAFO-NoD	-
TNG110185	Compliance Eval (non-sampling) (CEI)	Federal Materials Company, LLC	Jackson	RMCP	I
TNG110024	Compliance Eval (non-sampling) (CEI)	Southern Concrete Products, Inc.	Jackson	RMCP	I
TNG110343	Compliance Eval (non-sampling) (CEI)	Tri-County Concrete Products, Inc.	Jackson	RMCP	-
TN0078191	Compliance Eval (non-sampling) (CEI)	City of Ripley Wastewater Lagoon	Jackson	Individual	M
TN0062065	Compliance Eval (non-sampling) (CEI)	Greenfield Wastewater Lagoon	Jackson	Individual	I
TN0081400	Compliance Eval (non-sampling) (CEI)	MagPro, LLC	Jackson	Individual	I
SOPC00130	Compliance Eval (non-sampling) (CEI)	G & T Farm	Jackson	CAFO-NoD	-
SOP-99034	Compliance Eval (non-sampling) (CEI)	County Line Trailer Park	Jackson	SOP	-
TN0060151	Compliance Eval (non-sampling) (CEI)	Harsh Raj Travelmart	Jackson	Individual	I
SOPC00141	CAFO Non-Sampling	Sleepy Hollow Farm	Jackson	CAFO-NoD	-
TN0068390	Compliance Eval (non-sampling) (CEI)	Pinnacle Foods Group LLC	Jackson	Individual	I
TN0023477	Technical Assistance Visit and File Review	Dyersburg STP	Jackson	Individual	M
TN0062294	Compliance Eval (non-sampling) (CEI)	Gleason STP	Jackson	Individual	I
TN0057291	Compliance Eval (non-sampling) (CEI)	Halls Lagoon	Jackson	Individual	M
TN0056243	Compliance Eval (non-sampling) (CEI)	Northwest Dyersburg Utility District WTP	Jackson	WTP	I
TN0062529	Compliance Eval (non-sampling) (CEI)	Ridgely STP	Jackson	Individual	I
TN0062227	Compliance Eval (non-sampling) (CEI)	Rutherford Lagoon	Jackson	Individual	I
TN0064912	Compliance Eval (non-sampling) (CEI)	South Fulton STP	Jackson	Individual	I
TN0062022	Compliance Eval (non-sampling) (CEI)	Bradford Lagoon	Jackson	Individual	I
TN0062367	Technical Assistance Visit and File Review	Brownsville Energy Authority WWTP	Jackson	Individual	M
TN0062367	Compliance Eval (non-sampling) (CEI)	Brownsville Energy Authority WWTP	Jackson	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0062014	Pretreatment Compliance (oversight)	Bruceton Wastewater Lagoon	Jackson	Individual	I
SOP-03054	Compliance Eval (non-sampling) (CEI)	City of Henry	Jackson	SOP	-
		Humboldt Board of Public Utilities			
TN0062588	Pretreatment Compliance (oversight)	STP	Jackson	Individual	M
TN0020613	Compliance Eval (non-sampling) (CEI)	McKenzie STP	Jackson	Individual	M
TN0062642	Pretreatment Audit	Middleton Wastewater Lagoon	Jackson	Individual	I
SOP-84021	Compliance Eval (non-sampling) (CEI)	Town of Gibson	Jackson	SOP	-
TN0064777	Compliance Eval (non-sampling) (CEI)	Troy Wastewater Lagoon	Jackson	Individual	I
TNS075558	MS4	Union City	Jackson	MS4	I
SOPC00104	CAFO Non-Sampling	5 Starr Farm	Jackson	CAFO-NoD	-
TN0026247	Compliance Eval (non-sampling) (CEI)	Bells Lagoon	Jackson	Individual	M
SOPC00283	CAFO Non-Sampling	Dennis Yoder	Jackson	CAFO-NoD	-
SOPC00039	CAFO Non-Sampling	James C. Morris	Jackson	CAFO-NoD	-
SOPC00147	CAFO Non-Sampling	Louise O. Morris Trust	Jackson	CAFO-NoD	-
		Milan Army Ammunition Plant			
TN0000060	Compliance Eval (non-sampling) (CEI)	(MLAAP)	Jackson	Individual	I
SOPC00297	CAFO Non-Sampling	Pine Ridge Pork	Jackson	CAFO-NoD	-
SOPC00281	CAFO Non-Sampling	Russell Farms	Jackson	CAFO-NoD	-
SOP-98047	Compliance Eval (non-sampling) (CEI)	TDOT, US - 51 Rest Area (NB &SB)	Jackson	SOP	-
SOPC00129	CAFO Non-Sampling	Tosh Sounds-Chad Cox Farms	Jackson	CAFO-NoD	-
		Town of Gates Municipal Wastewater			
SOP-98040	Compliance Eval (non-sampling) (CEI)	Collection System	Jackson	SOP	-
TN0078271	Compliance Eval (non-sampling) (CEI)	Trenton STP	Jackson	Individual	M
SOPC00142	CAFO Non-Sampling	Berner Farms	Jackson	CAFO-NoD	-
SOPC00198	CAFO Non-Sampling	Cypress Creek Farm	Jackson	CAFO-NoD	-
SOPCD0008	CAFO Non-Sampling	Cypress Creek Farm	Jackson	CAFO-D	-
SOPC00049	CAFO Non-Sampling	Don Cox Farm	Jackson	CAFO-NoD	-
		Dyersburg Suburban Consolidated			
TN0075035	Compliance Eval (non-sampling) (CEI)	Utility District	Jackson	WTP	-
SOPC00027	CAFO Non-Sampling	H&S Poultry	Jackson	CAFO-NoD	-
TN0025011	Compliance Eval (non-sampling) (CEI)	Henning-Lagoon	Jackson	Individual	I
TN0065218	Compliance Eval (non-sampling) (CEI)	Maury City Wastewater Lagoon	Jackson	Individual	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0062375	Compliance Eval (non-sampling) (CEI)	Milan STP	Jackson	Individual	M
SOPC00005	CAFO Non-Sampling	Rea Farms - Damron Facility	Jackson	CAFO-NoD	-
SOPC00216	CAFO Non-Sampling	Tosh-Cottage Grove	Jackson	CAFO-NoD	-
SOPC00232	CAFO Non-Sampling	Agee Farms, LLC	Jackson	CAFO-NoD	-
SOP-12017	CAFO Non-Sampling	Chuck Hayes Farms	Jackson	CAFO-SOP	-
TN0023477	Compliance Eval (non-sampling) (CEI)	Dyersburg STP	Jackson	Individual	M
TN0041157	Compliance Eval (non-sampling) (CEI)	Lakeshore United Methodist Assembly	Jackson	Individual	I
TN0080667	CAFO Non-Sampling	Mike Sumners Dairy	Jackson	CAFO- Individual	I
SOPCD0015	CAFO Non-Sampling	Nichols Farms, Inc.	Jackson	CAFO-D	-
SOP-98030	Compliance Eval (non-sampling) (CEI)	TDOT - Dyer County Welcome Center	Jackson	SOP	-
TN0021580	Compliance Eval (non-sampling) (CEI)	Union City STP (A.L. Strub WWTP)	Jackson	Individual	M
TN0074896	CAFO Non-Sampling	Yoder Finishers	Jackson	CAFO- Individual	I
TN0078191	Compliance Eval (non-sampling) (CEI)	City of Ripley Wastewater Lagoon	Jackson	Individual	M
TN0000744	Compliance Eval (non-sampling) (CEI)	Lauderdale County Water System	Jackson	WTP	I
TN0061271	Compliance Eval (non-sampling) (CEI)	Paris STP	Jackson	Individual	M
TN0021253	Pretreatment Audit	Church Hill STP	Johnson City	Individual	M
TN0021229	Pretreatment Audit	Denzil Bowman Wastewater Treatment Plant (Greeneville STP)	Johnson City	Individual	M
TN0024244	Pretreatment Audit	Johnson City Brush Creek WWTP	Johnson City	Individual	M
TN0020672	Pretreatment Audit	Rogersville STP	Johnson City	Individual	M
TN0023515	Pretreatment Audit	Elizabethton STP	Johnson City	Individual	M
TNR056794	Stormwater Non-Construction Non- Sampling	Alemite LLC	Johnson City	TMSP	-
TN0063932	Compliance Sampling (CSI)	Baileyton STP	Johnson City	Individual	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Stormwater Non-Construction Non-		Johnson		
TNR050509	Sampling	Bristol Metals Inc	City	TMSP	-
			Johnson		
TN0001899	Compliance Eval (non-sampling) (CEI)	Jarden Zinc Products, Inc.	City	Individual	M
			Johnson		
TN0020095	Pretreatment Compliance (oversight)	Kingsport STP	City	Individual	M
			Johnson		
TN0002666	Compliance Eval (non-sampling) (CEI)	Treadway Circle Water & Sewer	City	Individual	I
			Johnson		
TN0057983	Compliance Eval (non-sampling) (CEI)	Aerojet Ordnance Tennessee	City	Individual	M
	Technical Assistance Visit and File		Johnson		
TN0023531	Review	Bristol STP #2	City	Individual	M
	Stormwater Non-Construction Non-	Bristol, TN/BVU Authority	Johnson		
