UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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Decision Rationale

Total Maximum Daily Loads for the

Tug Fork River Watershed, West Virginia

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Water Division

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I. Introduction

The Clean Water Act (CWA) and its implementing regulations at 40 CFR 130 require that a Total Maximum Daily Load (TMDL) be developed for those waterbodies identified as impaired by a state where technology-based effluent limits and other pollution controls do not provide for the attainment of water quality standards. A TMDL establishes a target for the total load of a particular pollutant that a water body can assimilate and divides that load into wasteload allocations (WLA), given to point sources, load allocations (LAs), given to nonpoint and natural background sources, and a margin of safety (MOS) which takes into account any uncertainty. Mathematically, a TMDL is commonly expressed as an equation, shown below.

$$TMDL = \sum WLAs + \sum LAs + MOS$$

This document sets forth the U.S. Environmental Protection Agency, Region III's (EPA's) rationale for approving the TMDLs submitted by WVDEP on March 1st, 2023 in the Tug Fork Watershed. This includes 238 TMDLs for iron, 7 TMDLs for net acidity (pH), 3 TMDLs for aluminum, 1 for manganese, 214 for fecal coliform, and 1 TMDL (fecal coliform) to address Dissolved Oxygen.[1] The TMDLs were developed to address impairments of water quality standards as identified on WV's Section 303(d) list of water quality-limited segments. WVDEP submitted the report, Total Maximum Daily Loads for the Tug Fork River Watershed, West Virginia (hereinafter referred to as the "TMDL Report"), to EPA for final review and action on March 1st, 2023. EPA's decision is based upon its administrative record, which includes the TMDL Report and information in supporting files provided to EPA by WVDEP. EPA has reviewed and determined that the TMDLs meet the requirements of Section 303(d) of the Clean Water Act and its implementing regulations at 40 CFR Part 130 including but not limited to:

1. TMDLs are designed to implement applicable water quality standards.
2. TMDLs include wasteload allocations and load allocations.
3. TMDLs consider natural background sources.
4. TMDLs consider critical conditions.
5. TMDLs consider seasonal variations.
6. TMDLs include a margin of safety.
7. TMDLs have been subject to public participation.

In addition, EPA has considered and finds acceptable the reasonable assurances set forth in the TMDL Report.

[1] EPA notes that WVDEP has not submitted TMDLs for every impaired waterbody segment within the Tug Fork watershed. The scope of EPA's action is limited to the TMDLs that have been submitted.

From this point forward, all references in this rationale can be found in WV's TMDL Public and Technical Report, and Total Maximum Daily Loads for the Tug Fork River Watershed, West Virginia, unless otherwise noted.

II. Watershed Background

Table 3-3 of the WV's TMDL report presents the waterbodies and impairments for which TMDLs have been developed in the Tug Fork River Watershed. West Virginia identified 328 impaired stream segments in the Tug Fork Watershed. Documented impairments are related to numeric water quality criteria for total iron, pH, aluminum, manganese, dissolved oxygen, and fecal coliform bacteria. In addition, as set forth below, some of the iron and fecal coliform TMDLs address the causes of biological impairment in certain waters in the Tug Fork River Watershed that were listed as biologically impaired based on the narrative water quality criteria of 47 CSR §2-3.2.i. TMDLs were established for some impairments identified during pre-TMDL monitoring, even though those impairments had not previously been identified on West Virginia's Section 303(d) list. In certain instances, pre-TMDL monitoring demonstrated lack of impairment. In the latter instance, the pre-TMDL monitoring may be used as a basis for removing a previously listed impairment from a future Section 303(d) list. Attachment 1 of this Decision Rationale presents the impaired waterbodies in the Tug Fork River Watershed for which TMDLs have been established.

