UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-3104

April 15, 2020

Ms. Jennifer Dodd
Director
Division of Water Resources
Tennessee Department of Environment and Conservation
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243-15340

Subject: Approval of the State of Tennessee's 2020 303(d) List Submittal

Dear Ms. Dodd:

The U.S. Environmental Protection Agency Region 4 has completed its review of the Tennessee Department of Environment and Conservation's Final 2020 Clean Water Act section 303(d) List of water quality limited segments. The EPA has determined that each of the water quality limited segments still requiring total maximum daily loads identified on the State's List meets the requirements of the Clean Water Act section 303(d) and its implementing regulations at 40 C.F.R. section 130.7. The EPA hereby approves Tennessee's decision to include each of the waters designated by the State in its 2020 303(d) List. Enclosed for your information is the accompanying decision document for this approval action.

If you have questions concerning this matter, please feel free to contact me at (404) 562-9345 or Ms. Gracy R. Danois, Chief, Monitoring, Assessment, Listing, and TMDL Section at (404) 562-9119.

Sincerely,

JEANEANNE GETTLE Digitally signed by JEANEANNE GETTLE
Date: 2020.04.15 13:35:56 -04'00'

Jeaneanne M. Gettle, Director
Water Division

Enclosure

cc: Mr. Richard Cochran
Watershed Planning Unit

DECISION DOCUMENT

FOR THE
APPROVAL OF THE TENNESSEE DEPARTMENT OF
ENVIRONMENT AND CONSERVATION
2020 SECTION 303(d) LIST

APRIL 2020

Prepared by the
Environmental Protection Agency, Region 4
Water Division

April 2020

Table of Contents

I. Executive Summary

The purpose of this document is to describe the rationale for the U.S. Environmental Protection Agency's approval of the Tennessee Department of Environment and Conservation's 2020 section 303(d) List. The EPA has conducted a complete review of the State's List and supporting documentation and information, including changes to the previous List. Specific additions and delistings are identified in Appendices A and B of this document. Based on this review, the EPA has determined that the State's List of water quality limited segments still requiring total daily maximum loads meets the requirements of section 303(d) of the Clean Water Act and the EPA's implementing regulations. This document summarizes the EPA's review and the basis for the approval.

State / Organization:	**Tennessee Department of Environment and Conservation**
Current Listing Cycle:	**2020**
Public Comment Period:	November 15, 2019 – February 14, 2020
Organization Final Section 303(d) Submittal Date:	March 31, 2020
Online location of State Integrated Report:	https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html
Current List Status:	**EPA APPROVAL** on **April 15, 2020**
Listing Cycle and Approval Date of Most Recent Approved Section 303(d) List:	2018 section 303(d) List approved by the EPA on July 26, 2018
Government to Government Consultation Period	December 23, 2019 – February 14, 2020

II. Statutory and Regulatory Background

Section 303(d) of the Clean Water Act (CWA, or the Act) and the EPA's implementing regulations in the Code of Federal Regulations at 40 C.F.R. section 130.7 require states to identify water quality limited segments (WQLS) still requiring total maximum daily loads (TMDLs) within their jurisdictions. The section 303(d) List submittal must include a description of the methodology used to develop the List and must show that the State has considered all appropriate information, including a rationale for any decision to not use any existing and readily available data and information. States are also required to provide any other reasonable information requested by the EPA to support listing decisions. States are also required to provide any other reasonable information requested by the EPA to demonstrate good cause for not including a WQLS on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed; or changes in conditions, e.g., new control equipment, or elimination of discharges. See 40 C.F.R. section 130.7(6)(iv). The List submittal must include a priority ranking to put plans in place for establishing a total pollutant load and must involve the public and other stakeholders in the development of the section 303(d) List. State section 303(d) Lists are submitted to the EPA for approval or disapproval.

A. Identification of Water Quality Limited Segments for Inclusion on the 303(d) List

The list of WQLSs still requiring TMDLs is the State's section 303(d) List. A WQLS is defined in 40 C.F.R. section 130.2(j) as "[a]ny segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Act." The WQLS listing requirement applies to waters impaired by point and/or nonpoint sources under the EPA's long-standing interpretation of section 303(d). Note: The term WQLS may also be referred to as "listed waters," "impaired waters," or "impairments" throughout this decision document.

For purposes of listing waters under 40 C.F.R. section 130.7(b), the term 'water quality standard applicable to such waters' and 'applicable water quality standards' refer to those water quality standards (WQS) established under section 303 of the Act, including designated uses, water quality criteria (WQC), and antidegradation requirements.

B. Assessment and Listing Methodology

The EPA regulations at 40 C.F.R. section 130.7(b)(6) require states to document decisions to list or not list waters, including a description of the methodology used to develop the List. The methodology, often referred to as an assessment methodology or a listing methodology, should describe how a state collects or obtains data and information relevant to applicable WQS, how it evaluates the suitability of the data or information for decision making, and how it analyzes and interprets data to make attainment or impairment decisions. The methodology is not an item for approval under 40 C.F.R. section 130.7(d)(1). The methodology is documentation that supports the assessment decisions. Although the EPA reviews a state's methodology as part of the List submittal review, the EPA's approval of a state's section 303(d) List should not be construed as agreement with or approval of the listing methodology.