TNR056415	Sampling	Wastewater Treatment Plant	City	TMSP	-
			Johnson		
TN0021253	Pretreatment Compliance (oversight)	Church Hill STP	City	Individual	M
		Denzil Bowman Wastewater	Johnson		
TN0021229	Pretreatment Compliance (oversight)	Treatment Plant (Greeneville STP)	City	Individual	M
	Stormwater Non-Construction Non-		Johnson		
TNR055047	Sampling	East Tennessee Forest Products	City	TMSP	I
			Johnson		
TN0023001	Pretreatment Audit	Erwin STP	City	Individual	M
		Greeneville Sewage, LLC - Hampton	Johnson		
TN0075094	Compliance Eval (non-sampling) (CEI)	Carter Commercial Center WWTP	City	Individual	I
	Stormwater Non-Construction Non-		Johnson		
TNR058187	Sampling	Greeneville Wood & Pallet Co	City	TMSP	_
			Johnson		
TN0024244	Pretreatment Audit	Johnson City Brush Creek WWTP	City	Individual	M
			Johnson		
TN0028789	Compliance Eval (non-sampling) (CEI)	Johnson City Regional WWTP	City	Individual	M
	Stormwater Non-Construction Non-		Johnson		
TNR053076	Sampling	Johnson County Airport	City	TMSP	-
	Technical Assistance Visit and File		Johnson		
TN0020672	Review	Rogersville STP	City	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
			Johnson		
TN0081566	Compliance Eval (non-sampling) (CEI)	US Nitrogen LLC	City	Individual	M
			Johnson		
TNR053022	Compliance Eval (non-sampling) (CEI)	Bluff City Used Cars And Parts	City	TMSP	-
			Johnson		
TNR056416	Compliance Eval (non-sampling) (CEI)	Bristol Municipal Garage Facility	City	TMSP	-
		Bristol/Bluff City Utility District	Johnson		
TN0075884	Compliance Eval (non-sampling) (CEI)	WTP	City	WTP	I
			Johnson		
TN0023680	Compliance Eval (non-sampling) (CEI)	Cloudland School	City	Individual	I
			Johnson		
TNR056833	Compliance Eval (non-sampling) (CEI)	Cripple Creek Auto Salvage, Inc.	City	TMSP	-
		Denzil Bowman Wastewater	Johnson		
TN0021229	Compliance Eval (non-sampling) (CEI)	Treatment Plant (Greeneville STP)	City	Individual	M
			Johnson		
TN0023515	Pretreatment Compliance (oversight)	Elizabethton STP	City	Individual	M
		Enterprise Farm & Salvage, LLC, dba	Johnson		
TNR050050	Compliance Eval (non-sampling) (CEI)	Blountville Auto Salvage	City	TMSP	I
			Johnson		
TN0023001	Compliance Eval (non-sampling) (CEI)	Erwin STP	City	Individual	M
			Johnson		
TN0023698	Compliance Eval (non-sampling) (CEI)	Hampton Elementary School	City	Individual	I
			Johnson		
TN0023701	Compliance Eval (non-sampling) (CEI)	Hampton High School	City	Individual	I
			Johnson		
TN0023736	Compliance Eval (non-sampling) (CEI)	Keenburg Elementary School	City	Individual	I
			Johnson		
TNS075388	Stormwater MS4 Audit	Kingsport	City	MS4	I
			Johnson		
TNR054532	Compliance Eval (non-sampling) (CEI)	Lewis Wood Products Inc	City	TMSP	I
			Johnson		
TNR055921	Compliance Eval (non-sampling) (CEI)	Maymead, Inc Asphalt Plant	City	TMSP	I
			Johnson		
TNR051375	Compliance Eval (non-sampling) (CEI)	McCloud Lumber Company, Inc.	City	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
			Johnson		
TN0024945	Compliance Eval (non-sampling) (CEI)	Mountain City STP	City	Individual	M
		Mountain Laurel Environmental	Johnson		
TNR055898	Compliance Eval (non-sampling) (CEI)	Corporation	City	TMSP	I
			Johnson		
TN0002038	Compliance Eval (non-sampling) (CEI)	Nuclear Fuel Services	City	Individual	M
			Johnson		
TNR050873	Compliance Eval (non-sampling) (CEI)	Nuclear Fuel Services, Inc.	City	TMSP	-
			Johnson		
TN0074357	Compliance Eval (non-sampling) (CEI)	Roan Mountain State Park	City	Individual	I
		Rogersville Wastewater Treatment	Johnson		
TNR056419	Compliance Eval (non-sampling) (CEI)	Plant	City	TMSP	-
			Johnson		
TNR058823	Compliance Eval (non-sampling) (CEI)	Shoun Trucking Company, Inc.	City	TMSP	-
			Johnson		
TN0005053	Compliance Eval (non-sampling) (CEI)	TWRA - Erwin Fish Hatchery	City	Individual	I
			Johnson		
TN0081566	Compliance Eval (non-sampling) (CEI)	US Nitrogen LLC	City	Individual	M
		USDI-FWS Erwin National Fish	Johnson		
TN0004677	Compliance Eval (non-sampling) (CEI)	Hatchery	City	Individual	I
			Johnson		
TN0056405	Compliance Eval (non-sampling) (CEI)	Valley Forge Elementary School	City	Individual	I
		AGC Flat Glass North America -	Johnson		
TNR051221	Compliance Eval (non-sampling) (CEI)	Greenland Plant	City	TMSP	-
		AGC Flat Glass North America -	Johnson		
TN0002631	Compliance Eval (non-sampling) (CEI)	Greenland Plant	City	Individual	I
			Johnson		
TN0054941	Compliance Eval (non-sampling) (CEI)	Bays Mountain Park	City	Individual	I
			Johnson		
TNR054064	Compliance Eval (non-sampling) (CEI)	Bays Truck Salvage	City	TMSP	I
			Johnson		
TN0061531	Compliance Eval (non-sampling) (CEI)	Carter County Work Camp	City	Individual	I
		City of Kingsport Wastewater	Johnson		
TNR053070	Compliance Eval (non-sampling) (CEI)	Treatment	City	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
			Johnson		
TNR054541	Compliance Eval (non-sampling) (CEI)	Duncan Mechanical Inc	City	TMSP	I
			Johnson		
TN0001899	Compliance Eval (non-sampling) (CEI)	Jarden Zinc Products, Inc.	City	Individual	M
			Johnson		
TNS075370	Stormwater MS4 Audit	Johnson City	City	MS4	I
			Johnson		
TN0024244	Compliance Eval (non-sampling) (CEI)	Johnson City Brush Creek WWTP	City	Individual	M
			Johnson		
TNR058585	Compliance Eval (non-sampling) (CEI)	Kintronic Labs	City	TMSP	-
	Technical Assistance Visit and File	Lick Creek Valley (Mosheim)	Johnson		
TN0059366	Review	Wastewater Treatment Plant	City	Individual	I
			Johnson		
TNR053512	Compliance Eval (non-sampling) (CEI)	Mullican Flooring, L.P.	City	TMSP	I
			Johnson		
TNR053127	Compliance Eval (non-sampling) (CEI)	OmniSource - Elizabethton	City	TMSP	-
			Johnson		
TNR053126	Compliance Eval (non-sampling) (CEI)	Omnisource - Johnson City	City	TMSP	-
			Johnson		
TNR058129	Compliance Eval (non-sampling) (CEI)	Omnisource Transportation Yard 95	City	TMSP	-
			Johnson		
TNR050004	Compliance Eval (non-sampling) (CEI)	The Boneyard II, Inc	City	TMSP	I
			Johnson		
TN0081175	Compliance Eval (non-sampling) (CEI)	Town of Jonesborough	City	Individual	M
FD 1000 7.10 6			Johnson	Y 11 1 1	
TN0005436	Compliance Eval (non-sampling) (CEI)	TVA - John Sevier Fossil Plant	City	Individual	M
TND052050		Ima C 1E 11 I B 11	Johnson	TIMOD	
TNR052050	Compliance Eval (non-sampling) (CEI)	UPS Ground Freight, Inc Bristol	City	TMSP	-
TND056604		W II C A D	Johnson	TIMOD	
TNR056604	Compliance Eval (non-sampling) (CEI)	Wadlow Gap Auto Parts	City	TMSP	-
TND056679	Compliance Evel (non-compliant) (CED)	Washington County Apple 14 Digit	Johnson	TMCD	
TNR056678	Compliance Eval (non-sampling) (CEI)	Washington County Asphalt Plant	City	TMSP	-
TND052261	Compliance Eval (non compliant) (CEI)	Accurate Machine Products	Johnson	TMCD	
