TENNESSEE
DIVISION OF WATER RESOURCES

FISCAL YEAR 2025-2026
SURFACE WATER
MONITORING AND ASSESSMENT
PROGRAM PLAN

July 2025

Tennessee Department of Environment and Conservation
Division of Water Resources
Davy Crockett Tower, 9th Floor
500 James Robertson Parkway
Nashville, Tennessee 37243

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

FIGURES **Page**

LIST OF TABLES

TABLES **Page**

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. Additional information on monitoring strategies, assessment and listing strategies can be found in Tennessee's Consolidated Assessment and Listing Methodology (CALM), TDEC 2023 .

Tennessee has developed a nutrient criteria development plan. The division has published Quality System Standard Operating Procedures (QSSOP's) for conducting bacteriological, chemical, macroinvertebrate and diatom surveys, as well as a Quality Assurance Project Plan for 106 Monitoring.

These documents can be accessed on the Department's website at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html

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 overall condition of the state's waters.
- Identify problem areas with parameter values that violate Tennessee numerical or narrative water quality standards.
- Identify causes and the most probable and significant sources of water quality problems.
- Document areas with potential human health threats from fish tissue contamination or elevated bacteria levels. Identify those areas where the pubic may need to be warned to avoid water contact or fish consumption.
- Establish trends in water quality.
- Gauge water quality conditions downstream of point source dischargers or other permittees as an additional compliance check.

  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.
- Provide data for TMDL studies.
- Assess water quality improvements based on site remediation, 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.
- Identify and protect wetlands.

Since 1996, Tennessee's monitoring program has been based on a five-year watershed cycle. The first cycle was completed in 2001. The second cycle was completed in 2006. A third cycle was completed in 2011. The fourth cycle was completed in 2016. The fifth assessment cycle was completed in 2021.

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 began monitoring to establish reference guidelines for headwater streams. A future challenge is to develop similar guidelines for rivers, lakes, and reservoirs. Major limiting factors to achieving this goal is federal 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 lakes, rivers and streams, and to determine monitoring priorities.

2. **Monitoring.** Field data are collected by DWR staff for lakes, rivers and streams previously prioritized.

3. **Assessment**. Monitoring and all other relevant data are used to determine if the river, lakes and streams support their designated uses based on waterbody classifications and water quality criteria. The assessment is used to develop Tennessee's List of Impaired Waters and report water quality to EPA via ATTAINS.

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. .

6. **Watershed Water Quality Management Plans.** Previous watershed plans contained a general description, management strategies, and information relevant to water quality. The Division has transitioned to web-based watershed mapping and story map applications. Watershed specific information and resources may be found on the department's watersheds page. https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/tennessee-watersheds.html

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

Tennessee has a wealth of water resources with over 60,000 miles of rivers and streams and more than 570,000 lake and reservoir acres. Monitoring data are used to not only assess streams and reservoirs, but also to inform permit decisions and to assist in the development of water quality criteria. Recent physical, chemical, or biological survey results are not the only form of data available to inform the assessment process. While recent stream sample data are the ideal, there are other valid information sources, such as GIS analysis of land use, recent aerial photographs, models, self-monitoring reports, compliance inspection results, and overflow reports. Stream assessment decisions are based on multiple sources of evidence and the agency's responsibility to weigh all available information to arrive at a conclusion.
TDEC's watershed approach serves as an organizational framework for systematic assessment of the state's water quality. By viewing the entire drainage area or watershed as a whole, the department is better able to schedule water quality monitoring, assessment, permitting activities, and stream restoration efforts. This unified approach affords a more in-depth study of each watershed and encourages coordination of public and governmental organizations. The watersheds are assessed on a five-year cycle that coincides with permit issuance.

A major 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 overall condition of the state's waters, both geographically and temporally.

2. Identify specific problem areas where parameter values violate Tennessee numerical or narrative water quality standards.

3. Identify causes and the most probable and significant sources of water quality problems.

4. Document areas with potential human health threats from fish tissue contamination or elevated bacteria levels. Identify those areas where the public may need to be warned to avoid water contact or fish consumption.

5. Establish trends in water quality.

6. Gauge water quality conditions downstream of point source dischargers or other permittees as an additional compliance check.

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. Provide data for TMDL studies.

9. Assess water quality improvements based on site remediation, enforcement, Best Management Practices, TMDL implementation and other restoration strategies.

10. Identify proper stream-use classification, plus assist in the implementation of the Antidegradation Statement.
11. Identify natural reference conditions on an ecoregion basis for refinement of water quality standards.

12. Identify and protect wetlands.

C. Monitoring Design

The division incorporates several approaches in its surface water 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. Also, Tennessee relies heavily on ecoregions to serve as a geographical framework for establishing regional water quality expectations (Arnwine et al, 2000).

Watersheds

The watershed approach serves as an organizational framework for systematic assessment of the state's water quality. By viewing the entire drainage area, the division is better able to address water quality conditions 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 goals:

1. Commits to monitoring strategies 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. Assesses 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, five major objectives are to be met:

1. Transparency in assessments and TMDLs.
2. Attain good representation of all local interests at public meetings and continue a dialogue with local interest throughout the five-year cycle.
3. Develop implementation plans for impaired waters.
4. Monitor water quality intensively within each watershed at the appropriate time in the five-year watershed cycle.
5. 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).

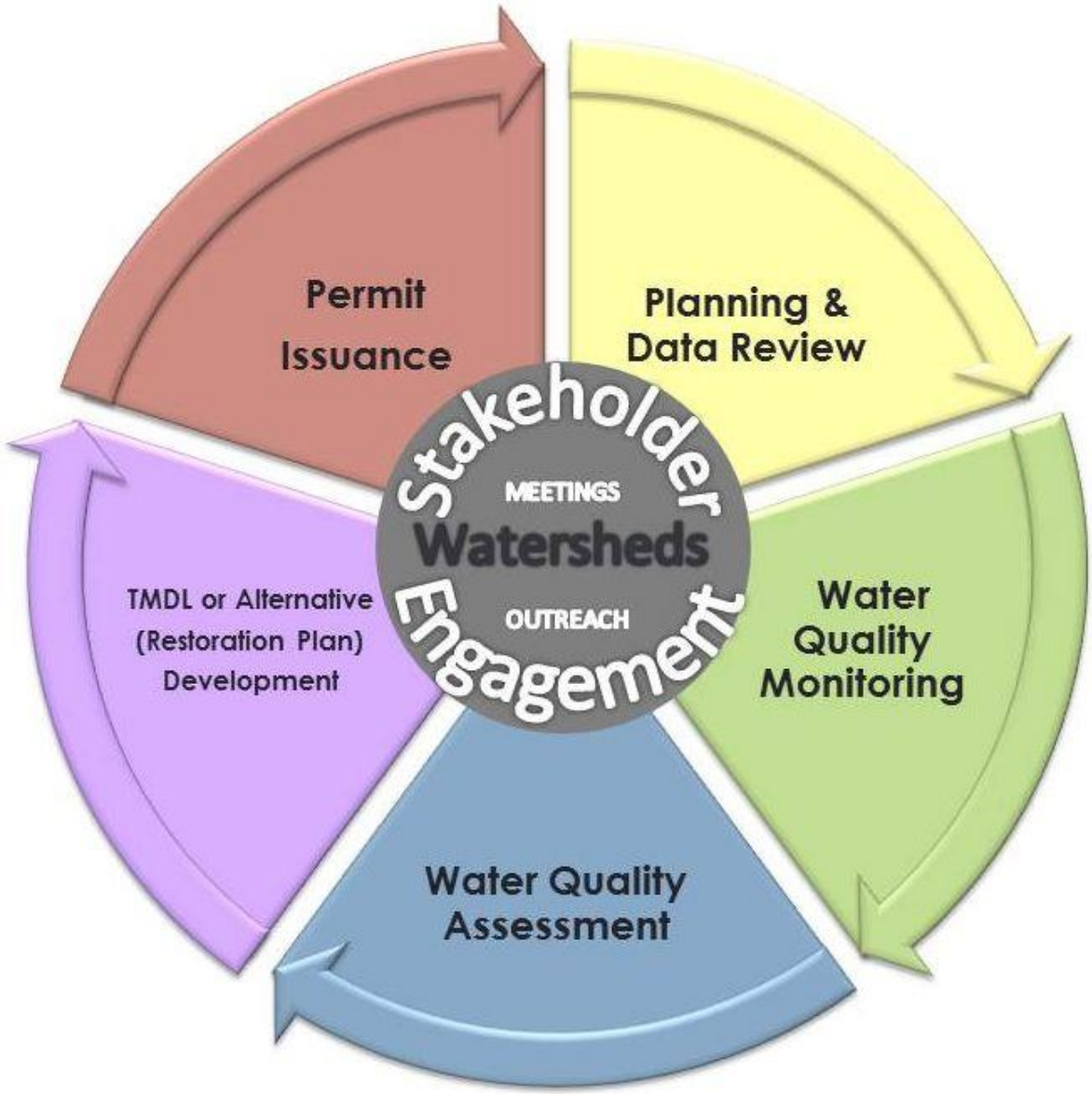


Figure 1: Graphic Representation of the Watershed Approach.

More details for the watershed approach may be found on the DWR home page http://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship.html

The watershed 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 Wildlife Resources Agency (TWRA), United States Geological Survey (USGS), National Park Service (NPS), National Forest Service (NFS), and United States Army Corps of Engineers (USACE) to avoid duplication of effort and increase watershed coverage.

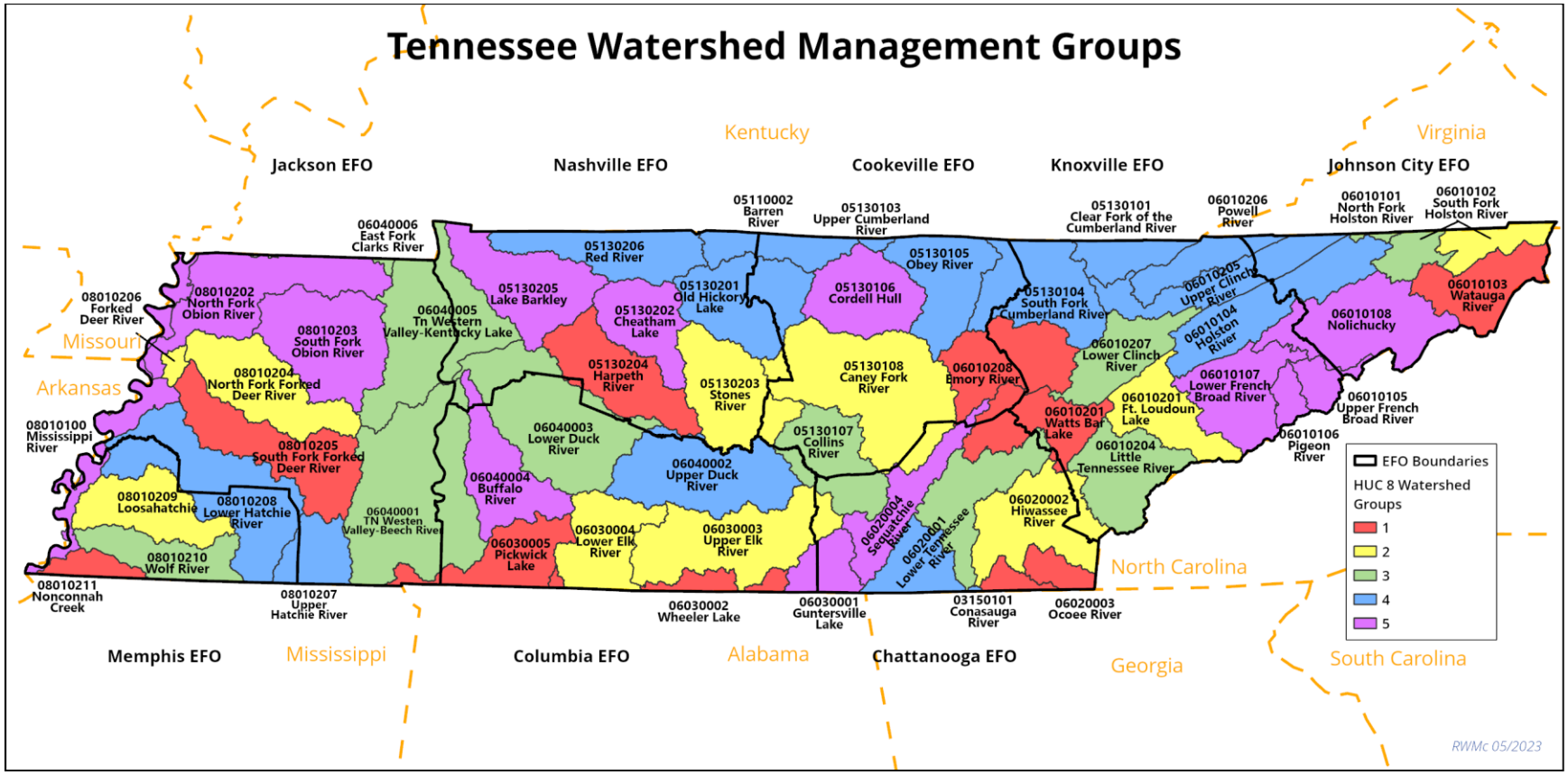


Figure 2: Tennessee Watershed Groups

Table 1. Watershed Groups and Monitoring Years (Monitoring year starts July 1 and ends July 30 the following year.)

Group/ Year	Watershed	HUC	EFO	Watershed	HUC	EFO
1 2021-22 2026-27 2031-32 2036-37 2041-42	Conasauga	03150101	CH	Ocoee	06020003	CH
	Harpeth	05130204	N	Pickwick Lake	06030005	CL, J
	Watauga	06010103	JC	Wheeler Lake	06030002	CL
	Upper TN (Watts Bar)	06010201	K, CH, CK	South Fork of the Forked Deer	08010205	J
	Emory	06010208	K, CK	Nonconnah	08010211	M
2 2022-23 2027-28 2032-33 2037-38 2042-43	Caney Fork	05130108	CK, CH, N	Upper Elk	06030003	CL
	Stones	05130203	N	Lower Elk	06030004	CL
	S. Fork Holston (u/s Boone Dam)	06010102	JC	North Fork Forked Deer	08010204	J
	Upper TN (Fort Loudoun)	06010201	K	Forked Deer	08010206	J
	Hiwassee	06020002	CH	Loosahatchie	08010209	M
3 2023-24 2028-29 2033-34 2038-39 2043-44	Collins	05130107	CK, CH, CL	TN Western Valley (Beech)	06040001	J
	N. Fork Holston	06010101	JC	Lower Duck	06040003	CL
	S. Fork Holston (d/s Boone Dam)	06010102	JC	TN Western Valley (KY Lake)	06040005	N, J
	Little Tennessee (Tellico)	06010204	K	Wolf	08010210	M
	Lower Clinch	06010207	K	Clarks	06040006	J
	Tennessee (Chickamauga)	06020001	CH			
4 2024-25 2029-30 2034-35 2039-40 2044-45	Barren	05110002	N	Holston	06010104	JC, K
	Clear Fork of the Cumberland	05130101	K, MS	Upper Clinch	06010205	JC, K
	Upper Cumberland	05130103	CK	Powell	06010206	JC, K
	South Fork Cumberland	05130104	K	Tennessee (Nickajack)	06020001	CH
	Obey	05130105	CK	Upper Duck	06040002	CL
	Cumberland (Old Hickory Lake)	05130201	N	Upper Hatchie	08010207	J, M
	Red	05130206	N	Lower Hatchie	08010208	J, M
5 2020-21 2025-26	Lower Cumberland (Cheatham)	05130202	N	Nolichucky	06010108	JC, K
	Lower Cumberland (Lake Barkley)	05130205	N	Sequatchie	06020004	CH

Group/ Year	Watershed	HUC	EFO	Watershed	HUC	EFO
2030-31 2035-36 2040-41	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
	Buffalo	06040004	CL, N			

Key to EFOs (Environmental Field Offices):

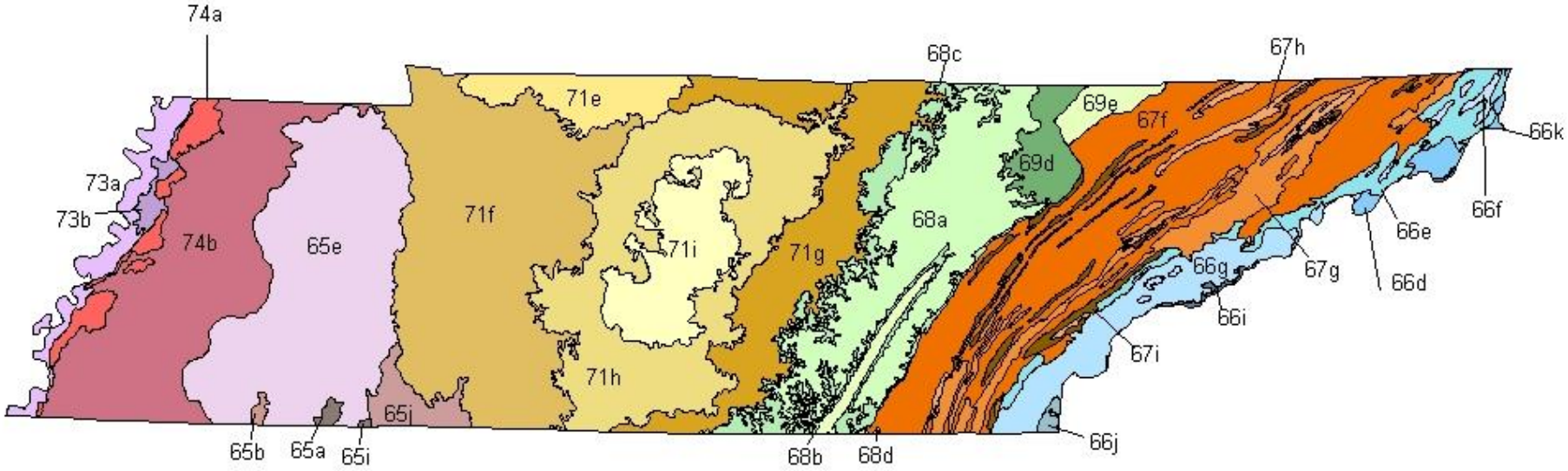
CH	Chattanooga	J	Jackson	M	Memphis
CK	Cookeville	JC	Johnson City	N	Nashville
CL	Columbia	K	Knoxville		

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, ecoregion reference 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. In 2009, headwater streams were added to the reference monitoring program. There are currently106 active reference sites. 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). Except for 69e, the 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 and Low Rolling Hills	71e Western Pennyroyal Karst
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 Mountains	68a Cumberland Plateau	71i Inner Nashville Basin
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 8,600 stations (Figure 4) sampled on a rotating basis (Figure 5). In addition, new stations are created every year to increase the number of assessed flowing waters, lakes and reservoirs, refine existing assessments or to support specific permitting or other regulatory purposes. Stations are sampled monthly, quarterly, semi-annually, or annually depending on the objectives of the project. Within each watershed cycle, the locations of monitoring stations and sampling plans are coordinated between the central office and staff in the eight Environmental Field Offices (EFOs) and the Tennessee Division of Mineral and Geologic Resources, based on the following priorities.

1. **Antidegradation Monitoring:**

Before the division can authorize new or increased degradation in Tennessee waterbodies (with some exceptions), the appropriate categories under the Antidegradation Policy must be determined. These categories are (1) Available Parameters or (2) Unavailable Parameters, (3) Exceptional Tennessee Waters, and (4) Outstanding National Resource Waters (ONRWs). ONRWs can only be established by promulgation by the Tennessee Board of Water Quality, Oil and Gas. Categories 1 and 2 are on a "parameter by parameter" basis considering the existing water quality of the stream. Exceptional Tennessee Waters (ETWs) are identified by division staff based on seven characteristics in Rule 0400-40-03-.06(4).

Waterbodies can be in more than one category at a time, due to the parameter-specific nature of categories 1 and 2 above. (For example, the Ocoee River is an impaired stream due to multiple pollutants that is also an Exceptional Tennessee Water due to its national significance as a whitewater rafting resource. Thus, its antidegradation status is both as unavailable for specific parameters and as an ETW.)

Streams are evaluated in response to requests for new or expanded National Pollutant Discharge Elimination System (NPDES) and Aquatic Resource Alteration Permit (ARAP) individual permits, including ARAP water withdrawal applications. When the waterbody requiring an antidegradation determination does not have recent water quality data from the last five years, surveys are done by field office staff, unless the applicant is willing to provide the needed information in a timely manner. In some circumstances, older data may be used if field staff believes they are still valid. Because the identification of antidegradation status must be determined prior to permit issuance, this work is done on the highest priority basis.

Streams are evaluated for antidegradation status based on a standardized ETW and Waterbody Use Support evaluation process, which includes information on specialized recreation uses, scenic values, ecological consideration, biological integrity and attainment of water quality criteria. Since permit requests generally cannot be anticipated, these evaluations are generally not included in the workplan.

2. Posted Waters:

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.

Fish tissue monitoring for fishing advisories is planned by a workgroup consisting of staff from DWR-TDEC, TVA, ORNL and TWRA. The workgroup meets annually to coordinate a monitoring strategy. Fish tissue sampling for TDEC is contracted to the state laboratory. The strategy includes all posted waterbodies plus those frequently fished by the public. During review of field office monitoring plans for the upcoming watershed year, central office may also discuss needed tissue sampling with the field office.

For pathogen advisories, in conjunction with the monitoring cycle, monthly *E. coli* samples, plus at least one geomean sample (5 samples in 30 days) must be collected and analyzed. 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 and being reported, remembering that the ultimate responsibility to ensure that sampling is done remains with the division.

Field office and central office staff review fish tissue and pathogen results and jointly decide if it appears that an advisory could be proposed for lifting or new advisories issued. Additionally, field office staff have the primary responsibility to ensure that existing signs on posted waterbodies are inspected periodically (annually is preferred) and replaced if damaged or removed.

3. Ecoregion Reference Streams, Ambient Monitoring Stations, Southeastern Monitoring Network Trend Stations (SEMN) and probabilistic stations:

Established ecoregion or headwater reference stations are monitored according to the watershed approach schedule. Each station is sampled quarterly for chemical quality as well as in spring and fall for macroinvertebrates and habitat. Diatoms are sampled once during the growing season (April – October). Both semi-quantitative single habitat 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 will be sampled quarterly according to the set list of parameters established for this sampling effort.

Southeastern Monitoring Network Stations (SEMN): Like ambient stations, SEMN stations within each field office area will be sampled every year according to the project plan and grant for this project, regardless of watershed cycle.

Probabilistic stations are ninety randomly selected throughout the state first monitored in 2007. The stations will be sampled for chemistry monthly and biology (diatoms and semiquantitative macroinvertebrates) once during the watershed cycle.

4. Sampling downstream of Major Dischargers, Landfills, and CAFO's:

During each monitoring cycle, the major dischargers, landfills, and CAFO's are identified in targeted watersheds. Because these types of facilities are directly regulated by the Department, water quality monitoring can have a direct effect on future permitting or enforcement decisions. In addition, their effect on instream water quality can be profound, and can change rapidly (as opposed to a habitat-impaired stream) – thus they are a higher priority to monitor each and every cycle.

Stations are established at those waterbodies, preferably both upstream and downstream of the facility. Even if the facility does have in-stream monitoring requirements built into their permit, the Division should collect samples during the watershed monitoring cycle to provide additional QA/QC. The pollutant of concern and the effect it would have on the receiving stream may determine the location of the station(s). (Note: stations may not be required for dischargers into very large waterways such as the Mississippi River or large reservoirs.) Frequent collection (monthly recommended) of parameters should include those being discharged, plus a semi-quantitative single habitat (SQSH) survey if the stream is wadeable. Stations downstream of STPs or industries that discharge nutrients should include a SQSH, collection of diatoms, plus monthly nutrient monitoring. In streams, particular care should be taken to document the extent and types of algal growth.

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 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 sampling.

Streams below Class I and Class II landfills, both active and inactive, are included in the annual monitoring workplan. Other types of landfills should also be reviewed for documentation of any known or potential water quality impacts. Sampling needs are coordinated with the local Division of Solid Waste Management office. Parameters of concern at landfills include elevated dissolved solids and conductivities, inorganic salts, metals, and ammonia, and should be sampled monthly. Temperature and pH data are required to interpret ammonia criteria. Hardness and total suspended solids (TSS) are

required to interpret metals data. A list of minimum required parameters is provided in the QAPP and Chemical/Bacteriological Monitoring SOPs

In addition, when developing workplans prior to the next monitoring cycle, field office staff should coordinate with the Division of Remediation (DoR) to confirm that any Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites currently on the 303(d) List are being monitored by either DoR or the permittee. These water quality data are reviewed to determine if the site continues to cause or contribute to violations of water quality standards. If data are not available, sampling should be designed to document water quality and provide a rationale for delisting if improvement is observed.

5. TMDL Development, Model Calibration, or other Special Project Monitoring:

While not common, occasionally the Division will need specific, targeted monitoring added to the annual workplan. This might involve the development of a new regionally or parameter-specific TMDL.

Effectiveness monitoring for completed TMDLs in the watershed group is coordinated between the Watershed Planning Unit (WPU) 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, 2022), and in the document *Monitoring to Support TMDL Development* (2001).

Similarly, there may be specific situations where the typical Watershed Monitoring will not generate all the specific data needed to assist in the development or calibration of water quality models utilized by the Division. Where such a need exists, these stations and parameters should be added to the monitoring plan, after coordination between the Watershed Planning Unit (WPU) manager and the EFOs

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.

In some cases, monitoring activities related to these projects are contracted out to the state lab. However, if problems arise, field offices might be called upon if the state lab or another contractor is 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 probabilistic monitoring designs.

6. Watershed Monitoring:

In addition to the previous priorities, each EFO executes a more generalized Watershed Monitoring plan, designed to provide as much information about the overall health of streams and lakes within the cycle's watershed groups. This category, although at the end

of the priority list, actually constitutes the bulk of Division's monitoring efforts and strategy, and in some ways represents the most important component overall.

The priorities within each Group's Watershed Monitoring plan may differ from cycle to cycle, due to considerations such as data from the previous cycle, long-term trends, new data from outside agencies, or known BMPs and restoration work. In general, higher priority for monitoring efforts will include:

- Currently impaired segments where the Department or other agency has developed control strategies and continued monitoring will be beneficial to track progress towards restoration.

- Currently impaired stream segments where previous data were close to, or indicate a trend towards supporting one or more designated uses, or the delisting of a specific parameter.

- Streams impaired for recreation, where other data are not available to evaluate ongoing conditions (e.g., overflow reports, DMRs, complaints)

- Streams impaired by, or suspected to be impaired by, a water quality-related parameter, or a specific point source may be higher priorities than streams impaired by a habitat-related parameter, or a more generalized land-use source.

- Assessment of potential new reference stations in streams in relatively protected watersheds. Each year, existing reference streams are degraded by various impacts in their watersheds and have to be replaced.

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

- Sites below ARAP activities or extensive nonpoint source impacts in wadeable streams where biological impairment is suspected. Examples might be unpermitted activities, violations of permit conditions, failure to install or maintain BMPs, large-scale development, clusters of stormwater or ARAP permits, or a dramatic increase in impervious surfaces.

- Unassessed reaches especially in third order or larger streams, or in disturbed headwaters.

- Pre-restoration or BMP monitoring. This sampling would be to document improvements but is also needed for antidegradation purposes and 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 restoration and evaluates the effectiveness of the restoration of BMP approach.