As noted by WV's TMDL Report, the Tug Fork is a tributary of the Big Sandy River, located within the Central Appalachian ecoregion, which joins the Mississippi and flows to the Gulf of Mexico. The Tug Fork River watershed consists of land draining to the Tug Fork River, which begins at its headwaters raining Big Stone Ridge on the Virginia-West Virginia border near the community of Jenkinjones and flows northward to join the Big Sandy River in the City of Louisa, Kentucky. The Tug Fork River is approximately 159.3 miles (256.4 km) long from its headwaters to the Big Sandy River, and its watershed encompasses 1,555.3 square miles (4028.2 km^2). The watershed spans three states: Virginia, Kentucky, and West Virginia, with approximately 932 square miles falling within West Virginia.

The Tug Fork River watershed occupies all of West Virginia's McDowell County, most of Mingo County, as well as the southwestern corner of Wayne County, and a small sliver of Mercer County. West Virginia cities and towns in the study area are Fort Gay, Kermit, Williamson, Iaeger, and Welch. The highest point in the Tug Fork River watershed is 3,426 feet above sea level on Abbs Valley Ridge above the headwaters of Little Horsepen Creek, a tributary of Dry Fork in Virginia. The lowest point in the watershed is 545 feet at the confluence of the Tug Fork River and the Big Sandy River in the City of Louisa, Kentucky. The average elevation in the watershed is 1,512 feet. Major tributaries of the Tug Fork River in West Virginia include Pigeon Creek, Panther Creek, Dry Fork, Big Creek, and Elkhorn Creek. The total population living in the West Virginia subject watersheds of this report is estimated to be 45,000 people.

III. TMDL Overview

WVDEP developed 464 TMDLs for total iron, net acidity (pH), dissolved aluminum, manganese, and fecal coliform to address 328 stream segments in the Tug Fork River Watershed identified as impaired because they are not achieving West Virginia's numeric water quality criterion for those parameters. Section 10.0 presents the TMDLs as daily loads in pounds per day for total iron, dissolved aluminum, and manganese, average net acidity (pH) as pounds of calcium carbonate per day, and number of colonies in counts per day for fecal coliform bacteria. The TMDLs are provided in Attachment 2 below. All TMDLs are also represented in Microsoft Excel allocation spreadsheets which provide detailed source allocations and TMDL scenarios that are included with the TMDL report as additional technical documentation during public notice and provided to EPA when the TMDL report is submitted. These allocation spreadsheets also present the TMDLs as annual loads because they were developed to meet TMDL endpoints under a range of conditions observed throughout the year. A technical report was also included by West Virginia to describe the detailed technical approaches that were used during TMDL development and to display the data upon which the TMDLs were based. West Virginia provided an ArcGIS Viewer Project and ESRI StoryMap that explore the spatial relationships among the pollutant sources in the watershed.

The TMDL Report identifies TMDLs for total iron and/or fecal coliform to address the causes of biological impairment in 14 stream segments within the watershed. As described in Section 4.0, West Virginia utilized a stressor identification process to determine the primary causes of impairment in stream segments listed as biologically impaired within the Tug Fork River Watershed based on the narrative water quality criterion of 47 CSR 2–3.2.i.[2] Stressor identification entails reviewing available information, forming and analyzing possible stressor scenarios and implicating causative stressors associated with benthic macroinvertebrate community impact. The primary data set used for the stressor identification was generated through pre-TMDL monitoring (Technical Report, Appendix K). Stressor identification was followed by stream-specific determinations of the pollutants for which TMDLs must be developed to address biological impairment. If that analysis demonstrated that impacts on the benthic macroinvertebrate community were caused by exceedance of numeric water quality criteria for the aquatic life use and could be resolved through attainment of numeric water quality criteria, then TMDLs were developed for those numeric water quality criteria to address the biological impairment.