TNR053361	Compliance Eval (non-sampling) (CEI)	Corporation	City	TMSP	1

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
			Johnson		
TNR054413	Compliance Eval (non-sampling) (CEI)	Blair Composites, LLC	City	TMSP	-
		BP&G Materials, LLC - Concrete	Johnson		
TNG110341	Compliance Eval (non-sampling) (CEI)	Batch Plant	City	RMCP	-
			Johnson		
TNS075124	Stormwater MS4 Audit	Carter County	City	MS4	I
			Johnson		
TN0021253	Compliance Eval (non-sampling) (CEI)	Church Hill STP	City	Individual	M
			Johnson		
TNG110377	Compliance Eval (non-sampling) (CEI)	Cloud #9 Enterprises, Inc.	City	RMCP	-
			Johnson		
TNG110200	Compliance Eval (non-sampling) (CEI)	Cloud 9 Enterprises, Inc.	City	RMCP	I
			Johnson		
TN0001643	Compliance Eval (non-sampling) (CEI)	Domtar Paper Company, LLC	City	Individual	M
			Johnson		
TNR054024	Compliance Eval (non-sampling) (CEI)	Domtar Paper Company, LLC	City	TMSP	I
		Engineering Speciality Products	Johnson		
TNR050945	Compliance Eval (non-sampling) (CEI)	Facility	City	TMSP	-
			Johnson		
TNG110284	Compliance Eval (non-sampling) (CEI)	Frost Concrete	City	RMCP	I
			Johnson		
TN0024244	Pretreatment Compliance (oversight)	Johnson City Brush Creek WWTP	City	Individual	M
			Johnson		
TN0020095	Compliance Eval (non-sampling) (CEI)	Kingsport STP	City	Individual	M
	Technical Assistance Visit and File		Johnson		
TN0020095	Review	Kingsport STP	City	Individual	M
			Johnson		
TN0020672	Compliance Eval (non-sampling) (CEI)	Rogersville STP	City	Individual	M
			Johnson		
TNR050325	Compliance Eval (non-sampling) (CEI)	Seaman Corporation - Plant 1	City	TMSP	I
			Johnson		
TNR054495	Compliance Eval (non-sampling) (CEI)	Shoun Lumber	City	TMSP	-
FD 10 50 40 5			Johnson	TI KOD	
TNR058497	Compliance Eval (non-sampling) (CEI)	Specialty Tires of America	City	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		TDEC - Davy Crockett Birthplace	Johnson		
TN0057371	Compliance Eval (non-sampling) (CEI)	State Park	City	Individual	I
			Johnson		
TN0081175	Pretreatment Compliance (oversight)	Town of Jonesborough	City	Individual	M
			Johnson		
TN0027545	Compliance Eval (non-sampling) (CEI)	TVA Watauga Hydro Plant	City	Individual	I
			Johnson		
TN0027553	Compliance Eval (non-sampling) (CEI)	TVA Wilbur Hydro Plant	City	Individual	I
		Angus-Palm, Division of Worthington	Johnson		
TNR058208	Compliance Eval (non-sampling) (CEI)	Industries, Inc.	City	TMSP	-
		Angus-Palm, Division of Worthington	Johnson		
TNR053869	Compliance Eval (non-sampling) (CEI)	Industries, Inc.	City	TMSP	-
			Johnson		
TNR050082	Compliance Eval (non-sampling) (CEI)	Appalachian Forest Products, LLC	City	TMSP	I
			Johnson		
TN0023531	Compliance Eval (non-sampling) (CEI)	Bristol STP #2	City	Individual	M
	Technical Assistance Visit and File		Johnson		
TN0021253	Review	Church Hill STP	City	Individual	M
	Technical Assistance Visit and File	Denzil Bowman Wastewater	Johnson		
TN0021229	Review	Treatment Plant (Greeneville STP)	City	Individual	M
			Johnson		
TN0023001	Pretreatment Compliance (oversight)	Erwin STP	City	Individual	M
		General Shale Brick, Inc., Plant No.	Johnson		
TNR054084	Compliance Eval (non-sampling) (CEI)	58	City	TMSP	I
			Johnson		
TN0081582	Compliance Eval (non-sampling) (CEI)	Heritage Glass, LLC	City	Individual	I
			Johnson		
TNR051724	Compliance Eval (non-sampling) (CEI)	Iris Glen Environmental Ctr	City	TMSP	-
		John M. Reed Health and			
		rehabilitation, LLC. (Formerly John	Johnson		
TN0056332	Compliance Eval (non-sampling) (CEI)	M. Reed Home, Inc.)	City	Individual	I
			Johnson		
TNR058240	Compliance Eval (non-sampling) (CEI)	OmniSource - Kingsport Facility	City	TMSP	-
TNR058239	Compliance Eval (non-sampling) (CEI)	OmniSource - Mountain City Facility	Johnson	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
			City		
TNR050222	Compliance Eval (non-sampling) (CEI)	The Mapes Piano String Co.	Johnson City	TMSP	I
TN0081124	Compliance Eval (non-sampling) (CEI)	Watauga River Regional Water Authority Regional WTP	Johnson City	WTP	-
TNR056844	Stormwater Non-Construction Non-Sampling	Resource Group, LLC	Knoxville	TMSP	-
TNR132553	Stormwater Construction Non-Sampling	MPM Development Co., LLC	Knoxville	CGP	-
TNR130934	Stormwater Construction Non-Sampling	Northshore Market Investors, LLC - James Harrison	Knoxville	CGP	-
TNR058666	Technical Assistance Visit and File Review	3M Knoxville	Knoxville	TMSP	-
TN0074225	Compliance Evaluations (non-NPDES)	East Tennessee Technology Park - Central Neutralization Facility	Knoxville	Individual	M
TN0065030	Compliance Eval (non-sampling) (CEI)	Soaring Eagle Campground & RV Park	Knoxville	Individual	I
TNR134206	Stormwater Construction Non-Sampling	Cameron General Contractors	Knoxville	CGP	-
TN0002950	Compliance Eval (non-sampling) (CEI)	East Tennessee Technology Park (ETTP) - USDOE	Knoxville	Individual	I
TN0055662	Compliance Sampling (CSI)	Springdale Elementary School	Knoxville	Individual	I
TN0080179	Compliance Eval (non-sampling) (CEI)	University Health Systems Inc	Knoxville	Individual	I
TN0024856	Compliance Eval (non-sampling) (CEI)	Midway High School	Knoxville	Individual	I
		TDOT - Project #47039-1222-04 PIN #100997.00 Construct SR-131 from SR-9 (US-25W Clinton Hwy) to SR-			
TNR191228	Stormwater Construction Non-Sampling	131 (Emory Rd) South of Gill Road	Knoxville	CGP	-
TN0054887	Compliance Eval (non-sampling) (CEI)	Centerview Elementary School	Knoxville	Individual	I
TN0059102	Compliance Eval (non-sampling) (CEI)	Venture Out at Gatlinburg	Knoxville	Individual	I
TNR053185	Stormwater Non-Construction Non-Sampling	TVA Bull Run Fossil Plant	Knoxville	TMSP	-
TNR053322	Compliance Eval (non-sampling) (CEI)	CoorsTek	Knoxville	TMSP	-
TNR050171	Compliance Eval (non-sampling) (CEI)	PolyOne DH Compounding Company	Knoxville	TMSP	I
TNR056868	Compliance Eval (non-sampling) (CEI)	Universal Well Service, Inc	Knoxville	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR134480	Stormwater	LKM Properties, LP	Knoxville	CGP	-
TN0060780	Compliance Sampling (CSI)	Duncan's Landing Homeowners Association	Knoxville	Individual	I
TNR053460	Compliance Eval (non-sampling) (CEI)	APAC Atlantic, Inc. Harrison Division/Knoxville Shop and Harrison Construction Company	Knoxville	TMSP	_
TNR055955	Compliance Eval (non-sampling) (CEI)	Asphalt Plant #2	Knoxville	TMSP	_
TNR051306	Stormwater Non-Construction Sampling	Becromal of America, Inc.	Knoxville	TMSP	-
TNR050035	Compliance Eval (non-sampling) (CEI)	Blalock Operation Center (BOC)	Knoxville	TMSP	I
TNR051823	Compliance Eval (non-sampling) (CEI)	Clayton Homes - Appalachia	Knoxville	TMSP	-
TNR053294	Compliance Eval (non-sampling) (CEI)	Clinton Pallet Co.	Knoxville	TMSP	I