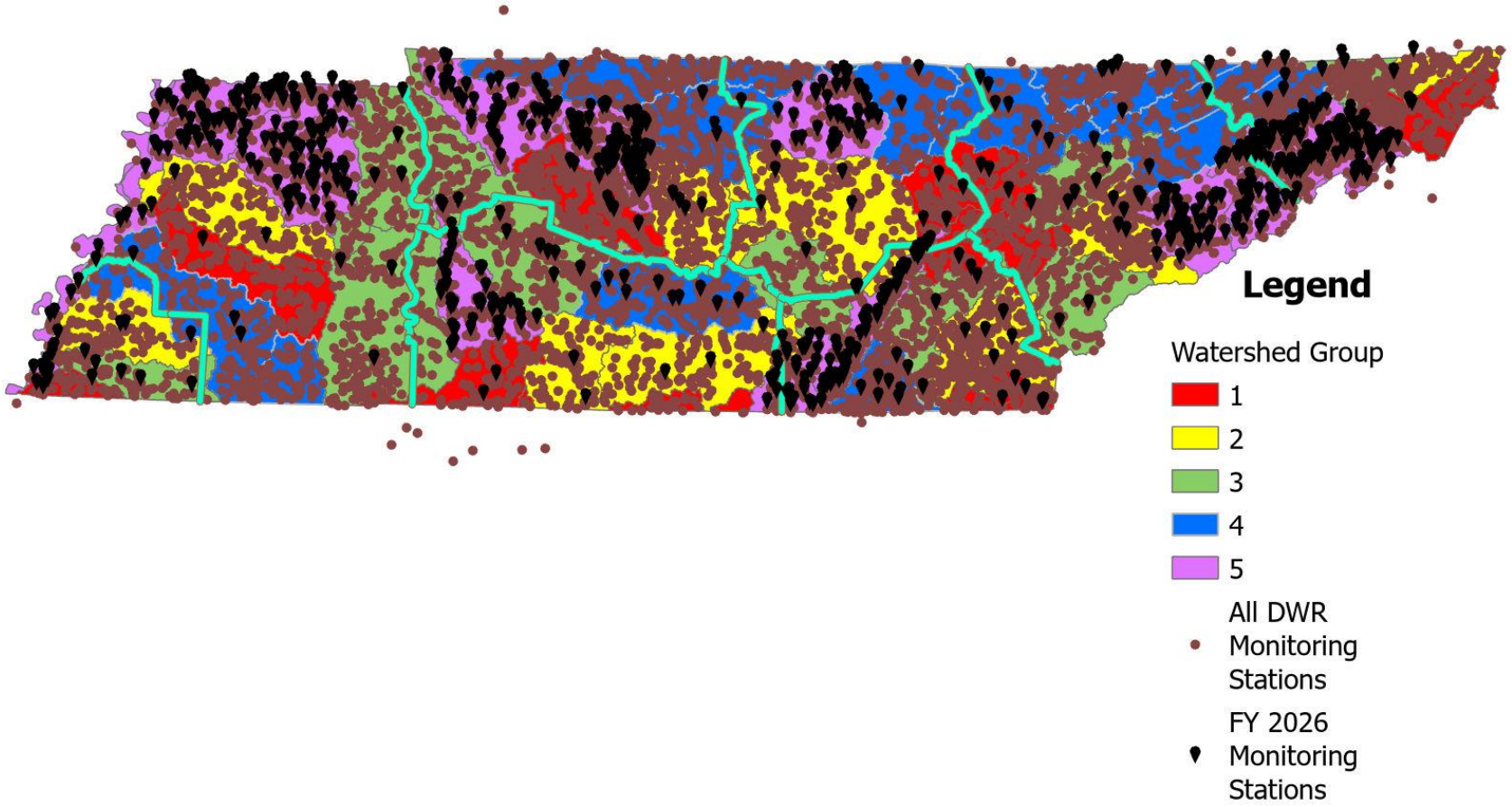


Figure 4: Water Quality Monitoring Stations in Tennessee. (Includes biological, chemical and bacteriological stations.)

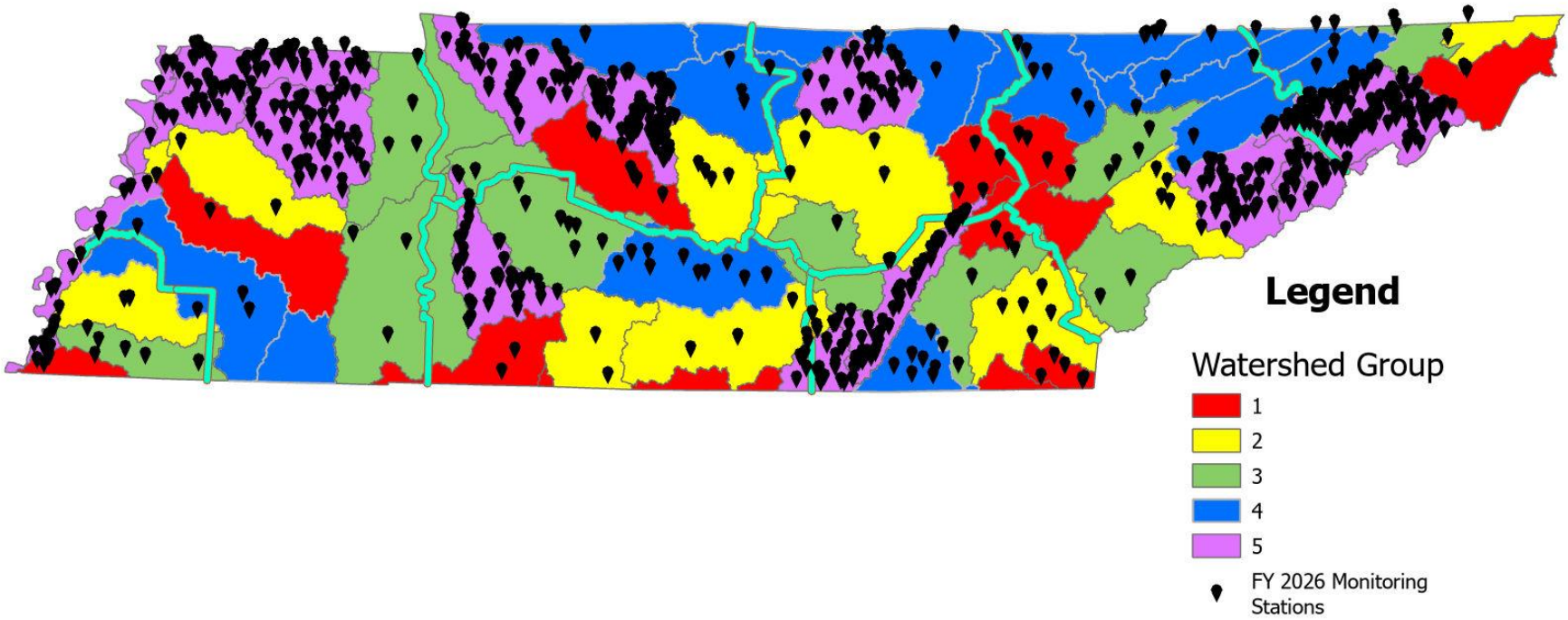


Figure 5: **Monitoring Stations Scheduled to be Sampled Between July 2025 and June 2026 (FY26)**
(Includes biological, chemical and bacteriological stations.)

7. 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, 2021). 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.

8. Reservoir Monitoring:

Tennessee is dependent on TVA and USACE for the majority of these data. Timeline for monitoring is dependent on availability of these agencies or federal funding if they are not available.

Large Reservoirs (> 1000 acres)

Tennessee has 29 large reservoirs ranging from the 1,749 acres Chilhowee Reservoir on the Little Tennessee River to the 99,500 acres 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 the initial consecutive five years of sample collection, sampling occurs every other year (Table 4).

Table 4: TVA Sample Schedule

Ecological indicators	Sampling Frequency
benthic macroinvertebrates	Late autumn/early winter
chlorophyll	Monthly
dissolved oxygen	Monthly
fish assemblage	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. Fish tissue monitoring for PFAs and mercury began on these in 2022. 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 approximately 1,500 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). Fish tissue monitoring for mercury and PFAs commenced in 2022 on the state park lakes.

E. Critical and Secondary Water Quality Indicators

Biological Water Quality Indicators Critical

a. Macroinvertebrates

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, nutrient impaired streams as well as reference stream monitoring to refine biocriteria guidelines. In recent years this type of sampling has increased for routine watershed surveys. Regional biointegrity goals based on a multi-metric index composed of seven biometrics have been calculated and provide guidelines for each bioregion (TDEC, 2021).

For most bioregions, the seven semi-quantitative single habitat (SQSH) indices are:

- Taxa Richness (TR)
- EPT Richness (Ephemeroptera, Plecoptera, Trichoptera)
- EPT Abundance excluding *Cheumatopsyche* spp. (%EPT-Cheum)
- Modified North Carolina Biotic Index (NCBImod)
- Percent of Oligochaetes and Chironomids (%OC)
- Percent Clingers excluding *Cheumatopsyche* spp. (%Clinger-Cheum)
- Percent Tennessee nutrient tolerant organisms (%TNUTOL)

In bioregion 73, the seven semi-quantitative single habitat (SQSH) indices are:

- Taxa Richness (TR)
- ETO Richness (Ephemeroptera, Trichoptera, Odonata)
- EPT Abundance excluding *Cheumatopsyche* spp. (%EPT-Cheum)
- Modified North Carolina Biotic Index (NCBImod)
- Percent of Oligochaetes and Chironomids (%OC)
- Percent contribution of Crustacea and Mollusca (%CRMOL)
- Percent Tennessee nutrient tolerant organisms (%TNUTOL)

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

For most biorecons, the three biorecon biometrics are:

- Taxa Richness
- EPT Richness (Ephemeroptera, Plecoptera, Trichoptera)
- Intolerant Taxa Richness

In bioregion 73, the three biorecon metrics are:

- Taxa Richness
- ETO Richness (Ephemeroptera, Trichoptera, Odonata)
- CRMOL Richness (Crustacea and Mollusca)

b. Diatoms

The Tennessee Diatom Index (TDI) was implemented in 2022 as a second biological indicator of nutrient impairment. Diatom samples are collected along with macroinvertebrates in most streams where nutrients are collected or as a screening tool for potential nutrient impairment.

The TDI is a multi-metric index comprised of eight metrics selected for the Southeast diatom index developed by Tetra Tech (Tetra Tech, 2022). The index was a collaborative effort between USEPA, Tetra Tech, Alabama Department of Environmental Management, Georgia Department of Natural Resources, Kentucky Division of Water and TDEC to develop a nutrient sensitive index based on southeast diatom data.

Diatom data from over 1000 stations and 1500 samples across the 4-state area were processed. An extensive taxonomic harmonization effort resulted in a final set of operational taxonomic units for use in index development. Phycologists from USGS as well as Georgia College and State University provided assistance with harmonization.

More than 200 metrics using known diatom traits from a wide range of sources were generated. These metrics were combined into candidate indices using an all-possible model subsets routine. Top performing indices were selected based on overall discrimination, stressor sensitivity, and robust discrimination across ecoregions.

The final region-wide index is composed of eight metrics that reflected general disturbance sensitivity, tolerance, oxygen sensitivity, nutrient sensitivity, and motility (Table 5). The index has a discrimination efficiency around 70% and ecoregional discrimination efficiencies ranging from 50% to 100%. It is sensitive to nutrient gradients as well as general human disturbance measures.

Table 5: Tennessee Diatom Index (TDI) Metrics

Metric	Hydra Report	Description	Response to Stress
Bahls_3.pa	%SEN	% abundance of sensitive taxa	Decrease
LTNtr	%LTN	% taxa indicating low Total Nitrogen conditions	Decrease
O_3.pt	% O2tr	% taxa requiring 50% O2 saturation.	Increase
Wa_OptCat_L-1DisTot	%LAND	% taxa tolerant to general land disturbance including urbanization and ag.	Increase
Navicula.pt	%NAV	Motile taxa tolerant of fine sediment	Increase
Centric.pt	%CEN	Effects of reservoir (lentic taxa) and tolerant of nutrients	Increase
High_P.pt	% PTOL	Tolerant of TP > 0.1 mg/l.	Increase
BC_5.pa	%TOL	% abundance of highly tolerant taxa.	Increase

Tennessee further calibrated the index to Level IV ecoregions found in the state based on reference stream data to develop regional condition criteria for use in watershed assessments. (TDEC, 2023). The index is particularly effective in determining a biological response where nutrient levels are elevated, but macroinvertebrates do not show a measurable response using the Tennessee Macroinvertebrate Index (TMI).

Metric values vary in scale depending on the units in the measurement and the ranges in the data sets. To give each metric equal weight in the index, metric values were converted to metric scores on a 100-point scale, using the effective range of each metric. The 5^{th} and 95^{th} percentile metric values from all sites were used as the effective ranges of metric variation in the samples. This recognized the possible range of metric values throughout the study area while discounting values that were unusually extreme and possibly outliers (Blocksom 2003).

Metric scores were truncated at 0 and 100. To calculate the index, the eight metrics scores are averaged. The target TDI score is based on the 25^{th} percentile of index scores for each ecoregion (Table 6). TDI scores below the target are considered stressed.

Table 6: TDI Target Scores by Level IV Ecoregion

Level IV ecoregion	TDI Target
73ab, 74a	40
67g, 71i, 74b	60
71eh	65
65abei, 67fhi, 71fg	70
65j, 66defijk, 68bc	75
66g, 68ad, 69de	80

Secondary Biological

- Fish Index of Biotic Integrity (IBI) Fish populations are sometimes used to supplement assessment information. Tennessee Valley Authority (TVA) sampling, metrics and scoring are used. Sampling is generally conducted by TVA or TWRA.
- Chlorophyll *a:* Chlorophyll *a* data are generally submitted by USACE and TVA primarily from large reservoirs.

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, 2021) 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 (Table 11). Parameters marked with (O) are optional and considered secondary. Minimally, the following are collected:

- Routine Watershed Screenings: Critical: dissolved oxygen, pH, temperature, specific conductance. Parameters are found in Table 11.
- Tennessee's List of Impaired Waters: Critical: The parameters the segment is listed for. Secondary other metals and nutrients.
- Fish Consumption: Critical: Parameters posted for consumption advisories. Secondary: Other metals, organics and PFAs. Mercury and PFAs are generally collected at all sites.
- Contact Advisory: Critical: *E. coli*, mercury if posted.
- Permit Compliance/Enforcement: Parameters limited in permit.
- Reference Streams: Ecoregion and FECO site parameters are found in Table 11.
- TMDL Monitoring is dependent on the type of TMDL needed.
- Landfill parameters are found in Table 11.

F. Quality Management and Assurance Plans

The most recent version of all plans can be found at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html

The most recent version of TDEC's Quality Management Plan was approved by EPA in December 2021. There were no significant changes in 2022. The 2023 plan was reformatted to comply with EPA revisions and was submitted to EPA for approval on April 22, 2024. After In March 2025 EPA completed review requesting additional information and reformatting with no significant changes to process. The plan was updated and resubmitted in July 2025.

This plan is a part of TDEC's agreement to develop and implement Standard Operating Procedures, Quality Assurance Project Plans, Data Quality Objectives, etc. EPA requires states that receive federal grant dollars to have a "Bureau Wide" Quality Management Plan under its grant conditions. Further, EPA occasionally reviews individual Division quality management documents when it conducts semi-annual and annual reviews.

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, 2021) was first published in March of 2002 and was revised in October 2006, June 2011, August 2017 and December 2021. The *QSSOP for Chemical and Bacteriological Sampling of Surface Waters* was first published in March of 2004 and revised in 2009, June 2011 and January 2022 (TDEC, 2022). The *QSSOP for Periphyton Stream Surveys* was completed in 2010 and was revised in 2023 to utilize the Tennessee Diatom Index *TDEC 2023). Each year the *Quality Assurance Project Plan* to EPA (TDEC, 2021) is reviewed and sent to EPA if major revisions are incorporated. 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 and during workshops. Most nutrients, routine inorganic, and metals, as well as some macroinvertebrate and diatom samples are analyzed by the TDH Environmental Laboratories. Organic chemical, most diatom, most bacteriological, some routine inorganic samples, and some macroinvertebrate samples are analyzed by contract labs. All biological and chemical samples conducted by contract labs are subcontracted and reviewed/reported by the state lab. Contract bacteriological laboratories report directly to TDEC. The biological laboratory and subcontractors follow the TDEC QSSOP for macroinvertebrate surveys (TDEC, 2021) and the TDEC diatom SOP (TDEC, 2023). The state and contract chemistry and bacteriological laboratories have standard operating procedures which follow approved EPA methodologies. Laboratories performing chemical analysis must maintain NELAC or ISO/IEC 17025 for surface waters. Bacteriological laboratories must have drinking water certification or the equivalent for *E. coli* analysis. Contract biological laboratories must meet TDEC QC and testing requirements The Chattanooga and Johnson City Environmental Field offices analyze e coli and meet all QC requirements. EPA audits the state laboratories on a regular schedule.

Quality Assurance Guidelines for Macroinvertebrate Surveys as specified in the 2021 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 bound log or 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. Data are electronically uploaded and analyzed. Electronic QC checks are employed with questionable data and/or outliers verified with laboratory or sampling staff. Staff are trained and updated on new techniques as a group during the division's annual meeting or biologists training workshop.
8. Taxonomic staff must pass taxonomic identification tests.

Quality Assurance Guidelines for Diatom Stream Surveys as specified in the 2023 QSSOP:

> The same quality assurance required for macroinvertebrate surveys is necessary for diatom 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. Taxonomic nomenclature is standardized with USGS biodata.

Quality Assurance for Chemical Field Collections as specified in the 2022 QSSOP:

1. Duplicates, field blanks, and equipment blanks, are collected at 10% of sites.
2. Trip blanks are collected at 10% of trips.
3. Temperature blanks are included in each sample cooler.
4. Water quality probes are calibrated weekly (DO is calibrated daily) and include daily post-calibrations.
5. Duplicate field measurements are recorded minimally at the first and last station each day.
6. Chain of custody is maintained on all samples.
7. Staff are trained and updated on new techniques as a group during the division's annual meeting or training workshops.

G. Data Management through Electronic Data Systems

Tennessee's water quality assessment decisions are stored in EPA's Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS). ATTAINS replaces the previous EPA system, the Assessment Database (ADB). ATTAINS is also the EPA water quality assessment reporting tool replacing the previous narrative 303(d) List and 305(b) Reports. ATTAINS also replaces EPA's old TMDL tracking system and provides alternative restoration plans relating them to individual assessment units. Assessments are geo-referenced and maps are provided to help users find streams within specific watersheds. Streams are color coded according to their water quality status in this web application https://tdeconline.tn.gov/dwr/ .

The public has access to assessment information through TDEC's online assessment database. The website links information in the assessment database to an interactive map using the Geographic Information System (GIS) https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html The information is updated annually with completion of the watershed Group assessment. In addition, approved ATTAINs submissions can be viewed by the public on EPA's How's my Waterway https://mywaterway.epa.gov/.

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 historical data upload from TDEC WPC was sent to EPA the end of September 2009. The historical STORET data are found at https://www.epa.gov/waterdata/water-quality-data-wqx

In 2009, EPA developed the Water Quality Exchange (WQX), to replace STORET. WQX 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. DWR has successfully loaded chemical and bacteriological data (post 2009), as well as all electronically available fish tissue, macroinvertebrate taxa, habitat, diatom data and detailed information for over 8200 monitoring stations into the WQX framework. Historic qualitative macroinvertebrate and diatom data (pre-2017) are being uploaded as it is transferred from paper to electronic format.

Chemical, bacteriological, biological, habitat, stream survey, and fish tissue data collected and analyzed following TDEC protocols and reviewed by technical staff are stored in an internal database (HYDRA) on a shared drive. The chemical, fish tissue, macroinvertebrate, habitat and bacteriological data are accessible to the public on the Division's ambient water quality data viewer: https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html . Diatom data will be publicly available in the near future.

In 2024, TDEC contracted to complete a database to store continuous monitoring data (TNCON). The database provides QC, data storage and visualization.

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 and establishing appropriate classified uses for each waterbody.

2. Implementation of a statewide water quality monitoring program, based on a watershed cycle.

3. Comparison of data to applicable 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 principal 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 107 - 303, are stream use classifications, water quality criteria and the antidegradation statement.

Classification + Criteria + Antidegradation = Standards

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 ensure 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, 2002).

Specific designated Use Classifications for Surface Waters in Tennessee are listed in the Rules of TDEC, Chapter 0400-40-04 (TDEC-WQOGB, 2019). 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) have 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, 2019).

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-WQOGB, 2019).

- 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 Tennessee's Impaired Stream 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. Details can be found in the CALM document (TDEC, 2021), which is currently under revision and will be updated later this year.:

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.

Metal 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 data. The division consults with EPA on the latest revisions to national criteria and updates state criteria as appropriate.

b. Pathogens

Tennessee utilizes *E. coli* as the pathogen indicator since this group is generally considered more reflective of true human health risk than are fecal coliform data. A minimum of ten monthly samples, or a failing geomean, are required to assess waterbodies as impaired due to high bacteria levels, unless the levels in a fewer number of monthly samples are very elevated, or the stream is already listed as impaired for pathogens and insufficient recent data exists to change the assessment. Streams cannot be assessed as fully supporting for Recreation without a minimum of ten monthly samples except as allowed under evaluation or extrapolation frameworks in the CALM.

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. The DO standard in the Blue Ridge Mountains (Ecoregion 66) is 7.0 mg/L. In the Mississippi Valley Alluvial Plain (Ecoregion 73a) the minimum DO is 4.0 mg./L as long as an average of 5.0 mg/L is sustained. Everywhere else in the state the DO standard is 5.0 mg/L. 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

Division staff utilize a weight-of-evidence approach to interpreting the narrative nutrient criterion for fish and aquatic life protection. Factors considered in this approach include concentrations of nutrient parameters such as total phosphorus or nitrate+nitrite, ecosystem dominance by taxa tolerant of excessive nutrients, reductions in available habitat, excessive algal growth, biomass concentrations, harmful algae blooms, or other response variables such as significant diel oxygen swings, elevated temperatures or pH levels. Streams causing or contributing to downstream nutrient-related biological responses can also be considered impaired.

Regional nutrient goals were developed based on reference condition and are used for guidance when assessing wadeable streams (Denton et al., 2001). A numeric nutrient response based on chlorophyll *a* has been adopted for Pickwick Reservoir. Strong oxygen and temperature stratification, chlorophyll a and the Carlson's Index are used to interpret narrative nutrient criteria in other reservoirs.

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, 2021) and reviewed annually.

f. Biological Criteria

Biological surveys using macroinvertebrates as the indicator organisms are the primary 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, 2021).

The most frequently used biological survey in a wadeable stream (and nonwadeable in some ecoregion) is the single habitat, semi-quantitative sample. To be comparable to ecoregions guidance, streams must be of comparable size 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 unless it is determined the targeted habitat was naturally limiting. Streams are considered impaired where biological integrity falls below the expected range of conditions found at reference streams.

In some cases where the target habitat is not naturally limited or the stream historically scored very high or very low based on the TMI and land use has not changed, a qualitative biorecon may be used. Biological scores are compared to qualitative 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 of 7 or 9 are ambiguous and must be supplemented with other information such as chemical data, habitat data or a more intensive biological survey.

Diatom monitoring has recently been implemented as a supplement to macroinvertebrate monitoring for streams which may have elevated nutrients. A southeast regional diatom index has been calibrated to Tennessee reference data is being used for the first time in the 2022 assessment period.

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, 2021) 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

The pH criterion for wadeable streams is 6.0 - 9.0 standard units (su). For nonwadeable rivers, streams, reservoirs and wetlands the pH criterion is 6.5 - 9.0 su. Also, pH values cannot fluctuate more than 1.0 in 24 hours. Waterbodies with pH values outside these ranges are considered impaired.

i. Temperature

The temperature criteria can be violated in three different ways. A (1) temperature difference from downstream to upstream, (2) a rapid rate of change, and (3) exceedance of a maximum temperature. Temperature criteria are more stringent in trout streams.

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, and wildlife, or recreation in and on the water, that quality will be maintained and protected unless the Department 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, 2019).

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. Additional revisions were made in 2013 and 2019 (TDEC-WQOGB, 2019).

a. Unavailable parameters exist where water quality is at, or fails to meet water quality criteria in Rule 0400-40-03-.06(2) (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-.06(3).

c. Exceptional Tennessee Waters (ETW) are waters that are in any one of the following categories (Rule 0400-40-03-.06(4)):

- 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 non-experimental 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, 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, West Prong Little Pigeon River, Little Pigeon River, Big South Fork Cumberland River and Reelfoot Lake (Rule 0400-40-03-.06(5).

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 in a dataviewer on the TDEC website https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html

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 for all uses. 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 Tennessee's List of Impaired Waters but would not appear on the 303(d) list. Category 4 has been subdivided into three subcategories. Previously, these waters were reported as either partially or non-supporting.

- **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. These waters would be included on both Tennessee's List of Impaired Waters and on the 303(d) list for EPA.

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 7). 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 7. 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 approximately 1,100 permitted dischargers in Tennessee. Data collected as a result of complaint investigations, fish kills, spills, and in support of enforcement activities.	Macroinvertebrate and diatom surveys for comparison to biorecon, semi-quantitative and diatom multi-metric indices. assessments	Temperature, dissolved oxygen and conductivity data collected throughout Tennessee. Increased used of continuous monitoring.	Fish tissue data collected at various sites across Tennessee.
Approximately 8400 stations are established by the division to support the watershed approach.	Ecoregion reference stream monitoring to calibrate regional guidelines based on multi-metric index scores. biological monitoring.	Qualitative 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 106 ecoregion reference (ECO & FECO) sites. (These stations provide a baseline to which other sites within that ecoregion can be compared.)	Biological data collected by other entities.	Physical data collected by other entities	Locations of existing fishing advisories in Tennessee.
Chemical 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 8.

Table 8. Future Assessment Goals

Goal	Milestone	Future Plans
Dissolved oxygen in wadeable streams	Published study of regional dissolved oxygen patterns in 2003 based on diurnal and daylight monitoring. Proposed regional minimum DO criteria based on reference monitoring in 2003. Increased use of diurnal monitoring in assessment decisions.	Continue regional monitoring to enhance existing data. Increase the use of diurnal monitoring. Consider incorporating criteria based on diurnal patterns (duration and frequency of minimum). Consider criteria based on diurnal DO swings in future triennial reviews.
Nutrients in wadeable streams	Published guidance document for regional limits of total phosphorus and nitrate + nitrite in 2001. Incorporated guidance in 2004 WQS. October 2019 TDEC met with diatom index development workgroup at Southeast Water Pollution Biologists Association conference to discuss southeastern index development. In 2020 completed taxonomic harmonization of diatoms with other states consistent with USGS biodata and provided taxa lists and ancillary data to contractor, completing phase I. Beginning FY 2020, TDEC incorporated diatom sampling in 106 monitoring workplan at watershed sites suspected of nutrient impairment. June 2021 finalization of metric selection for diatom	Continue to include diatom samples as a second biological indicator for nutrient impairment. Continue to evaluate and refine diatom index. Recalibrate nutrient guidelines and potentially set separate guidelines for headwater streams based on baseline data from reference streams. Reference Diatom Guidelines as narrative translator in Water Quality Standards. .

Goal	Milestone	Future Plans
	index and review of draft report submitted by Tetratech. July 2021 workgroup meeting to finalize index. April 2022 finalized SE regional diatom Index. October 2022 completed calibration of SE Index for Tennessee ecoregions. Incorporated Tennessee Diatom Index (TDI) for the first time in group 4 assessments in 2022. Published TDEC Diatom Monitoring Quality System Standard Operating Procedure in 2023.	
Nutrients in lakes, rivers and non-wadeable streams	Developed criteria development plan in 2004 with revisions in 2007 and 2009. Established biomass criterion in Pickwick Reservoir in 2007. TDEC convened nutrient criteria development workgroup to revise plan – final plan was approved by EPA in September 2019. 2021-2024 obtained a substantial amount of existing TVA and USACE chlorophyll data to help characterize levels in reservoirs. Additional data needs were identified. 2022 contracted with Tetra Tech to develop a continuous	Explore feasibility of using chlorophyll criterion established for Pickwick Reservoir for other main-stem lower Tennessee Reservoirs. Work with TVA and UACE to fill data gaps and continue to investigate applicability of using TVA and USACE chlorophyll data to develop chlorophyll criteria for upper main-stem Tennessee, Cumberland and tributary reservoirs based on methods used by Alabama for Pickwick. Consider the possibility of using chlorophyll or other measures of level of reservoir eutrophication such as secchi-

Goal	Milestone	Future Plans
	monitoring database including analysis and visualization tools. In 2021 revised the Consolidated Assessment and Listing Methodology (CALM) guidance document, including a shift from impairment listings for specific nutrient species (total phosphate or nitrate-nitrogen) to a more general listing parameter of "nutrients" in recognition of the data limitations in precisely identifying which specific nutrient was primarily or solely responsible for observed biological responses to excess nutrients. In 2021assembled an expert stakeholder group for the USACE's J. Percy Priest Reservoir specifically to provide opinions, insight, and direction on existing data, additional data needs, and modeling. This process was put on hold in 2022 due to other commitments preventing sufficient participation from group members. In 2022 expanded continuous monitoring in reservoirs and rivers. In 2021 and 2022 TDEC continued to test and incorporate the use of SPARROW nutrient loading model to inform nutrient	disc depths, pH levels and seasonal fluctuations and dissolved oxygen diel fluctuations as a trigger point to implement the state's nutrient reduction strategy. Continue to evaluate and refine continuous monitoring techniques used in TN reservoirs. Complete continuous monitoring database including analysis and visualization tools. Reconvene expert stakeholder group move forward with recommendations and actions that would assist TDEC in better understanding and addressing nutrient issues in the JPP reservoir, and beyond. Continues evaluate and refine continuous monitoring techniques used in TN reservoirs and rivers. The USGS Data Series Report is currently being drafted for the Tennessee Reservoirs Assessment. TDEC has received some data spreadsheets summarizing reservoir rankings produced as part of this study. When the full report is available TDEC will evaluate whether data compilation and/or classification scheme can be helpful in reservoir criteria development.