C. Existing and Readily Available Water Quality-Related Data and Information

In developing section 303(d) Lists, states are required to assemble, evaluate and consider all existing and readily available water quality-related data and information about, at a minimum, the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any CWA section 319 nonpoint assessment submitted to the EPA. See 40 C.F.R. section 130.7(b)(5).

In addition to these minimum categories, states are required to consider any other water quality-related data and information that is existing and readily available. States have certain flexibility in deciding which data or information they will use to list waters.

D. Priority Ranking and Two Year TMDL Development Schedule

The EPA regulations codify and interpret the requirement in section 303(d)(1)(A) of the CWA that states establish a priority ranking for listed waters. See 40 C.F.R. section 130.7(b)(4). States are required to prioritize waters on their section 303(d) Lists for TMDL development and to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must, at a minimum, consider the severity of the pollution and the uses to be made of such waters.

On December 5, 2013, the EPA announced a new collaborative framework for implementing the CWA section 303(d) program with states – A Long Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program (Vision)1. Under the Vision, states are expected to develop tailored strategies to implement their CWA 303(d) program responsibilities in the context of their overall water quality goals and individual state priorities. Although state's long-term priorities should be included, or referenced, in the 2020 Integrated Report (IR), EPA's formal decision on the state's CWA section 303(d) List will not include action on the state's long-term priorities identified under the Vision.

E. Public Participation

The EPA regulations require states to describe in their Continuing Planning Processes the process for involving the public and other stakeholders in the development of the section 303(d) List. See 40 C.F.R. Part 25 and 40 C.F.R. section 130.7(a). The EPA encourages the state to provide ample opportunities for public participation in the development of the IR and demonstrate how it considered public comments in its final decisions.

III. The Integrated Report and ATTAINS

Section 305(b) of the CWA directs states to report on the overall condition of aquatic resources in their jurisdictions at the same time as the section 303(d) List submittal (by April 1 of all even numbered

1 https://www.epa.gov/sites/production/files/2015-07/documents/vision_303d_program_dec_2013.pdf

years). States are encouraged to merge these reports into a single IR. While the section 305(b) submission is required, the CWA does not specify Agency approval of the 305(b) report. See 40 C.F.R. section 130.8. The EPA's 2006 IR Guidance[2] recommends the use of five categories to classify the WQS attainment status for individual waterbody segments. Placement of a waterbody in IR category 5 indicates that available data and/or information show that at least one designated use is not being supported or is threatened and a TMDL is needed. Waterbodies listed in this category are those considered to be on the section 303(d) List.

This categorization scheme is the basis for the national electronic system, the Assessment and TMDL Tracking and Implementation System (ATTAINS). The electronic IR submission will allow the EPA and states to process information in a timely manner for use in the *National Water Quality Inventory Report to Congress*; the formula used for state grant allocations; water quality listing decisions; and analyses supporting actions to protect and restore waters and track progress toward that goal.[3]

IV. Analysis of Tennessee Department of the Environment and Conservation's Submission

Based on the Agency's review, the EPA has determined that Tennessee's section 303(d) List of WQLS still requiring TMDLs meets the requirements of section 303(d) of the CWA and the EPA's implementing regulations. Therefore, the EPA is approving the State's 2020 Section 303(d) List.

The EPA received the State's final section 303(d) List package by electronic mail and received assessment data through ATTAINS on March 31, 2020. The Agency's action on the List applies to the assessment data entered in ATTAINS as well as the additional narrative documentation attached to the submission. This section describes all the factors involved in the EPA's review including a description of Tennessee's Consolidated Assessment and Listing Methodology (CALM)[4], outlines the EPA's evaluation of both that methodology and the actual list of water quality limited segments included in the 2020 submittal, and describes all the factors involved in the EPA's review.

To determine that the State's submittal reasonably identified impaired waters, the EPA first examined the assessment and listing methodology used to develop the List in light of the State's approved WQS. The EPA approved a revision to the State's WQS on December 19, 2019, as part of the Triennial Review. No changes were made to the State's assessment and listing methodology based on the approved revisions.

A. Review of State's Identification of Waters

The State developed its section 303(d) List in light of the State's current EPA-approved WQS. The State reported using all readily available information and assessed this information to determine compliance with the WQS in the manner described in the CALM. The State used the previous cycle assessment decision factors as the basis for most of the its current List decisions. The EPA reviewed the various

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[2] Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act, July 29, 2005, at https://www.epa.gov/sites/production/files/2015-10/documents/2006irg-report.pdf.
[3] Information Concerning 2018 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions, December 22, 2017, at https://www.epa.gov/sites/production/files/2018-01/documents/final_2018_ir_memo.pdf
[4] https://www.tn.gov/content/dam/tn/environment/water/planning-and-standards/wr_wq_pub-2018-impaired-waters-calm.pdf

assessments, focusing on changes to the previous List, and concludes the State's assessments are consistent with federal listing requirements and applicable WQS.