TNR058134	Compliance Eval (non-sampling) (CEI)	Creekmore Lumber Company, Inc.	Knoxville	TMSP	-
TNR056118	Stormwater Non-Construction Sampling	European Import Auto Parts	Knoxville	TMSP	-
TNR051785	Compliance Eval (non-sampling) (CEI)	Greyhound Lines, Inc. #400433	Knoxville	TMSP	-
TNR058706	Compliance Eval (non-sampling) (CEI)	J & B Market	Knoxville	TMSP	-
TNR050943	Compliance Eval (non-sampling) (CEI)	Johns Story Truck Salvage, Inc.	Knoxville	TMSP	-
TNR050290	Compliance Eval (non-sampling) (CEI)	JR's Auto Salvage LLC	Knoxville	TMSP	I
TNR058436	Compliance Eval (non-sampling) (CEI)	Lisega, Inc.	Knoxville	TMSP	-
TNR058056	Compliance Eval (non-sampling) (CEI)	Maynard's Auto Parts	Knoxville	TMSP	-
TNR054263	Compliance Eval (non-sampling) (CEI)	Moore, McMillen Industries, Inc.	Knoxville	TMSP	-
TNR056482	Compliance Eval (non-sampling) (CEI)	New Era Enterprises, Inc.	Knoxville	TMSP	-
TNR053863	Compliance Eval (non-sampling) (CEI)	Powder Cote II	Knoxville	TMSP	I
TNR058739	Compliance Eval (non-sampling) (CEI)	Rarity Mountain Rock Storage	Knoxville	TMSP	-
TNR056636	Compliance Eval (non-sampling) (CEI)	Rolling Frito-Lay Sales, LP - Harriman Bin	Knoxville	TMSP	-
TNR056492	Compliance Eval (non-sampling) (CEI)	Swaggerty Sausage Company, Inc.	Knoxville	TMSP	-
TNR053933	Compliance Eval (non-sampling) (CEI)	Tate's	Knoxville	TMSP	-
TNR058256	Compliance Eval (non-sampling) (CEI)	TRW Fuji Valve Inc	Knoxville	TMSP	-
TN0059978	Compliance Sampling (CSI)	Powell Valley Elementary School	Knoxville	Individual	I
TN0064149	Compliance Eval (non-sampling) (CEI)	Luttrell STP	Knoxville	Individual	I
TN0024791	Compliance Eval (non-sampling) (CEI)	Claiborne Utilities District STP	Knoxville	Individual	I
TN0026506	Technical Assistance Visit and File	Clinton STP #1	Knoxville	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Review				
TN0023582	Pretreatment Audit	KUB- Kuwahee STP	Knoxville	Individual	M
		Madisonville Wastewater Treatment			
TN0081612	Compliance Eval (non-sampling) (CEI)	Plant	Knoxville	Individual	M
TNR054058	Compliance Eval (non-sampling) (CEI)	Asphalt Plant #3	Knoxville	TMSP	I
TNR050768	Compliance Eval (non-sampling) (CEI)	SI Group, Inc.	Knoxville	TMSP	-
TNR131853.01	Stormwater Construction Non-Sampling	Webb, Sterling	Knoxville	CGP	-
TN0060747	Compliance Eval (non-sampling) (CEI)	Cumberland Gap STP	Knoxville	Individual	I
TN0023353	Compliance Sampling (CSI)	First Utility District of Knox County - Turkey Creek STP	Knoxville	Individual	M
TN0020052	Compliance Biomonitoring (CBI)	Sweetwater STP	Knoxville	Individual	M
TNR133328	Stormwater Construction Non-Sampling	PSC Metals, Inc.	Knoxville	CGP	-
TN0026263	Pretreatment Compliance (oversight)	Caryville-Jacksboro Utilities Commission STP	Knoxville	Individual	I
TN0020203	Compliance Biomonitoring (CBI)	Jefferson City STP	Knoxville	Individual	M
TN0023582	Compliance Eval (non-sampling) (CEI)	KUB- Kuwahee STP	Knoxville	Individual	M
TNR054009	Compliance Eval (non-sampling) (CEI)	Adams Products an Oldcastle Company	Knoxville	TMSP	I
TNR050463	Compliance Eval (non-sampling) (CEI)	American Wood Products	Knoxville	TMSP	-
TNR053463	Compliance Eval (non-sampling) (CEI)	APAC - Atlantic Harrison Division/Forks of the River Asphalt APAC - Atlantic Harrison	Knoxville	TMSP	-
TNR053464	Compliance Eval (non-sampling) (CEI)	Division/Jefferson City Asphalt	Knoxville	TMSP	-
TNR056795	Compliance Eval (non-sampling) (CEI)	APAC - Atlantic Harrison Division/Maryville Asphalt	Knoxville	TMSP	-
TNR051213	Compliance Eval (non-sampling) (CEI)	APAC Atlantic, Inc. Harrison Division/Cinder Lane	Knoxville	TMSP	_
TNR055906	Compliance Eval (non-sampling) (CEI)	APAC Atlantic, Inc. Harrison Division/John Deere Drive	Knoxville	TMSP	-
TNR050328	Compliance Eval (non-sampling) (CEI)	Aqua-Chem, Inc. Water Tech. Div.	Knoxville	TMSP	I
TNR053964	Compliance Eval (non-sampling) (CEI)	B & F Hot Mix Asphalt, Inc.	Knoxville	TMSP	I
TNR058383	Compliance Eval (non-sampling) (CEI)	Dandridge PEC	Knoxville	TMSP	-
TNR050321	Compliance Eval (non-sampling) (CEI)	Diversified Scientific Service, Inc.	Knoxville	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR053252	Compliance Eval (non-sampling) (CEI)	Downtown Island Airport	Knoxville	TMSP	-
TNR056393	Compliance Eval (non-sampling) (CEI)	DTR Tennessee, Inc. Plant 2	Knoxville	TMSP	-
TNR058430	Compliance Eval (non-sampling) (CEI)	Energizer Personal Care	Knoxville	TMSP	-
TNR052028	Compliance Eval (non-sampling) (CEI)	Energy Solutions, LLC	Knoxville	TMSP	-
TNR051628	Compliance Eval (non-sampling) (CEI)	Energy Solutions, LLC - Bear Creek Facility	Knoxville	TMSP	-
TNR050792	Compliance Eval (non-sampling) (CEI)	Enterprise Oil Company	Knoxville	TMSP	-
TNR050962	Compliance Eval (non-sampling) (CEI)	Farner Auto Parts	Knoxville	TMSP	-
TNR053425	Compliance Eval (non-sampling) (CEI)	Federal Express - GCYA (FedEx)	Knoxville	TMSP	-
TNR053928	Compliance Eval (non-sampling) (CEI)	Forest Products Inc.	Knoxville	TMSP	-
TNR051189	Compliance Eval (non-sampling) (CEI)	Jeff Cobb Trucking, Inc.	Knoxville	TMSP	-
TNR058317	Compliance Eval (non-sampling) (CEI)	Knoxville and Holston River Railroad	Knoxville	TMSP	-
TNR050348	Compliance Eval (non-sampling) (CEI)	Langdale Forest Products Co.	Knoxville	TMSP	I
TNR052070	Compliance Eval (non-sampling) (CEI)	Log Investors, Inc. (dba Jim Barna Log & Timber Homes)	Knoxville	TMSP	I
TNR051780	Compliance Eval (non-sampling) (CEI)	MacDermid Printing Solutions	Knoxville	TMSP	-
TNR056871	Compliance Eval (non-sampling) (CEI)	Marathon Petroleum Company LP	Knoxville	TMSP	-
TNR058092	Compliance Eval (non-sampling) (CEI)	Masonite Corporation	Knoxville	TMSP	-
TNR050861	Compliance Eval (non-sampling) (CEI)	Matt Johnson Auto Parts	Knoxville	TMSP	I
TNR054476	Compliance Eval (non-sampling) (CEI)	Morris Coupling Company, Inc.	Knoxville	TMSP	-
TNR053422	Compliance Eval (non-sampling) (CEI)	Morristown Airport	Knoxville	TMSP	-
TNR053652	Compliance Eval (non-sampling) (CEI)	Norfolk Southern Railway Company - J. Sevier Yard	Knoxville	TMSP	-
TNR058209	Compliance Eval (non-sampling) (CEI)	Old Dominion Freight Line, Inc.	Knoxville	TMSP	-
TNR051470	Compliance Eval (non-sampling) (CEI)	Omnisource Southeast, LLC	Knoxville	TMSP	-
TNR058044	Compliance Eval (non-sampling) (CEI)	Onsite Environmental	Knoxville	TMSP	-
TNR053917	Compliance Eval (non-sampling) (CEI)	Overton's 33 Quarry	Knoxville	TMSP	I
TNR054491	Compliance Eval (non-sampling) (CEI)	Petoskey Plastics Inc	Knoxville	TMSP	-
TNR053054	Compliance Eval (non-sampling) (CEI)	PSC Metals, Inc.	Knoxville	TMSP	-
TNR053024	Compliance Eval (non-sampling) (CEI)	RockTenn - Knoxville Folding Carton	Knoxville	TMSP	-