Goal	Milestone	Future Plans
	listings, especially for more refined Source categorization. In the summer of 2024, the division participated in a comprehensive study with EPA's Laboratory Services and Applied Science Division (LSASD and the USACE of the utilization of EPA's Algal Growth Potential Tool (AGPT) in the JPP reservoir, including collection of water quality samples and continuous monitoring data at multiple locations. The final results of this study are not in yet, but is anticipated to assist in the potential establishment of chlorophyll, nutrient, and/or diurnal oxygen criteria for this and other reservoirs in Tennessee.	
Biocriteria	Published macroinvertebrate guidelines for wadeable streams in 2001 which were updated in 2004, 2006, 2011, 2017 and 2021. A major recalibration of metrics in 2021 based on existing changes in nomenclature and updated tolerance information. Incorporated macroinvertebrate index guidelines in 2004 WQS. Began monitoring of headwater reference streams in 2009 and published guidelines in 2017. Began monitoring of diatoms at reference streams in 2008.	Investigate feasibility of developing guidelines for nonwadeable rivers as resources allow. Continue to use diatom index for assessments. Consider adding reference to index as a guidance for biological response to narrative nutrient criteria in WQX. Continue to evaluate and refine diatom index.

Goal	Milestone	Future Plans
	Collaborated on a N-steps grant to develop a regional diatom index with KY, GA, AL, EPA and Tetratech. Incorporated diatom monitoring as a second biological response variable at streams with elevated nutrients in monitoring workplans starting in 2019. April 2022 finalized SE regional diatom Index. October 2022 completed calibration of SE Index for Tennessee ecoregions. Incorporated Tennessee Diatom Index (TDI) for the first time in group 4 assessments in 2022	
106 monitoring workplan.	Used GIS mapping and assessment database to streamline development of monitoring workplan and assist field staff in planning. Begin incorporating diatom sampling as second biological indicator when nutrient samples are collected. Began including waters downstream of active and historic landfills in monitoring plans. Added historically clean reservoirs to fish monitoring as part of watershed cycle.	Develop system for creating monitoring plan and sample tracking through Hydra.

Goal	Milestone	Future Plans
Electronic data reporting	Developed electronic field sheets for chemical, bacteriological and biological sampling and reporting. Updated data storage to increase efficiency, enhance reporting capabilities and increase quality assurance. Made chemical, bacteriological and fish tissue data available to public through data-viewers. Chemical, bacteriological, fish tissue, macroinvertebrate taxa and habitat data are uploaded to WQX. Assessment data are uploaded to ATTAINS. Uploaded macroinvertebrate and habitat data to WQX. Developed capability of automatic calculation and scoring of biorecon metrics. Developed capability of automatic calculation and scoring of SQSH metrics. Made macroinvertebrate and habitat data public facing. Began upload of diatom taxa to WQX. Developed capability for electronic metric calculation and index scoring of diatom data.	Migrate remaining historic biological data (diatom and qualitative macroinvertebrate data) to new system. Make diatom data public facing. Upload historic (prior to 2017) diatom qualitative macroinvertebrate taxa to WQX. Build statistical range outlier check by station for chemical parameters. Capture water quality criteria violations in chemical data table. Create tables, graphs and other tools for statistical reporting of data through Hydra. Create public facing map for Exceptional Tennessee Waters. Create public facing map for location of fish consumption advisories.

Goal	Milestone	Future Plans
Probabilistic Monitoring	In 2025 TDEC resumed monitoring of probabilistic stations selected in 2007 beginning with 21 stations located in watershed group 5.	Continue to include the probabilistic sites in each watershed cycle. Combine data when the 5-year cycle is complete. Use data to evaluate effectiveness of targeted monitoring, trend analysis and supplement assessment data.
Reference streams		Test effectiveness of reducing reference stream monitoring to 5 years per station. This will help standardize calibrations by having the same number of data points per stream, solve the problem of reference stream loss due to increased human disturbance in watersheds in unprotected watersheds, and help free up monitoring resources to be used at other sites.
Continuous Monitoring	In 2024, DWR worked with Tetra Tech to complete the beta-development of TNCON, a multi-function database and visualization tool designed for continuous monitoring data. In addition to making historic and current diurnal data more secure available, this tool will help with QC and data visualization, improving the division's techniques for the location, timing of probe deployment, and interpretation of this data. Began upload of continuous monitoring data. Collected continuous monitoring data from the	Complete upload of historic data and keep on track with new data. Build capability in TNCON to upload data from 3 recently purchased probes. Continue to evaluate and refine continuous monitoring techniques in reservoirs. Continue to increase continuous monitoring.

Goal	Milestone	Future Plans
	USACE's J. Percy Priest and Center Hill reservoirs in 2021 and expanded continuous monitoring in these reservoirs in 2022. Summer of 2022 TDEC planned and implemented an intensive continuous monitoring deployment and study of the West Fork Stones River, and other major tributaries to the JPP Reservoir. The study included 26 month-long probe deployments at 11 sites. In 2024 TDEC also successfully deployed continuous monitoring probes in 6 other stream and reservoir locations (including Center Hill Reservoir) currently listed for dissolved oxygen or pH due to eutrophication, to better understand the frequency, magnitude, and duration of any current criteria exceedances and the possible connections to other nutrient-related water quality effects. In 2025 TDEC deployed continuous monitoring probes in 4 locations in the Harpeth River. In 2025 added continuous monitoring to group 5 streams impaired for dissolved oxygen.	

I. Water Quality Reports

Waterbodies will continue to be monitored to fulfill data needs for water quality standards, TMDLs, ATTAINS Integrated Report, advisories, and special projects such as the southeast regional monitoring network. Progress will be tracked quarterly and provided to the DWR division head for review. A report will be submitted to EPA annually by December 31.

The ATTAINS Integrated Report submitted to EPA details the support status of Tennessee waters as well as sources and causes of pollution. Twenty percent of the state's watersheds are assessed each year with information in uploaded annually to the EPA ATTAINs database. Information for each assessed water body is available through the division's online assessment database. https://tdeconline.tn.gov/dwr/. Surface water chemical and bacteriological results may be viewed at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html As resources allow, compose study group of appropriate professionals. Review existing data and look for data gaps.

As required by Section 303(d) of the Clean Water Act, a list of the lakes, rivers, and streams in Tennessee that fail to meet one or more water quality standards along with pollutant information and TMDL prioritization is complied. Tennessee meets this regulatory requirement through the documentation of water quality assessment determinations and submission of these data through the EPA ATTAINS system. Tennessee's Final 2024 Impaired and Threatened Waters list was approved by EPA in April 2024. Due to the limited nature of an Impaired and Threatened Waters list, Tennessee chooses to publish the 2024 List of Impaired and Threatened Waters. This list includes all impaired waters regardless of their TMDL status or Category. The Final 2024 List of Impaired and Threatened Waters may be found on TDEC's publications website; https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html.

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 database of streams based on the characteristics of Exceptional Tennessee Waters (ETW) 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 ETW designation is provided. The dataviewer is on the TDEC website. https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html

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 on-line 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 ATTAINS 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 ensure 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 as outlined in the division nutrient criteria development plan (TDEC, 2019).
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. The antidegradation survey process is reviewed and updated based on feedback from field staff.
b. 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.
c. Watershed groupings are reviewed and revised if needed to ensure staffing is available for adequate coverage.
d. Periodically, 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.

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. 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 is reviewed annually and updated if needed. The SOP was last revised in 2021 and is currently under revision to reflect changes in nomenclature and revised metric calibrations. Staff are trained on protocols during the annual statewide meeting or during the biologist workshop.

The division developed and implemented a document entitled *Quality Systems Standard Operating Procedures for Chemical and Bacteriological Sampling of Surface Waters* in 2003. This manual is reviewed annually and updated as needed. The manual was last revised in 2022 and is currently under revision. Staff are trained on protocols annually during the DWR statewide meeting or during the biologist workshop**.**

The division has developed a document entitled *Quality Standard Operating Procedures for Periphyton Stream Surveys* in 2010. This document was replaced by the Quality System Standard Operating Procedure for Diatom Stream Surveys in 2023. The new SOP incorporates the Tennessee diatom index (TDI) and standardization of nomenclature across four southeast states. Staff are trained on protocols during the annual statewide meeting or during the biologist workshops**.**

The division has developed written tutorials for completing electronic sample request (SPERT) and biological field forms (BSERT) and uploading to the division's database. A method's document for waterbody assessment and listing (CALM, 2023), has also been developed.

The division uses the state laboratory for most chemical, bacteriological and biological analyses. The division also uses 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. Contract laboratories are required to follow approved EPA methods and QC practices. All laboratories are required to be NELAC (or

equivalent) certified. Taxonomists are required to have SFS certification (for semi-quantitative samples and diatoms) or pass in-state testing (biorecons only). 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. Field blanks and equipment blanks are collected at 10% of stations. Trip blanks are collected at 10% of trips.

The division developed and implemented their first *Quality Assurance Project Plan* in 2009. This manual is reviewed annually and submitted to EPA for approval if there are major revisions. The last EPA approved update was in December 2021 and a 2023 revision is currently under review. Staff are trained on protocols during the annual statewide meeting and/or biologist 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/ATTAINS and GIS are incorporated as they become available, and time allows with the state's IT divisions assistance.
- The state and contract laboratories electronical transfer data.
- The division used 106 supplemental funds to develop an integrated biological and chemical database (Hydra) that will enhances quality assurance, statistical data analyses, assessments, reporting and data availability. The databases is in the final stages of testing before upload to production.
- The online assessment dataviewer is updated regularly to provide current public access to water quality information and may be viewed at https://tdeconline.tn.gov/dwr/
- Surface water chemical and bacteriological results as well as fish tissue data may be viewed on Ambient Water Quality Monitoring Data at https://dataviewers.tdec.tn.gov/dataviewers/f?p=2005:34510:14064651578256:::::
- A new continuous monitoring database (TNCON) has been developed to provide quality assurance, storage and visualization of data.

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. Data are uploaded to WQX.

K. Support and Infrastructure Planning and Resource

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 Fleming Training Center.

The division currently has 389 full-time staff. There are also 12 part-time board members of the Water Quality, Oil and Gas Board and 4 part-time board members of the Water and Wastewater Operator Certification Board. Division staff is divided by activities associated with the Clean Water Act, Safe Drinking Water Act and various state program efforts including Safe Dams, Water Well driller regulation, Underground Waste Disposal, Operator Certifications and Training, and the activities associated with the State Revolving Loan Fund and State Water Infrastructure Grants Program.

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, coordinate monitoring activities and water quality assessments with environmental field offices, recommend fish consumption and bacteriological advisories, prepare special recovery plans called Total Maximum Daily Loads (TMDLs), track compliance and prepare enforcement documents as needed, conduct hydraulic and hydrologic modeling to determine assimilative capacity, 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 uses an enterprise accounting and personnel management software called Edison. It effectively manages the state's personnel, fiscal, travel, training, property, and inventory into a single integrated system and allows more accurate and consistent 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 to track workload, fee collections, and for the division's reports to the Water Quality, Oil and Gas Board, Bureau of Environment, Tennessee General Assembly, and to EPA.

L. Current Funding

The cost of a full-time technical employee including benefits are approximately $90,000 for the year, with indirect costs approximately $17,811.

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 damages assessments are added to this fund as well. EPF funds are used to help defray the costs of administering the regulatory programs under each statute listed in T.C.A. § 68-203-101(b). The estimated collection for EPF in state Fiscal Year 2024 (July1, 2023– June 30, 2024) is $10,913,215.15. 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 FFY25 grant. The State of Tennessee uses a performance partnership grant (PPG) that includes 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. State funds that are not explicitly reflected in the grant application will not be tracked with the PPG, but these funds are still available for Division of Water Resources state program efforts.

Special projects such as probabilistic monitoring, Southeast Monitoring Network, and electronic data migration are generally funded by 106 supplemental grants. The division has partnered with Alabama, Kentucky and Georgia for an N-STEPS grant to aid in periphyton index development as part of its nutrient criteria development plan.

M. Salary Ranges

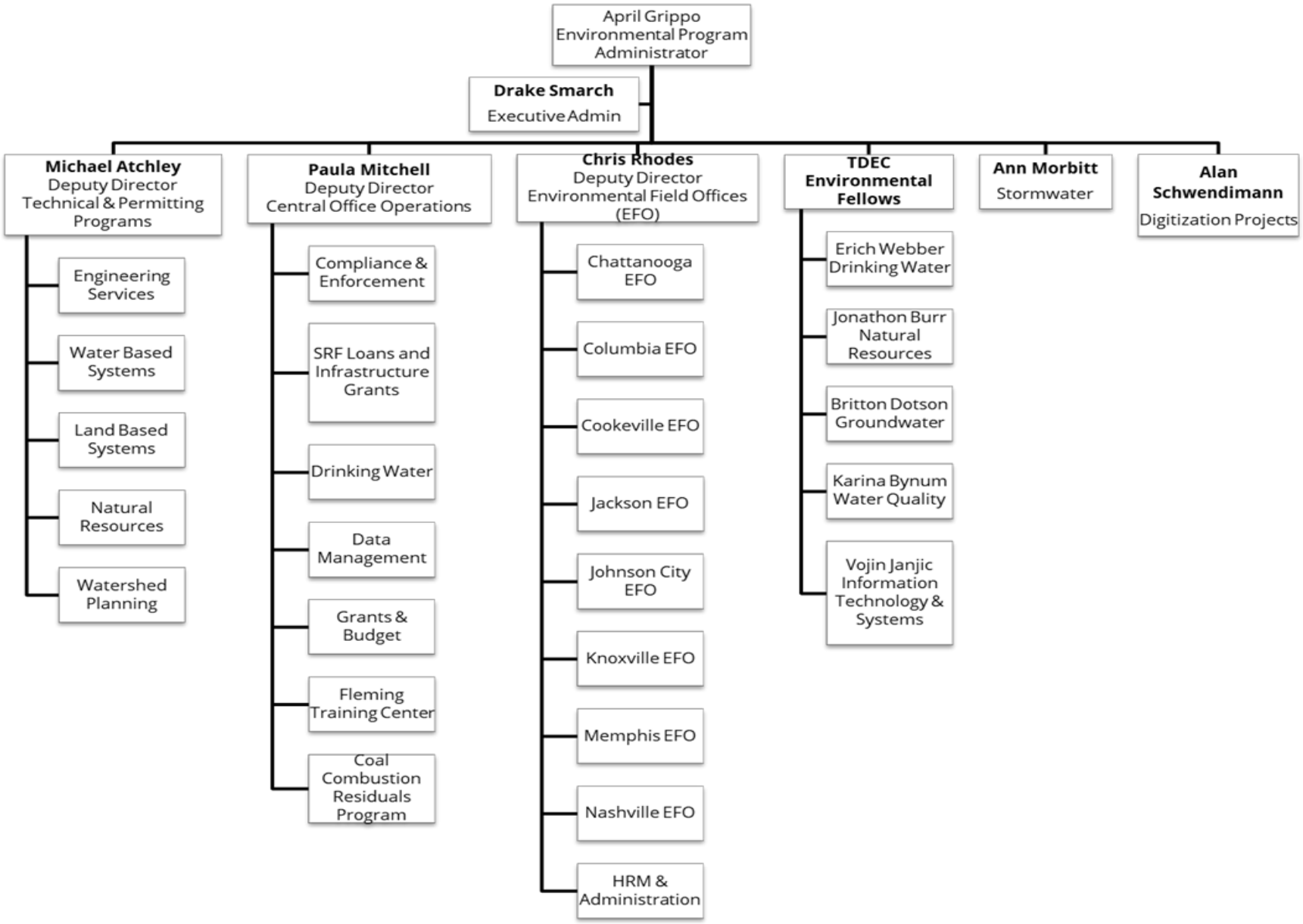
On April 24, 2012, the Governor signed into law the Tennessee Excellence in Accountability Management Act. It effectively established a new hiring system that requires agencies to define minimum qualifications and to identify specific knowledge, skills, abilities, and competencies required for each position. It also overhauled the state's performance evaluation system to provide performance standards and goals. Furthermore, the agency conducted job evaluations and revised job classifications to reflect the move toward allowing career tracks for both technical staff as well as management positions. Table 9 reflects the current FY salary information and position class titles for 2024.

Table 9. Salary Ranges for Position in TDEC DWR

Class Title	Min Monthly Salary	Max Monthly Salary
TDEC-ENV CONSULTANT 1	$5,050.00	$7,570.00
TDEC-ENV CONSULTANT 2	$5,591.00	$8,915.00
TDEC-ENV CONSULTANT 3	$6,479.00	$10,260.00
TDEC-ENV PROTECTION SPEC 1*	$4,017.00	$6,039.00
TDEC-ENV PROTECTION SPEC 2*	$4,517.00	$6,758.00
TDEC-ENV PROTECTION SPEC 3	$5,591.00	$8,915.00
TDEC-ENVIRONMENTAL FELLOW	$8,534.00	$13,618.00
TDEC-ENVIRONMENTAL MANAGER 1	$5,050.00	$7,570.00
TDEC-ENVIRONMENTAL MANAGER 2	$5,591.00	$8,915.00
TDEC-ENVIRONMENTAL MANAGER 3	$6,479.00	$10,260.00
TDEC-ENVIRONMENTAL MANAGER 4	$7,384.00	$11,817.00

TDEC-ENVIRONMENTAL SCIENTIST 3	$4,517.00	$6,758.00
TDEC-ENVIRONMENTAL SCIENTIST1*	$4,017.00	$6,039.00
TDEC-ENVIRONMENTAL SCIENTIST2*	$4,017.00	$6,039.00
ENVIRONMENTAL PROGRAM DIRECTOR	$8,534.00	$13,618.00
ENVIRONMENTAL PROGRAM ADMINISTRATOR	$9,761.00	$15,674.00

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



Division of Water Resources Organizational Chart Figure 6

1. 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 (Table 10). Macroinvertebrate sampling is shifting from qualitative screening samples to more rigorous quantitative samples. This reduces field time, freeing sampling staff for other activities and yields more robust data that can be used for multiple purposes. New procedures such as continuous monitoring and diatom surveys are increasingly being used to supplement traditional macroinvertebrate 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 are vital to implementation of all or part of the Tennessee's water quality monitoring goals.

106 grant project activities in Tennessee are funded by state appropriation, the EPF, and EPA grant dollars. An estimated $4,624,523 is obligated for employee salaries and benefits in support of this program in the state in FY2025. Another $603,823 is allocated to travel, printing, utility, communication, maintenance, professional service, rent, insurance, vehicle, and equipment expenses. Indirect charges are estimated at $915,193.

The grant money for Clean Water Act §106 is now part of a performance partnership grant and is no longer a stand-alone grant. Activities for the Water Quality Management Planning under Clean Water Act §604(b) are discussed as a separate work plan

Table 10 Water Quality Monitoring From 2005 to 2025 (fiscal year)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Chemical & Bacteriological Events	4168	3113	3400	3682	3763	3785	3145	3445	4299	3234	3346	3930	3483	3790	3106	3570	3483	3455	4147	4312	4540
Qualitative Macroinvertebrate Samples (Biorecon)	162	285	248	338	318	223	288	157	433	335	225	130	210	193	225	118	96	72	81	49	86
Intensive Macroinvertebrate Samples (SQSH)	256	226	267	332	353	367	257	247	274	192	377	370	408	471	537	566	589	422	678	625	653
Habitat Assessments	681	4	469	593	592	516	657	685	663	547	615	665	587	605	728	632	656	574	732	631	630
Diatom Samples	0	2	120	60	72	22	55	10	39	54	39	18	23	30	25	76	154	137	199	192	166
Antidegradation Surveys	17	97	81	2	59	51	18	12	16	7	19	26	17	6	74	14	11	8	4	28	6
Probabilistic Monitoring Events	2	0	90	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish Tissue Samples	0	20	68	45	6	135	12	65	27	55	74	76	16	29	118	79	68	43	108	112	92

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

The division maintains a statewide monitoring system consisting of approximately 8,600stations. In addition, new stations are created every year. Approximately 576 stations will be monitored in FY 2025- 2026. Stations are sampled monthly, quarterly, and semi-annually or once during the sample year, depending on the requirements of the project and type of sample. Within each watershed cycle, monitoring stations are coordinated between the central office and staff in the eight regional Environmental Field Offices (EFOs) and the Mining Unit based on the following priorities. A list of these stations is located in Appendix A. Additional stations 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.

This year probabilistic monitoring sites will be sampled monthly for chemicals and once for fish and diatoms. These represent the 21 group 5 stations. The goal is to sample all 90 stations in the 90 station draw (previously sampled in 2007 and 2010) over the 5 year watershed cycle.

After determining the watersheds to be monitored in a given year, monitoring resources are prioritized as follows: Details of monitoring priorities is found in Section I D and Tennessee's Consolidated Assessment and Listing Methodology (CALM, 2023) https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html .

1. Antidegradation
2. Posted waterbodies
3. Ecoregion reference streams/ambient monitoring (trend analysis) stations/southeast monitoring network (SEMN) and probabilistic stations.
4. Sampling downstream major dischargers, landfills and CAFO's
5. TMDL development, model calibration and other special projects
6. Watershed Monitoring
    a. Currently impaired waterbody segments where the Department or other agency has developed control strategies and continued monitoring will be beneficial in order to track progress toward restoration.
    b. Currently impaired waterbodies where previous data were close to or indicated a trend towards supporting one or more designated uses, or the delisting of a specific parameter.
    c. Streams impaired for recreation where other data are not available to evaluate ongoing conditions (e.g., overflow reports, DMRs, complaints.)
    d. Streams impaired by, or suspected to be impaired by, a water quality related parameter or a specific point source may be higher priorities than streams impaired by a habitat-related parameter or more generalized land-use source.
    e. Potential new reference streams in relatively protected watersheds. Each year, existing reference streams are degraded by various impacts in their watersheds and need to be replaced.
    f. Previously Assessed streams, especially large ones, that would likely revert to Category 3 unassessed status.
    g. Sites downstream ARAP activities or extensive nonpoint source impacts where biological impairment is suspected. Examples might be unpermitted activities,

violations of permit conditions, failure to install or maintain BMPs, large-scale development, clusters of stormwater or ARAP permits or a dramatic increase in impervious surfaces.

h. Unassessed stream reaches especially in third order or larger streams, or in disturbed headwaters.
i. Pre-restoration or BMP installation monitoring. This sampling would be to document improvements but is also needed for antidegradation purposes and to confirm that the stream is a good candidate for such a project.

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, federally listed threatened or endangered aquatic species, critical habitat, 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.

Waterbodies posted for fish consumption are monitored at least once during each watershed cycle. A minimum of five fish of each posted species is collected and analyzed for the posted parameters.

3. Ecoregion Reference Stream, Ambient and SEMN Monitoring

Ecoregion (ECO) and headwater (FECO) reference streams within the watershed group are sampled quarterly for physical and chemical parameters. Macroinvertebrates are collected spring and fall, and diatoms are collected once during the growing season.

Physical, chemical and pathogen (*E. coli*) samples are collected at all long-term monitoring or ambient stations quarterly every year regardless of watershed group.

All Southeastern Regional Network Monitoring Stations (SEMN) regardless of watershed are monitored every year. See Section F for the monitoring plan and stations list.

4. Other Monitoring

For other monitoring types of monitoring, frequency is determined by the type of sampling (see table 11 for parameter list by project.) If chemicals are collected, sampling is monthly. Monthly monitoring may be reduced in the case of impaired waters where results are above certain levels (QAPP, 2021). Biological samples are collected once with the season being determined by stream type and pollutant source (TDEC Macroinvertebrate QSSOP, 2021). Diatoms are collected once during the growing season (TDEC Draft Diatom QSSOP, 2023).

Monthly collections of e coli are preferred (unless the stream is posted in which case both monthly and geomean is collected.). Another acceptable sampling strategy for *E. coli* (when a stream is not posted) is an approach in which an initial geometric mean is collected (5 samples within a 30-day period) in the first quarter. If the geomean is well over the existing water quality criterion the waterbody remains impaired with no additional *E. coli* sampling need. If results meet the water quality criterion, staff will continue with monthly samples during the remainder of the monitoring cycle. If the geomean is not substantially over the criterion, field staff may at their discretion continue monthly monitoring in the hope that additional samples will indicate that the criterion is met.

Table 11. Parameter List for the Water Column

Parameter	Ambient Long Term Trend (Quarterly)	ECO, FECO & SEMN (Quarterly)	Landfills & Probabilistic (Monthly)	303(d) (Monthly)			303(d)	Non-Impaired Watershed Sites (Monthly)	Bed-Load	Trip & Field Blanks & Duplicates[1] (10%)
				Metals/ pH	Nutrients/ D.O.	Pathogen (Monthly or geomean)	Biology/ Habitat (Once)			
Alkalinity, Total	X	X	X				O	O		
Aluminum, Al	X	X	X	X			O	O	X	O
Ammonia Nitrogen as N	X	X	X		X	R	O	O	X	O
Arsenic, As	X	X	X	X			O	O	X	O
Cadmium, Cd	X	X	X	X			O	O	X	
Chloride	X	X	X				O	O		
Chromium, Cr	X	X	X	X			O	O	X	O
Color, Apparent	X	X	X				O	O		
Color, True	X	X	X				O	O		
Conductivity (field)	X	X	X	X	X	X	X	X	X	
Copper, Cu	X	X	X	X			O	O	X	O
Dissolved Organic Carbon (DOC)	X	X	X	X			O	O	X	O
Dissolved Oxygen (field)	X	X	X	X	X	X	X	X	X	
Diurnal D.O.		SEMN			R		O	O		
E. Coli	X	O	X		R	X	O	O	O	O (Dup only)
Flow		SEMN					O	O		
Iron, Fe	X	X	X	X			O	O	X	O
Lead, Pb	X	X	X	X			O	O	X	O
Manganese, Mn	X	X	X	X			O	O	X	O
Mercury, Hg	X	X	X	X			O	O		O
Nickel, Ni	X	X	X	X			O	O	X	O
Nitrogen NO_3 & NO_2	X	X	X		X	R	O	O	X	O
pH (field)	X	X	X	X	X	X	X	X	X	
Residue, Dissolved	X	X	X				O	O		
Residue, Settleable	O		O				O	O		
Residue, Suspended	X	X	X	X			O	O		
Residue, Total	X		X				O	O		
Selenium, Se	X	X	X	X			O	O	X	O
Sulfates	X (68a, 69d & 69e)	X (68a, 69d & 69e)	X (68a, 69d & 69e)				O	O		O
Temperature (field)	X	X	X	X	X	X	X	X	X	
Hardness ($CaCO_3$) by calculation	X	X	X	X			O	O	X	O
Total Kjeldahl Nitrogen	X	X	X		X	R	O	O	X	O
Total Organic Carbon	X	X	X		X		O	O		
Total Phosphorus (Total Phosphate)	X	X	X		X	R	O	O	X	O
Turbidity (field or lab)	X	X	X				O	O		
Zinc, Zn	X	X	X	X			O	O	X	O
Biorecon		2					O	O		Dup. only

Parameter	Ambient Long Term Trend (Quarterly)	ECO, FECO & SEMN (Quarterly)	Landfills & Probabilistic (Monthly)	303(d) (Monthly)			303(d)	Non-Impaired Watershed Sites (Monthly)	Bed-Load	Trip & Field Blanks & Duplicates[1] (10%)
				Metals/ pH	Nutrients/ D.O.	Pathogen (Monthly or geomean)	Biology/ Habitat (Once)			
		(ECO| FECO)								
SQSH		2	1		X	R	X	X	X	Dup. only
Habitat Assessment		2	1		X	R	X	X	X	
Diatom (Wadeable)		1	1		X		O	O		Dup. only
Ind. Habitats		SEMN							X	

X-Must collect these parameters.