B. State's Assessment and Listing Methodology

The State's CALM was revised in January 2018. The State notified the EPA in October 2019 that no changes were made to the CALM between the 2018 and 2020 section 303(d) Lists.

The State's CALM provides information on the methodology used to identify impaired waters and specifies explicit factors for making listing and delisting decisions for different pollutant types based on different kinds of data. The State prepared the List in accordance with this document. In general, the State includes a waterbody on the List based on adequate documentation showing that WQS were not being met during the assessment period. The CALM includes quantitative assessment factors including statistical methods for evaluating potential WQS exceedances, minimum data set requirements, and data quality requirements. These decision factors are applied to various types of data, including water chemistry, bacteria, nutrients, and biological integrity. The EPA reviewed the methodology and concludes the State's assessments are generally consistent with federal listing requirements.

C. State's Consideration of Existing and Readily Available Water Quality Related Data and Information

The major difference between the 2018 and 2020 versions of the List is the detailed reassessment of the State designated Group 5 and 1 watersheds[5]. Although the State's assessments focused on these watershed groups, the State also fully considered all data and information submitted by the public during the public notice period, regardless of the location of the waterbody for which data/information was provided. The State collects a variety of chemical, physical, and biological data, as described in the Quality Systems Standard Operating Procedure for Chemical and Bacteriological Sampling of Surface Water[6] and the Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys[7]. The State placed a solicitation for data for Group 5 and Group 1 watersheds in October 2017 and July 2018, respectively, on their website. For data to be used for impairment determinations, data must meet specific submission criteria, including quality assurance and quality control of the collection and analysis of the data. Most of the State's chemical and bacteriological data are accessible on the State's website[8]. The State never excludes data from consideration solely because the data are more than five years old, nor does the State use a rigid minimum sample size requirement in the assessment process.

The State received data and information for some waterbodies located outside of the Group 5 and 1 watersheds, along with a request to reassess these waterbodies, during the public notice period. The State considered the information received and determined the waterbodies should be reassessed on schedule with the Group 2 and 3 watersheds, after the State has the opportunity to solicit for and

[5] https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/watershed-management-approach/watershed-management-cycle.html
[6] https://www.tn.gov/content/dam/tn/environment/water/policy-and-guidance/DWR-WQP-P-01-QSSOP-Chem-Bact-082918.pdf
[7] https://www.tn.gov/content/dam/tn/environment/water/documents/DWR-PAS-P-01-Quality_System_SOP_for_Macroinvertebrate_Stream_Surveys-081117.pdf
[8] https://tdeconline.tn.gov/dwr/

consider all additional existing and readily available data for those groups. The State indicated that these reassessments will be documented in the 2022 List.

The EPA reviewed the information submitted and concluded that the State properly assembled and evaluated all existing and readily available data and information, including that relating to the categories of waters specified in 40 C.F.R. section 130.7(b)(5).

D. State's Priority Ranking and Two Year TMDL Development Schedule

Consistent with 40 C.F.R. section 130.7(b)(4), the State's TMDL prioritization strategy is fully described in its section 303(d) List submittal and the State has included a schedule of TMDL development for the waters identified on its section 303(d) List.

E. State's Public Participation Process

The State published its draft section 303(d) List for public review on November 15, 2019, accepted written comments and prepared a formal response to the comments received. The State maintains a list of interested parties including government agencies, environmental groups, industries, academia and others, and the State contacted these entities to provide notice of the availability of the draft section 303(d) List for public review. Additionally, citizens were given the opportunity to make verbal comments at a public meeting held on January 2, 2020.

A responsiveness summary was included in the State's submittal to the EPA. The EPA reviewed each of the responses and concluded that the State appropriately considered all comments, data, and information received during the public comment period. Based on information provided by the State, the EPA has concluded that public participation was conducted adequately to ensure compliance with 40 C.F.R. Part 25.

V. State's Additions to and Delistings from the Section 303(d) List

The State identified 305 additional WQLSs in its List submittal, as listed in Appendix A of this document. The EPA is approving the addition of those WQLSs to the State's section 303(d) List.

The State proposed to delist 43 WQLSs in its List submittal. For all the proposed delistings, the State provided a rationale and supporting documentation which the EPA fully considered as part of its review. The EPA has determined the rationale, which the State provided as an appendix to the submittal, to be sufficient based upon the description of good cause justification and is approving of the delisting of those WQLS from the State's section 303(d) List. All WQLSs removed from the State's section 303(d) List and rationales for delisting are identified in Appendix B of this document.

VI. Government-to-Government Consultation

Under its tribal consultation process, the EPA consults with federally-recognized tribes on a government-to-government basis where the EPA's decisions may impact tribal interests. By letter dated December 23, 2019, the EPA formally offered consultation to the Mississippi Band of Choctaw Indians on the available draft Tennessee 2020 section 303(d) List. The consultation and coordination process

were conducted in accordance with the EPA Policy[9]. The process began on December 23, 2019 and ended on February 14, 2020. Upon receipt of the final Tennessee 303(d) List submittal, the EPA contacted the Tribe to inform them of its intention to approve the List. The Mississippi Band of Choctaw Indians did not choose to consult on the 2020 section 303(d) List.