TNR050707	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc - Roane County Asphalt	Knoxville	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR053533	Compliance Eval (non-sampling) (CEI)	Rogers group, Inc - Tazewell Asphalt	Knoxville	TMSP	-
		Rolling Frito-Lay Sales, LP -			
TNR056617	Compliance Eval (non-sampling) (CEI)	Morristown Bin	Knoxville	TMSP	-
TNR054318	Compliance Eval (non-sampling) (CEI)	Sequatchie Concrete Services, Inc.	Knoxville	TMSP	I
TNR051677	Compliance Eval (non-sampling) (CEI)	Seven Wheels, Inc.	Knoxville	TMSP	-
TNR056277	Compliance Eval (non-sampling) (CEI)	Sexton Auto Salvage, Inc.	Knoxville	TMSP	I
TNR051031	Compliance Eval (non-sampling) (CEI)	Toho Tenax America, Inc.	Knoxville	TMSP	-
TNR056845	Compliance Eval (non-sampling) (CEI)	UFP Morristown, LLC	Knoxville	TMSP	-
TNR053561	Compliance Eval (non-sampling) (CEI)	United Parcel Service - Morristown	Knoxville	TMSP	-
TNR053559	Compliance Eval (non-sampling) (CEI)	United Parcel Service - Oliver Springs	Knoxville	TMSP	-
TNR052051	Compliance Eval (non-sampling) (CEI)	UPS Ground Freight, Inc Knoxville	Knoxville	TMSP	-
TNR055922	Compliance Eval (non-sampling) (CEI)	USF Holland, Inc.	Knoxville	TMSP	-
TNR050800	Compliance Eval (non-sampling) (CEI)	Willocks Brothers Co Inc.	Knoxville	TMSP	-
TNR053902	Compliance Eval (non-sampling) (CEI)	Yarnell Demolition Landfill	Knoxville	TMSP	I
		Brookfield Smoky Mountain Hydro,			
TN0065510	Compliance Eval (non-sampling) (CEI)	LLC	Knoxville	Individual	I
TN0005452	Compliance Eval (non-sampling) (CEI)	TVA - Kingston Fossil Plant (KIF)	Knoxville	Individual	M
TN0080870	Compliance Eval (non-sampling) (CEI)	TVA - Kingston Fossil Plant (KIF)	Knoxville	Individual	M
	Technical Assistance Visit and File				
TN0028622	Review	Wartburg STP	Knoxville	Individual	I
TN10065529	Compliance Evel (non-compliance) (CEI)	Brookfield Smoky Mountain Hydro,	V.,	Totalissi dassal	T
TN0065528	Compliance Eval (non-sampling) (CEI)	LLC	Knoxville	Individual	I M
TN0026506	Compliance Eval (non-sampling) (CEI)	Clinton STP #1	Knoxville	Individual	IVI
TN0023337	Compliance Eval (non-sampling) (CEI)	Johnson University	Knoxville	Individual	1
TN0005410	Compliance Eval (non-sampling) (CEI)	TVA - Bull Run Fossil Plant (BRF)	Knoxville	Individual	M
TN0063959	Compliance Eval (non-sampling) (CEI)	Sevierville (McCroskey Island) STP	Knoxville	Individual	M
TN0020885	Reconnaissance (RI)	Oliver Springs STP	Knoxville	Individual	I
TN0060186	Compliance Eval (non-sampling) (CEI)	Huntsville-Helewood STP	Knoxville	Individual	I
TN0024155	Pretreatment Compliance (oversight)	Oak Ridge STP	Knoxville	Individual	M
TNID 052465	Consultance Freelow 11 1 (CFF)	APAC - Atlantic Harrison	17	TMCD	
TNR053465	Compliance Eval (non-sampling) (CEI)	Division/Mascot Asphalt	Knoxville	TMSP	-
TNR058447	Compliance Eval (non-sampling) (CEI)	APAC - Atlantic, Inc / Borrow Site	Knoxville	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR053639	Compliance Eval (non-sampling) (CEI)	Arvin Meritor	Knoxville	TMSP	-
TNR058695	Compliance Eval (non-sampling) (CEI)	Basic Resources, Inc.	Knoxville	TMSP	-
TNR058775	Compliance Eval (non-sampling) (CEI)	Browder Metals LLC	Knoxville	TMSP	-
TNR053414	Compliance Eval (non-sampling) (CEI)	Burkhart Enterprises, Inc.	Knoxville	TMSP	-
TNR050145	Compliance Eval (non-sampling) (CEI)	Chapman Enterprises Inc	Knoxville	TMSP	I
TNR053208	Compliance Eval (non-sampling) (CEI)	Clayton Homes - Halls	Knoxville	TMSP	-
TNR052047	Compliance Eval (non-sampling) (CEI)	Clayton Homes - White Pine	Knoxville	TMSP	-
TNR051802	Compliance Eval (non-sampling) (CEI)	Clayton Supply of Tennessee / Classic Panel of Tennessee	Knoxville	TMSP	-
TNR058143	Compliance Eval (non-sampling) (CEI)	Duracap Asphalt Paving Co	Knoxville	TMSP	-
TNR050083	Compliance Eval (non-sampling) (CEI)	East Tennessee Auto Center	Knoxville	TMSP	I
TNR058430	Compliance Eval (non-sampling) (CEI)	Energizer Personal Care	Knoxville	TMSP	-
TNR058162	Compliance Eval (non-sampling) (CEI)	ERGON Knoxville, Inc.	Knoxville	TMSP	-
TNR058793	Compliance Eval (non-sampling) (CEI)	First Transit, Inc. #55335	Knoxville	TMSP	-
TNR050585	Compliance Eval (non-sampling) (CEI)	Greenway Products, Inc.	Knoxville	TMSP	-
TNR051804	Compliance Eval (non-sampling) (CEI)	Hardwoods of Morristown, Inc.	Knoxville	TMSP	I
TNR053658	Compliance Eval (non-sampling) (CEI)	Hudson Materials Company - Emulsion Plant	Knoxville	TMSP	-
TNR051534	Compliance Eval (non-sampling) (CEI)	International Paper Company	Knoxville	TMSP	-
TNR055060	Compliance Eval (non-sampling) (CEI)	J.W. Allen/Rich Products Plant 2	Knoxville	TMSP	-
TNR051384	Compliance Eval (non-sampling) (CEI)	Jack's Auto Parts, Inc.	Knoxville	TMSP	-
TNR050584	Compliance Eval (non-sampling) (CEI)	JBM, Inc.	Knoxville	TMSP	I
TNR051977	Compliance Eval (non-sampling) (CEI)	Jeffrey Chain LP (operating as Renold Jeffrey)	Knoxville	TMSP	-
TNR058315	Compliance Eval (non-sampling) (CEI)	Kemet Foil Manufacturing	Knoxville	TMSP	-
TNR056701	Compliance Eval (non-sampling) (CEI)	Lakeway Sanitation & Recycling MSW, LLC	Knoxville	TMSP	-
TNR055916	Compliance Eval (non-sampling) (CEI)	Mack's Auto Salvage	Knoxville	TMSP	-
TNR053253	Compliance Eval (non-sampling) (CEI)	McGhee Tyson Airport - Alcoa	Knoxville	TMSP	-
TNR055079	Compliance Eval (non-sampling) (CEI)	Packaging Corporation of America	Knoxville	TMSP	I
TNR058632	Compliance Eval (non-sampling) (CEI)	R+L Carriers - KNO	Knoxville	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR058800	Compliance Eval (non-sampling) (CEI)	Republic Plastics - K1	Knoxville	TMSP	-
TNR053478	Compliance Eval (non-sampling) (CEI)	Republic Plastics K2	Knoxville	TMSP	-
		River Cement Sales Co/Buzzi Unicem			
TNR054582	Compliance Eval (non-sampling) (CEI)	USA	Knoxville	TMSP	I
TNR053380	Compliance Eval (non-sampling) (CEI)	Rogers Group, Inc - Candora Asphalt	Knoxville	TMSP	I
		Rogers Group, Inc Knoxville			
TNR058770	Compliance Eval (non-sampling) (CEI)	Trucking Shop	Knoxville	TMSP	-
TNR053226	Compliance Eval (non-sampling) (CEI)	Safety-Kleen Systems, Inc.	Knoxville	TMSP	-
		Steam Plant - The University of			
TNR056413	Compliance Eval (non-sampling) (CEI)	Tennessee	Knoxville	TMSP	-
TNR050549	Compliance Eval (non-sampling) (CEI)	Stowers Machinery Corp	Knoxville	TMSP	-
		Timken-Rail Bearing Service			
TNR050304	Compliance Eval (non-sampling) (CEI)	Corporation	Knoxville	TMSP	I
		TRANSFLO Terminal Services, Inc.			
TNR053442	Compliance Eval (non-sampling) (CEI)	(Knoxville)	Knoxville	TMSP	-
TNR058152	Compliance Eval (non-sampling) (CEI)	Trelleborg Coated Systems US, Inc.	Knoxville	TMSP	-
TNR055058	Compliance Eval (non-sampling) (CEI)	Underwood Auto Parts	Knoxville	TMSP	I
TNR058712	Compliance Eval (non-sampling) (CEI)	Vitran Express	Knoxville	TMSP	-
		Premium Coal Company, Inc.			