R-Recommended.

Optional (O) – Collected if waterbody has been previously assessed as impacted by that substance or if there are known or probable sources of the substance. Collect a Field Blank every 10th time parameter is collected and a Trip Blank every 10th trip (100% of trips when VOC's are collected).

[1] – Refer to A6.3.4 Precision and Accuracy in this document and section II.B in the Chemical and Bacteriological QSSOP for when to collect duplicates.

The following parameters are never requested unless there is specific reason to do so: *antimony, barium, beryllium, calcium, magnesium, potassium, silver, sodium, boron, silica, total coliform, fecal coliform, enterococcus, fecal strep, cyanide, ortho-phosphorus and Chemical Bacteriological Oxygen Demand (CBOD).*

Nitrogen (nitrate) and nitrogen (nitrite) should only be collected at waterbodies with designated use of drinking water unless other specific reason to do so.

QC samples (trip and field blank) are only collected for parameters requested at other sites in the same sample trip unless otherwise specified above to not 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, 2021) describes protocols for collection of benthic macroinvertebrate samples and habitat assessment. The Watershed Planning Unit is responsible for the coordination of survey activities. Macroinvertebrate sampling is listed in Appendix A.

There are occasions when a biological reconnaissance (Biorecon) is appropriate although in general a quantitative sample is preferred. 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. It is most appropriate when the targeted habitat is not available for a quantitative sample, or the stream is clearly impaired or supporting. A decision flow chart is provided in the TDEC Macroinvertebrate QSSOP (2021)

A more intensive survey, collecting a Semi-Quantitative Single Habitat Bank (SQBANK) or Semi-Quantitative Single Habitat Kick (SQKICK), is the preferred method in most cases. Biometrics using relative abundance can be calculated. This method can be compared to the division's numeric translators for biocriteria.

2. Diatom Surveys

Diatoms are early indicators of nutrient enrichment. Changes in the diatom community generally occur before macroinvertebrate populations are affected. The division has conducted diatom surveys in reference streams for years in order to build an expected baseline. In 2019, diatom sampling was incorporated in streams with evidence of nutrient enrichment where macroinvertebrate communities did not show a response. TN in collaboration with Ky, Al, Ga, EPA and Tetratech developed a Southeast diatom multi-metric index which was finalized in 2022. The index was further calibrated to TN bioregions and is being used to supplement macroinvertebrate and chemical monitoring in assessments.

3. 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. Additional sites were added in areas of concern. In 2019, other heavily fished waterbodies with no history of contamination were added to the watershed cycle. State Park and TWRA fishing lakes were added to the watershed cycle in 2022. A list of fish tissue stations to be sampled in 2025-2026 appears in Table 12. Parameters to be sampled are listed in Table 13. TDEC DWR, TVA, TWRA, NPS and DOR 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. 2025– 2026 Fish Tissue Sampling Sites

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
NOLIC020.9GE	Nolichucky River	U/S US Nitrogen discharge; U/S Conway Bridge	106 metals, pfas (organics if cats)	Black Bass	TDH
NOLIC047.3GE	Davy Crockett Reservoir	Downstream Richland Creek embayment.	106 metals, pfas (organics if cats)	Black Bass	TDH
NOLIC068.0GE	Nolichucky River	D/S Big Limestone Creek	106 metals, pfas (organics if cats)	Black Bass	TDH

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
NOLIC083.9WN	Nolichucky River	Off Charlie Carson Road	106 metals, pfas (organics if cats)	Black Bass	TDH
CUMBE314.0SM	Cordell Hull Reservoir	Cordell Hull Lake near dam (Tater Knob)	106 metals/organics/pfas	LMB and cats	TWRA
CUMBE332.0JA	Cordell Hull Reservoir	Cordell Hull Reservoir between Indian and Martin Creek	106 metals/organics/pfas	LMB and cats	TWRA
TBD	North Fork Obion	TBD by TWRA	106 metals/organics, dioxin, pfas	Game/catfish/rough (buffalo or common carp)	TWRA
TBD	South Fork Obion	TBD by TWRA	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
TBD	Obion	TBD by TWRA	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI724.6SH	Mississippi River	Memphis South Plant	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI735.0SH	Mississippi River	Near I-40	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI754.0SH	Mississippi River	Meeman Shelby State Park	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI786.0LE	Mississippi River	Osceola	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI817.8LE	Mississippi River	Blytheville	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
MISSI846.0LA	Mississippi River	Caruthersville	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MISSI873.5LA	Mississippi River	Tiptonville	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
MCKEL001.8SH	McKellar Lake	(Fishing Station entire lake)	106 metals/organics, dioxin, pfas	game/catfish/rough (buffalo or common carp)	TWRA
CUMBE075.0ST	Barkley Reservoir	Barkley Reservoir-TN/KY Line	106 metals/organics/pfas	LMB and cats	TWRA
CUMBE075.0ST	Barkley Reservoir	Barkley Reservoir-TN/KY Line	106 metals/organics/pfas	LMB and cats	TWRA
CUMBE152.0CH	Cheatham Reservoir	Cheatham Reservoir near Pardue Pond Wildlife Refuge	106 metals/organics/pfas	LMB and cats	TWRA
CUMBE191.1DA	Cheatham Reservoir	Cheatham Reservoir at Shelby Street Bridge Nashville	106 metals/organics/pfas	LMB and cats	TWRA
CUMBE206.7DA	Cheatham Reservoir	Lytle Farms area u/s Stones River d/s Old Hickory Dam	106 metals/organics/pfas	LMB and cats	TWRA
					TWRA
REELF00002LA	Reelfoot Lake	Lower Blue Basin at Rays Camp	106 metals/organics, pfas	Crappie, black bass, cats	TWRA
REELF00003OB	Reelfoot Lake	Southeast Corner of Upper Buck Basin - Indian Creek embayment	106 metals/organics, pfas	Crappie, black bass, cats	TWRA

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
REELF00005OB	Reelfoot Lake	Upper Blue Basin Mouth of Walnut Log Ditch	106 metals/organics, pfas	Crappie, black bass, cats	TWRA
INDIANMTB	Indian Mountain “B” Lake	Indian Mountain State Park	Hg and PFAS	Black Bass	TWRA
KELLYLAKE	Kelly Lake	Kelly Lake at Dam	Hg and PFAS	Black Bass	TWRA
LFGIZ002.9GY	Big Grundy Lake	Big Grundy Lake at Dam, South Cumberland State Park	Hg and PFAS	Black Bass	TWRA
COVE017.0CA	Cove Lake	Cove Lake State Park	Hg and PFAS	Black Bass	TWRA
DODDY002.1BE	Bedford Lake	Bedford Lake Near Dam	Hg and PFAS	Black Bass	TWRA
CLEAR003.8CR	Carroll Lake	Carroll Lake	Hg and PFAS	Black Bass	TWRA
THOMP006.4WY	Garret Lake	Garrett Lake State Fishing Area	Hg and PFAS	Black Bass	TWRA
SULLIVANSPOND	Sullivan's Pond	Fort Pillow State Park	Hg and PFAS	Black Bass	TWRA
PTREE000.2SH	Poplar Tree Lake	Poplar Tree Lake at Dam - Meeman Shelby Forest State Park	Hg and PFAS	Black Bass	TWRA
BRINK0.6T1.8SH	Piersol Lake	Meeman Shelby State Park	Hg and PFAS	Black Bass	TWRA
FBROA008.2KN	French Broad River	Campbell Island off Kodak	Metals and Organics, PFAS	Bass and Catfish	TVA
TENNE604.0LO	Ft Loudoun Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
TENNE652.0KN	Ft Loudoun Reservoir	Inflow	Hg and PCBs	Bass and Catfish	TVA
TENNE62436KN	Ft Loudoun Reservoir	Mid Reservoir	Hg and PCBs	Bass and Catfish	TVA

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
LTENN001.0LO	Tellico Reservoir	Forebay	Hg, PCBs and PFAS	Bass and Catfish	TVA
LTENN015.0LO	Tellico Reservoir	Mid Reservoir	Hg, PCBs and PFAS	Bass and Catfish	TVA
HIWAS037.0PO	Hiwassee River	Patty Station Road	Hg, PCBs and PFAS	Bass and Catfish	TVA
HIWAS007.4ME	Hiwassee River	TN HWY 58	Hg, PCBs and PFAS	Bass and Catfish	TVA
OCOEE002.6PO	Ocoee River	Off Benton Pike	Hg, PCBs and PFAS	Bass and Catfish	TVA
TENNE472.3HM	Chickamauga Reservoir	Forebay	Hg, PCBs and PFAS	Bass and Catfish	TVA
TENNE518.0ME	Chickamauga Reservoir	Inflow	Hg, PCBs and PFAS	Bass and Catfish	TVA
TENNE489.8HM	Chickamauga Reservoir	Mid Reservoir	Hg, PCBs and PFAS	Bass and Catfish	TVA
ELK135.0FR	Tims Ford Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
ELK150.0FR	Tims Ford Reservoir	Mid Reservoir	Hg and PCBs	Bass and Catfish	TVA
DUCK249.5CE	Normandy Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
SFHOL008.5SU	Fort Patrick Henry Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
FBROA077.5CO	French Broad River	Hwy 321	Hg and PCBs	Bass and Catfish	TVA
NOLIC008.5HA	Nolichucky River	Harley Island	Hg and PCBs	Bass and Catfish	TVA
PIGEO007.6CO	Pigeon River	Tannery Island	Hg and PCBs	Bass and Catfish	TVA
FBROA033.0SV	Douglas Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
FBROA051.0JE	Douglas Reservoir	Mid Reservoir	Hg and PCBs	Bass and Catfish	TVA

STATION ID	WATERBODY	LOCATION	PARAMETER	TARGET SPECIES*	Agency
SFHOL018.8SU	Boone Reservoir	Forebay	Hg and PCBs	Bass and Catfish	TVA
SFHOL027.5SU	Boone Reservoir	Mid Reservoir	Hg and PCBs	Bass and Catfish	TVA
WATAU006.0SU	Boone Reservoir	Mid Reservoir	Hg and PCBs	Bass and Catfish	TVA

Table 13. Analyses for Fish Tissue *

Weight (Pounds)		Chlordane, total		Selenium
Length (Inches)		CIS Chlordane		Zinc
Lipid Content (Percent)		Trans Chlordane		Methoxychlor
PCBs		CIS Nonachlor		Dioxins
Aldrin		Trans Nonachlor		Furans
Dieldrin		Alpha BHC		PFAS
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, wet weight except for dioxins which are reported in ng/kg. Metals are analyzed by Tennessee Department of Health (TDH), Laboratory Services and organics by contract laboratories.

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 https://www.tn.gov/content/tn/environment/program-areas/wr-water-resources/watershed-stewardship/bacteriological-and-fishing-advisories.html

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 2025-2026, sediment samples will be collected as needed.

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 activity.

Tennessee has successfully updated the Tennessee Rapid Assessment Methodology (TRAM) for wetlands, which is based on the Hydrogeomorphic (HGM) and non-HGM approaches for assessing wetland function. This methodology includes rapid assessment forms tailored for various wetland types, including depression, riverine, flat, and slope wetlands. TRAM is now an integral component of the state's wetland conditional assessment process.

The implementation of TRAM has significantly enhanced the ability to swiftly evaluate the value of existing wetland resources. This has been instrumental in assessing the ecological impacts associated with §401 and ARAP permitting decisions. Additionally, the Division of Water Resources' Waterlog database facilitates the tracking of compliance and serves as a valuable repository of data on wetland impacts and mitigation efforts, supporting agencies involved in wetland monitoring and research.

A training course for the Tennessee Rapid Assessment Methodology (TRAM) is currently under development to better support both internal and external stakeholders. The updated TRAM is pending final approval from the Tennessee Board of Water Quality, Oil & Gas. Upon approval, TDEC will proceed with offering training opportunities.

The Tennessee Department of Environment and Conservation (TDEC) has been actively participating in the EPA’s National Wetland Condition Assessment (NWCA) since 2016. The most recent fieldwork was completed in 2021, with the final report published in 2022. TDEC is currently conducting ongoing monitoring for this assessment. The NWCA evaluates wetlands at both national and regional scales to determine the overall health and condition of these ecosystems. Key indicators used in the assessment include water quality, vegetation, soil, and hydrology. This work aims to inform stakeholders about the status of wetlands, guide conservation efforts, and support policy decisions aimed at protecting these vital ecosystems.

In 2020, the TDEC Commissioner initiated a review of the Tennessee Stream Quantification Tool (SQT). The University of Tennessee, TDEC, and the U.S. Army Corps of Engineers (USACE) are currently leading a workgroup of stream mitigation stakeholders to revise and improve the TN SQT. These updates aim to enhance the tool's effectiveness in preventing functional loss from §401 Water Quality Certifications and compensatory mitigation projects across the state.

In 2025, the University of Tennessee delivered the first set of updates to TDEC. The tool has been renamed the Tennessee Mitigation Assessment Tool (TMAT), and the first pilot course was launched in July 2025. The TMAT is expected to be finalized by the end of 2025. Official training course is expected to be handle at the end of 2025 for the regulated community.

F. Southeast Monitoring Network

FY 2020 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 EPA 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 TDEC also collect 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 11 sites in ecoregions 66, 67, 68 and 71 (Table 14). Eleven sites will enable some statistical determinations using state data in addition to analysis of grouped data.

1. Project Objectives

a. Establish annual monitoring at 11 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.

2. Methodology

a. Develop a joint inter-agency monitoring plan.
b. Select 11 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 diatoms 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 TDEC-DWR 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.
h. Download continuous monitoring data from both air and water probes quarterly.

All field sampling and sample collection will be conducted by trained Environmental Scientists 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). Diatom analysis will be contracted through the Aquatic Biology Section. Chemical analysis will be completed by the Inorganic Chemistry Section, TDH or by contracted lab. Data will be maintained and publicly available in a joint database with data from other agencies in the monitoring network.

Table 14. Southeast Monitoring Network Sites – Tennessee

Station	Stream	EFO	Latitude	Longitude	HUC	ECOIV	Drainage sq mi.	% Forest	Protected Drainage
ECO66E09	Clark Creek	JC	36.15077	-85.5291	TN06010108	66E	9.2	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	CH	35.00305	-84.6122	TN03150101	66G	5.7	99	Big Frog Wilderness Cherokee NF
ECO66G20	Rough Creek	CH	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 Management Area
ECO68A03	Laurel Fork Station Camp Creek	CK/MS	36.51611	-84.6981	TN05130104	68A	5.9	90	Big South Fork NRRA
ECO68C20	Crow Creek	CH	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		
ECO71H17	Clear Fork Creek	CK	35928651	-85.992117	TN05130108	71H	14.3		

III. WASTE LOAD ALLOCATION/TMDL DEVELOPMENT

Waste load Allocations/TMDL Development – (State Appropriations, 106 Funds, and 319(h) Funds)

Wasteload Allocations. Prior to issuance of NPDES permits, the limits for specific chemical constituents of the effluent must be determined. In those cases where there is a TMDL in place, NPDES permit limits cannot exceed the limits set by the TMDL.

A Total Maximum Daily Load (TMDL) is a study that 1) identifies the sources of pollutants in a water body, 2) quantifies the amount of the pollutants, and (3) recommends regulatory or other actions that may need to be taken in order for the stream to no longer be polluted. Following are actions that might be recommended:

- Re-allocate limits on the sources of pollutants documented as impacting streams. It might be necessary to lower the amount of pollutants being discharged under NPDES permits or to require the installation of other control measures, if necessary, to ensure that standards will be met.

- For sources the Division does not have regulatory authority over, such as ordinary agricultural and forestry activities, provide information and technical assistance to other state and federal agencies that work directly with these groups to install appropriate BMPs.

Even for impaired waters, TMDL development is not considered appropriate for all bodies of water. Additionally, in cases involving pollution sources in other states, the recommendation may be that another state or EPA develops the TMDL.

319(h) Funds. The Tennessee Department of Agriculture administers the 319 (h) grant program.

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

A. Complaints

The division investigates and attempts to resolve over 2,100 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 MONTORING

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 25-26. These inspections have been coordinated to fulfill the data needs of the permits, O & M, and enforcement programs. Major facilities are inspected at a rate of once every two years and minor facilities are inspected at a rate of once every five years. Facilities in noncompliance with permit limits will be given priority scheduling if needed, but all facilities will be inspected according to the time frames set out in the EPA Enforcement Workplan. Inspections are entered into Waterlog and flowed into ICIS-NPDES within 40 days of inspection completion. The DWR NPDES inspection year reflects EPA's fiscal year, October 1, 2025– September 30, 2026.

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 98 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). While TAVs are not mandated by the EPA, they play an important role in providing facilities the opportunity to ask questions and stay in contact with the division. Therefore, the TAVs are conducted during those years not allocated to audits or inspections.

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) information required by Appendix A of the E-Reporting Rule. 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 Central Office performs pretreatment audits and assists the field offices with PCI's and TAV's as needed. The Central Office also oversees any developing/reactivating programs.

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 requires environmental field offices (EFOs) to conduct inspections on at least 3% of major and minor facilities with WET permit limits on an annual basis. There are 230 individual permitted facilities that have WET limits incorporated into their permit. Toxicity tests are sent directly by EFOs to ESC Lab Sciences for analyses.

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APPENDIX A:

2025-26 MONITORING STATIONS SCHEDULED TO BE SAMPLED

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN0801021100720_1000	NONCO017.0SH	Nonconnah Creek	Winchester Road	USGS						8			
Ambient	TN0801021100711_1000	NONCO001.8SH	Nonconnah Creek	Rivergate Road	MEFO					4	4		4	
303d	TN08010211007_1000	CCSOU004.0SH	Cypress Creek South	East of Horn Lake Road in the Adjacent Park	MEFO			1	1	12	12		12	
303d	TN08010211007_1000	CCSOU001.1SH	Cypress Creek South	Weaver Road	MEFO			1	1	12	12		12	
303d	TN08010211001_2000	HLAKE004.0SH	Horn Lake Creek	At Weaver Road	MEFO					12	12		12	
303d	TN08010211001_0100	HLCUT000.0SH	Horn Lake Cutoff	Horn Lake Cutoff West of Shelby Drive NW Robco Lake	MEFO					12	12		12	
USGS NUT	TN08010210023_1000	FLETC001.4SH	Fletcher Creek	Sycamore View Road	USGS						8			
USGS NUT	TN08010210009_2000	WOLF072.6FA	Wolf River	Yager Road	USGS						8			
Ambient	TN08010210009_2000	WOLF072.6FA	Wolf River	Yager Road	MEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN08010210004_1000	WOLF044.4FA	Wolf River	Hwy 194 Bridge North of Rossville TN	USGS						8			
Ambient	TN08010210003_1000	WOLF031.4SH	Wolf River	At County Road Bridge on Arlington-Collierville Road (Hwy 205)	MEFO					4	4		4	
USGS NUT	TN08010210002_2000	WOLF019.3SH	Wolf River	South Germantown Rd (TN 177)	USGS						8			
Ambient	TN08010209011_2000	LOOSA1C53.6FA	Loosahatchie River	Highway 64 Crossing	MEFO					4	4		4	
USGS NUT	TN08010209004_1000	LOOSA1C30.2SH	Loosahatchie River	Hwy 70 Br	USGS						8			
Ambient	TN08010209004_1000	LOOSA1C28.6SH	Loosahatchie River	At Collierville-Arlington Road (Highway 205) Crossing	MEFO					4	4		4	
Ambient	TN08010209001_1000	LOOSA005.0SH	Loosahatchie River	First Br on Loosahatchie River at North Watkins Road Crossing	MEFO					4	4		4	
USGS NUT	TN08010208001_3000	HATCH139.5HR	Hatchie River	SR 18/125 near Boliver	USGS						8			
Ambient	TN08010208001_3000	HATCH126.9HR	Hatchie River	Hwy 100 Br Near toone D/S From Bolivar	MEFO					4	4		4	
USGS NUT	TN08010208001_2000	HATCH038.6TI	Hatchie River	Hwy 51 North of Covington	USGS						8			
Ambient	TN08010208001_1000	HATCH009.1TI	Hatchie River	Club Road	MEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN08010205010_1000	SFFDE027.7HY	South Fork Forked Deer River	Hwy 54	USGS						8			
Ambient	TN08010205010_1000	SFFDE027.7HY	South Fork Forked Deer River	Hwy 54	JEFO					4	4		4	
USGS NUT	TN08010204010_2000	MFFDE030.5MN	Middle Fork Forked Deer River	Hw 45 bypass	USGS						8			
Ambient	TN08010204001_1000	NFFDE005.3DY	North Fork Forked Deer River	Hwy 211	JEFO					4	4		4	
Evaluate NS	TN08010203032_2400	RFOBI31.0T1.5CR	Unnamed Trib to Rutherford Fork Obion River	Upstream Jax Road	JEFO	1								
303d	TN08010203032_2300	EDMUN001.0GI	Edmundson Creek	Hwy 45W	JEFO			1						
Evaluate NS	TN08010203032_2200	CUMMI001.0GI	Cummings Creek	D/S Mod Halliburton Road	JEFO	1								
Evaluate NS	TN08010203032_2100	OWEN001.3GI	Owen Branch	U/S Robert Thorton	JEFO	1								
303d	TN08010203032_2000	RFOBI024.4GI	Rutherford Fork	Hwy 45E	JEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
			Obion River											
Evaluate NS	TN08010203032_1900	CAMP001.1GI	Camp Creek	U/S Shanklin Road	JEFO	1								
Not Assessed	TN08010203032_1800	TBD	Adams Branch		JEFO			1						
303d	TN08010203032_1510	EFWOL000.2GI	East Fork Wolf Creek	U/S Arsenal Road Entrance Plant Route 75	JEFO			1						
Evaluate NS	TN08010203032_1500	WOLF001.6GI	Wolf Creek	U/S Hwy 425	JEFO	1								
303d	TN08010203032_1400	JOHNS001.5CR	Johns Creek	D/S Hwy 104	JEFO			1						
Watershed FS 2	TN08010203032_1100	MILL000.3CR	Mill Creek	U/S Terry Road	JEFO			1						
303d	TN08010203032_1000	RFOBI004.9OB	Rutherford Fork Obion River	Hwy 89/Kenton Road Bridge	JEFO			1	1	12	12		12	
Evaluate NS	TN08010203032_0900	BARDW000.4CR	Bardwell Branch	U/S Miles Road	JEFO	1								
Watershed FS 2	TN08010203032_0800	CANE001.7CR	Cane Creek	Jerry Kirby Road	JEFO			1						
303d	TN08010203020_2000	MUD013.0WY	Mud Creek	New Salem Road	JEFO			1	1	12	12	Temp	12	
303d	TN08010203020_0100	CANE001.5OB	Cane Creek	U/S Caudle Road	JEFO			1	1		12		12	
303d	TN08010203016_3000	SPRIN016.2WY	Spring Creek	Highway 22	JEFO			1						
Evaluate NS	TN08010203016_2000	SPRIN008.7WY	Spring Creek	Hwy 190 North of Pillowville	JEFO	1								
303d	TN08010203016_1000	SPRIN002.3WY	Spring Creek	Hwy 54	JEFO			1			12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN08010203016_0700	BOND001.2WY	Bond Branch	D/S Union Church Rd.	JEFO			1						
Evaluate NS	TN08010203016_0400	BOAZ000.1WY	Boaz Creek	Off Bell Store Road	JEFO	1								
Evaluate NS	TN08010203016_0200	COTTO000.6WY	Cotton Creek	D/S Cotton Creek Road	JEFO	1								
303d	TN08010203015_3000	MFOBI026.3HN	Middle Fork Obion River	Hwy 140	JEFO			1						
303d	TN08010203015_2000	MFOBI014.6WY	Middle Fork Obion River	Greenfield Hwy/ Hwy 54	JEFO					12	12		12	
Evaluate NS	TN08010203015_1800	BUCKO000.5WY	Buckor Ditch	U/S Hwy 45E	JEFO	1								
303d	TN08010203015_1500	MORRI001.1WY	Morris Branch	U/S Byrd Road.	JEFO					12	12		12	
303d	TN08010203015_1400	SUMME001.2WY	Summers Creek	D/S Luellen Road.	JEFO			1						
Flow	TN08010203015_1300	TBD	Arnold Branch		JEFO	1								
303d	TN08010203015_1200	TUMBL002.1WY	Tumbling Creek	U/S Tumbling Creek Road	JEFO			1						
Evaluate NS	TN08010203015_1100	TRAIN000.4HN	Trainer Creek	U/S Tyson Road. (Gum Springs)	JEFO	1								
Ambient	TN08010203015_1000	MFOBI004.5WY	Middle Fork Obion River	Etherage Levee Road Near Sharon	JEFO			1		4	4		4	
Flow	TN08010203015_0700	OTOWN002.2HN	Old Town Creek	Hwy 54	JEFO	1								
Evaluate NS	TN08010203015_0650	THOMP007.6WY	Thompson Creek	d/s Rawls Rd.	JEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Probabilistic	TN08010203015_0600	THOMP000.2WY	Thompson Creek	600 yards Downstream Bridge on Thompson Creek Road (Jeans Road)	JEFO			1	1	12	12		12	
303d	TN08010203015_0100	TERRE000.6WY	Terrell Branch	D/S of Confluence with Garner Branch	JEFO			1						
USGS NUT	TN08010203011_2000	CROOK005.7CR	Crooked Creek	Gordon Browning highway	USGS						8			
Not Assessed	TN08010203011_2000	CROOK005.8CR	Crooked Creek		JEFO			1						
303d	TN08010203011_1000	CROOK002.6CR	Crooked Creek	Hwy 22	JEFO					12	12		12	
Watershed FS 2	TN08010203011_0100	GUINS003.0CR	Guins Creek	U/S Langford Store Road	JEFO			1						
Evaluate NS	TN08010203010_2000	BEAVE007.2CR	Beaver Creek	Hwy 364 70A (bypass)	JEFO	1								
303d	TN08010203010_1000	BEAVE004.4CR	Beaver Creek	Hwy 77	JEFO	1				12	12		12	
Probabilistic	TN08010203010_0500	HAWKI002.1CR	Hawkins Creek	Just Upstream Westport Road	JEFO			1	1	12	12		12	
303d	TN08010203007_2000	REEDY011.1CR	Reedy Creek	D/S Old Stage Road	JEFO			1						
Watershed FS 2	TN08010203007_1000	REEDY001.3CR	Reedy Creek	Hwy 79	JEFO			1						
Evaluate NS	TN08010203007_0300	LICK001.9CR	Lick Creek	Big Buck Road d/s	JEFO	1								
Evaluate NS	TN08010203007_0210	WHITE000.6CR	White Creek	U/S Hwy 105	JEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN08010203007_0200	HALLE000.2CR	Halley Creek	U/S Big Buck Road	JEFO			1						
303d	TN08010203001_2000	SFOBI035.0CR	South Fork Obion River	Hwy 79 (70A)	JEFO			1						
Evaluate NS	TN08010203001_1600	SFOBI20.6T0.1GI	Unnamed Trib to South Fork Obion River	0.1 Mile U/S Confluence. W/ Obion	JEFO	1								
303d	TN08010203001_1300	THOMP001.0CR	Thompson Creek	Hwy 105	JEFO	1								
303d	TN08010203001_1200	DEMOS001.0CR	DeMoss Creek	Hwy 105	JEFO			1						
USGS NUT	TN08010203001_1000	SFOBI019.7WY	South Fork Obion River	Hwy 45E	USGS						8			
Ambient	TN08010203001_1000	SFOBI005.8OB	South Fork Obion River	Hwy 89	JEFO			1		4	4		4	
Landfill	TN08010203001_0910	CLEAR2.4T1.3CR	Unnamed Trib to Clear Creek	Connie Allen Road downstream McKenzie WWTP	JEFO			1	1	12	12		12	
303d	TN08010203001_0900	CLEAR001.0CR	Clear Creek	U/S Big Buck Road	JEFO			1	1	12	12		12	
	TN08010203001_0710	TBD						1						
303d	TN08010203001_0700	ELEND000.2CR	Todd Creek	U/S Dr Holmes Road	JEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Probabilistic	TN08010203001_0500	BEAR002.1WY	Bear Creek	100 Yds Downstream Bridge on Stafford Store Road.	JEFO			1	1	12	12		12	
Landfill	TN08010202948_1000	MILL003.2OB	Mill Creek	Black Road	JEFO			1	1					
Probabilistic	TN08010202500_1000	CYPRE005.9OB	Cypress Creek	300 Yards Upstream North Herman Carter Road	JEFO			1	1	12	12		12	
303d	TN08010202419_1000	HOOSI002.8OB	Hoosier Creek	D/S Hwy 45W	JEFO			1						
Evaluate NS	TN08010202054_1000	BIFFL003.5DY	Biffle Creek	U/S Parks Bottom Road	JEFO	1								
Evaluate NS	TN08010202048_1000	CLOVE002.0OB	Cloverdale Creek	D/S Widow Wilson Road (South Sellars Road)	JEFO	1								
303d	TN08010202048_0100	TBD	Zion Creek		JEFO	1								
Eco Ref	TN08010202041_1000	ECO73A04	Bayou Du Chien	1.5 Miles U/S Boat Ramp on Walnut Log Road and 0.75 Miles U/S Last Cabin.	JEFO		2	2	1	4	4			
Eco Ref	TN08010202041_0100	FECO73A01	Unnamed Trib to Bayou Du Chien	U/S Walnut Log Road	JEFO		2	2	1	4	4			
Flow	TN08010202040T_0500	TBD	Indian Creek		JEFO	1								
Ambient	TN08010202040_3000	REELFS02OB	Upper Blue Basin	Upper Blue Basin North and West of	JEFO					12	12	DO	12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Walnut Log Ditch										
Ambient	TN08010202040_2000	REELFS01OB	Buck Basin	Extreme Northeast End of Upper Buck Basin 50 Ft Out From Mouth of Reelfoot Creek	JEFO					12	12	DO	12	
Ambient	TN08010202040_1000	REELF00001LA	Blue Basin of Reelfoot Lake	Lower Blue Basin 0.5 Mi Out From Rays Camp (Reelfoot Lake Sp)	JEFO					12	12	DO	12	
USGS NUT	TN08010202036_1000	REELF004.2OB	Reelfoot Creek	Highway 22	USGS						8			
Eco Ref	TN08010202036_0500	FECO74A05	Unnamed Trib to Reelfoot Creek	U/S Hwy 22	JEFO		2	2	1	4	4			
Watershed FS 2	TN08010202036_0220	SCOWL000.2OB	Kilham Creek	U/S Shawtown Road	JEFO			1						
303d	TN08010202036_0200	SREEL001.7OB	South Reelfoot Creek	U/S Marshall-Kirk Road	JEFO								5/30*	
Evaluate NS	TN08010202036_0160	TBD	Taylor Creek		JEFO	1								
Flow	TN08010202036_0120	TBD	Tull Creek		JEFO	1								
Probabilistic	TN08010202036_0100	NREEL000.4OB	North Reelfoot Creek	Off Bob McCann Road 0.8 Mile Upstream USGS Gaging	JEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Station at Hwy 22										
USGS NUT	TN08010202029_1000	RREEL019.4LA	Running Reelfoot Bayou	Running Reelfoot Bayou	USGS						8			
303d	TN08010202029_1000	RREEL003.7DY	Running Reelfoot Bayou	Hwy 103	JEFO			1	1		12	DO	12	
Eco Ref	TN08010202029_0100	ECO74A08	Paw Paw Creek	U/S of Upper Crossing of Putnam Hill Road	JEFO		2	2	1	4	4			
Evaluate NS	TN08010202028_1000	CLOVE001.4OB	Clover Creek	Sharps Ferry Road	JEFO	1								
Probabilistic	TN08010202028_0100	CLOVE6.7T0.5OB	Unnamed Trib to Clover Creek	200 Yards Upstream Clover Creek Road	JEFO			1	1	12	12		12	
Evaluate NS	TN08010202027_1000	RICHL002.2OB	Richland Creek	U/S Hwy 51 (Tributary to Obion River)	JEFO	1								
Evaluate NS	TN08010202027_0200	RICHL8.8T0.7OB	Unnamed Trib to Richland Creek	Off Gravel Pit Road in Spartan's Bend - Troy near Luther Davis Road.	JEFO	1								
303d	TN08010202026_0100	DAVID002.6OB	Troy Creek	Troy-Polk Station Road	JEFO			1	1	12	12		12	
303d	TN08010202025_1000	HFORK001.8OB	Harris Fork Creek	U/S Daniel Mcconnell Road	JEFO								5/30*	
Evaluate NS	TN08010202025_0200	HICKS001.3OB	Hicks Branch	Upstream Charles Bushart Road	JEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN08010202025_0100	DEER001.4OB	Deer Creek	Upstream Harris Road	JEFO	1								
Evaluate NS	TN08010202024_1000	RICHL002.1OB	Richland Creek	Hwy 45E (Tributary to North Fork Obion River)	JEFO	1								
Evaluate NS	TN08010202024_0400	JONES001.5WY	Jones Branch	U/S Wall Road	JEFO	1								
Evaluate NS	TN08010202024_0300	TROUB001.2WY	Trouble Creek	U/S Jones Road	JEFO	1								
Evaluate NS	TN08010202024_0200	WGROV000.2OB	Walnut Grove Branch	Off Walnut Grove Church Road	JEFO	1								
Evaluate NS	TN08010202024_0100	WOLF000.3OB	Wolf Creek	U/S Meadow Road	JEFO	1								
Evaluate NS	TN08010202018_0200	KENNE000.5WY	Kennedy Branch	d/s Buckley Rd.	JEFO	1								
303d	TN08010202014_1000	CYPRE003.8WY	Cypress Creek	Matheny Road	JEFO					12	12		12	
Evaluate NS	TN08010202014_0500	OWL000.1WY	Owl Branch	D/S Turberville Road	JEFO	1								
Evaluate NS	TN08010202014_0400	STRAW000.3WY	Strawberry Branch	U/S Turberville Road	JEFO	1								
303d	TN08010202014_0300	CLAYP000.3WY	Claypit Branch	D/S Gravel Hill Road (Boaz Road);D/S Cypress Lake #10	JEFO	1								
303d	TN08010202009_4000	NFOBI046.9HN	North Fork Obion River	U/S Jones Mill Road	JEFO			1						
303d	TN08010202009_3000	NFOBI026.5WY	North Fork Obion River	Hwy 118	JEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Not Assessed	TN08010202009_2400	CGROU001.2WY	Camp Ground Creek	Billingsby Camp Road	JEFO			1						
USGS NUT	TN08010202009_2000	NFOBI018.0WY	North Fork Obion River	Hwy 45E	USGS						8			
Ambient	TN08010202009_2000	NFOBI010.7OB	North Fork Obion River	Hwy 22	JEFO			1		4	4		4	
303d	TN08010202009_1900	MAYO000.9WY	Mayo Branch	U/S Latham-Palmersville Road(Hwy 190)	JEFO			1						
Ambient	TN08010202009_1000	NFOBI005.9OB	North Fork Obion River	Mt. Pelia Road (Hwy 216 Near Rives)	JEFO			1	1	4	4		4	
Eco Ref	TN08010202009_0800	FECO74B03	Terrapin Creek	U/S Terrapin Road	JEFO		2	2	1	4	4			
303d	TN08010202009_0710	HURRI000.0WY	Hurricane Creek	U/S Donoho Levee Road	JEFO			1	1	12	12		12	
Eco Ref	TN08010202009_0600	ECO74B04	Powell Creek	At McLains Levee Road	JEFO		2	2	1	4	4			
Probabilistic	TN08010202009_0200	TOMMY002.0WY	Tommy Creek	U/S Ralston-Kentucky Road	JEFO			1	1	12	12		12	
Evaluate NS	TN08010202003_1000	REEDS001.6DY	Reeds Creek	100 Yards Upstream of Sharp's Ferry Road Bridge	JEFO	1								
303d	TN08010202003_0100	CSPRI002.4DY	Cool Springs Branch	Hwy 105 Trimble Road	JEFO					12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN08010202001_4000	OBION071.2OB	Obion River	Hwy 45	JEFO					12	12		12	
USGS NUT	TN08010202001_3000	OBION060.8OB	Obion River	US Highway 51 (Jere B Ford Memorial Highway)	USGS						8			
303d	TN08010202001_3000	OBION044.3DY	Obion River	Millsfield Road	JEFO					12	12		12	
303d	TN08010202001_1000	OBION020.9DY	Obion River	Hwy 104 Gaging Station	JEFO					12	12		12	
Landfill	TN08010202001_0700	GRASS000.8OB	Grass Creek	Bingham/East Union Grove Road	JEFO					12	12		12	
Evaluate NS	TN08010202001_0600	DRY000.9OB	Dry Creek	U/S Black Lane Road	JEFO	1								
303d	TN08010100001_1200	MCKELHARB1.6SH	McKellar Lake	Middle station North of Treasure Island (North Treasure Island 2)	MEFO					12	12		12	
303d	TN08010100001_1200	MCKEL005.6SH	McKellar Lake	South of Nonconnah Creek (near mouth)	MEFO					12	12		12	
303d	TN08010100001_1200	MCKEL001.5SH	McKellar Lake	0.3 mile Downstream of Allen Fossil Plant	MEFO					12	12		12	
Ambient	TN08010100001_1100	WRIVE003.0SH	Wolf River Harbor	Near North End	MEFO					12	12		12	
Ambient	TN08010100001_1100	WRIVE001.3SH	Wolf River Harbor	Near A.W. Willis Avenue	MEFO					12	12		12	
USGS NUT	TN08010100001_1000	MISSI734.5SH	Mississippi River	D/S Frisco Bridge/Hwy 55	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Eco Ref	TN08010100001_0810	FECO74A04	Barnishee Bayou	U/S of Riddick Road in Meeman-Shelby State Park	MEFO		2	2	1	4	4			
Not Assessed	TN08010100001_0800	BRINK000.0SH	Brinkley Bayou	Pleasant View Road Crossing	MEFO			1						
Eco Ref	TN08010100001_0700	FECO74A06	Bear Creek	Off Bluff Road 0.2 mile SW of Pryor Road intersection	MEFO		2	2	1	12	12		12	
Eco Ref	TN08010100001_0600	ECO74A06	Sugar Creek	U/S Copper Road	MEFO		2	2	1	4	4			
Eco Ref	TN08010100001_0400	ECO73A03	Cold Creek	1.4 Miles U/S Crutcher Lake Road Br Crossing and U/S Adams Bayou.	JEFO		2	2	1	4	4			
Probabilistic	TN08010100001_0320	COLD006.3LE	Cold Creek	200 Yards Upstream Jeff Webb Road.	JEFO			1	1	12	12		12	
Evaluate FS FAL	TN08010100001_0310	KNOB006.0LE	Knob Creek	Porter Gap Road	JEFO	1								
Eco Ref	TN08010100001_0300	ECO73A02	Middle Fork Forked Deer River	0.5 Miles U/S Bridge on Watkins Road	JEFO		2	2	1	4	4			
303d	TN08010100001_0200	BBANK001.2LA	Blue Bank Bayou	Robinson Bayou Road	JEFO			1	1	12	12	DO	12	
Evaluate NS	TN08010100001_0110	OGRAV002.0LA	Old Graveyard Slough	Bar Rd	JEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN08010100001_0100	HARRI000.5LA	Harris Ditch	Hwy 21	JEFO	1								
USGS NUT	TN06040005870_1000	CYPRE012.8BN	Cypress Creek	U/S Camden Lagoon	USGS						8			
USGS NUT	TN06040005027_1000	BSAND031.5CR	Big Sandy River	Above Bruceton STP Outfall at USGS Gauge.	USGS						8			
Ambient	TN06040005027_1000	BSAND015.3BN	Big Sandy River	Big Sandy River Hwy 69A Crossing (in dewatering area)	JEFO					4	4		4	
Ambient	TN06040005020_1000	TENNE066.3HN	Kentucky Reservoir	Ky Reservoir at Paris Landing/Highway 79	JEFO					4	4		4	
Not Assessed	TN06040004059_1000	ROCKH001.0PE	Rockhouse Creek	Off Rockhouse Creek Road D/S Treadwell Hollow	CLEFO			1						
Not Assessed	TN06040004032_1000	SHORT000.2PE	Short Creek	Hwy. 412	CLEFO			1						
Watershed FS 2	TN06040004031_0500	SFCAN000.6LS	South Fork Cane Creek	Mccord Hollow Road.	CLEFO			1						
Not Assessed	TN06040004031_0300	TBD	Upper Sinking Creek	U/S Cane Creek Rd	CLEFO			1						
Not Assessed	TN06040004031_0100	TBD	Lower Sinking Creek	U/S Lower Cane Creek Rd	CLEFO			1						
Watershed FS 2	TN06040004030_1000	BRUSH000.8PE	Brush Creek	Brush Creek Road.	CLEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Not Assessed	TN06040004029_1000	COON001.3PE	Coon Creek	Hwy. 412	CLEFO			1						
Not Assessed	TN06040004028_1000	HURRI000.9PE	Hurricane Creek	D/S Whitewell Cemetary Road.	CLEFO			1						
Not Assessed	TN06040004026_1000	TRACE000.2LS	Trace Creek	U/S Cothan Road.	CLEFO			1						
303d	TN06040004025_2000	ROCKH008.2LS	Rockhouse Creek	Highway 48 D/S Hohenwald STP	CLEFO			1	1		12		12	
Landfill	TN06040004025_1000	ROCKH001.1LS	Rockhouse Creek	Upstream Rockhouse Road at Glen Floyd Road	CLEFO			1	1	12	12		12	
Watershed FS 2	TN06040004024_1000	GRIND000.1LS	Grinders Creek	Off Hwy 99	CLEFO			1						
303d	TN06040004019_0600	WFBUF003.0LW	West Fork of Buffalo River	U/S Brier Hill Road	CLEFO		1	1	1	12	12		12	
Not Assessed	TN06040004019_0300	NFBUF001.0LW	North Fork Buffalo River	D/S Hwy 43	CLEFO			1						
Not Assessed	TN06040004019_0200	SAW001.2LW	Saw Creek	U/S Barnesville Road	CLEFO			1						
Not Assessed	TN06040004019_0100	POND000.6LS	Pond Creek	D/S Leland Road	CLEFO			1						
SEMN	TN06040004013_0600	ECO71F19	Brush Creek	Paul Reed Road just D/S Little Brush Creek	CLEFO		2	2	1	4	4	Temp		