VII. Final Decision on Tennessee's 2020 Section 303(d) List Submittal

After careful review of the final submittal package, the EPA has determined that the State's section 303(d) List meets the requirements of section 303(d) of the CWA and the EPA's implementing regulations. Therefore, the EPA is approving Tennessee's 2020 Section 303(d) list.

[9] https://www.epa.gov/sites/production/files/2013-08/documents/cons-and-coord-with-indian-tribes- policy.pdf

Appendix A: Waterbody Impairments Added to the Section 303(d) List

Information in this table was downloaded from the Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS). Refer to section I.B. *Integrated Report and Assessment and TMDL Tracking System* of this Decision Document for more information on ATTAINS and the definition of the EPA IR Categories. Parameters (abbreviated PARAM in this table) refer to impairments.

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN03150101012_0200	Mill Creek	Dissolved Oxygen
TN03150101012_0210	Old Fort Creek	Escherichia Coli (E. coli)
TN03150101021_0500	Blackburn Branch	Escherichia Coli (E. coli)
TN03150101021_1000	Coahulla Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN03150101021_2000	Coahulla Creek	Dissolved Oxygen
TN05130106007_0700	Carr Creek	Phosphorus, Total
TN05130106008_0310	Little Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130106010_0300	Bear Creek	Sedimentation/Siltation
TN05130106010_0400	Mill Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130106010_0400	Mill Creek	Nutrient/Eutrophication Biological Indicators
TN05130106043_1000	Martin Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130202001T_0800	Davidson Branch	Other Anthropogenic Substrate Alterations
TN05130202001T_0900	Overall Creek	Escherichia Coli (E. coli)
TN05130202007_0700	Turkey Creek	Escherichia Coli (E. coli)
TN05130202007_0800	Indian Creek	Sedimentation/Siltation
TN05130202007_2000	Mill Creek	Escherichia Coli (E. coli)
TN05130202007_3000	Mill Creek	Escherichia Coli (E. coli)
TN05130202010_0900	Ewing Creek	Phosphorus, Total
TN05130202014_0100	Spring Creek	Cause Unknown
TN05130202014_0400	Bednigo Branch	Sedimentation/Siltation
TN05130202014_0500	North Fork Sycamore Creek	Sedimentation/Siltation
TN05130202023_0300	West Fork Browns Creek	Other Anthropogenic Substrate Alterations
TN05130202027_2000	Dry Creek	Escherichia Coli (E. coli)

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN05130202137_0110	Unnamed Trib to Vick Creek	Arsenic
TN05130202137_0110	Unnamed Trib to Vick Creek	Copper
TN05130202137_0110	Unnamed Trib to Vick Creek	Lead
TN05130202137_0110	Unnamed Trib to Vick Creek	pH, High
TN05130202137_0110	Unnamed Trib to Vick Creek	Selenium
TN05130202202_1000	Pages Branch	Other Anthropogenic Substrate Alterations
TN05130202220_0400	Madison Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130202220_0500	Center Point Branch	Nutrient/Eutrophication Biological Indicators
TN05130204001_0800	Leatherwood Creek	Cause Unknown
TN05130204002_1600	Unnamed Tributary to Jones Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130204002_1600	Unnamed Tributary to Jones Creek	Physical Substrate Habitat Alterations
TN05130204009_0600	Murray Branch	Low Flow Alterations
TN05130204013_0300	Unnamed Trib to West Harpeth River	Alteration in Stream-side or Littoral Vegetative Covers
TN05130204013_0700	Murfrees Fork	Dissolved Oxygen
TN05130204013_0710	Rattlesnake Branch	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN05130204013_0710	Rattlesnake Branch	Phosphorus, Total
TN05130204013_0750	Murfrees Fork	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN05130204016_0100	Lynnwood Creek	Escherichia Coli (E. coli)
TN05130204016_0300	Liberty Creek	Escherichia Coli (E. coli)
TN05130204016_0350	Liberty Creek	Escherichia Coli (E. coli)
TN05130204016_0900	McCrory Creek	Escherichia Coli (E. coli)
TN05130204016_0900	McCrory Creek	Phosphorus, Total
TN05130204016_1350	Fivemile Creek	Sedimentation/Siltation
TN05130204018_0220	Unnamed Trib to Concord Creek	Physical Substrate Habitat Alterations
TN05130204018_1000	Harpeth River	Escherichia Coli (E. coli)
TN05130205033_1000	Half Pone Creek	Sedimentation/Siltation
TN05130205038_1000	Big McAdoo Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN051302051735_1000	Wells Creek	Escherichia Coli (E. coli)
TN06010103008_0100	Lick Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010103008_0100	Lick Creek	Escherichia Coli (E. coli)