TN0043222	Compliance Eval (non-sampling) (CEI)	Loadout Tipple	Knoxville	Mining	I
TN0069353	Compliance Sampling (CSI)	Walker's Truck Contractors, Inc.	Knoxville	Mining	I
		Carmeuse Lime and Stone (Thorn			
TN0060127	Compliance Sampling (CSI)	Hill)	Knoxville	Mining	I
		DRC Coal LLC (Formerly			
TN0072567	Compliance Eval (non-sampling) (CEI)	Mountainside Coal Company)	Knoxville	Mining	I
		DRC Coal LLC (formerly			
TN0072877	Compliance Eval (non-sampling) (CEI)	Mountainside Coal Company)	Knoxville	Mining	I
TN0066168	Compliance Sampling (CSI)	Rogers Group, Inc.	Knoxville	Mining	I
	Stormwater Non-Construction Non-				
TNR053087	Sampling	PSC Metals, Inc.	Knoxville	TMSP	-
TND051464	Stormwater Non-Construction Non-	DGC M (1 I	17 '11	TMCD	
TNR051494	Sampling	PSC Metals, Inc.	Knoxville	TMSP	

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		Elkview Land & Gravel Inc.			
TN0066095	Compliance Sampling (CSI)	dba 1st Sand and Gravel Company	Knoxville	Mining	I
TN0062952	Compliance Eval (non-sampling) (CEI)	Kopper Glo Mining LLC	Knoxville	Mining	I
TN0071862	Compliance Eval (non-sampling) (CEI)	Tennessee Marble Company	Knoxville	Mining	I
TN0053759	Compliance Eval (non-sampling) (CEI)	Kopper Glo Mining LLC	Knoxville	Mining	I
TN0072150	Compliance Sampling (CSI)	Loyston Road Quarry	Knoxville	Mining	I
TN0079219	Compliance Eval (non-sampling) (CEI)	Middlesboro Mining Operations, LLC	Knoxville	Mining	N/A
TN0063274	Compliance Eval (non-sampling) (CEI)	Dalco Coal Of Tennessee, LLC	Knoxville	Mining	I
TN0072460	Compliance Sampling (CSI)	Vulcan Constr. Materials, LP	Knoxville	Mining	I
TN0072249	Compliance Eval (non-sampling) (CEI)	Dalco Coal Of Tennessee, LLC	Knoxville	Mining	I
TN0061468	Compliance Sampling (CSI)	Nyrstar Tennessee Mines-Strawberry Plains, LLC Beaver Creek Shaft	Knoxville	Mining	M
TN0079727	Compliance Eval (non-sampling) (CEI)	Middlesboro Mining Operations, Inc.	Knoxville	Mining	N/A
TN0001759	Compliance Sampling (CSI)	Nyrstar Tennessee Mines- Strawberry Plains	Knoxville	Mining	M
TN0027677	Compliance Sampling (CSI)	Nyrstar Tennessee Mines-Strawberry Plains, LLC Young Mill & Mine	Knoxville	Mining	M
TN0001732	Compliance Sampling (CSI)	Nyrstar Tennessee Mines - Strawberry Plains, LLC Coy Mine	Knoxville	Mining	M
TNR056734	Stormwater Construction Non-Sampling	MLGW-Body Shop	Memphis	TMSP	-
TNR056736	Stormwater Construction Non-Sampling	MLGW-Central Shops	Memphis	TMSP	-
TNR056738	Stormwater Construction Non-Sampling	MLGW-Heavy Equipment Building	Memphis	TMSP	-
TNR058100	Stormwater Construction Non-Sampling	Recycle Solutions Inc	Memphis	TMSP	-
TNR058140	Stormwater Construction Non-Sampling	Mid-South Milling	Memphis	TMSP	-
TNR054509	Stormwater Non-Construction Non-Sampling	Walter M Fields Lumber Co	Memphis	TMSP	-
TN0079421	Compliance Eval (non-sampling) (CEI)	Memphis Sand Company, Inc.	Memphis	Mining	I
TNR055051	Stormwater Non-Construction Non-Sampling	Delfield Co	Memphis	TMSP	I
TNG110413	Compliance Eval (non-sampling) (CEI)	Cordova Concrete, Inc Plant 8	Memphis	RMCP	-
TN0064092	Pretreatment Compliance (oversight)	City of Rossville STP	Memphis	Individual	M

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Stormwater Non-Construction Non-				
TNR056731	Sampling	MLGW	Memphis	TMSP	-
	Stormwater Non-Construction Non-				
TNR056732	Sampling	MLGW	Memphis	TMSP	-
	Stormwater Non-Construction Non-				
TNR056733	Sampling	MLGW-Beaver Building	Memphis	TMSP	-
FD10110411		MMC Materials, Inc Plant 218		D) (CD	
TNG110411	Compliance Eval (non-sampling) (CEI)	Piperton	Memphis	RMCP	-
TNC110015	Compliance Evel (non compliance) (CEI)	Cordova Concrete Plant 1 (Clarke	Manahia	DMCD	τ
TNG110015	Compliance Eval (non-sampling) (CEI)	Road)	Memphis	RMCP	I
TN0080632	Compliance Eval (non-sampling) (CEI)	Tennessee Air National Guard	Memphis	Individual	I
TN0005355	Compliance Eval (non-sampling) (CEI)	TVA - Allen Fossil Plant	Memphis	Individual	M
TNS076104	Stormwater MS4 Audit	The University of Memphis	Memphis	MS4	I
TN0001066	Compliance Eval (non-sampling) (CEI)	Petroleum Fuel & Terminal Company	Memphis	Individual	I
	Stormwater Non-Construction Non-				
TNR056665	Sampling	Ergon Terminaling, Inc Memphis	Memphis	TMSP	-
	Stormwater Non-Construction Non-				
TNR050045	Sampling	Bailey-Parks Urethane, Inc.	Memphis	TMSP	I
FD 170 0 50 40 1	Stormwater Non-Construction Non-	007 10 17		TD (CD	
TNR058481	Sampling	O'Neal Steel Inc	Memphis	TMSP	-
TN0073181	Compliance Eval (non-sampling) (CEI)	SFI of Tennessee, LLC	Memphis	Individual	I
FD 10050050	Stormwater Non-Construction Non-			TD (CD	
TNR058258	Sampling	Bonsal American, Inc.	Memphis	TMSP	-
TN0064092	Compliance Eval (non-sampling) (CEI)	City of Rossville STP	Memphis	Individual	M
	Stormwater Non-Construction Non-				_
TNR055892	Sampling	Southside Auto Parts	Memphis	TMSP	I
TND057520	Stormwater Non-Construction Non-	DVED Metadala III C	Managhia	TMCD	
TNR056538	Sampling	BKEP Materials, LLC	Memphis	TMSP	-
TNR053874	Stormwater Non-Construction Non-	Ergan Armar Mamphia	Momphis	TMSP	I
	Sampling	Ergon Armor-Memphis	Memphis		
TN0020982	Compliance Eval (non-sampling) (CEI)	Covington STP	Memphis	Individual	M
TNG830188	Compliance Eval (non-sampling) (CEI)	Hwy 64 West Somerville Project	Memphis	UST	-
TNC02000	Compliance Fool (n 11) (CFF)	Hwy 64 West Somerville Project	M 1 .	LICT	
TNG830086	Compliance Eval (non-sampling) (CEI)	(CAS#1)	Memphis	UST	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Technical Assistance Visit and File	Memphis-Maynard C. Stiles STP			
TN0020711	Review	North Plant	Memphis	Individual	M
	Stormwater Non-Construction Non-				
TNR051109	Sampling	Marshall Steel Inc Memphis	Memphis	TMSP	-
TN0078603	Pretreatment Compliance (oversight)	Arlington STP (11150 Highway 70)	Memphis	Individual	M
	Technical Assistance Visit and File				
TN0020982	Review	Covington STP	Memphis	Individual	M
TNR058506	Compliance Eval (non-sampling) (CEI)	Harcros Chemicals, Inc.	Memphis	TMSP	-
TNR058046	Compliance Eval (non-sampling) (CEI)	Milagro Biofuels of Memphis, LLC	Memphis	TMSP	-
TN0074217	Compliance Eval (non-sampling) (CEI)	Capleville Liquified Natural Gas Plant	Memphis	Individual	I
TN0078255	Compliance Eval (non-sampling) (CEI)	Lakeland STP	Memphis	Individual	M
TN0001091	Compliance Eval (non-sampling) (CEI)	The Chemours Company FC, LLC	Memphis	Individual	M
TN0000132	Compliance Eval (non-sampling) (CEI)	ConAgra Grocery Products Company	Memphis	Individual	I
TNR058424	Compliance Eval (non-sampling) (CEI)	Delta Environmental	Memphis	TMSP	-
TN0079693	Compliance Eval (non-sampling) (CEI)	Memphis Stone & Gravel Company	Memphis	Mining	I
TNR053303	Compliance Eval (non-sampling) (CEI)	Miller Transporters - Memphis	Memphis	TMSP	-
		West TN Ready Mix Portable Plant			
TNG110416	Compliance Eval (non-sampling) (CEI)	Covington	Memphis	RMCP	-
TN0068543	Compliance Eval (non-sampling) (CEI)	Bartlett WWTP #2	Memphis	Individual	I