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06040004013_0400	DRY001.1LW	Dry Branch	D/S Hwy 64	CLEFO			1	1		12		12	
Eco Ref	TN06040004013_0300	FECO71F02	Wolfpen Branch	U/S Confluence Little Buffalo River (Laurel Hill WMA)	CLEFO		2	2	1	4	4			
Not Assessed	TN06040004013_0155	TBD	Chief Creek		CLEFO			1						
Not Assessed	TN06040004009_2000	FORTY011.5WE	Fortyeight Creek	Fortyeight Creek Road Crossing at Forge Statck Bridge	CLEFO			1						
Not Assessed	TN06040004009_0300	TBD	Barnett Branch	Barnett Branch Ln	CLEFO			1						
Not Assessed	TN06040004009_0100	LFORT001.0WE	Little Fortyeight Creek	Little Fortyeight Creek Road. (Just D/S Blowing Sp. Cr.)	CLEFO			1						
Watershed FS 1	TN06040004008_1000	BUFFA098.1LS	Buffalo River	Hwy 99 Near Oak Grove	CLEFO			1	1		12		12	
Not Assessed	TN06040004008_0500	ALLEN000.5LS	Allens Creek	U/S Hwy 99 Allen Creek Road D/S Of Seiber Ridge Road	CLEFO			1						
Not Assessed	TN06040004008_0100	BOPOS000.1WE	Big Opossum Creek	Big Opossum Cr Road& Harris Road.	CLEFO			1						
Probabilistic	TN06040004007_3000	GREEN016.2WE	Green River	Off of Upper Green River	CLEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Road Approximately 300 yards D/S Duren Lane										
303d	TN06040004007_2000	GREEN011.0WE	Green River	D/S Waynesboro (off Hwy. 13)	CLEFO			1	1	12	12		12	
Evaluate NS	TN06040004007_1000	GREEN002.4WE	Green River	Keazy Hollow Road (Phillips Chapel Road)	CLEFO			1	1	12	12		12	
Not Assessed	TN06040004007_0300	CHALK002.0WE	Chalk Creek	Hwy. 13	CLEFO			1						
Not Assessed	TN06040004007_0200	HURRI000.9WE	Hurricane Creek	Hwy 64 Crossing	CLEFO			1						
USGS NUT	TN06040004002_1000	BUFFA058.5PE	Buffalo River	USGS gaging station off Old Hwy 13 (Armstrong Road)	USGS						8			
Ambient	TN06040004002_1000	BUFFA073.1WE	Buffalo River	Hwy 13 @ Flatwoods	CLEFO					4	4		4	
USGS NUT	TN06040004001_1000	BUFFA019.2PE	Buffalo River	State Highway 13	USGS						8			
Watershed FS 1	TN06040004001_1000	BUFFA008.0HU	Buffalo River	U/S Bakerville Road Bridge	CLEFO			1	1		12		12	
303d	TN06040004001_0700	MARRS000.1PE	Marrs Branch	off Buffalo River Run	CLEFO			1						
Not Assessed	TN06040004001_0600	LAGOO000.9PE	Lagoon Branch	Lagoon Road	CLEFO			1						
303d	TN06040004001_0200	BLACK001.0HU	Black Branch	Off Old Hwy 13 (Parks Road)	CLEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06040003050_1000	PINEY008.4HI	Piney River	Highway 230	USGS						8			
USGS NUT	TN06040003026_2000	DUCK133.1MY	Duck River	East 5th street in Columbia	USGS						8			
USGS NUT	TN06040003024_1000	DUCK116.4MY	Duck River	Craig Bridge Road	USGS						8			
Ambient	TN06040003024_1000	DUCK113.9MY	Duck River	Hwy 50 @ Williamsport	CLEFO					4	4		4	
Ambient	TN06040003019_2000	BBIGB008.5MY	Big Bigby Creek	D/S of Confluence with Sugar Fork Creek Canaan Bridge	CLEFO					4	4		4	
USGS NUT	TN06040003016_1000	DUCK098.0HI	Duck River	Highway 50 near Shady Grove	USGS						8			
USGS NUT	TN06040003009_1000	DUCK072.6HI	Duck River	D/S Hwy 100 @ Gauge	USGS						8			
USGS NUT	TN06040003001_2000	DUCK026.0HU	Duck River	USGS Gaging Station D/S Tumbling Creek	USGS						8			
USGS NUT	TN06040002033_1000	WARTR002.2BE	Wartrace Creek	Downstream Hwy 69 (Bridgeview Avenue) in Wartrace	USGS						8			
USGS NUT	TN06040002032_1000	DUCK265.4CE	Duck River	At Powers Bridge	USGS						8			
Ambient	TN06040002030_1000	DUCK248.0BE	Duck River	D/S Normandy Dam (Frank Hiles Road)	CLEFO					4	4		4	
USGS NUT	TN06040002027_2000	DUCK221.3BE	Duck River	650 Feet U/S Shelbyville STP	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06040002020_1000	DUCK216.2BE	Duck River	Simms Road (D/S Flat Creek)	USGS						8			
USGS NUT	TN06040002020_1000	DUCK202.3BE	Duck River	Wheel Road in Halls Mill	USGS						8			
USGS NUT	TN06040002012_1000	BROCK009.4ML	Big Rock Creek	Wallace Thompson Road	USGS						8			
USGS NUT	TN06040002010_1000	DUCK180.0ML	Duck River	Highway 272 D/S Big Rock Creek	USGS						8			
USGS NUT	TN06040002002_1000	FOUNT007.0MY	Fountain Creek	USGS Gage 3599450	USGS						8			
USGS NUT	TN06040002001_1000	DUCK156.0MY	Duck River	at Sowell Mill Pike	USGS						8			
USGS NUT	TN06040001802_2000	BEECH032.8HE	Beech River	Beech River just downstream Wolf creek	USGS						8			
Ambient	TN06040001802_1000	BEECH010.0DE	Beech River Embayment	Near Parsons TN on Hwy 69 Bridge	JEFO					4	4		4	
USGS NUT	TN06040001064_1000	HORSE013.6HD	Horse Creek	Airport Road	USGS						8			
USGS NUT	TN06030005078_1000	SHOAL022.3LW	Shoal Creek	Bridge At St Hwy 227 (Iron City)	USGS						8			
Ambient	TN06030005078_1000	SHOAL032.2LW	Shoal Creek	West Point Bridge (Busby Road)	CLEFO					4	4		4	
USGS NUT	TN06030004017_2000	RICHL025.7GS	Richland Creek	Highway 64 South of Pulaski; U/S TN Valley Recycling	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06030004013_1000	ELK036.5GS	Elk River	Prospect (Veto Road)	USGS						8			
USGS NUT	TN06030003051_1000	BRADL003.4CE	Bradley Creek	USGS Gage 3578500	USGS						8			
USGS NUT	TN06030003044_1000	ELK194.3GY	Elk River	US41 (Dixie highway)	USGS						8			
Ambient	TN06030003015_1000	ELK133.0FR	Elk River	First Bridge Below D/S Tims Ford Dam	CLEFO					4	4		4	
USGS NUT	TN06030003010_1000	ELK093.9LI	Elk River	Eldad Road Nr U/S Fayetteville WWTP	USGS						8			
Not Assessed	TN06030001112_1000	PSPRI000.9MI	Poplar Spring Branch	Poplar Spring Branch @ US Route 72 bypass of Richa	CHEFO			1						
Watershed FS 2	TN06030001110_1000	LCROW004.4FR	Little Crow Creek	Sinking Cove Road	CLEFO			1						
Not Assessed	TN06030001110_0200	TBD	Custard Hollow Creek	Sinking Cove Road	CLEFO			1						
SEMN	TN06030001067_1000	ECO68C20	Crow Creek	Just off Ford Spring Road U/S Confluence with Unnamed Tributary in Tom Pack Hollow.	CHEFO		2	2	1	4	4	Temp		
Evaluate FS FAL	TN06030001067_0700	HFLAT_G005.0MI	Holly Flat Cove Creek	Section C	CHEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Not Assessed	TN06030001067_0600	CROSS001.2FR	Cross Creek	U/S Cross Creek Road	CHEFO		1							
Eco Ref	TN06030001067_0500	FECO68C01	Unnamed Trib to Crow Creek	U/S of Lost Cove Road	CLEFO		2	2	1	4	4			
Not Assessed	TN06030001067_0400	TBD or don't collect	Lost Creek		CLEFO			1						
Not Assessed	TN06030001065_1000	DRY002.2MI	Dry Creek	Off Orme Road and Payne Lane	CHEFO			1						
Evaluate NS	TN06030001065_0100	CCOVE_G1.0MI	Cluck Cove Creek	U/S of Alabama Cr-298	CHEFO	1								
Eco Ref	TN06030001057_2000	ECO68B10	Battle Creek	D/S of Martin Spring Confluence	CHEFO		2	2	1	4	4			
Evaluate NS	TN06030001057_1100	GILLI000.1MI	Gilliam Creek	U/S Ellis Road bridge	CHEFO	1								
Watershed FS 1	TN06030001057_1000	BATTL008.2MI	Battle Creek	U/S of Fish Trap Road Bridge	CHEFO			1	1	12	12		12	
303d	TN06030001057_0950	BFGIZ013.9GY	Big Fiery Gizzard Creek	South Cumberland State Park - From Park Hike U/S to Power Line	CHEFO			1	1	12	12		12	
303d	TN06030001057_0950	BFGIZ013.6GY	Big Fiery Gizzard Creek	South Cumberland State Park Hike Loop Trail to Confluence of Big and	CHEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Little Sample D/S of Confluence										
Watershed FS 1	TN06030001057_0930	LGIZZ003.7MI	Little Gizzard Creek	Above Foster Falls and Powerline Court	CHEFO			1			12		12	
303d	TN06030001057_0925	LFGIZ001.3GY	Little Fiery Gizzard Creek	10th St. bridge crossing	CHEFO			1			12		12	
Evaluate NS	TN06030001057_0922	LFGIZ1.1T0.4T0.1GY	Clouse Hill Branch	Tracy City-Sampled at U/S Location at US 41 and Railroad Ave.	CHEFO	1								
303d	TN06030001057_0921	LFGIZ1.1T0.2GY	Hedden Branch	Little Fiery Gizzard Creek Unnamed Tributary (Hedden Branch)	CHEFO			1			12		12	
303d	TN06030001057_0920	LFGIZ000.8GY	Little Fiery Gizzard Creek	Tracy City-Sampled U/S of 2nd Street Bridge.	CHEFO			1	1	12	12		12	
Evaluate NS	TN06030001057_0900	BFGIZ004.1MI	Big Fiery Gizzard Creek	Confluence with Denny Cove Creek	CHEFO			1					12	
303d	TN06030001057_0100	SWEDE001.8MI	Sweeten (Sweden) Creek	Off Sweden Cove Road 1/8 Miles East of Fish Trap Road on Sweeten Cove Road	CHEFO			1	1		12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06030001055T_0210	GLOVE0.3T1.0T0.5MI	Unnamed Trib to Glover Branch	Below industrial Blvd,west fo AZZ Galvanizing facility	CHEFO			1	1	12	12		12	
303d	TN06030001055T_0210	GLOVE0.3T1.0T0.3MI	Unnamed Trib to Glover Branch	Below industrial Blvd, east of Jasper's WWTP	CHEFO			1	1	12	12		12	
303d	TN06030001055T_0100	GRAHA001.2MI	Graham Branch	At Hwy 156 Crossing U/S of Culvert At the Road Crossing	CHEFO			1	1		12		12	
Ambient	TN06030001055_1000	TENNE416.5MI	Guntersville Reservoir	Crossing of Power Lines at State Lines in the Main Channel	CHEFO					4	4		4	
Not Assessed	TN06020004015_1300	HALL001.0MI	Hall Branch	Jones Crossing Road	CHEFO			1						
303d	TN06020004015_1200	POCKE004.5MI	Pocket Creek	D/S of Bridge Creek Road Crossing	CHEFO			1			12		12	
Landfill	TN06020004015_1100	GRAYS005.0MI	Grays Creek	Below Outfall	CHEFO			1						
Watershed FS 1	TN06020004015_1000	LSEQU009.8MI	Little Sequatchie River	Just Above Little Sequatchie River Ford on Coppinger Cove Road	CHEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Watershed FS 1	TN06020004015_1000	LSEQU001.3MI	Little Sequatchie River	Hwy 28 Bridge	CHEFO						12		12	
Not Assessed	TN06020004015_0900	TBD	Peter Cove Creek		CHEFO		1							
Watershed FS 2	TN06020004015_0710	SCOTT001.3GY	Sewanee Creek	D/S of Scott Creek Road Crossing	CHEFO			1			12		12	
Watershed FS 2	TN06020004015_0500	LINDI006.3MI	Little Indian Creek	Pryor Ridge Road Downstream of Crossing	CHEFO			1						
Evaluate FS FAL	TN06020004015_0200	OSPRI001.2MI	Owen Spring Branch	Owen Spring Branch Near Mouth of Cave /State Natural Area	CHEFO		1		1		12		12	
Not Assessed	TN06020004014_1000	GRIFF001.2MI	Griffith Creek	150 Yards U/S Highway 28	CHEFO		1							
Eco Ref	TN06020004014_0100	FECO68B04	Daniel Creek	U/S of Old Dunlap Road Bridge @ 5807 Dunlap Road	CHEFO		2	2	1	12	12		12	
Not Assessed	TN06020004012_1000	WOODC003.4SE or WOODC006.1SE	Woodcock Creek		CHEFO			1						
303d	TN06020004009_2000	BBRUS017.0SE	Big Brush Creek	U/S Confluence W/ Glady Fork	CHEFO			1						
Evaluate FS FAL	TN06020004009_1000	BBRUS004.2SE	Big Brush Creek	U/S Old Union Road	CHEFO		1						12	
303d	TN06020004009_0500	GLADY001.4SE	Glady Fork	SWM 10 (1000 Ft D/S	CHEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Confluence. W/ Spring Branch) Skyline Coal										
Evaluate NS	TN06020004009_0100	LBRUS001.9SE	Little Brush Creek	U/S of TN-111 and Hwy 8	CHEFO		1						12	
303d	TN06020004008_1000	CANNO000.3BL	Cannon Creek	Howard Beavert Road Br	CHEFO			1	1		12		12	
Evaluate FS FAL	TN06020004008_0200	MAISE000.7BL	Maise Creek	College Station Road	CHEFO			1						
Eco Ref	TN06020004007_2300	ECO68B01	Crystal Creek	U/S of Lower East Valley Road	CHEFO		2	2	1	4	4			
303d	TN06020004007_2200	SKILL000.5BL	Skillern Creek	Just D/S of Lower Valley Road Crossing.	CHEFO			1	1		12		12	
Probabilistic	TN06020004007_2000	SEQUA101.2BL	Sequatchie River	300 Yds U/S Driveway @ 12943 Upper East Valley Road	CHEFO			1	1	12	12		12	
303d	TN06020004007_2000	SEQUA085.5BL	Sequatchie River	Cooper Mill (Mill Dam Road)	CHEFO			1	1	12	12		12	
303d	TN06020004007_1500	MILL000.4BL	Mill Branch	200 Feet U/S Upper East Valley Road	CHEFO		1				12		12	
Evaluate NS	TN06020004007_1400	SEQUA99.9T0.4BL	Unnamed Trib to Sequatchie River	Upper East Valley Road at Br (North of Swafford Chapel)	CHEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06020004007_1200	MANNI000.2CU	Manning Springs	Upper East Valley Road Br	CHEFO			1	1		12		12	
303d	TN06020004007_1100	GCOVE001.1CU	Grassy Cove Creek	Off 68 on Ricky Lane	CHEFO						12		12	
Watershed FS 1	TN06020004007_1000	SEQUA062.5BL	Sequatchie River	Walker Ford/ Ridge Road	CHEFO			1	1		12		12	
303d	TN06020004007_0900	STEPH000.2BL	Stephens Branch	Old State Highway 28 Bridge	CHEFO			1	1		12		12	
303d	TN06020004007_0800	SWAFF000.2BL	Swafford Branch	Old State Hwy 28 Br	CHEFO			1	1		12	DO	12	
303d	TN06020004007_0640	BROWN000.9BL	Browns Creek	At Bridge Crossing on Lone Oak Road	CHEFO			1	1		12		12	
303d	TN06020004007_0600	LITTL000.6BL	Little Creek	Tollett Road (Hwy 223)	CHEFO			1	1		12		12	
303d	TN06020004007_0400	HALL000.5BL	Hall Creek	Unnamed Road Below Junk Shop	CHEFO			1	1		12		12	
Watershed FS 1	TN06020004007_0300	SEQUA80.9T0.8BL	Unnamed Trib to Sequatchie River	Hwy 127 Br	CHEFO			1	1		12		12	
303d	TN06020004007_0200	FLATW000.7BL	Flatwood Branch	d/s Alvin York Hwy bridge crossing	CHEFO			1	1		12		12	
Landfill	TN06020004007_0100	SPRIN000.3BL	Rocky Branch	End of Allison Rd and below UT that drains landfill	CHEFO			1	1	12	12		12	
Watershed FS 1	TN06020004005_1000	SEQUA041.5SE	Sequatchie River	Hwy 127/8 (Taft Hwy) Br Crossing Below Dunlap	CHEFO			1	1		12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate FS FAL	TN06020004005_0510	WELCH000.5SE	Welch Branch	Lower East Valley Road	CHEFO		1							
303d	TN06020004005_0500	MCWIL001.9SE	McWilliams Creek	200 Feet D/S Smith Road Crossing.	CHEFO			1	1		12		12	
Eco Ref	TN06020004005_0150	FECO68C02	Coops Creek	Mountain Review Road	CHEFO		2	2	1	4	4			
303d	TN06020004005_0100	COOPS001.7SE	Coops Creek	U/S of Bridge Crossing on Hwy 127	CHEFO			1	1		12		12	
303d	TN06020004005_0100	COOPS001.0SE	Coops Creek	Off Jerrell Road Across From WWTP D/S of Last Manhole	CHEFO			1	1		12		12	
USGS NUT	TN06020004001_2000	SEQUA025.1MI	Sequatchie River	U/S Teague Road	USGS						8			
Watershed FS 1	TN06020004001_2000	SEQUA025.1MI	Sequatchie River	U/S Teague Road	CHEFO			1	1		12		12	
303d	TN06020004001_1300	PECK000.3MI	Peck Branch	Hall Road	CHEFO		1		1		12		12	
303d	TN06020004001_1100	SEQUA17.2T0.1MI	Unnamed Trib to Sequatchie River	Ketner Mill Access Road	CHEFO			1	1		12		12	
Ambient	TN06020004001_1000	SEQUA006.3MI	Sequatchie River	Valley (Ebeneezer) Road	CHEFO					4	4		4	
303d	TN06020004001_0910	SHELT0.1T1.0T0.1MI	Unnamed Trib to Shelton Creek	Burnett Road	CHEFO			1	1		12		12	
303d	TN06020004001_0600	SEQUA30.7T0.8MI	Unnamed Trib. To Sequatchie River	East Valley Road (Alvin C York Hwy)	CHEFO			1	1		12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06020004001_0200	SEQUA22.2T0.7MI	Whitwell Branch	D/S of Hudson Street Crossing	CHEFO			1	1		12	DO	12	
303d	TN06020004001_0121	PCOVE000.5MI	Pryor Cove Creek	Bridge crossing at Mayfair Ave	CHEFO			1						
303d	TN06020004001_0120	STAND000.9MI	Standifer Branch	Old East Valley Road	CHEFO			1						
Evaluate FS FAL	TN06020004001_0110	BLUE000.7MI	Blue Spring	D/S Jasper Drinking Water Plant	CHEFO		1							
Watershed FS 2	TN06020004001_0100	TOWN002.0MI	Town Creek	D/S of Browder Switch Road Culvert Browder Switch Road Crossing	CHEFO			1						
USGS NUT	TN06020003014_1000	OCOEE037.6PO	Ocoee River	Upstream Fightingtown Creek Copperhill	USGS						8			
Ambient	TN06020003013_1000	OCOEE019.6PO	Ocoee River	0.2 Miles Downstream Gaging Station Below Powerhouse #2 at Caney Creek Parking Area	CHEFO					4	4		4	
SEMN	TN06020003013.55_0400	ECO66G20	Rough Creek	National Forest Road 221 Stream Crossing	CHEFO		2	2	1	4	4	Temp		
Ambient	TN06020003001_1000	OCOEE001.0PO	Ocoee River	Near Mouth Boat Launch	CHEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreacon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				at Two Rivers Campground										
Ambient	TN06020002083_3000	OOSTA028.4MM	Oostanaula Creek	Long Mill Road Bridge	CHEFO					4	4		4	
USGS NUT	TN06020002083_1000	OOSTA005.8MM	Oostanaula Creek	Sanford Road Bridge (Matlock Road)	USGS						8			
Ambient	TN06020002081_0100	CANE001.5MM	Cane Creek	Carlock Road	CHEFO					4	4		4	
Ambient	TN06020002008_1000	HIWAS013.4MM	Hiwassee River Embayment of Chickamauga Reservoir	Below Olin & Bowaters Southeast of B&B Marina North of Lower River Road (Hwy 308)	CHEFO					4	4		4	
USGS NUT	TN06020001889_1000	WOLFT016.3HM	Wolftever Creek	At Ooltewah Ringgold Road	USGS						8			
USGS NUT	TN06020001426_1000	MOUNT003.2HM	Mountain Creek	Valley Bridge Road off Mountain Creek Road	USGS						8			
Ambient	TN060200011244_1000	CHATT000.9HM	Chattanooga Creek	L&N and Southern Railroad Bridge	CHEFO					4	4		4	
USGS NUT	TN06020001067_2000	NCHIC016.4HM	North Chickamauga Creek	Thrasher Pike	USGS						8			
USGS NUT	TN06020001041_1000	SEWEE005.7ME	Sewee Creek	USGS gaging station d/s Hwy 58	USGS						8			
Ambient	TN06020001020_1000	TENNE529.5RH	Chickamauga Reservoir	Chickamauga Reservoir	CHEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreacon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Below Watts Bar Dam										
Ambient	TN06020001020_1000	TENNE503.3RH	Chickamauga Reservoir	Chickamauga Reservoir Below Dayton STP	CHEFO					4	4		4	
Ambient	TN06020001020_1000	TENNE477.0HM	Chickamauga Reservoir	Chickamauga Reservoir Below Waconda Bay Near Limestone Cliffs	CHEFO					4	4		4	
USGS NUT	TN06020001007_1000	SCHIC012.3HM	South Chickamauga Creek	USGS gaging station uptream US11 (Brainerd Road)	USGS						8			
Ambient	TN06020001007_1000	SCHIC000.4HM	South Chickamauga Creek	Amnicola Hwy	CHEFO					4	4		4	
USGS NUT	TN06020001007_0100	FRIAR000.8HM	Friar Branch	Polymer Drive Next to Mayfield	USGS						8			
Ambient	TN06020001001_1000	TENNE444.0MI	Nickajack Reservoir	In Nickajack Lake Below Raccoon Mountain	CHEFO					4	4		4	
USGS NUT	TN06010208015_1000	DADDY009.1CU	Daddys Creek	Peavine Road	USGS						8			
USGS NUT	TN06010208015_0700	BASSE005.0CU	Basses Creek	Dunbar Road	USGS						8			
USGS NUT	TN06010208013_1000	OBED024.9CU	Obed River	USGS Gage 3538830	USGS						8			
USGS NUT	TN06010208008_1000	CLEAR001.5MG	Clear Creek	Lilly Bridge / Potters	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Chapel / Ridge Road										
USGS NUT	TN06010208007_1000	OBED001.5MG	Obed River	Alley Ford upstream Jones Branch	USGS						8			
USGS NUT	TN06010208001_4000	EMORY018.3MG	Emory River	At Oakdale At Gaging StAtion	USGS						8			
USGS NUT	TN06010207455_1000	CONNE001.8KN	Conner Creek	Gallaher Ferry Road near Farragut	USGS						8			
SEMN	TN06010207019_0200	ECO67F06	Clear Creek	Just U/S Norris Municipal Park Road.	KEFO		2	2	1	4	4	Temp		
USGS NUT	TN06010207014_2000	BULLR016.2KN	Bullrun Creek	Hwy 441/70 Br	USGS						8			
USGS NUT	TN06010207011_2000	BEAVE024.7KN	Beaver Creek	100 Ft Below Clinton Hwy Bridge	USGS						8			
USGS NUT	TN06010207011_1000	BEAVE005.5KN	Beaver Creek	U/S Solway Road	USGS						8			
Ambient	TN06010207001_1000	CLINC010.0RO	Clinch River Arm of Watts Bar Reservoir	Watts Bar Reservoir at Brashear Island	KEFO					4	4		4	
Ambient	TN06010206007_2000	POWEL103.3HK	Powell River	Off Alanthus Hill Road First Down Stream Br From Mcdowell Shoal	JCEFO					4	4		4	
USGS NUT	TN06010206006_1000	POWEL065.5CL	Powell River	Gaging Station off Powell River Road U/S Hwy 25 Bridge	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06010205016_1000	CLINC199.0HK	Clinch River	Horton Ford Road East of Confluence with War Creek	USGS						8			
Ambient	TN06010205016_1000	CLINC189.8HK	Clinch River	Kyles Ford Bron SR 70.	JCEFO					4	4		4	
USGS NUT	TN06010205013_1000	CLINC159.7CL	Clinch River	Off Grissom Island Lane	USGS						8			
SEMN	TN06010205001T_0300	ECO67F13	White Creek	Just D/S Old USGS Gaging Station Next to White Creek Road	KEFO		2	2	1	4	4	Temp		
USGS NUT	TN06010204044_1000	TELLI028.5MO	Tellico River	Rafter Road Gauging Station	USGS						8			
USGS NUT	TN06010201066_1000	STOCK003.2KN	Stock Creek	Martin Mill Pike Br at Park	USGS						8			
SEMN	TN06010201032_4000	ECO66G05	Little River	100 Yards U/S Last House Little River Trail Above Elkmont	KEFO		2	2	1	4	4	Temp		
USGS NUT	TN06010201032_3000	LITTL035.2BT	Little River	Off Townsend entrance Road just inside Great Smokey Mountains NP	USGS						8			
USGS NUT	TN06010201027_1000	LITTL017.7BT	Little River	Little River upstream US441 (Sevierville Road) near Maryville	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06010201026_2000	LITTL009.6BT	Little River	Alcoa Water Treatment Plant	USGS						8			
Ambient	TN06010201020_1000	TENNE643.3KN	Fort Loudoun Reservoir	Marine Base Looney Island	KEFO					4	4		4	
Ambient	TN06010201001_1000	PINEY005.0RH	Watts Bar Reservoir	D/S of Spring City STP Outfall at End of Island on Ldb Near Estes Resort West of Rhea Springs Recreation Area.	CHEFO					4	4		4	
Evaluate NS	TN06010108DCTRIBS_0600	FLAG000.7GE	Flag Branch	100 Feet D/S Flag Branch Road	JCEFO	1								
Watershed FS 2	TN06010108DCTRIBS_0500	MUD000.8GE	Mud Creek	Farnsworth Lane downstream Old Ashville Highway	JCEFO			1						
303d	TN06010108DCTRIBS_0200	JOHNS000.1GE	Johnson Creek	20 Yds U/S Grey Lane	JCEFO			1						
303d	TN06010108DCTRIBS_0100	MUTTO000.5GE	Mutton Creek	20 Yards D/S Sunnyside Road	JCEFO			1			12		12	
303d	TN06010108536_2000	CHERO003.5WN	Cherokee Creek	100 Yds U/S Charlie Parker Road	JCEFO			1			12		12	
303d	TN06010108536_0200	LCHER000.1WN	Little Cherokee Creek	100 Yds U/S Hwy 81	JCEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108510_3000	LLIME012.1WN	Little Limestone Creek	U/S Jonesboro WWTP Se Of Britt Road Downstream SR81 Overpass	JCEFO			1	1		12		12	
Ambient	TN06010108510_2000	LLIME007.0WN	Little Limestone Creek	Downstream Telford Dam on New Victory Road	JCEFO			1		12	12		12	
303d	TN06010108510_1000	LLIME000.8WN	Little Limestone Creek	JB Water Plant Road	JCEFO			1			12		12	
303d	TN06010108510_0500	ONION000.2WN	Onion Creek	+50 Yards D/S Gravel Hill Road off SR 353	JCEFO			1	1		12		12	
303d	TN06010108510_0400	HOMIN000.2WN	Hominy Branch	150 Yds U/S Gravel Hill Road	JCEFO			1			12		12	
303d	TN06010108510_0200	BACON000.4WN	Bacon Branch	Off Old SR 34 Between Pecanwood Drive and Sycamore Drive	JCEFO			1	1		12		12	
303d	TN06010108510_0100	BROWN000.1WN	Brown Branch	100 Yds U/S Telford Road	JCEFO			1						
Watershed	TN06010108456_1000	CAMP000.7GE	Camp Creek	200 Yds U/S US 351	JCEFO	1								
Evaluate NS	TN06010108456_0250	TBD	Dry Creek		JCEFO	1								
Evaluate FS FAL	TN06010108456_0200	DRY000.7GE	Dry Creek	25 Yds U/S Hwy 350	JCEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Ambient	TN06010108102_1000	RICHL001.3GE	Richland Creek	New Bridge on Links Mill Road	JCEFO			1		12	12		12	
303d	TN06010108102_0400	EFRIC001.0GE	East Fork Richland Creek	300 Meters U/S East Fork Road	JCEFO			1						
303d	TN06010108102_0300	TIPTO000.1GE	Tipton Creek	100 Yds U/S Hwy 350	JCEFO			1						
Landfill	TN06010108102_0200	SIMPS000.1GE	Simpson Creek	100 Yds U/S Richland Cr. off East Allen Bridge Road. Old Asheville Hwy 0.1 Mi NW of Devils Elbow	JCEFO			1	1	12	12		12	
Probabilistic	TN06010108088_2000	HORSE007.0GE	Horse Creek	Off Horse Creek Park Road 350 yards upstream Lawing Road.	JCEFO			1	1	12	12		12	
303d	TN06010108088_1000	HORSE000.7GE	Horse Creek	50 Yds U/S G'Fellers Road at Nolichucky River	JCEFO			1	1		12		12	
303d	TN06010108064_2000	SINKI004.5GE	Sinking Creek	Off Afton Road 1.3 miles north of Old Stage Road	JCEFO			1	1		12		12	
Ambient	TN06010108064_1000	SINKI000.5GE	Sinking Creek	100 Yds U/S Blackberry/Roberts Road at Greenwood Road	JCEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108043_1000	LONG000.6HA	Long Creek	100 Yds U/S River Road	KEFO			1	1		12		12	
Landfill	TN06010108043_0500	SINKI000.7JE	Sinking Fork	100 Yds U/S Harrison Road	KEFO			1	1	12	12		12	
303d	TN06010108043_0400	CEDAR001.0JE	Cedar Creek	100 Yds U/S John Hardy Road	KEFO			1						
Evaluate NS	TN06010108043_0310	CARTE000.1JE	Carter Branch	Immediately u/s of confluence with Sartain Branch off Bell Road	KEFO	1								
303d	TN06010108043_0300	SARTA000.5JE	Sartain Branch	100 Yds D/S Bell Road and Carter Branch	KEFO			1						
Evaluate NS	TN06010108043_0200	CRIDE000.2JE	Crider Creek	25 Yds U/S Carmichael Road	KEFO	1								
Eco Ref	TN06010108042_1000	ECO67G05	Bent Creek	U/S Junction of Warrensburg and Mountain Road	KEFO		2	2	1	12	12		12	
303d	TN06010108042_0610	WHITE000.9HA	Whitehorn Creek	At Whitehorn Creek Road Br	KEFO			1	1		12	DO	12	
303d	TN06010108042_0600	MUD001.0HA	Mud Creek	Stagecoach Road Br	KEFO			1			12		12	
303d	TN06010108035_9000	LICK061.0GE	Lick Creek	100 Yards U/S Campbell Road	JCEFO								5/30*	
303d	TN06010108035_8000	LICK052.3GE	Lick Creek	100 Yards U/S Lost Mountain Pke	JCEFO			1	1	12	12		12	
303d	TN06010108035_7000	LICK047.2GE	Lick Creek	Crumley Road/Old	JCEFO			1		12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Greenville Pike Road off SR172										
303d	TN06010108035_6000	LICK033.4GE	Lick Creek	Marvin Road Bridge	JCEFO			1	1	12	12		12	
303d	TN06010108035_5000	LICK020.5GE	Lick Creek	Pottertown Road./ Bob White Trail	JCEFO					12	12		12	
303d	TN06010108035_4000	LICK015.5GE	Lick Creek	70 Yards U/S Green Road	JCEFO			1					5/30*	
303d	TN06010108035_3000	LICK006.5GE	Lick Creek	100 Yards U/S Smelcer Road	JCEFO				1		12		12	
303d	TN06010108035_2810	POND000.1GE	Pond Creek	100 Yds U/S Brown Springs Road/McDonald Road	JCEFO			1						
303d	TN06010108035_2800	MINK001.0GE	Mink Creek	U/S Mcdonald Road (SR 348) at Bible Chapel 100 Yds U/S Brown Springs Road	JCEFO			1	1		12		12	
Probabilistic	TN06010108035_2600	GRASS005.1GE	Grassy Creek	Off Henard (Cox) Road 0.7 mile west of intersection with Grassy Creek Road.	JCEFO			1	1	12	12		12	
303d	TN06010108035_2521	POSSU001.3GE	Possum Creek	100 Yds U/S Robert Harmon Road	JCEFO			1						
Evaluate NS	TN06010108035_2510	DRY000.1GE	Hoover Creek	At Jim Graham Road (Reynolds Hollow Road)	JCEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108035_2500	ROARI001.0GE	Roaring Fork	Reed Road. SR70 (Lonesome Pine Trail). Southeast of Exit 30 of I-81.	JCEFO			1			12		12	
303d	TN06010108035_2400	HOODL000.7GE	Hoodley Branch	Ted Weems Road off Wesley Chapel Road	JCEFO			1					5/30*	
303d	TN06010108035_2320	DAVIS000.3GE	Davis Branch	West of Doty Chapel Road	JCEFO			1						
303d	TN06010108035_2310	UTEMP000.1GE	Union Temple Creek	U/S Doty Chapel Road	JCEFO			1			12		12	
303d	TN06010108035_2300	HORSE000.5GE	Horse Fork	Holland Road: off Lost Mountain Pike Road. Near Lick Creek	JCEFO			1	1		12		12	
303d	TN06010108035_2000	LICK003.8GE	Lick Creek	U/S Mcdonald Road (SR348) at Beulah 50 Yards U/S Brown Springs Road	JCEFO			1			12		12	
Probabilistic	TN06010108035_1900	CLEAR001.3GE	Clear Creek	Just upstream I-81 (Access from dead-end of Apricot Lane)	JCEFO			1	1	12	12		12	
303d	TN06010108035_1800	PYBOR000.1GE	Pyborn Creek	Barkley Road.; off Woolsey Road West of Jearoldstown	JCEFO			1					5/30*	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108035_1410	WATTE000.1GE	Wattenbarger Creek	100 Yds U/S Horton Hwy (Baileyton)	JCEFO			1			12		12	
303d	TN06010108035_1400	GARDN002.5GE	Gardner Creek	200 Yds D/S Van Hill Road/172	JCEFO			1			12	DO	12	
303d	TN06010108035_1110	BABB000.7GE	Babb Creek	10 Yds U/S Flatwoods Road	JCEFO			1			12		12	
Ambient	TN06010108035_1000	LICK001.0GE	Lick Creek	Warrensburg/ SR 340 at Fish Hatchery Road Cooper Br	JCEFO			1		12	12		12	
303d	TN06010108035_0900	PCAMP001.5GE	Puncheon Camp Creek	D/S First Tributary Below I-81	JCEFO						12		12	
303d	TN06010108035_0700	LICK000.9GE	Lick Branch	100 Yds U/S Wisecarver Road	JCEFO			1						
303d	TN06010108035_0600	GAP002.6GE	Gap Creek	Marvin Road	JCEFO			1			12		12	
303d	TN06010108035_0400	MUD000.3GE	Mud Creek	Gravel Drive off Idell Road	JCEFO			1	1		12		12	
303d	TN06010108035_0200	POTTE001.0GE	Potter Creek	D/S Concord Road	JCEFO								5/30*	
303d	TN06010108034_1000	LCHUC001.0GE	Little Chucky Creek	175 Yds U/S Warrensburg Road	JCEFO			1	1		12		12	
303d	TN06010108034_0100	MOSHE000.7GE	Mosheim Branch	Valleydale Road	JCEFO			1						
303d	TN06010108033_1000	PIGEO000.9GE	Pigeon Creek	Buffalo Road off Pigeon Creek Road off Old	JCEFO			1	1		12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Kentucky Road										
Evaluate NS	TN06010108033_0100	BUFFA000.1GE	Buffalo Creek	100 Yds U/S Confluence with Pigeon Creek.	JCEFO	1								
303d	TN06010108030_2000	BLIME004.0WN	Big Limestone Creek	100 Yards D/S 11E	JCEFO			1			12		12	
USGS NUT	TN06010108030_1000	BLIME000.5GE	Big Limestone Creek	100 Yds U/S Keebler Road	USGS						8			
Ambient	TN06010108030_1000	BLIME000.5GE	Big Limestone Creek	100 Yds U/S Keebler Road	JCEFO			1		12	12		12	
303d	TN06010108030_0431	LEESB000.1WN	Leesburg Branch	100 Yds U/S Confluence. with Muddy Fork	JCEFO			1						
303d	TN06010108030_0430	MUDDY001.2WN	Muddy Fork	100 Yds U/S Old Stagecoach Road	JCEFO			1	1	12	12		12	
303d	TN06010108030_0420	CLEAR4.2T0.3WN	Unnamed Trib to Clear Fork	100 Yds U/S Hwy SR 81	JCEFO			1						
303d	TN06010108030_0410	BLACK000.1WN	Blackley Creek	100 Yds U/S Bowmantown Road	JCEFO			1	1		12		12	
303d	TN06010108030_0400	CLEAR001.4WN	Clear Fork	75 Yds U/S Bowmantown Road	JCEFO			1	1		12		12	
303d	TN06010108030_0220	CARSO001.8WN	Carson Creek	75 M D/S Bowmantown Road	JCEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108030_0220	CARSO000.1WN	Carson Creek	100 Yds U/S Clear Spring Road.	JCEFO						12		12	
303d	TN06010108030_0200	JOCKE000.1WN	Jockey Creek	100 Yds U/S Opie Arnold Road	JCEFO			1			12		12	
303d	TN06010108030_0100	CEDAR000.5GE	Cedar Creek	100 Yds U/S Remine Road.	JCEFO			1	1		12		12	
303d	TN06010108029_2000	NINDI010.2UC	North Indian Creek	Limestone Cove Rec Area/ Hwy 107	JCEFO			1	1		12		12	
Not Assessed	TN06010108029_1100	ROCK002.2UC	Rock Creek	100 Yds U/S Long Branch Road.	JCEFO			1						
Not Assessed	TN06010108029_1100	ROCK000.2UC	Rock Creek	100 Yds D/S Clinchfield Hwy (107)	JCEFO			1						
Landfill	TN06010108029_1000	NINDI000.5UC	North Indian Creek	U/S I-26 Next to Walking Trail	JCEFO			1	1	12	12		12	
303d	TN06010108029_0900	TSPRI000.3UC	Tate Springs	Erwin City Park off Clinchfield Hwy	JCEFO						12		12	
Evaluate FS FAL	TN06010108029_0800	DRY000.3UC	Dry Creek	50 Yds U/S Clinchfield Hwy (Old Unioci Road/ Norris Road)	JCEFO	1								
Evaluate NS	TN06010108029_0700	TBD	Dick Creek		JCEFO	1								
Evaluate NS	TN06010108029_0600	TBD	Red Fork		JCEFO	1								
Evaluate NS	TN06010108029_0400	TBD	Irishman Branch		JCEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Watershed FS 2	TN06010108029_0300	SCIOT000.1UC	Scioto Creek	200 Yds U/S Hwy 107	JCEFO			1						
Evaluate NS	TN06010108029_0200	TBD	Whaley Branch		JCEFO	1								
Watershed FS 1	TN06010108013_2000	SINDI010.0UC	South Indian Creek	100 Yds U/S Little Branch Road	JCEFO			1	1		12		12	
Eco Ref	TN06010108013_1300	ECO66E11	Lower Higgins Creek	Lower Higgins Cr. Road 1 Mile NW of Ernestville	JCEFO		2	2	1	4	4			
Watershed FS 1	TN06010108013_1000	SINDI000.5UC	South Indian Creek	Off Sandy Bottom Road (0.4 Mi SW Hwy 19W/23)	JCEFO			1		12	12		12	
Evaluate NS	TN06010108013_0900	ROCKY000.2UC	Rocky Fork	Off Rocky Fk Road (0.2 Mile NW Hwy 81/ Hwy 352 Flag Pond Road)	JCEFO	1								
Watershed FS 2	TN06010108013_0600	SAMS000.1UC	Sams Creek	Off Hwy 81 (0.2 Mile S Hwy 23)	JCEFO			1						
Evaluate FS FAL	TN06010108013_0240	CRIDG001.0UC	Coffee Ridge Creek	Coffee Ridge Road. (0.1 Mi S of Tilson Mtn Road)	JCEFO	1								
Eco Ref	TN06010108013_0230	FECO66D06	Tumbling Creek	1 .3 Miles South on Tumbling Creek Road just U/S Where Tumbling Creek Road Ends	JCEFO		2	2	1	4	4			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN06010108013_0100	TBD	Granny Lewis Creek		JCEFO	1								
Ambient	TN06010108010_5000	NOLIC097.5UC	Nolichucky River	U/S of Chestoa Bridge	JCEFO			1		12	12		12	
USGS NUT	TN06010108010_4000	NOLIC088.7WN	Nolichucky River	Embreeville Bridge	USGS						8			
Post Hurricane Helene	TN06010108010_4000	NOLIC088.7WN	Nolichucky River	Embreeville Bridge	JCEFO			1		12	12		12	
303d	TN06010108010_3700	MIDDL000.3GE	Middle Creek	300 Yds U/S Cottontail Road.	JCEFO			1						
Watershed FS 2	TN06010108010_3500	CASSI002.2WN	Cassi Creek	d/s Full Gospel Church off Cassi Road	JCEFO			1						
Eco Ref	TN06010108010_3210	FECO66E01	Unnamed Trib to Clark Creek	In Hell Hollow off Hell Hollow Trail	JCEFO		2	2	1	4	4			
SEMN	TN06010108010_3200	ECO66E09	Clark Creek	National Forest Property off Hwy. 107 Clarks Creek Road	JCEFO		2	2	1	4	4	Temp		
Post Hurricane Helene	TN06010108010_3000	NOLIC070.6WN	Nolichucky River	200 M U/S Corby Bridge	JCEFO			1		12	12		12	
Landfill	TN06010108010_2800	BCOVE000.2WN	Bumpus Cove Creek	300 Yds U/S Bumpas Cove Road	JCEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN06010108010_2700	TBD	Patty Creek		JCEFO	1								
Evaluate NS	TN06010108010_2600	TBD	Broad Shoal Creek		JCEFO	1								
Evaluate NS	TN06010108010_2500	TBD	California Creek		JCEFO	1								
Evaluate NS	TN06010108010_2300	TBD	Mine Branch		JCEFO	1								
Evaluate NS	TN06010108010_2100	TBD	Jones Branch		JCEFO	1								
303d	TN06010108010_1910	SPRIN000.1UC	Spring Branch	75 Yds D/S Meadowbrook Dr	JCEFO			1			12		12	
303d	TN06010108010_1900	MARTI000.3UC	Martin Creek	D/S Meadowbrook Drive	JCEFO			1			12		12	
Not Assessed	TN06010108010_1650	TBD	Dry Creek		JCEFO			1						
Evaluate NS	TN06010108010_1600	DRY000.4WN	Dry Creek	d/s Arnold Road	JCEFO	1								
303d	TN06010108010_1300	KEPLI000.5WN	Keplinger Branch	50 Yds D/S Charlie Dillow Road	JCEFO			1						
303d	TN06010108010_1200	KNAVE000.5WN	Knave Branch	20 Yds U/S Snapp Bridge Road/Conklin Road	JCEFO			1					5/30*	
Evaluate NS	TN06010108010_1100	ASBUR000.1WN	Asbury Creek	100 Yds U/S Frank Stanton Road	JCEFO	1								
Post Hurricane Helene	TN06010108010_1000	NOLIC060.6GE	Nolichucky River	John Sevier Hwy U/S SR 107 Bridge	JCEFO			1		12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108010_0900	SNAPP000.2WN	Snapp Branch	100 Yds U/S Snapp Bridge Road	JCEFO			1						
303d	TN06010108010_0700	RHEAT002.2GE	Rheatown Creek	Adjacent to Rheatown United Methodist Church off Rheatown Road/ Hwy 351 and downstream Old Stage Road.	JCEFO			1			12		12	
Probabilistic	TN06010108010_0600	RIPLE001.5GE	Ripley Creek	Twin Creek Golf Course off Ripley Island Road.	JCEFO			1	1	12	12		12	
303d	TN06010108010_0500	PUDDI000.2GE	Pudding Creek	100 Yds U/S Johnson City Road	JCEFO			1						
Landfill	TN06010108010_0400	MOON000.9GE	Moon Creek	Off Moon Cr. Road. by Silo (0.2 Mile Se Hwy 107)	JCEFO			1	1	12	12		12	
303d	TN06010108010_0300	COLLE000.3GE	College Creek	Browns Bridge Road.	JCEFO			1	1		12		12	
303d	TN06010108010_0200	HOLLE000.5GE	Holley Creek	50 Yds D/S Buckingham Road	JCEFO			1			12		12	
Evaluate NS	TN06010108010_0100	POSSU000.2GE	Possum Creek	Off Hwy 350 (50 Yds U/S Field Access Road)	JCEFO	1								
303d	TN06010108009_1000	COVE003.4GE	Cove Creek	Solomon Lutheran	JCEFO			1	1		12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Church-Cedar Creek Road										
303d	TN06010108009_0300	CEDAR000.1GE	Cedar Creek	50 Yds U/S Fillers Mill Road off State Route 70 South	JCEFO			1						
303d	TN06010108007_1000	MEADO000.4GE	Meadow Creek	W. of Int of W. Allens Bridge and S. Allens Bridge Roads	JCEFO			1					5/30*	
303d	TN06010108007_0100	LMEAD000.1GE	Little Meadow Creek	U/S Nolichucky Road	JCEFO			1					5/30*	
USGS NUT	TN06010108005_3000	NOLIC046.1GE	Nolichucky River	Nolichucky River d/s dam (Davy Crockett Lake) upstream Asheville Hwy.	USGS						8			
Post Hurricane Helene	TN06010108005_3000	NOLIC039.3GE	Nolichucky River	Upstream Pigeon Creek at Jones Island	JCEFO			1		12	12		12	
Not Assessed	TN06010108005_1100	TBD	Oven Creek		KEFO			1						
Post Hurricane Helene	TN06010108005_1000	NOLIC028.0GE	Nolichucky River	SR 340 on Bewely Bridge	JCEFO			1		12	12		12	
303d	TN06010108005_0710	SHELT000.2GE	Shelton Branch	20 Yds U/S Poplar Springs Road	JCEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010108005_0500	GREGG000.6GE	Gregg Creek	100 Yds D/S Gregg Mill Road	JCEFO			1			12		12	
303d	TN06010108005_0310	PRIVE000.1GE	Privet Branch	100 Yds U/S Poplar Springs Road (U/S Snake Hollow Road)	JCEFO			1						
303d	TN06010108005_0300	FURNE000.3GE	Furness Branch	At Whittenburg Road.	JCEFO			1						
Ambient	TN06010108001_3000	NOLIC020.8GE	Nolichucky River	At Conway Bridge (Briar Thicket Road) Off SR 340 (Fish HAtchery Road)	JCEFO			1		12	12		12	
USGS NUT	TN06010108001_2000	NOLIC010.3CO	Nolichucky River	Hwy 160 Bridge	USGS						8			
Post Hurricane Helene	TN06010108001_2000	NOLIC011.4CO	Nolichucky River	Jones Road U/S From Hwy 160 Br	KEFO			1		12	12		12	
Post Hurricane Helene	TN06010108001_1000	NOLIC005.3HA	Nolichucky River	Hales Br	KEFO			1		12	12		12	
303d	TN06010108001_1000	NOLIC007.5HA	Nolichucky River	D/S of Enka Dam	KEFO			1						
Not Assessed	TN06010108001_0700	TBD	Slate Creek		KEFO			1						
Not Assessed	TN06010108001_0600	TBD	Knob Creek		KEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Not Assessed	TN06010108001_0150	TBD	Flat Creek		KEFO			1						
Landfill	TN06010108001_0100	FLAT000.8HA	Flat Creek	U/S of Hwy 160 Bridge	KEFO			1	1	12	12		12	
303d	TN06010107039_1000	TUCKA005.1KN	Tuckahoe Creek	Dave Smith Road	KEFO								5/30*	
303d	TN06010107038_1000	DUMPL000.8SV	Dumplin Creek	Johnson Road (Bent Road) Bridge D/S of Kodak Road	KEFO			1	1		12		12	
Not Assessed	TN06010107038_0100	TBD	Piedmont Branch		KEFO			1						
Not Assessed	TN06010107029T_1320	HETTI000.1SV	Hettie Creek	U/S of Confluence with Flat Creek Across Field Parallel with Hettie Creek Road	KEFO			1						
Eco Ref	TN06010107029T_1300	ECO67G10	Flat Creek	D/S of Muddy Hollow Road.	KEFO		2	2	1	4	4			
303d	TN06010107029T_1250	CLEAR003.6JE	Clear Creek	Hwy 411 Bridge East of Chestnut Hill	KEFO			1					5/30*	
303d	TN06010107029T_1200	CLEAR001.3JE	Clear Creek	U/S Hwy 92 Bridge Near Embayment	KEFO			1	1		12		12	
Not Assessed	TN06010107029T_1100	TBD	Indian Creek		KEFO			1						
Not Assessed	TN06010107029T_0710	TBD	Fowler Grove Creek		KEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010107029T_0700	CLAY002.9CO	Clay Creek	Hwy 160 Bridge	KEFO			1	1		12		12	
303d	TN06010107025_1000	EFLPI002.0SV	East Fork Little Pigeon River	Old Covered Bridge/Harrisburg Road	KEFO			1	1		12		12	
Evaluate NS	TN06010107025_0450	TBD	Dunn Creek		KEFO	1								
Not Assessed	TN06010107025_0420	TBD	Yellow Breeches Creek		KEFO			1						
Not Assessed	TN06010107025_0400	DUNN000.4SV	Dunn Creek	U/S Confluence W/ Wilhite Cr. at Bethany Church	KEFO			1						
303d	TN06010107025_0300	WILHI000.3SV	Wilhite Creek	U/S of Hwy 339 Br	KEFO			1	1	12	12		12	
Evaluate NS	TN06010107010_5999	TBD	Misc Tribs to West Prong Little Pigeon River		KEFO	1								
Evaluate NS	TN06010107010_5000	TBD	West Prong Little Pigeon River		KEFO	1								
USGS NUT	TN06010107010_4000	WPLPI019.5SV	West Prong Little Pigeon River	West Prong Little Pigeon River at Gatlinburg Trailhead near Sugarlands	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Maintenance Yard.										
Watershed FS 1	TN06010107010_4000	WPLPI017.9SV	West Prong Little Pigeon River	Hwy 441 300 Feet Upstream Hwy 321 Intersection.	KEFO			1	1		12		12	
303d	TN06010107010_3000	WPLPI015.8SV	West Prong Little Pigeon River	D/S Gatlinburg STP Outfall (Head of Spur)	KEFO			1	1	12	12		12	
303d	TN06010107010_2000	WPLPI008.7SV	West Prong Little Pigeon River	At Hwy 441 Bridge Below Pigeon Forge Business District	KEFO			1	1		12		12	
Evaluate FS FAL	TN06010107010_1955	WALDE010.8SV	Walden Creek	D/S of Creek Way Road	KEFO	1								
303d	TN06010107010_1950	WALDE005.3SV	Walden Creek	D/S Little Valley Road Lower Crossing; U/S Confluence with Cove Creek	KEFO			1	1		12		12	
303d	TN06010107010_1925	COVE004.7SV	Cove Creek	Bryan Road Bridge off Hwy 321 in Wears Valley	KEFO			1	1		12		12	
Probabilistic	TN06010107010_1920	COVE003.8SV	Cove Creek	Off Hwy 321 0.5 Mile Upstream Cove Creek Cascades (Bonny Brook	KEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				B&B 2301 Wears Valley Rd., Sevierville, TN										
303d	TN06010107010_1900	WALDE000.5SV	Walden Creek	Tiger Road U/S of Pigeon Forge High School D/S of Old Br Crossing	KEFO			1			12		12	
303d	TN06010107010_1850	MILL004.7SV	Mill Creek	West of Conner Heights Little Cove Cr Road	KEFO			1						
303d	TN06010107010_1800	MILL000.2SV	Mill Creek	Near Mouth City Park Dr	KEFO			1	1		12		12	
Evaluate NS	TN06010107010_1200	TBD	Fighting Creek		KEFO	1								
Evaluate NS	TN06010107010_1100	TBD	Road Prong		KEFO	1								
303d	TN06010107010_1000	WPLPI004.6SV	West Prong Little Pigeon River	At Apple Barn Winery	KEFO			1	1		12		12	
Evaluate NS	TN06010107010_0900	TBD	Walker Camp Prong		KEFO	1								
Evaluate NS	TN06010107010_0800	TBD	Twomile Branch		KEFO	1								
303d	TN06010107010_0700	LECON000.3SV	LeConte Creek	At 140 LeConte Creek Road private drive entrance	KEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN06010107010_0650	TBD	Baskins Creek		KEFO	1								
303d	TN06010107010_0600	BASKI000.1SV	Baskins Creek	Mouth on West Prong Gatlinburg	KEFO			1			12		12	
Evaluate NS	TN06010107010_0550	TBD	Roaring Fork		KEFO	1								
Contact	TN06010107010_0450	DUDLE003.3SV	Dudley Creek	Hwy 321 U/S of Bird Creek Road 100 Meters D/S From Stormwater Discharge Under 321 From Presidential Cabins Development	KEFO			1	1	12	12		12 & 5/30	
Contact	TN06010107010_0400	DUDLE000.2SV	Dudley Creek	U/S Hwy 441 Gatlinburg	KEFO			1	1	12	12		12 & 5/30	
303d	TN06010107010_0300	BEECH000.1SV	Beech Branch	Mouth on West Prong Hwy 441 Spur	KEFO			1	1	12	12		12	
Watershed FS 1	TN06010107010_0100	GNATT000.1SV	Gnatty Branch	Hwy 441 Spur just U/S of Mouth on West Prong Little Pigeon River	KEFO			1	1		12		12	
Watershed FS 2	TN06010107007_5000	LPIGE025.5SV	Little Pigeon River	Great Smoky Mountain Nat'L Park Boundary	KEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreacon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Near Greenbriar Ranger Station										
Watershed FS 1	TN06010107007_4000	LPIGE016.0SV	Little Pigeon River	At Richardson Cove	KEFO			1	1		12		12	
Watershed FS 2	TN06010107007_3000	LPIGE006.6SV	Little Pigeon River	At Walnut Grove Bridge/Robert Henderson Road U/S Sevierville	KEFO			1						
USGS NUT	TN06010107007_2000	LPIGE004.5SV	Little Pigeon River	At USGS Gage 4 Sevierville	USGS						8			
303d	TN06010107007_1700	GISTS001.5SV	Gists Creek	Above Old Knoxville Hwy on Golf Course	KEFO			1	1		12		12	
303d	TN06010107007_1650	MIDDL006.3SV	Middle Creek	U/S Confluence with Seaton Branch	KEFO			1	1		12		12	
Probabilistic	TN06010107007_1600	MIDDL001.2SV	Middle Creek	U/S Burden Hill Road	KEFO			1	1	12	12		12	
303d	TN06010107007_1400	BIRD001.3SV	Bird Creek	Upper Middle Creek Road Bridge	KEFO			1	1		12		12	
Evaluate NS	TN06010107007_1300	TBD	Injun Creek		KEFO	1								
Evaluate NS	TN06010107007_1200	TBD	Rhododendron Creek		KEFO	1								
Evaluate NS	TN06010107007_1150	TBD	Porter Creek		KEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN06010107007_1140	TBD	Cannon Creek		KEFO	1								
Evaluate NS	TN06010107007_1130	TBD	Lowes Creek		KEFO	1								
Evaluate NS	TN06010107007_1120	TBD	Shutts Prong		KEFO	1								
Evaluate NS	TN06010107007_1110	TBD	False Gap Prong		KEFO	1								
Evaluate NS	TN06010107007_1100	TBD	Porters Creek		KEFO	1								
Watershed FS 1	TN06010107007_1000	LPIGE002.2SV	Little Pigeon River	D/S Sanders Island-Old Mill Road	KEFO			1	1		12		12	
Evaluate NS	TN06010107007_0900	TBD	Eagle Rocks Prong		KEFO	1								
Evaluate NS	TN06010107007_0800	TBD	Chapman Prong		KEFO	1								
Evaluate NS	TN06010107007_0700	TBD	Buck Fork		KEFO	1								
Evaluate NS	TN06010107007_0600	TBD	Ramsey Prong		KEFO	1								
Evaluate NS	TN06010107007_0500	TBD	Copeland Creek		KEFO	1								
Evaluate NS	TN06010107007_0480	TBD	Soak Ash Creek		KEFO	1								
Evaluate NS	TN06010107007_0470	TBD	Timothy Creek		KEFO	1								
Evaluate NS	TN06010107007_0460	TBD	Ramsey Creek		KEFO	1								
Evaluate NS	TN06010107007_0450	TBD	Noisy Creek		KEFO	1								
Eco Ref	TN06010107007_0440	FECO66G02	Texas Creek	Immediately U/S Hwy 321 Border of GSMNP	KEFO		2	2	1	4	4			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN06010107007_0400	WEBB000.0SV	Webb Creek	Mouth at Pittman Center Road	KEFO			1	1		12		12	
Not Assessed	TN06010107006_0200	TBD	Millican Creek		KEFO			1						
303d	TN06010107006_0100	JOHNN_S0.7SV	Johnny Creek	D/S of Hwy 66	KEFO			1	1		12		12	
303d	TN06010107003_1000	BOYDS003.7SV	Boyds Creek	U/S Side of Bridge Cedar Springs Valley Road	KEFO			1	1		12		12	
Eco Ref	TN06010107003_0120	FECO67G05	Happy Creek	South of 1316 George Harrison Way 150 M U/S of Happy Creek	KEFO		2	2	1	12	12		12	
303d	TN06010107003_0120	HAPPY000.8SV	Happy Creek	u/s Happy Creek Road Bridge	KEFO			1			12		12	
303d	TN06010107003_0100	KNOB004.3SV	Knob Creek	Knob Creek Road Br Heather Road U/S of Confluence with Happy Creek	KEFO			1						
Ambient	TN06010107001_1000	FBROA003.8KN	French Broad River	Highway 168 Bridge/John Sevier Highway/South of Marbledale TN	KEFO					12	12		12	
Evaluate FS FAL	TN06010107001_0400	HINES001.1KN	Hines Creek	D/S Hopewell Rd	KEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Probabilistic	TN06010106004_2000	COSBY012.2CO	Cosby Creek	Off Cosby Creek Campground Road d/s confluence with Toms Creek.	KEFO			1	1	12	12		12	
Watershed FS 2	TN06010106004_1200	COSBY6.9T0.1CO	Unnamed Tributary to Cosby Creek	u/s of Cosby Creek d/s of Cosby Hwy	KEFO			1						
Evaluate FS FAL	TN06010106004_1100	BOGAR000.1CO	Bogard Creek	85 m D/S Middle Cr. (Triple Creek Campground at 141 Lower Bogard Road)	KEFO	1								
Evaluate FS FAL	TN06010106004_1000	COSBY001.8CO	Cosby Creek	Hwy 321/32 Bridge	KEFO	1								
Not Assessed	TN06010106004_0850	TBD	Indian Camp Creek		KEFO			1						
Evaluate NS	TN06010106004_0820	TBD	Copperhead Branch		KEFO	1								
Evaluate NS	TN06010106004_0810	TBD	Otter Creek		KEFO	1								
303d	TN06010106004_0800	ICAMP000.1CO	Indian Camp Creek	4220 Indian Camp Creek Road	KEFO			1						
Evaluate FS FAL	TN06010106004_0700	GREEN000.0CO	Greenbriar Creek	Hwy 321	KEFO	1								
Evaluate NS	TN06010106004_0610	TBD	Inadu Creek		KEFO	1								
Evaluate NS	TN06010106004_0600	TBD	Crying Creek		KEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate NS	TN06010106004_0500	TBD	Rock Creek		KEFO	1								
Evaluate NS	TN06010106004_0300	TBD	Toms Creek		KEFO	1								
Probabilistic	TN06010106002_1000	SINKI003.0CO	Sinking Creek	100 yards upstream Us70W/40 West Broadway Street Near 5 Rivers Plaza in Nashville.	KEFO			1	1	12	12		12	
Flow	TN06010106002_0100	TBD	Unnamed Trib to Sinking Creek		KEFO	1								
Post Hurricane Helene	TN06010106001_4000	PIGEO024.7CO	Pigeon River	Interchange Br 1.2 Mi D/S From Waterville Powerhouse (Waterville Bridge)	KEFO			1		12	12	Temp	12	
Post Hurricane Helene	TN06010106001_3000	PIGEO016.5CO	Pigeon River	At Bridge At Denton Greasy Cove Road	KEFO			1		12	12		12	
Post Hurricane Helene	TN06010106001_2000	PIGEO012.4CO	Pigeon River	I-40- Bridge D/S/ of Wilton Springs Exit and Cosby Creek	KEFO			1		12	12		12	
303d	TN06010106001_1100	ENGLI000.1CO	English Creek	Sisk Road/ O'Neil Road	KEFO			1	1		12		12	
USGS NUT	TN06010106001_1000	PIGEO006.8CO	Pigeon River	Pigeon River at US25 (East	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Broadway street) in Newport										
Post Hurricane Helene	TN06010106001_1000	PIGEO005.5CO	Pigeon River	Hwy 321 Bridge/Newport TN	KEFO			1		12	12		12	
Not Assessed	TN06010106001_0900	TBD	Groundhog Creek		KEFO			1						
Evaluate FS FAL	TN06010106001_0100	SWEET000.3CO	Sweetwater Creek	D/S of 1280 Hwy 73 and Edwina Grocery	KEFO	1								
303d	TN06010105071_1000	PAINT000.9GE	Paint Creek	Forest Service Road	JCEFO			1			12		12	
Evaluate NS	TN06010105071_0300	TBD	Rough Branch		JCEFO	1								
Evaluate NS	TN06010105071_0200	TBD	Sawmill Branch		JCEFO	1								
Evaluate NS	TN06010105071_0100	TBD	Little Paint Creek		JCEFO	1								
Evaluate NS	TN06010105003_1370	TBD	Bear Branch		KEFO	1								
Evaluate FS FAL	TN06010105003_1360	GRASS000.2CO	Grassy Fork	Grassy Fork Road U/S Confluence with Gulf Fork Big Creek	KEFO	1								
Evaluate NS	TN06010105003_1340	TBD	Middle Prong Gulf Creek		KEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Watershed FS 2	TN06010105003_1305	GFBIG017.3CO	Gulf Fork Big Creek	Big Creek Road Bridge just D/S of Intersection with Black Mountain Road D/S of Confluence with Grassy Fork	KEFO			1						
303d	TN06010105003_1100	JOHNS000.1CO	Johns Creek	Punkton Mountain Road/Midway Road at town of Nough	KEFO			1					5/30*	
Watershed FS 2	TN06010105003_1000	TFBIG000.6CO	Trail Fork Big Creek	Old Fifteenth Road Bridge	KEFO			1						
Evaluate NS	TN06010105003_0700	TBD	Double Branch		KEFO	1								
Evaluate NS	TN06010105003_0600	TBD	Rattlesnake Branch		KEFO	1								
Evaluate NS	TN06010105003_0500	TBD	Gulf Branch		KEFO	1								
Ambient	TN06010105001_4000	FBROA095.9CO	French Broad River	USFS Canoe Access off Hwy 25/70	KEFO			1	1	12	12		12	
Post Hurricane Helene	TN06010105001_3000	FBROA091.0CO	French Broad River	Fugate Road	KEFO			1		12	12		12	
Post Hurricane Helene	TN06010105001_2000	FBROA083.5CO	French Broad River	Hwy 70 East of Newport	KEFO			1		12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06010105001_1000	FBROA077.5CO	French Broad River	Hwy 321 Bridge at Junction with Hwy 160 Northeast of Newport (Boyer Island)	USGS						8			
Post Hurricane Helene	TN06010105001_1000	FBROA077.5CO	French Broad River	Hwy 321 Bridge at Junction with Hwy 160 Northeast of Newport (Boyer Island)	KEFO			1		12	12		12	
Not Assessed	TN06010105001_0600	TBD	Allen Branch		KEFO			1						
303d	TN06010105001_0200	LONG000.7CO	Long Creek	Hwy 340 Bridge 2nd Br Up From Hwy 25/70	KEFO			1					5/30*	
303d	TN06010105001_0100	CLEAR001.2CO	Clear Creek	Clear Creek Road Bridge Second U/S of Hwy 160	KEFO			1	1		12		12	
USGS NUT	TN06010104019_1000	FLAT002.2KN	Flat Creek	Immediatetly D/S of Mine Road Bridge	USGS						8			
USGS NUT	TN06010104015_1000	BIG002.0HS	Big Creek	West Bear Hollow Road	USGS						8			
SEMN	TN06010104015_0100	ECO6702	Fisher Creek	U/S Bray Road Crossing	JCEFO		2	2	1	4	4	Temp		
Ambient	TN06010104011_2000	HOLST131.5HS	Holston River	Church Hill Goshen Valley Bridge	JCEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN06010104004T_1300	CROCK001.7HS	Crockett Creek	Near Rogersville Wastewater Treatment Plant facility.	USGS						8			
USGS NUT	TN06010103013_1000	DOE001.1CT	Doe River	Hwy 19E Bridge in Elizabethton	USGS						8			
Ambient	TN06010103013_1000	DOE001.1CT	Doe River	Hwy 19E Bridge in Elizabethton	JCEFO					4	4		4	
USGS NUT	TN06010103008_2000	WATAU025.9CT	Watauga River	Watauga River at Old Bristol Highway/North Lynn Avenue in Elizabethton.	USGS						8			
Ambient	TN06010102042_2000	BEAVE015.3SU	Beaver Creek	Shelby Streer Near TN/Va State Line	JCEFO					4	4		4	
Ambient	TN06010102006_1000	BEAVE001.0SU	Boone Reservoir	Buffalo Road prior to embayment	JCEFO					4	4		4	
Ambient	TN06010102001_1000	SFHOL001.1SU	South Fork Holston River	Ridgefields Bridge in Kingsport (U/S North Fork D/S Meade)	JCEFO					4	4		4	
Ambient	TN06010101001_1000	NFHOL004.6SU	North Fork Holston River	Bridge at Cloud Ford on Carter Valley Road (SR346)	JCEFO					4	4		4	
Ambient	TN05130206003_1000	SULPH000.1RN	Sulphur Fork	Port Royal State Park - West of Hwy 238(Port	NEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Royal Road) and Old Clarksville Spring Road										
Ambient	TN05130206002_3000	RED025.5MT	Red River	Port Royal S.P. (U/S Sulphur Fork) Hwy 238 (Port Royal Road)	NEFO					4	4		4	
USGS NUT	TN05130206002_2000	RED025.4MT	Red River	Just D/S Sulphur Fork	USGS						8			
Probabilistic	TN051302051735_1000	WELLS007.6HO	Wells Creek	D/S SR 49/ East Main Street	NEFO			1	1	12	12		12	
Not Assessed	TN051302051735_0500	TBD	Brigham Branch		NEFO			1						
303d	TN051302051735_0400	ERIN000.2HO	Erin Branch	Hwy. 149 Cumberland City Hwy	NEFO			1			12		12	
Evaluate FS FAL	TN051302051735_0200	BATEM000.1HO	Bateman Branch	Off SR 13	NEFO	1								
Flow	TN05130205110_0300	BARTE001.4MT	Bartee Branch	Clarksville Lake Road 200 Yds D/S Cunningham Broadbent Lake	NEFO	1								
Bedload	TN05130205042_1000	SALIN007.4ST	Saline Creek	Off of Willie Hargis Road	NEFO		1	1						
Evaluate NS	TN05130205042_0400	WALL001.6ST	Wall Creek	Wall Hollow Road	NEFO	1								
303d	TN05130205038_1000	BMCAD004.9MT	Big McAdoo Creek	Gholson Road	NEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130205038_0100	LMCAD000.3MT	Little McAdoo Creek	Hickory Point Road	NEFO			1						
Bedload	TN05130205033_1000	HPONE003.3CH	Half Pone Creek	D/S Houston Fielder Road.	NEFO		1	1						
Evaluate FS FAL	TN05130205033_0400	DFORK001.8CH	Dry Fork Creek	Albright Road (Gazeteer Says Will Hand Road) - Tributary to Lake Barkley	NEFO	1								
Watershed FS 2	TN05130205033_0300	RACCO000.7CH	Raccoon Creek	Leo Baker Road	NEFO			1						
Evaluate FS FAL	TN05130205031_1000	JOHNS004.4DI	Johnson Creek	Golden Road	NEFO	1								
303d	TN05130205024_1000	BARTO002.7MT	Bartons Creek	New Hope Road (D/S Louise Creek	NEFO			1	1		12		12	
303d	TN05130205024_0700	LOUIS001.8MT	Louise Creek	Watkins Ford Road.	NEFO			1						
Probabilistic	TN05130205024_0600	LBART006.5DI	Little Bartons Creek	2605 Little Bartons Creek Road. Upstream unnamed tributary near Dickson/Montgomery County Line	NEFO			1	1	12	12		12	
Evaluate FS FAL	TN05130205024_0400	FURNA000.1DI	Furnace Creek	S. Soules Chapel Road	NEFO	1								
Bedload	TN05130205020_1000	EFORK003.9MT	East Fork	Off Benton Ridge Road	NEFO		1	1						
Evaluate FS FAL	TN05130205020_0300	SULLI000.1MT	Sullivan Branch	D/S Hwy 13	NEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Watershed FS 2	TN05130205019_2000	YELLO029.2DI	Yellow Creek	Off Hwy 46 U/S Browns Hollow	NEFO	1								
Evaluate FS FAL	TN05130205019_1400	SALMO000.2HO	Salmon Branch	Hwy 49	NEFO	1								
USGS NUT	TN05130205019_1000	YELLO013.1HO	Yellow Creek	Sparkman Road @ Gauge	USGS						8			
Evaluate FS FAL	TN05130205019_1000	YELLO009.0MT	Yellow Creek	Hwy 13	NEFO	1								
Evaluate FS FAL	TN05130205019_0500	CEDAR000.8DI	Cedar Creek	Off Cedar Creek Road. @ Smith Hollow	NEFO	1								
Watershed FS 2	TN05130205019_0400	BEAR000.3HO	Bear Creek	Old Yellow Creek Road /Bear Creek Road	NEFO			1						
Evaluate FS FAL	TN05130205019_0200	WILLI000.4HO	Williamson Branch	Hayes Road	NEFO	1								
Evaluate FS FAL	TN05130205019_0100	LEATH001.3HO	Leatherwood Creek	Leatherwood Road	NEFO	1								
Not Assessed	TN05130205015T_3100	BEAR007.2ST	Bear Creek	U/S the Trace in Land Between the Lakes	NEFO			1						
303d	TN05130205015T_2800	LICK004.4ST	Lick Creek	Lick Creek Road (100' U/S) of Dunaway Ridge Road	NEFO		1	1	1	12	12		12	
Watershed FS 2	TN05130205015T_2700	LONG004.4ST	Long Creek	Off of Long Creek Road Near Mouth of Creek	NEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Watershed FS 2	TN05130205015T_2600	SCROS004.4ST	South Cross Creek	Hwy 233 Cumberland City Road	NEFO			1						
Bedload	TN05130205015T_2500	BELK002.0ST	Big Elk Creek	Elk Creek Road 200 yards u/s bridge/church	NEFO		1	1						
Evaluate NS	TN05130205015T_1910	ANTIO001.2MT	Antioch Creek	D/S Palmyra Road	NEFO	1								
303d	TN05130205015T_1900	BUDDS002.2MT	Budds Creek	U/S Palmyra Road	NEFO			1						
Not Assessed	TN05130205015T_1710	TBD	Dawson Creek		NEFO			1						
Evaluate FS FAL	TN05130205015T_1300	BRUSH001.9MT	Brush Creek	Bearden Ridge Road.	NEFO	1								
Evaluate NS	TN05130205015T_1100	WALL000.6MT	Wall Branch	Off Hwy 12 Via Neighborhood Off 41-1 bypass	NEFO	1								
Not Assessed	TN05130205015T_0700	LEE000.2ST	Lee Creek	off Lee Hollow Road	NEFO			1						
Not Assessed	TN05130205015T_0600	TBD	North Cross Creek		NEFO			1						
Bedload	TN05130205015T_0400	DYERS004.0ST	Dyers Creek	Hwy 79/76 (Near Robertson Hill Road.)	NEFO		1	1						
Watershed	TN05130205015_2000	CUMBE146.2CH	Barkley Reservoir	D/S Cheatham Dam @ Old Ferry Road	NEFO					12	12		12	
Ambient	TN05130205015_1000	CUMBE102.5ST	Barkley Reservoir	Cumberland City	NEFO					12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Ambient	TN05130205015_1000	CUMBE088.7ST	Barkley Reservoir	u/s Highway 79 bridge	NEFO					12	12		12	
USGS NUT	TN05130204018_1000	ECO71I15	Harpeth River	125 Yards D/S McDaniel Road	USGS						8			
USGS NUT	TN05130204016_3000	HARPE090.5WI	Harpeth River	Harpeth River 0.3 mile u/s of Mack C. Hatcher Memorial Parkway near Franklin	USGS						8			
USGS NUT	TN05130204016_2000	HARPE088.6WI	Harpeth River	At Hwy 96 Bridge	USGS						8			
USGS NUT	TN05130204016_1000	HARPE084.5WI	Harpeth River	U/S Hillsboro Pike (431) D/S STP	USGS						8			
USGS NUT	TN05130204009_2000	HARPE062.0DA	Harpeth River	Hwy 100 Canoe Access Area	USGS						8			
Ambient	TN05130204009_1000	HARPE040.5CH	Harpeth River	Near Pegram on Bridge at Hwy 249 = East Kingston Springs Road	NEFO					4	4		4	
USGS NUT	TN05130204001_1000	HARPE032.2CH	Harpeth River	Hwy 70 Near Community of Shacklett Near Kingston Springs Near Gaging Station	USGS						8			
USGS NUT	TN05130203023_1000	EFSTO015.4RU	East Fork Stones River	Betty Ford Road	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN05130203018_2000	WFSTO010.9RU	West Fork Stones River	Just U/S Murfreesboro STP Outfall	USGS						8			
Ambient	TN05130203018_1000	WFSTO006.2RU	West Fork Stones River	Nice Mill Dam Recreation Area - Sulphur Springs Rec Area	NEFO					4	4		4	
USGS NUT	TN05130203010_1000	STEWA007.6RU	Stewarts Creek	Stewart Creek at Enon Springs Road East in Smyrna	USGS						8			
USGS NUT	TN05130203001_1000	STONE003.9DA	Stones River	Hwy 70 (Hermitage) Lebanon Road	USGS						8			
Ambient	TN05130203001_1000	STONE003.9DA	Stones River	Hwy 70 (Hermitage) Lebanon Road	NEFO					4	4		4	
303d	TN05130202314_3000	RICHL007.8DA	Richland Creek	Harding Road	NEFO						12		12	
USGS NUT	TN05130202314_2000	RICHL003.5DA	Richland Creek	u/s Charlotte Ave.	USGS						8			
303d	TN05130202314_2000	RICHL004.5DA	Richland Creek	D/S Mccabe Golf Course	NEFO						12		12	
Contact	TN05130202314_1000	RICHL002.0DA	Richland Creek	Briley Parkway Bridge Below Pep Industries	NEFO					12	12		12	
303d	TN05130202314_0800	JHOLL000.2DA	Jocelyn Hollow Branch	Off Post Road	NEFO	1								
303d	TN05130202314_0700	VGAP000.2DA	Vaughns Gap Branch	Harding Place	NEFO	1								
303d	TN05130202314_0400	SUGAR000.1DA	Sugartree Creek	West End (by Krogers)	NEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130202314_0300	BSPRI000.4DA	Bosley Springs Branch	In Front of St. Cecilias/ Aquinas Jr. College/ Brixworth Lane	NEFO	1								
303d	TN05130202220_2000	MANSK005.8SR	Manskers Creek	Norfolk Lane	NEFO			1			12	DO	12	
303d	TN05130202220_1000	MANSK002.8SR	Manskers Creek	Caldwell Drive (off Long Hollow Pk Behind Krogers)	NEFO			1			12		12	
303d	TN05130202220_0500	CPOIN000.4SR	Center Point Branch	D/S Caldwell Road	NEFO			1	1		12		12	
303d	TN05130202220_0400	MADIS000.5SR	Madison Creek	Caldwell Drive	NEFO			1						
303d	TN05130202220_0350	SLATE001.1SR	Slaters Creek	Off Hwy 31W/41 @ American Limestone U.T. Drainage	NEFO			1	1		12		12	
303d	TN05130202220_0300	SLATE000.3SR	Slaters Creek	Off 31W D/S I-65	NEFO			1			12		12	
Watershed FS 2	TN05130202220_0220	BAKER000.1DA	Bakers Fork	6500 Lickton Pike Confluence w/ Walkers Creek	NEFO			1						
Flow	TN05130202220_0210	WALKE2.3T0.3DA	Unnamed Trib to Walkers Creek	Licton Pike 20 Yds D/S Lakewood Lake	NEFO	1								
303d	TN05130202220_0200	WALKE000.2DA	Walkers Creek	Lickton Pike	NEFO			1			12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biocon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130202220_0100	LUMSL000.1DA	Lumsley Fork	Mouth of Mansker Creek Brick Church Pike & Hitt Lane	NEFO			1			12		12	
Contact	TN05130202212_1000	GIBSO001.3DA	Gibson Creek		NEFO					12	12		12	
303d	TN05130202212_0100	NEELE000.5DA	Neeleys Branch	Madison Blvd.	NEFO						12		12	
303d	TN05130202209_1000	COOPE001.5DA	Cooper Creek	Mcgavock Pike	NEFO						12		12	
303d	TN05130202202_1000	PAGES001.0DA	Pages Branch	Old Trinity Lane	NEFO						12		12	
303d	TN05130202137_0110	VICK1.5T0.1CH	Unnamed Trib to Vick Creek	off Pebble Brook Drive 0.1 mile South Overlook Drive	NEFO			1	1	12	12		12	
USGS NUT	TN05130202027_2000	DRY001.1DA	Dry Creek	Gallatin Road	USGS						8			
303d	TN05130202027_2000	DRY001.1DA	Dry Creek	Gallatin Road	NEFO						12		12	
Contact	TN05130202027_1000	DRY000.3DA	Dry Creek	Myatt Drive	NEFO			1	1	12	12		12 & 5/30*	
Evaluate FS FAL	TN05130202024_1000	BRUSH001.6CH	Brush Creek	Davidson Road	NEFO	1								
USGS NUT	TN05130202023_2000	BROWN002.9DA	Browns Creek	Fairgrounds U/S USGS Gage	USGS						8			
Contact	TN05130202023_2000	BROWN002.9DA	Browns Creek	Fairgrounds U/S USGS Gage	NEFO					12	12		12	
Contact	TN05130202023_1000	BROWN000.4DA	Browns Creek	Off Fessler's Lane	NEFO					12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130202023_0300	WFBRO000.1DA	West Fork Browns Creek	Park Terrace (U/S Brown Fork Confluence)	NEFO			1	1		12		12	
303d	TN05130202023_0200	MFBRO000.1DA	Middle Fork Browns Creek	Park Terrace Drive	NEFO			1	1		12		12	
Landfill	TN05130202023_0100	EFBRO000.2DA	East Fork Browns Creek	At Berry Road	NEFO					12	12		12	
USGS NUT	TN05130202014_1000	SYCAM008.6CH	Sycamore Creek	Hwy 49 Bridge	USGS						8			
303d	TN05130202014_1000	SYCAM004.7CH	Sycamore Creek	Lockettsville Road (Thomasville Road)	NEFO			1	1	12	12		12	
Probabilistic	TN05130202014_0900	BSPRI003.9CH	Blue Spring Creek	Off Bennett Road 200 yards downstream intersection with Newmans Trail.	NEFO			1	1	12	12		12	
Watershed FS 2	TN05130202014_0600	SFSYC000.1DA	South Fork Sycamore Creek	Sycamore Creek Road	NEFO			1						
Watershed FS 2	TN05130202014_0500	NFSYC000.1RN	North Fork Sycamore Creek	Dividing Ridge Road	NEFO			1						
303d	TN05130202014_0400	BEDNI000.2RN	Bednigo Branch	Tom Bednigo Dr /Abednego	NEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreacon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				Road= Street Sign										
Watershed FS 2	TN05130202014_0300	HOLLI000.6RN	Hollis Creek	Walker Road	NEFO			1						
Landfill	TN05130202014_0100	SPRIN000.7CH	Spring Creek	Cannon Road. (off Lockertsville Road.)	NEFO					12	12		12	
Watershed FS 2	TN05130202011_1000	MARRO003.5CH	Marrowbone Creek	0.5 Miles D/S Hwy 12	NEFO			1						
Watershed FS 2	TN05130202011_0200	LMARR000.2CH	Little Marrowbone Creek	Carney Cemetary Road. (off Little Marrowbone Road.)	NEFO			1						
Evaluate FS FAL	TN05130202010_3000	WHITE009.1DA	Whites Creek	Upstream of Earthman Fork	NEFO	1								
USGS NUT	TN05130202010_2000	WHITE005.7DA	Whites Creek	USGS Gauge @ Beuna Vista Pike	USGS						8			
303d	TN05130202010_2000	WHITE003.4DA	Whites Creek	Hydes Ferry Pike	NEFO	1					12		12	
303d	TN05130202010_1000	WHITE000.7DA	Whites Creek	County Hospital Road Park Terrace	NEFO			1	1		12		12	
303d	TN05130202010_0900	EWING000.8DA	Ewing Creek	Whites Creek Pike	NEFO						12		12	
303d	TN05130202010_0400	EARTH000.4DA	Earthman Fork	Whites Creek Pk	NEFO			1						
Watershed FS 2	TN05130202010_0300	DRY000.4DA	Dry Fork	Hwy 112/ Alt. 41	NEFO			1						
303d	TN05130202010_0200	DRAKE000.2DA	Drake Branch	West Hamilton Road	NEFO	1					12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Evaluate FS FAL	TN05130202010_0100	EATON000.8DA	Eaton Creek	Hwy. 12	NEFO	1								
303d	TN05130202007_5000	MILL019.7WI	Mill Creek	Concord Road	NEFO			1	1		12	DO	12	
Watershed FS 2	TN05130202007_4000	MILL014.7DA	Mill Creek	Pettus Road	NEFO			1						
303d	TN05130202007_3000	MILL009.6DA	Mill Creek	Greenway at Harding Pike	NEFO	1					12		12	
USGS NUT	TN05130202007_2000	MILL006.3DA	Mill Creek	Mill Creek at Thompson Lane	USGS						8			
303d	TN05130202007_2000	MILL005.3DA	Mill Creek	Off Foothill Drive	NEFO			1	1		12	DO	12	
Evaluate NS	TN05130202007_1600	MILL18.1T0.2DA	Unnamed Trib to Mill Creek	Sunnywood Dr	NEFO	1								
303d	TN05130202007_1500	PAVIL000.1DA	Pavilion Branch	Driveway near end of Wilhagan Road	NEFO	1								
303d	TN05130202007_1490	CJO000.1DA	Cathy Jo Branch	D/S Paragon Mill Road (~40 feet)	NEFO	1								
303d	TN05130202007_1450	SEVEN003.8DA	Seven mile Creek	At Ellington Ag Center	NEFO			1	1		12		12	
303d	TN05130202007_1400	SEVEN000.2DA	Sevenmile Creek	Antioch Pike	NEFO			1	1		12	DO	12	
303d	TN05130202007_1300	SORGH000.3DA	Sorghum Branch	D/S Antioch Pike	NEFO	1								
303d	TN05130202007_1200	WHITT001.0DA	Whittemore Branch	Tusculum Road	NEFO	1								
303d	TN05130202007_1100	HOLT000.4DA	Holt Creek	6459 Holt Road.	NEFO	1								
303d	TN05130202007_1000	MILL003.3DA	Mill Creek	Elm Hill Pike	NEFO	1								