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN06010103013_0300	Hampton Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010103013_0300	Hampton Creek	Escherichia Coli (E. coli)
TN06010103013_0500	George Creek	Escherichia Coli (E. coli)
TN06010103013_0820	Simerly Creek	Escherichia Coli (E. coli)
TN06010103013_1000	Doe River	Escherichia Coli (E. coli)
TN06010103034_0300	Town Creek	Phosphorus, Total
TN06010103034_0310	Goose Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010103034_0310	Goose Creek	Escherichia Coli (E. coli)
TN06010103034_0310	Goose Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010103034_0312	Corn Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010103034_2000	Roan Creek	Phosphorus, Total
TN06010103034_3000	Roan Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010103046_0100	Catbird Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010104004_1000	Cherokee Reservoir	Mercury
TN06010105003_1000	Trail Fork Big Creek	Escherichia Coli (E. coli)
TN06010105003_2000	Trail Fork Big Creek	Escherichia Coli (E. coli)
TN06010106001_1000	Pigeon River	Mercury
TN06010107003_0100	Knob Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010107003_0100	Knob Creek	Sedimentation/Siltation
TN06010107003_0120	Happy Creek	Escherichia Coli (E. coli)
TN06010107007_1400	Bird Creek	Escherichia Coli (E. coli)
TN06010107007_1650	Middle Creek	NUTRIENTS
TN06010107007_1650	Middle Creek	Other Anthropogenic Substrate Alterations
TN06010107007_1700	Gists Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010107007_1700	Gists Creek	Escherichia Coli (E. coli)
TN06010107007_1700	Gists Creek	NUTRIENTS
TN06010107007_1700	Gists Creek	Sedimentation/Siltation
TN06010107010_0600	Baskins Creek	Other Anthropogenic Substrate Alterations
TN06010107010_1800	Mill Creek	Sedimentation/Siltation
TN06010107010_1950	Walden Creek	Escherichia Coli (E. coli)

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN06010107010_2000	West Prong Little Pigeon River	Temperature
TN06010107010_3000	West Prong Little Pigeon River	Temperature
TN06010107010_4000	West Prong Little Pigeon River	Other Anthropogenic Substrate Alterations
TN06010107025_1000	East Fork Little Pigeon River	Escherichia Coli (E. coli)
TN06010107039_1000	Tuckahoe Creek	Escherichia Coli (E. coli)
TN06010108001_1000	Nolichucky River	Mercury
TN06010108001_2000	Nolichucky River	Mercury
TN06010108001_3000	Nolichucky River	Mercury
TN06010108005_1000	Nolichucky River	Mercury
TN06010108005_2000	Nolichucky River	Mercury
TN06010108005_3000	Nolichucky River	Mercury
TN06010108007_0100	Little Meadow Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108010_0600	Ripley Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010108010_0700	Rheatown Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108010_0700	Rheatown Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010108010_0700	Rheatown Creek	Sedimentation/Siltation
TN06010108010_1000	Nolichucky River	Mercury
TN06010108010_1100	Asbury Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108010_1100	Asbury Creek	Sedimentation/Siltation
TN06010108010_2000	Nolichucky River	Mercury
TN06010108010_3000	Nolichucky River	Mercury
TN06010108010_4000	Nolichucky River	Mercury
TN06010108010_5000	Nolichucky River	Mercury
TN06010108010_6000	Nolichucky River	Mercury
TN06010108030_0430	Muddy Fork	Biochemical Oxygen Demand (BOD)
TN06010108034_0100	Mosheim Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108035_1110	Babb Creek	Dissolved Oxygen
TN06010108035_1110	Babb Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010108035_1900	Clear Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108035_2600	Grassy Creek	Alteration in Stream-side or Littoral Vegetative Covers

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN06010108035_2810	Pond Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108035_2810	Pond Creek	Sedimentation/Siltation
TN06010108035_4000	Lick Creek	Phosphorus, Total
TN06010108102_0400	East Fork Richland Creek	Sedimentation/Siltation
TN06010108510_0400	Hominy Branch	Sedimentation/Siltation
TN06010108536_0200	Little Cherokee Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010108DCTRIBS_0200	Johnson Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010201026_1000	Little River	Mercury
TN06010201026_2000	Little River	Mercury
TN06010201027_1000	Little River	Mercury
TN06010201032_1000	Little River	Mercury
TN06010201032_2000	Little River	Mercury
TN06010201032_3000	Little River	Mercury
TN06010201040_0600	Black Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010201070_1000	Wolf Creek	Escherichia Coli (E. coli)
TN06010201462_1000	Town Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010201462_1000	Town Creek	Physical Substrate Habitat Alterations
TN06010201526_1000	Muddy Creek	Dissolved Oxygen
TN06010201620_1000	Cardiff Creek	Physical Substrate Habitat Alterations
TN06010204039_1000	Abrams Creek	Mercury
TN06010208007_2000	Obed River	Nitrogen, Total
TN06010208013_0400	Black Drowning Creek	Escherichia Coli (E. coli)
TN06010208013_0400	Black Drowning Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010208013_0400	Black Drowning Creek	Phosphorus
TN06010208013_0410	Meadow Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010208013_0500	Scott Creek	Sedimentation/Siltation
TN06010208013_1000	Obed River	Escherichia Coli (E. coli)
TN06010208013_1000	Obed River	Nitrogen, Total
TN06010208015_0600	Lick Creek	Escherichia Coli (E. coli)
TN06020002014_0200	London Branch	Alteration in Stream-side or Littoral Vegetative Covers