		Kinder Morgan, Port of Memphis,			
TNR051200	Compliance Eval (non-sampling) (CEI)	LLC	Memphis	TMSP	-
TNG110001	Compliance Eval (non-sampling) (CEI)	Memphis Ready Mix Oakland Plant	Memphis	RMCP	I
FD 100 720 10		Memphis-Shelby County Airport			
TN0072940	Compliance Eval (non-sampling) (CEI)	Authority	Memphis	Individual	I
TNR058831	Compliance Eval (non-sampling) (CEI)	Mitsubishi Electric Power Products, Inc.	Memphis	TMSP	
TNR054568	Compliance Eval (non-sampling) (CEI)	Coleman Commercial Heat Treat	Memphis	TMSP	I
TN0021067	Compliance Eval (non-sampling) (CEI) Compliance Eval (non-sampling) (CEI)	Millington STP #2	Memphis	Individual	M
110021007	Comphance Evar (non-sampling) (CEI)	National Railroad Passenger Corp.	Mempins	marviduai	1V1
TNR056578	Compliance Eval (non-sampling) (CEI)	(Amtrak) - Memphis	Memphis	TMSP	_
TNR056651	Compliance Eval (non-sampling) (CEI)	Pyramid Sign & Awning Inc	Memphis	TMSP	-
	(CDI)	Federal Express Corporation			†
TN0067351	Compliance Eval (non-sampling) (CEI)	Memphis AOC (FedEx)	Memphis	Individual	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0077836	Compliance Eval (non-sampling) (CEI)	Oakland - Mechanical WWTP	Memphis	Individual	M
TN0057461	Compliance Eval (non-sampling) (CEI)	Collierville STP-Shelton Rd	Memphis	Individual	M
TNR054257	Compliance Eval (non-sampling) (CEI)	Farrell-Calhoun, Inc.	Memphis	TMSP	I
TNG110182	Compliance Eval (non-sampling) (CEI)	Memphis Ready Mix Millington Plant	Memphis	RMCP	I
TNR058476	Compliance Eval (non-sampling) (CEI)	Progress Rail Services - Memphis Recycling Yard	Memphis	TMSP	-
TN0071871	Compliance Eval (non-sampling) (CEI)	R. L. Inman Trucking Company	Memphis	Mining	I
TNR050635 TNR053731	Compliance Eval (non-sampling) (CEI)	SCF Waxler Marine, LLC dba Waxler Transportation Company	Memphis	TMSP TMSP	-
	Compliance Eval (non-sampling) (CEI)	Drexel Chemical Company	Memphis		
TN0023795	Compliance Eval (non-sampling) (CEI)	Northwest School	Memphis	Individual	I
TNR053469	Compliance Eval (non-sampling) (CEI)	Sonoco Recycling	Memphis	TMSP	-
TNR054147	Compliance Eval (non-sampling) (CEI)	Sugar Services LLC	Memphis	TMSP	I
TNG830189	Compliance Eval (non-sampling) (CEI)	Transmission Doctors/North Shelby Animal Hospital	Memphis	UST	-
TNG110201	Compliance Eval (non-sampling) (CEI)	West Tennessee Ready Mix - Gallaway Plant	Memphis	RMCP	I
TN0078603	Technical Assistance Visit and File Review	Arlington STP (11150 Highway 70)	Memphis	Individual	M
TN0077941	Compliance Eval (non-sampling) (CEI)	Harrison Yard	Memphis	Individual	I
TNR054117	Compliance Eval (non-sampling) (CEI)	Ledbetter Packing Company	Memphis	TMSP	-
TN0065277	Compliance Eval (non-sampling) (CEI)	Mallard Ridge Mobile Estates	Memphis	Individual	I
TN0020729	Compliance Eval (non-sampling) (CEI)	Memphis-TE Maxson STP South Plant	Memphis	Individual	M
TNR051714	Compliance Eval (non-sampling) (CEI)	The HallStar Company	Memphis	TMSP	-
TNG110334	Compliance Eval (non-sampling) (CEI)	West Tennessee Ready Mix	Memphis	RMCP	-
TN0064092	Technical Assistance Visit and File Review	City of Rossville STP	Memphis	Individual	M
TN0057461	Pretreatment Compliance (oversight)	City of Rossville STP Collierville STP-Shelton Rd	Memphis	Individual	M
TNR056114	Compliance Eval (non-sampling) (CEI)	East Street Auto	Memphis	TMSP	IVI
TN0066443	Compliance Eval (non-sampling) (CEI) Compliance Eval (non-sampling) (CEI)	Ruleman's Sand & Gravel Co.	Memphis	Mining	
			-		I
TN0071641	Compliance Eval (non-sampling) (CEI)	Tipton County Gravel Company	Memphis	Mining	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TNR053943	Compliance Eval (non-sampling) (CEI)	Transport Service Company	Memphis	TMSP	-
TNR050970	Compliance Eval (non-sampling) (CEI)	Trumbo Inc.	Memphis	TMSP	-
		West Tennessee Ready Mix - Oakland			
TNG110335	Compliance Eval (non-sampling) (CEI)	Plant #2	Memphis	RMCP	-
TNR053034	Compliance Eval (non-sampling) (CEI)	Memphis Recycling Services	Memphis	TMSP	-
		Memphis-Maynard C. Stiles STP			
TN0020711	Compliance Eval (non-sampling) (CEI)	North Plant	Memphis	Individual	M
		Mississippi Limestone Corporation -			
TNG110260		US Army Corps of Engineers Material	3.6 1.	DIAGD	
TNG110260	Compliance Eval (non-sampling) (CEI)	Casting Field	Memphis	RMCP	-
TNG110370	Compliance Eval (non-sampling) (CEI)	MMC Materials, Inc Frayser	Memphis	RMCP	-
TNC020100	Compliance Front (non-compliance) (CFI)	Transmission Doctors/Matthews	M 1	LICT	
TNG830190	Compliance Eval (non-sampling) (CEI)	Property Vulcan Materials Company -	Memphis	UST	-
TNR058234	Compliance Eval (non-sampling) (CEI)	Memphis Sales Yard	Memphis	TMSP	_
TN0020982	Pretreatment Audit	Covington STP	Memphis	Individual	M
TNR051368	Compliance Eval (non-sampling) (CEI)	Empire Express, Inc.	Memphis	TMSP	I
TN0067482	Compliance Eval (non-sampling) (CEI)	Pleasant Ridge Trailer Park	Memphis	Individual	I
TNR050657	Compliance Eval (non-sampling) (CEI)	W. M. Barr & Company Inc.	Memphis	TMSP	-
TNR051330	Compliance Eval (non-sampling) (CEI)	W. M. Barr & Company Inc.	Memphis	TMSP	-
TN0020711	Pretreatment Compliance (oversight)	Memphis-Maynard C. Stiles STP North Plant	Memphis	Individual	M
TN0078671	Compliance Eval (non-sampling) (CEI)	Pilot Travel Centers LLC #149	Memphis	Individual	I
	(Sims Metal Management Memphis,			†
TNR053315	Compliance Eval (non-sampling) (CEI)	L.L.C.	Memphis	TMSP	_
TNR051805	Compliance Eval (non-sampling) (CEI)	Worley's City Iron & Metal, Inc. #I	Memphis	TMSP	-
	Technical Assistance Visit and File		•		
TN0021741	Review	McEwen STP	Nashville	Individual	I
TN0021741	Pretreatment Compliance (oversight)	McEwen STP	Nashville	Individual	I
	Stormwater Non-Construction Non-				
TNR055966	Sampling	Fox Hardwood Lumber, LLC	Nashville	TMSP	-
TNR050218	Compliance Eval (non-sampling) (CEI)	Lone Star Industries, Inc. d/b/a Buzzi Unicem USA - Nashville	Nashville	TMSP	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Stormwater Non-Construction Non-				
TNR058171	Sampling	Panchos Auto Salvage, LLC	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR054425	Sampling	Peffen Machine Co Inc	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR056898	Sampling	Bordeau Metals LLC	Nashville	TMSP	-
	Stormwater Non-Construction Non-	Express Auto Recyclers and Sales,			
TNR058216	Sampling	LLC	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR056018	Sampling	A.C. Hilltop Auto Salvage, Inc.	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR056104	Sampling	Dickson Auto Salvage	Nashville	TMSP	-
	Stormwater Non-Construction Non-	International Paper Company -			
TNR050999	Sampling	Murfreesboro	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR050736	Sampling	LoJac Murfreesboro Plant	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR058750	Sampling	RE-EL Topsoil, LLC	Nashville	TMSP	-
	Stormwater Non-Construction Non-	Sebring Inc. DBA Manus Rd Auto			