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130202007_0900	OWL000.8WI	Owl Creek	Hwy. 253 (Concord Road)	NEFO			1	1		12		12	
303d	TN05130202007_0800	INDIA000.4DA	Indian Creek	Old Hickory Blvd.	NEFO			1	1		12		12	
Evaluate NS	TN05130202007_0600	COLLI000.4DA	Collins Creek	Cane Ridge Road. (Old Closed Overpass)	NEFO	1								
303d	TN05130202007_0100	SIMS000.7DA	Sims Branch	D/S Atrium Way	NEFO						12		12	
Evaluate FS FAL	TN05130202003_1000	SAMS002.7CH	Sams Creek	1456 Sams Creek Road (Hwy 249)	NEFO	1								
Not Assessed	TN05130202003_0100	DRY000.2CH	Dry Creek	Off Hwy 249	NEFO			1						
303d	TN05130202001T_0900	OVERA001.3DA	Overall Creek	Old Charlotte Road	NEFO			1			12		12	
303d	TN05130202001T_0800	DAVID000.7DA	Davidson Branch	At Downey Drive	NEFO	1								
Evaluate NS	TN05130202001T_0700	CUMBE193.4T0.4DA	Unnamed Trib to Cheatham Reservoir	d/s Lebanon Road Landfill	NEFO	1								
303d	TN05130202001T_0600	CUMBE215.7T0.3SR	Unnamed Trib to Cheatham Reservoir	Coe Archery Range (Rockland). Tributary Starts @ River Mile 215.7 of Cumberland River	NEFO			1						
303d	TN05130202001T_0200	CUMBE158.3T0.4CH	Unnamed Trib to	TN Waltz Parkway (off	NEFO			1						