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN06020002014_0200	London Branch	Physical Substrate Habitat Alterations
TN06020003001_0150	Fourmile Creek	Escherichia Coli (E. coli)
TN06020003001_0400	Fry Branch	Sedimentation/Siltation
TN06020003014_0140	Ellis Branch	Escherichia Coli (E. coli)
TN06020004001_0910	Unnamed Trib to Shelton Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06020004005_0100	Coops Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06020004005_0100	Coops Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06020004007_0600	Little Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06020004007_0640	Browns Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06020004015_1200	Pocket Creek	Sedimentation/Siltation
TN06030001057_0611	Unnamed Trib to Laurel Lake	Specific Conductivity
TN060300021124_1000	Hester Creek	Escherichia Coli (E. coli)
TN060300021149_0100	Cottrell Spring Branch	Escherichia Coli (E. coli)
TN060300021149_0110	Mason Branch	Escherichia Coli (E. coli)
TN060300021149_0110	Mason Branch	Sedimentation/Siltation
TN060300021149_0200	Harbin Branch	Escherichia Coli (E. coli)
TN060300021149_0300	Trotters Branch	Escherichia Coli (E. coli)
TN060300021149_0610	Little Huckleberry Creek	Escherichia Coli (E. coli)
TN060300021149_1000	Flint River	Escherichia Coli (E. coli)
TN060300021216_0211	Harper Creek	Escherichia Coli (E. coli)
TN06030005074_0100	Little Bluewater Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06030005074_0100	Little Bluewater Creek	Escherichia Coli (E. coli)
TN06030005074_0100	Little Bluewater Creek	Sedimentation/Siltation
TN06030005074_1000	Bluewater Creek	Sedimentation/Siltation
TN06030005081_1000	Shoal Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06030005081_1000	Shoal Creek	Phosphorus, Total
TN06030005082_0100	Tripptown Branch	Escherichia Coli (E. coli)
TN06030005082_0100	Tripptown Branch	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06030005082_0100	Tripptown Branch	Phosphorus, Total
TN06030005082_0200	Beeler Fork	Alteration in Stream-side or Littoral Vegetative Covers

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN06030005082_0300	Dry Land Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06030005082_1000	Shoal Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06030005082_1000	Shoal Creek	Phosphorus, Total
TN06030005082_2000	Shoal Creek	Escherichia Coli (E. coli)
TN06030005082_2000	Shoal Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06030005082_2000	Shoal Creek	Phosphorus, Total
TN06030005084_0100	Crawfish Creek	Escherichia Coli (E. coli)
TN06030005085_1000	Crowson Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06030005085_1000	Crowson Creek	Sedimentation/Siltation
TN06030005087_0300	Aaron Branch	Cause Unknown
TN06030005093_0600	Last Butler Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06030005093_1000	Butler Creek	Sedimentation/Siltation
TN06030005095_1000	Little Cypress Creek	Cause Unknown
TN060400020306.7_1000	Normandy Reservoir	Mercury
TN06040003023_0210	Unnamed Trib to Sugar Creek	Dissolved Oxygen
TN06040003023_0210	Unnamed Trib to Sugar Creek	Phosphorus, Total
TN08010100001_0200	Blue Bank Bayou	Dissolved Oxygen
TN08010202001_0600	Dry Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202001_0600	Dry Creek	Sedimentation/Siltation
TN08010202001_0700	Grass Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202001_0700	Grass Creek	Physical Substrate Habitat Alterations
TN08010202009_0100	Unnamed Trib to North Fork Obion River	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202009_0100	Unnamed Trib to North Fork Obion River	Physical Substrate Habitat Alterations
TN08010202009_1000	North Fork Obion River	Escherichia Coli (E. coli)
TN08010202009_1000	North Fork Obion River	Phosphorus, Total
TN08010202009_1900	Mayo Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202009_2000	North Fork Obion River	Escherichia Coli (E. coli)
TN08010202009_2000	North Fork Obion River	Physical Substrate Habitat Alterations
TN08010202014_1000	Cypress Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202014_1000	Cypress Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN08010202014_1000	Cypress Creek	Phosphorus, Total
TN08010202014_1000	Cypress Creek	Physical Substrate Habitat Alterations
TN08010202025_0200	Hicks Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202025_0200	Hicks Branch	Physical Substrate Habitat Alterations
TN08010202025_1000	Harris Fork Creek	Escherichia Coli (E. coli)
TN08010202028_0100	Unnamed Trib to Clover Creek	Escherichia Coli (E. coli)
TN08010202036_1000	Reelfoot Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN08010202036_1000	Reelfoot Creek	Phosphorus, Total
TN08010202419_1000	Hoosier Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010202500_1000	Cypress Creek	Dissolved Oxygen
TN08010202948_1000	Mill Creek	Physical Substrate Habitat Alterations
TN08010203001_0900	Clear Creek	Physical Substrate Habitat Alterations
TN08010203001_1300	Thompson Creek	Physical Substrate Habitat Alterations
TN08010203007_0200	Halley Creek	Physical Substrate Habitat Alterations
TN08010203007_0210	White Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010203007_0210	White Creek	Physical Substrate Habitat Alterations
TN08010203007_0300	Lick Creek	Physical Substrate Habitat Alterations
TN08010203007_1000	Reedy Creek	Physical Substrate Habitat Alterations
TN08010203010_0500	Hawkins Creek	Physical Substrate Habitat Alterations
TN08010203010_1000	Beaver Creek	Physical Substrate Habitat Alterations
TN08010203010_2000	Beaver Creek	Physical Substrate Habitat Alterations
TN08010203015_1000	Middle Fork Obion River	Physical Substrate Habitat Alterations
TN08010203015_1000	Middle Fork Obion River	Sedimentation/Siltation
TN08010203015_2000	Middle Fork Obion River	Escherichia Coli (E. coli)
TN08010203016_0700	Bond Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010203016_0700	Bond Branch	Physical Substrate Habitat Alterations
TN08010203016_0700	Bond Branch	Sedimentation/Siltation
TN08010203016_1000	Spring Creek	Physical Substrate Habitat Alterations
TN08010203020_2000	Mud Creek	Physical Substrate Habitat Alterations
TN08010203020_2000	Mud Creek	Sedimentation/Siltation