Table 4-1 lists the 14 stream segments where the stressor identification process demonstrated that biological impairment caused by sedimentation or organic enrichment stressors will be resolved through the attainment of total iron and/or the fecal coliform bacteria numeric water quality criteria. Statistical analyses using pre-TMDL monitoring data collected throughout the subject watersheds were performed to establish the correlation between iron loads and sediment loads. For the sediment impairments identified in the watershed, it was determined that the sediment reductions necessary to ensure the attainment of iron water-

[2] EPA notes that 47 CSR 2–3.2.e also may be applicable.

quality criteria exceed those that would be needed to resolve biological stress under a sediment "reference watershed" approach in the Tug Fork River Watershed. As such, iron TMDLs are acceptable surrogates for the sediment impairment in the watershed.[3]

Using fecal coliform as a surrogate to address organic enrichment impairments has been WVDEP's approach for many years. With number of TMDLs that have been established and presumably implemented, EPA encourages WVDEP to use post-TMDL monitoring data to evaluate the assumption that implementation of fecal coliform TMDLs removes sufficient sources of organic enrichment stress toresolve aquatic life impairments due to organic enrichment. Sections 5.0 through 8.0 discuss the metals (total iron, dissolved aluminum, manganese), pH, DO, and fecal coliform bacteria source assessments in the Tug Fork River Watershed, respectively. The technical report has expanded details of the source assessment in the Tug Fork River Watershed. The sources of metals and sediment in the watershed include mining permits, bond forfeiture sites, non-mining point sources for wastewater treatment plants, stormwater discharges associated with industrial, construction and Department of Highways activity and unpermitted sources of mine drainage from abandoned mine lands or legacy mines (AMLs); as well as sediment sources including forestry, oil and gas operations, roads, agriculture, streambank erosion, residential and urban landuses (non-Municipal Separate Storm Sewer Systems (MS4s)), and other land disturbance activities. As discussed above, WVDEP has demonstrated that the iron TMDLs are appropriate surrogates for biological impairments caused by sediment. Contributions to low pH impairments can occur from abandoned mine land, acid deposition, and low soil buffering capacity. All of these sources were modeled for the Tug Fork pH TMDL.

The fecal coliform bacteria sources in the watershed include publicly and privately owned treatment works (POTWs), combined sewer overflows (CSOs), Municipal Separate Storm Sewer Systems (MS4s), general sewage permits, unpermitted sources, including on-site treatment systems, direct discharges of untreated sewage, stormwater runoff, agriculture, and natural background (wildlife).

Computational Procedures

The Mining Data Analysis System (MDAS) was used to represent the source-response linkage in the Tug Fork Watershed TMDL for iron and sediment, aluminum, manganese, pH, dissolved oxygen, and fecal coliform bacteria. MDAS was developed to facilitate large scale, data intensive watershed modeling applications. The model is used to simulate watershed hydrology and pollutant transport based predominantly on land use and precipitation as well as stream

[3] For 83 biologically impaired streams, the stressor identification process did not indicate that TMDLs designed to achieve the numeric water quality criterion for fecal coliform or iron would resolve the biological impacts (Appendix K). West Virginia is deferring TMDL development for those 83 biological impairments and will retain those waters on the Section 303(d) list for future TMDL development. Because nothing requires simultaneous submission of all TMDLs for a watershed and because WVDEP has indicated that it is retaining these waters on the Section 303(d) list for future TMDL development, EPA considers WVDEP's explanation to be informational only and not part of WVDEP's submission of TMDLs for action by EPA.

hydraulics and instream water quality. MDAS is capable of simulating different flow regimes and pollutant variations. A key advantage of the MDAS development framework is that it has no inherent limitations in terms of modeling size or upper limit model operations. In addition, the MDAS model allows for seamless integration with WV data management systems. Section 9.0 of the TMDL Report discusses the modeling process.