TNR058602	Sampling	Salvage	Nashville	TMSP	-
TNR147908	Stormwater Construction Non-Sampling	City of Waverly	Nashville	CGP	-
		Northfield Boulevard Church of			
TNR147362	Stormwater Construction Non-Sampling	Christ	Nashville	CGP	-
TN0063908	Compliance Eval (non-sampling) (CEI)	BNA Fuel Company, LLC	Nashville	Individual	I
TN0078417	Compliance Eval (non-sampling) (CEI)	City of Lebanon Landfill	Nashville	Individual	I
TN0080888	Compliance Eval (non-sampling) (CEI)	Hemlock Semiconductor, L.L.C.	Nashville	Individual	M
111000000	Stormwater Non-Construction Non-	Tremoek Semiconauctor, E.E. c.	Trasfirmo	Trai (Tauar	111
TNR050678	Sampling	Hoeganaes Corporation	Nashville	TMSP	_
1111050070	Stormwater Non-Construction Non-	1100gamus corporation	1 (46511) 1110	111201	
TNR050732	Sampling	LoJac Lebanon Plant	Nashville	TMSP	_
	Stormwater Non-Construction Non-				
TNR058565	Sampling	Nick's Sawmill	Nashville	TMSP	_
.======	Stormwater Non-Construction Non-				
TNR056260	Sampling	Rawls And Son Auto	Nashville	TMSP	_

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
	Stormwater Non-Construction Non-				
TNR051340	Sampling	State Line Auto Parts, LLC	Nashville	TMSP	-
	Stormwater Non-Construction Non-				
TNR058610	Sampling	Steel Technologies LLC	Nashville	TMSP	-
TD 100 6 60 70	Technical Assistance Visit and File	Water Authority of Dickson County -	NY 1 111	Y 12 1 1	
TN0066958	Review	Jones Creek STP	Nashville	Individual	M
TNR147343	Stormwater Construction Non-Sampling	Billy Hadley	Nashville	CGP	-
TNR147924	Stormwater Construction Non-Sampling	First Baptist Church of Mt. Juliet	Nashville	CGP	-
TNR149465	Stormwater Construction Non-Sampling	Holly Point, LLC	Nashville	CGP	-
TNR147408	Stormwater Construction Non-Sampling	OBP, LLC	Nashville	CGP	-
TNR148074	Stormwater Construction Non-Sampling	Robinson Development L.P.	Nashville	CGP	-
	Stormwater Non-Construction Non-				
TNR058041	Sampling	SanGravl Company, Inc	Nashville	TMSP	-
		WFC Durham Holdings VII,			
		Delaware General Partnership, c/o			
TNR149287	Stormwater Construction Non-Sampling	Walton St. Capital, LLC	Nashville	CGP	-
TNR148901	Stormwater Construction Non-Sampling	F&M Facilities Corp.	Nashville	CGP	-
TNR149273	Stormwater Construction Non-Sampling	Griffey Family Partnership	Nashville	CGP	-
TNR148904	Stormwater Construction Non-Sampling	Optimech, LLC	Nashville	CGP	-
TNR148571	Stormwater Construction Non-Sampling	Portland Airport Authority	Nashville	CGP	-
TNR149418	Stormwater Construction Non-Sampling	Short Fuse Trucking	Nashville	CGP	-
TNR147670	Stormwater Construction Non-Sampling	WVF Properties, LLC	Nashville	CGP	-
TNR149429	Stormwater Construction Non-Sampling	Metro Water Services	Nashville	CGP	-
TN0068144	Compliance Eval (non-sampling) (CEI)	Cheatham Hydro Power Plant	Nashville	Individual	I
	Technical Assistance Visit and File	· ·			
TN0020656	Review	Clarksville STP	Nashville	Individual	M
TN0028827	Compliance Eval (non-sampling) (CEI)	Franklin STP	Nashville	Individual	M
	Stormwater Non-Construction Non-				
TNR054254	Sampling	Hamilton Lumber Company	Nashville	TMSP	-
TN0068152	Compliance Eval (non-sampling) (CEI)	J. Percy Priest Hydro Power Plant	Nashville	Individual	I
TN0080178	Compliance Eval (non-sampling) (CEI)	Love's Travel Stop and Country Store	Nashville	Individual	I
TN0081281	Compliance Eval (non-sampling) (CEI)	Murfreesboro Discovery Center	Nashville	Individual	I

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
TN0080630	Compliance Eval (non-sampling) (CEI)	Nashville Zoo	Nashville	Individual	I
	Stormwater Non-Construction Non-	North American Stamping Group,			
TNR058687	Sampling	LLC	Nashville	TMSP	-
TN0075922	Compliance Eval (non-sampling) (CEI)	Pilot Travel Centers LLC #053	Nashville	Individual	I
	Technical Assistance Visit and File				
TN0021865	Review	Portland STP	Nashville	Individual	M
	Stormwater Non-Construction Non-	Rolling Frito-Lay Sales, LP - Dickson			
TNR056615	Sampling	Bin	Nashville	TMSP	-
	Stormwater Non-Construction Non-			F7 405	
TNR056289	Sampling	Stephens Used Cars	Nashville	TMSP	-
TND 050420	Stormwater Non-Construction Non-		NY 1 '11	TMCD	
TNR050438	Sampling	Superior Essex	Nashville	TMSP	-
TN0059404	Compliance Sampling (CSI)	White House STP	Nashville	Individual	M
TND051760	Stormwater Non-Construction Non-	A conside Devilor d	NI1	TMCD	
TNR051769	Sampling Stormwater Non-Construction Non-	Accuride Portland	Nashville	TMSP	-
TNR058721	Stormwater Non-Construction Non-Sampling	Berry Plastics Corporation	Nashville	TMSP	_
110036721	Stormwater Non-Construction Non-	Berry Flastics Corporation	Nasiiville	TWISE	-
TNR056046	Sampling	Billie's Used Cars & Repairs, LLC	Nashville	TMSP	_
1111030040	Stormwater Non-Construction Non-	Binie's Osed Cars & Repairs, ELC	rasiiviiic	TWIST	
TNR053388	Sampling	Campbell Hausfeld	Nashville	TMSP	I
11/11/05/55/5	Stormwater Non-Construction Non-		1 (4611) 1110	1111201	
TNR055073	Sampling	Flexsol Packaging Corp.	Nashville	TMSP	_
TN0073580	Compliance Eval (non-sampling) (CEI)	Franklin TravelCenter	Nashville	Individual	I
TN0022586	Pretreatment Compliance (oversight)	Murfreesboro-Sinking Creek STP	Nashville	Individual	M
TN0022586	Compliance Eval (non-sampling) (CEI)	Murfreesboro-Sinking Creek STP	Nashville	Individual	M
1110022000	compliance Evar (non-sampling) (eEl)	Nashville J.P.Priest Lake Hamilton	1 (usii (iii)	IIIGI (IGGGI	111
TN0028550	Compliance Eval (non-sampling) (CEI)	Creek Rec Area	Nashville	Individual	I
	Stormwater Non-Construction Non-				
TNR051098	Sampling	Nissan North America, Inc.	Nashville	TMSP	-
TN0066664	Compliance Eval (non-sampling) (CEI)	Sumner County Highway Dept.	Nashville	Mining	I
	Stormwater Non-Construction Non-				
TNR058818	Sampling	Tennsco Corporation Plant 2/3	Nashville	TMSP	-

Permit No	Inspect type	Permittee Name	EFO Name	Permit Type	Rating
		The Chemours Company FC LLC (E.			
		I. DuPont De Nemours - New			
TN0001465	Compliance Eval (non-sampling) (CEI)	Johnsonville)	Nashville	Individual	M
TN0055964	Compliance Eval (non-sampling) (CEI)	Trane U.S. Inc	Nashville	Individual	I
TN0020249	Compliance Eval (non-sampling) (CEI)	USDA - Piney Campground	Nashville	Individual	I
		USDA Forest Service, Brandon			
TN0020273	Compliance Eval (non-sampling) (CEI)	Springs Camp	Nashville	Individual	I
	Stormwater Non-Construction Non-				
TNR053918	Sampling	Vi-Jon, Inc	Nashville	TMSP	I
		Vulcan Construction Materials, LP -			
TN0003549	Compliance Eval (non-sampling) (CEI)	River Road Quarry	Nashville	Mining	I

Counts toward inspection commitment:

CBI = Compliance Biomonitoring CEI = Compliance Evaluation Inspection

Inspection CSIX = A CSI Toxic

CSI = Compliance Sampling Inspection RMCP = ready mix concrete plant

PAI = Performance Audit Inspection
TMSP Tennessee Multi-Sector General

Permit

RI (REC) = Reconnaissance (does not count toward inspection commitment)