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN08010203032_1400	Johns Creek	Physical Substrate Habitat Alterations
TN08010205001_0200	Mill Creek	Physical Substrate Habitat Alterations
TN08010205003_0100	Unnamed Trib to South Fork Forked Deer River	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205003_0100	Unnamed Trib to South Fork Forked Deer River	Physical Substrate Habitat Alterations
TN08010205005_0100	Little Nixon Creek	Dissolved Oxygen
TN08010205005_1000	Nixon Creek	Dissolved Oxygen
TN08010205012_0200	Conneley Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205012_0200	Conneley Creek	Physical Substrate Habitat Alterations
TN08010205012_0200	Conneley Creek	Sedimentation/Siltation
TN08010205012_0300	Adair Branch	Sedimentation/Siltation
TN08010205012_0800	Cane Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205012_0800	Cane Creek	Physical Substrate Habitat Alterations
TN08010205012_0800	Cane Creek	Sedimentation/Siltation
TN08010205012_1250	Cub Creek	Physical Substrate Habitat Alterations
TN08010205012_1250	Cub Creek	Sedimentation/Siltation
TN08010205012_1300	Cypress Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205012_1300	Cypress Creek	Physical Substrate Habitat Alterations
TN08010205012_1400	Panther Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205012_1400	Panther Creek	Physical Substrate Habitat Alterations
TN08010205012_1400	Panther Creek	Sedimentation/Siltation
TN08010205017_3000	Meridian Creek	Physical Substrate Habitat Alterations
TN08010205017_3000	Meridian Creek	Sedimentation/Siltation
TN08010205018_0100	Jones Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205018_0200	Moore Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205018_0200	Moore Branch	Physical Substrate Habitat Alterations
TN08010205018_0300	Finger Creek	Physical Substrate Habitat Alterations
TN08010205018_0400	Jones Creek	Physical Substrate Habitat Alterations
TN08010205018_0600	Turkey Creek	Physical Substrate Habitat Alterations
TN08010205018_0600	Turkey Creek	Sedimentation/Siltation
TN08010205018_1000	South Fork Forked Deer River	Phosphorus, Total

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN08010205018_1100	Hunters Creek	Cause Unknown
TN08010205018_1200	Unnamed Trib to South Fork Forked Deer	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205018_1200	Unnamed Trib to South Fork Forked Deer	Physical Substrate Habitat Alterations
TN08010205022_0100	Webb Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205022_0100	Webb Branch	Physical Substrate Habitat Alterations
TN08010205022_0300	Melton Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205022_0300	Melton Branch	Physical Substrate Habitat Alterations
TN08010205023_0110	Dry Branch	Physical Substrate Habitat Alterations
TN08010205023_0200	Tar Creek	Physical Substrate Habitat Alterations
TN08010205023_0300	Huggins Creek	Physical Substrate Habitat Alterations
TN08010205023_0310	Bushel Branch	Physical Substrate Habitat Alterations
TN08010205023_0330	Hogwallow Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205023_0330	Hogwallow Creek	Physical Substrate Habitat Alterations
TN08010205023_0400	Horse Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205023_0400	Horse Creek	Physical Substrate Habitat Alterations
TN08010205028_0210	Cotton Grove Creek	Physical Substrate Habitat Alterations
TN08010205028_0210	Cotton Grove Creek	Sedimentation/Siltation
TN08010205028_0230	Jones Creek	Physical Substrate Habitat Alterations
TN08010205028_0300	Bear Creek	Cause Unknown
TN08010205028_0410	McHaney Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205028_0410	McHaney Branch	Physical Substrate Habitat Alterations
TN08010205028_0410	McHaney Branch	Sedimentation/Siltation
TN08010205028_0420	Unnamed Trib to Spencer Creek	Low Flow Alterations
TN08010205028_0500	Bell Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205028_0500	Bell Branch	Physical Substrate Habitat Alterations
TN08010205028_0800	Marlin Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205028_0800	Marlin Creek	Physical Substrate Habitat Alterations
TN08010205028_1000	North Fork of the South Fork Forked Deer River	Physical Substrate Habitat Alterations
TN08010205031_0100	Lick Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010205031_0200	Bear Creek	Alteration in Stream-side or Littoral Vegetative Covers