Configuration of the MDAS model involved subdividing the TMDL watershed into subwatershed modeling units connected by stream reaches. The TMDL watershed was broken into 88 separate subwatershed units, based on the groupings of impaired streams shown in Figure 3-2 of the TMDL Report. The TMDL watershed was divided to allow for the evaluation of water quality and flow at pre-TMDL monitoring stations. The subdivision process also ensures a proper stream network configuration within the basin. The physical characteristics of the subwatersheds, weather data, land use information, continuous discharges, and stream data were used as input for the MDAS model. Flow and water quality were continuously simulated into the model on an hourly time-step.

The calibrated model provides the basis for performing the allocation analysis. The first step is to simulate baseline conditions, which represent existing nonpoint source loadings and point source loadings at permit limits. Baseline conditions allow for an evaluation of instream water quality under the highest expected loading conditions. The MDAS model was run for baseline conditions using hourly precipitation data for a representative six-year simulation period (January 1, 2013 through December 31, 2018). The precipitation experienced over this period was applied to the land uses and pollutant sources as they existed at the time of TMDL development. Predicted instream concentrations were compared directly with the TMDL endpoints. This comparison allowed for the evaluation of the magnitude and frequency of exceedances under a range of hydrologic and environmental conditions.

The MDAS model provided allocations for total iron, dissolved aluminum, manganese, pH, disolved oxygen and fecal coliform bacteria in the 328 impaired stream segments of the Tug Fork River Watershed. The TMDLs are shown in Section 10.0 and appendix M and are presented as daily loads, in pounds per day, pounds of calcium carbonate per day (for pH), or counts per day. EPA has determined that these TMDLs are consistent with statutory and regulatory requirements and EPA's policy and guidance. EPA's rationale for establishing these TMDLs is set forth according to the regulatory requirements listed below.

IV. Discussion of Regulatory Requirements

EPA has determined that the TMDL is consistent with statutory and regulatory requirements and EPA's policy and guidance. EPA's rational for approving the TMDL is set forth according to the regulatory requirements listed below.

1) TMDLs are designed to meet the applicable water quality standards.

EPA regulations at 40 CFR 130.7(c)(1) states that TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS for those pollutants for which TMDLs have been established. Water quality standards are state regulations that define the water quality goals of a waterbody. Water quality standards are comprised of three components: (1) designated uses, (2) criteria (numeric or narrative) necessary to protect those uses, and (3) antidegradation provisions that prevent the degradation of water quality.

The applicable numeric water quality criteria are discussed in Section 2.2 and shown in Table 2-1 of the TMDL Report, and Table 9-1 shows the TMDL endpoints used to attain water quality standards. Designated uses in the Tug Fork River Watershed include: propagation and maintenance of aquatic life in warmwater fisheries and trout waters, water contact recreation, and public water supply. In various streams in the Tug Fork River Watershed, warmwater fishery aquatic life use impairments have been determined pursuant to exceedances of numeric water quality criteria for total iron, dissolved aluminum, dissolved oxygen, and/or pH numeric water quality criteria. Water contact recreation and/or public water supply use impairments have also been determined in various waters pursuant to exceedances of numeric water quality criteria for fecal coliform bacteria, total iron, pH, and manganese, and dissolved oxygen.

Certain TMDLs submitted by West Virginia for iron and fecal coliform address 14 stream segments within the watershed identified as not meeting West Virginia's narrative water quality criteria as applied to aquatic life use. See Section III above for a discussion of the process that West Virginia followed to establish these TMDLs.

2) TMDLs include wasteload allocations and load allocations.

EPA regulations at 40 CFR §130.2(i) define total maximum daily load (TMDL) as the sum of the wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. The development of the WLAs and LAs is further discussed below.

Wasteload Allocations

According to federal regulations at 40 CFR §130.2(h), a WLA is the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. As described in section 9.6, WLA's were developed and assigned[4] for facilities permitted to discharge iron, aluminum, manganese, or fecal coliform bacteria.