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreacon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
			Cheatham Reservoir	Hwy 49) (Twp Was Mcquarry Road.)										
Eco Ref	TN05130202001T_0100	FECO71F06	Marks Creek	0.3 Mi U/S Hwy 12 End of Spann Road	NEFO		2	2	1	4	4			
Fish Tissue; PCBs	TN05130202001_5000	CUMBE206.7DA	Cheatham Reservoir	Lytle Farms area u/s Stones River d/s Old Hickory Dam	NEFO					12	12		12	12
USGS NUT	TN05130202001_4000	CUMBE191.1DA	Cheatham Reservoir	Cheatham Reservoir at Shelby Street Bridge Nashville	USGS						8			
Fish Tissue; PCBs	TN05130202001_4000	CUMBE194.0DA	Cheatham Reservoir	2 miles u/s of 1-24 bridge	NEFO					12	12		12	12
303d	TN05130202001_3000	CUMBE185.7DA	Cheatham Reservoir	Cheatham Reservoir at Bordeaux Bridge Nashville	NEFO					12	12		12 & 5/30*	12
Ambient	TN05130202001_2000	CUMBE174.51DA	Cheatham Reservoir	1 mile u/s Cleece's Ferry	NEFO					12	12		12	12
USGS NUT	TN05130202001_1000	CUMBE158.1CH	Cheatham Reservoir	Cumberland River at State Hwy 49 bridge in Ashland City	USGS						8			
Fish Tissue; PCBs	TN05130202001_1000	CUMBE158.0CH	Cheatham Reservoir	d/s Highway 49 bridge; Ashland City	NEFO					12	12		12	12

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN05130201035_1000	BLEDS009.8SR	Bledsoe Creek	Rogana Road Bridge downstream of East Fork	USGS						8			
USGS NUT	TN05130201028_1000	GOOSE008.0TR	Goose Creek	Old Lafayette Road	USGS						8			
USGS NUT	TN05130201013_1000	SPRIN009.0WS	Spring Creek	400 yards D/S SR 141 Hartsville Pike (downstream Lick Branch)	USGS						8			
Ambient	TN05130201001_1000	CUMBE262.9WS	Old Hickory Reservoir	Hwy 231/ Hunters Point Pike (Nathan J Harsh Bridge)	NEFO					4	4		4	
USGS NUT	TN05130108045_1000	FWATE023.5WH	Falling Water River	Randolph Mill Road (D/S/ Pigeon Roost)	USGS						8			
USGS NUT	TN05130108043_1000	CALFK014.6WH	Calfkiller River	South Carter Street (Park)	USGS						8			
USGS NUT	TN05130108004_1000	SMITH008.8DB	Smith Fork Creek	U/S Hwy 264	USGS						8			
SEMN	TN05130108004_0200	ECO71H17	Clear Fork Creek	100 Yds U/S of Cripps Lane (Old Metal Bridge)	CKEFO		2	2	1	4	4	Temp		
USGS NUT	TN05130108001_1000	CANEY011.2SM	Caney Fork River	Hwy 264 Near Stonewall (Trousdale Ferry Pike)	USGS						8			
Ambient	TN05130108001_1000	CANEY011.2SM	Caney Fork River	Hwy 264 Near Stonewall (Trousdale Ferry Pike)	CKEFO					4	4		4	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN05130107001_1000	COLLI020.0WA	Collins River	Hwy 70S Br@ Amvets Post	USGS						8			
303d	TN05130106043_1000	MARTI004.6PU	Martin Creek	Off Martin Creek Road, on farm road	CKEFO			1			12		12	
303d	TN05130106021_2000	JENNI012.0JA	Jennings Creek	Ward Frank Road & Hwy 56	CKEFO			1	1	12	12		12	
USGS NUT	TN05130106021_1000	JENNI004.6JA	Jennings Creek	Big Spring Lane	USGS						8			
Evaluate FS FAL	TN05130106021_1000	JENNI004.6JA	Jennings Creek	Big Spring Lane	CKEFO			1						
Watershed FS 1	TN05130106021_0900	PLICK000.8JA	Pine Lick Creek	Pine Lick Road/Hwy 135/Keeling Brach Hwy	CKEFO			1			12		12	
Watershed FS 2	TN05130106020_1000	BRIMS002.5CY	Brimstone Creek	Brimstone Creek Road at Dry Branch	CKEFO			1						
303d	TN05130106018_2000	MILL013.2OV	Mill Creek	D/S Standing Stone STP Access Road Below Dam/ Mill Creek Lane	CKEFO			1	1		12		12	
Evaluate FS FAL	TN05130106018_1000	MILL006.1CY	Mill Creek	Wet Mill Creek Road (0.6 miles downstream of bridge)	CKEFO			1			12		12	
Watershed FS 2	TN05130106016_1000	DRY001.4CY	Dry Fork	0.6 Miles U/S on Dry Mill (Creek) Road	CKEFO			1						
Eco Ref	TN05130106010_2000	ECO71G04	Spring Creek	Boatman Road Crossing	CKEFO		2	2	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
				(Bolton on Gazatteer)										
Evaluate NS	TN05130106010_0400	MILL000.8PU	Mill Creek	U/S 200 ' Tom Allen Road	CKEFO			1					12	
Watershed FS 2	TN05130106010_0300	BEAR000.2OV	Bear Creek	Duncan's Chapel Road About 100' D/S	CKEFO			1						
Evaluate NS	TN05130106008_1000	BLACK014.2JA	Blackburn Fork	Above Cummins Fall State Park (approx. 300 ft u/s)	CKEFO			1					12	
Watershed FS 2	TN05130106008_0500	TBD	Unnamed Trib to Blackburn Fork		CKEFO	1								
303d	TN05130106008_0320	RECTO000.1PU	Rector Branch	Plunk Whitson Road	CKEFO			1						
Watershed FS 2	TN05130106008_0300	WBLAC002.2PU	West Blackburn Fork	Hwy 290 (Cumby Road)	CKEFO			1						
Watershed FS 2	TN05130106008_0200	EBLAC002.1PU	East Blackburn Fork	Knights Church Road	CKEFO			1						
USGS NUT	TN05130106007_2000	ROARI021.8OV	Roaring River	Hwy 136	USGS						8			
Watershed FS 1	TN05130106007_2000	ROARI021.8OV	Roaring River	Hwy 136	CKEFO			1	1		12		12	
303d	TN05130106007_0750	CARR006.7OV	Carr Creek	D/S Bethlehm Road crossing	CKEFO			1						
303d	TN05130106007_0710	TOWN001.2OV	Town Creek	U/S of Livingston STP at Hwy 111	CKEFO			1	1	12	12		12	

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Bioreccon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
303d	TN05130106007_0710	TOWN000.7OV	Town Creek	0.1 mile D/S Livingston STP Outfall	CKEFO			1	1	12	12	DO	12	
303d	TN05130106007_0700	CARR001.0OV	Carr Creek	D/S West Mccormick Road	CKEFO			1	1		12	DO	12	
Eco Ref	TN05130106007_0550	FECO71G01	Flat Creek	Upper Hillman Road	CKEFO		2	2	1	4	4			
Eco Ref	TN05130106007_0500	ECO71G03	Flat Creek	Hwy 136 Crossing.	CKEFO		2	2	1	12	12		12	
303d	TN05130106005T_1400	LINDI002.0SM	Little Indian Creek	Crossman Lane (Park Road) & Webster Road	CKEFO			1	1		12		12	
Watershed FS 2	TN05130106005T_1200	TBD	Doe Creek		CKEFO			1						
Watershed FS 2	TN05130106005T_0800	TBD	Shankey Branch		CKEFO			1						
303d	TN05130106005T_0700	KNOB001.5CY	Knob Creek	Knob Creek Road	CKEFO			1						
Watershed FS 2	TN05130106005T_0300	TBD	Wartrace Creek		CKEFO			1						
303d	TN05130106005T_0200	SLICK002.7JA	Salt Lick Creek	Salt Lick Creek Road	CKEFO			1						
Watershed FS 1	TN05130106005T_0100	DEFEA006.2SM	Defeated Creek	Hwy 85 South of Difficult	CKEFO			1	1		12		12	
Eco Ref	TN05130106004_1000	ECO71H03	Flynn Creek	3 Miles Ne of Nameless TN Along Flynn Creek Road	CKEFO		2	2	1	4	4			
USGS NUT	TN05130105033_1000	WOLF026.1PI	Wolf River	USGS gaging station near Sulphur Springs	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
USGS NUT	TN05130105015_1000	WFOBE008.0OV	West Fork Obey River	Highway 52	USGS						8			
Ambient	TN05130105001_1000	OBEY002.1CY	Obey River	Downstream of Hwy 53 Bridge (Burkesville Hwy)	CKEFO					4	4		4	
Mining Ambient	TN05130104037_2000	NEW045.0AN	New River	100 Ft D/S of Stainville Bridge (Hwy 116)/ D/S Charley's Branch	MU					4	0			
Mining Ambient	TN05130104037_1850	SMOKY002.5SC	Smoky Creek	Lowe Cemetary Road; U/S Bowling Branch	MU					4				
USGS NUT	TN05130104037_1000	NEW008.8SC	New River	Hwy 27 Bridge - Gaging Station	USGS						8			
Mining Ambient	TN05130104037_1000	NEW008.8SC	New River	Hwy 27 Bridge - Gaging Station	MU					4	0			
USGS NUT	TN05130104026_1000	CLEAR003.8SC	Clear Fork River	Burnt Mill Bridge	USGS						8			
SEMN	TN05130104016_0100	ECO68A03	Laurel Fork of Station Camp Creek	Big South Fork NrRA U/ S of Horse Trail	MU/ KEFO		2	2	1	4	4	Temp		
USGS NUT	TN05130104013_1000	BSFOR070.0SC	Big South Fork Cumberland River	Leatherwood Ford	USGS						8			

Project	Waterbody ID	DWR Station ID	Waterbody Name	Monitoring Location	EFO	Evaluate**	Biorecon	SQSH	Diatom	Metals	Nutrients	Diurnal	E. coli	PCB
Ambient	TN05130103001_1000	CUMBE381.1CY	Cumberland River	1/2 Mile U/S Obey Confluence Hwy 52/Clay County Hwy at Gaging Station in KY	CKEFO					4	4		4	
Mining Ambient	TN05130101015_3000	CLEAR037.3CL	Clear Fork	U/S Valley Creek Road Bridge	MU					4	0			
Mining Ambient	TN05130101015_2000	CLEAR030.5CA	Clear Fork	Hwy 90 Bridge at Anthras	MU					4	0			
Mining Ambient	TN05130101015_0800	TACKE000.5CA	Tackett Creek	U/S Hwy 90 Bridge	MU					4	0			
Mining Ambient	TN05130101015_0700	STRAI000.1CL	Straight Creek	U/S Clear Fork	MU					4				
Mining Ambient	TN05130101015_0600	VALLE000.1CL	Valley Creek	D/S Bostica Cemetary Road Bridge	MU					4	0			
SEMN	TN03150101012_0510	ECO66G12	Sheeds Creek	0.25 Mi U/S Sheeds Creek Road Crossing.	CHEFO		2	2	1	4	4	Temp		

*Horton Rule for E coli, geomean collected first quarter, followed by monthly sampling if levels pass criteria.
**No samples collected, waterbodies will be evaluated following guidelines in the Consolidated Assessment and Listing Methodology (TDEC, 2023).