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM_NAME
TN08010205031_1000	Black Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN08010211001_0100	Horn Lake Cutoff	Flow Alteration-Changes in Depth and Flow Velocity
TN08010211001_0100	Horn Lake Cutoff	Total Kjeldahl Nitrogen (TKN)
TN0801021100711_0300	Black Bayou	Dissolved Oxygen
TN0801021100711_0500	Hurricane Creek	Ammonia, Un-ionized
TN0801021100711_2000	Nonconnah Creek	Lead
TN0801021100711_3000	Nonconnah Creek	Copper
TN0801021100711_3000	Nonconnah Creek	Lead
TN0801021100720_0410	Unnamed Trib to Unnamed Trib. To Noconnah Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN0801021100720_3000	Nonconnah Creek	Dissolved Oxygen
TN0801021100720_3000	Nonconnah Creek	Escherichia Coli (E. coli)
TN08010211176_1000	Johns Creek	Dissolved Oxygen

Appendix B: Waterbody Impairments Delisted Since the Previous Cycle

Information in this table was downloaded from the Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS). Refer to section I.B. *Integrated Report and Assessment and TMDL Tracking System* of this Decision Document for more information on ATTAINS. Parameters (abbreviated PARAM in this table) refer to impairments.

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM NAME
TN03150101021_0600	Wolf Branch	Sedimentation/Siltation
TN05130202007_0900	Owl Creek	Sedimentation/Siltation
TN05130202010_2000	Whites Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN05130202010_2000	Whites Creek	Escherichia Coli (E. coli)
TN05130202010_2000	Whites Creek	Sedimentation/Siltation
TN05130204002_0410	Creech Hollow Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN05130204016_0100	Lynnwood Creek	Nutrients
TN05130204016_0300	Liberty Creek	Dissolved Oxygen
TN05130204016_0300	Liberty Creek	Toluene
TN05130205015T_1100	Wall Branch	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN05130205015T_1100	Wall Branch	Sedimentation/Siltation
TN05130205020_1000	East Fork	Alteration in Stream-side or Littoral Vegetative Covers
TN05130205020_1000	East Fork	Sedimentation/Siltation
TN05130205038_1000	Big McAdoo Creek	Escherichia Coli (E. coli)
TN06010105001_0100	Clear Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010108010_1910	Spring Branch	Total Suspended Solids (TSS)
TN06010108035_1000	Lick Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN06010108035_5000	Lick Creek	Phosphorus, Total
TN06010108510_2000	Little Limestone Creek	Ammonia, Un-ionized
TN06010201009_1000	Riley Creek	Alteration in Stream-side or Littoral Vegetative Covers
TN06010201009_1000	Riley Creek	Sedimentation/Siltation
TN06010201087_1000	Hines Creek	Sedimentation/Siltation
TN06010208004_0200	Flat Fork	Nitrate/Nitrite (Nitrite + Nitrate as N)

ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAM NAME
TN06010208008_2000	Clear Creek	Oil and Grease
TN06020003013_1000	Ocoee River	Iron
TN06020003013_1000	Ocoee River	Zinc
TN06020004009_1000	Big Brush Creek	Manganese
TN06020004009_1000	Big Brush Creek	Other Anthropogenic Substrate Alterations
TN06030001065_0100	Cluck Cove Creek	Sedimentation/Siltation
TN060300021149_0200	Harbin Branch	Alteration in Stream-side or Littoral Vegetative Covers
TN08010100001_0200	Blue Bank Bayou	Escherichia Coli (E. coli)
TN08010100001_0320	Cold Creek	Sedimentation/Siltation
TN08010202003_1000	Reeds Creek	Escherichia Coli (E. coli)
TN08010203015_0600	Thompson Creek	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN08010203015_0600	Thompson Creek	Physical Substrate Habitat Alterations
TN08010203015_0600	Thompson Creek	Sedimentation/Siltation
TN08010203015_3000	Middle Fork Obion River	Nitrate/Nitrite (Nitrite + Nitrate as N)
TN08010203015_3000	Middle Fork Obion River	Sedimentation/Siltation
TN08010203032_1400	Johns Creek	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)
TN08010203032_1500	Wolf Creek	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)
TN08010203032_1510	East Fork Wolf Creek	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)
TN08010203032_2000	Rutherford Fork Obion River	Physical Substrate Habitat Alterations
TN08010203032_2000	Rutherford Fork Obion River	Sedimentation/Siltation