Outlined in detail in the technical appendix allocation spreadsheets and described in section 7.0 of the TMDL report, fecal coliform waste load allocations were assigned to 10 POTWs

[4] The fact that the TMDL does not assign WLAs to any other sources in the watershed should not be construed as a determination by either EPA or WVDEP that there are no additional sources in the watershed that are subject to the NPDES program.

(including to Combined Sewer Overflow outfalls), seven mining bathhouses, 32 facilities registered under the "package plant" sewer general permit, and 64 facilities registered under the home aeration unit general permit. There are no MS4 communities in the Tug Fork River watershed. Iron allocations were assigned to 255 mining permits, 2205 reclamation outlets, 12 water treatment plant permits, 30 Multi Sector Stormwater general permit outlets for industrial discharges, 7 individual permit outlets, and 13 WVDOH permits. Subwatershed-based allocations are provided for disturbed area for 45 active construction sites registered under the Construction Stormwater General Permit and 2 sites registered under the Oil and Gas Construction Stormwater General Permit. Aluminum waste load allocations were assigned to 11 mining permits, and manganese waste load allocations were assigned to 7 mining permits.

Tables 10-1, 10-2, 10-3, and 10-4, and 10-5 of the TMDL Report provide the iron, pH, Aluminum, Manganese, and fecal coliform bacteria WLAs, respectively, for the Tug Fork River Watershed. Loads are divided into assessment units. EPA finds that the TMDLs include daily and annual WLAs.

WVDEP is authorized to administer the National Pollutant Discharge Elimination System (NPDES) Program, which, among other duties, includes issuing NPDES permits to existing or futures point sources subject to the NPDES program. The effluent limitations in any new or revised NPDES permits must be consistent with "the assumptions and requirements of any available [WLA]" in an approved TMDL pursuant to 40 CFR §122.44 (d)(1)(vii)(B). EPA has authority to object to the issuance of an NPDES permit that is inconsistent with the assumptions and requirements of WLAs established for that point source. It is expected that WVDEP will require periodic monitoring of the point source(s), through the NPDES permit process, to determine compliance with the TMDL's WLAs.

Load Allocations

According to federal regulations at 40 CFR §130.2(g), an LA is the portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. LA are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. This requirement is addressed in sections 5.2 for iron, aluminum, and manganese, section 6.0 for pH (net acidity), and section 7.2 for fecal coliform[5].

Total iron LAs were provided for the dominant nonpoint sources of iron in the watershed, including: abandoned mine lands, background loadings associated with undisturbed forests and grasslands, and sediment contributions from barren lands, harvested forest, oil and gas well

[5] EPA's approval of these TMDLs does not mean that EPA has determined there are no point sources within the land use categories that are assigned load allocations in the TMDL. EPA's review and approval of these TMDLs does not represent a determination whether some of the sources discussed in the TMDL report, under appropriate conditions, might be subject to the NPDES program.

operations, agricultural land uses, urban residential land uses, roads, and streambank erosion. Streambank erosion has been determined to be a significant sediment source across the watershed. Dissolved aluminum and manganese LAs were provided for dominant nonpoint sources of dissolved aluminum in the watershed, including: abandoned mine lands, background loadings associated with oil and gas wells, urban and residential roads, unpaved roads, and other land-disturbance activities.

Fecal coliform LAs were assigned to: pasture/cropland, on-site sewage systems including failing septic systems, residential loadings associated with urban/residential runoff from non-MS4 areas, and background loadings associated with wildlife sources. Discharges of sewage from the approximately 13,500 homes in the watershed that are not served by a centralized collection and treatment system and are within 100 meters of a stream are a significant nonpoint source of fecal coliform bacteria in the Tug Fork River Watershed.

Section 10 of the TMDL report (tables 10-1, 10-2, 10-3, 10-4, and 10-5) and the technical appendices provide the iron, pH, aluminum, manganese, and fecal coliform bacteria LA, respectively, for the Tug Fork River Watershed. Daily loads are based on the annual load divided by 365 days/year. Based on the foregoing, EPA finds that both annual and daily LAs included in the TMDL satisfy the regulations at 40 CFR Part 130.

3) TMDLs consider natural background sources.

According to Federal regulations at 40 CFR §130.2(g & i), natural background sources of pollutants are part of the LA and, wherever possible, natural and nonpoint source loads should be distinguished. The Tug Fork River Watershed TMDLs consider the impact of natural background pollutant contributions by evaluating loadings from background sources like undisturbed forest and grasslands and wildlife. MDAS also considers background pollutant contributions by modeling all land uses. Section 7.2.4 of the TMDL Report states that on the basis of the low fecal accumulation rates for forested areas, storm water sampling results, and model simulations, wildlife is not considered to be a significant nonpoint source of fecal coliform bacteria in the watershed. In addition, Sections 9.7.1, 9.7.2, 9.7.3, and 9.7.4 of the TMDL Report state that loading associated with undisturbed forest and grassland and wildlife sources are included in the LA. Based on the foregoing, EPA finds the TMDL accounts for natural background sources consistent with the regulations at 40 CFR §130.2(g & i).

4) TMDLs consider critical conditions.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to account for critical conditions for stream flow, loading, and water quality parameters. West Virginia's TMDL Report explains that a critical condition represents a scenario where water quality criteria are most susceptible to violation. Analysis of water quality data for the impaired streams addressed in the Tug Fork River Watershed shows high pollutant concentrations during both high- and low-flow thereby precluding selection of a single critical condition. Both high-flow and low-flow periods were taken into account during TMDL development by using a long period of weather data that

represented wet, dry, and average flow periods included in a representative six-year simulation period (January 1, 2013 through December 31, 2018). Figure 9-3 of the TMDL Report presents the range of precipitation conditions and the years that were used for TMDL development. The TMDL Report addresses this requirement in section 9.7.6. Based on the foregoing, EPA finds that the TMDL accounts for critical conditions consistent with the regulations at 40 CFR §130.7(c)(1).

5) TMDLs consider seasonal variations.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to consider seasonal variations. Seasonal variation was considered in the formulation of the modeling analysis. Continuous simulation (modeling over a period of several years that captured precipitation extremes) inherently considers seasonal hydrologic and source loading variability. The pollutant concentrations simulated on a daily time step by the model were compared with TMDL endpoints. Allocations that met these endpoints throughout the modeling period were developed. The TMDL Report addresses this requirement in section 9.7.5. Based on the foregoing, EPA finds the TMDL has been established at levels necessary to attain and maintain the applicable water quality standards with seasonal variations consistent with the regulations at 40 CFR §130.7(c)(1).

6) TMDLs include a margin of safety.

EPA regulations at 40 CFR §130.7(c)(1) require TMDLs to include a margin of safety (MOS). The MOS accounts for uncertainty about the relationship between pollutant loads and receiving water quality. It can be provided implicitly through analytical assumptions or explicitly by reserving a portion of loading capacity. In the Tug Fork River Watershed TMDLs, an explicit five percent MOS was included to counter uncertainty in the modeling process. Long-term water quality monitoring data were used for model calibration. Although these data represented actual conditions, they were not of a continuous time series and might not have captured the full range of instream conditions that occurred during the simulation period. Section 9.6.1 discusses the explicit MOS used in these TMDLs. Based on the foregoing, EPA finds that WVDEP has incorporated a MOS into the TMDL consistent with the regulations at 40 CFR §130.7(c)(1).

7) TMDLs have been subject to public participation.

EPA regulations at 40 CFR §130.7(c)(1)(ii) requires TMDLs to be subject to public review and the State implements a process for involving the public in development of TMDLs. This requirement is addressed in section 12.0 of the TMDL Report. The availability of draft TMDLs was advertised via email, social media, and news release. The notice was shared directly with interested stakeholders. Interested parties were invited to submit comments during the public comment period, which began on December 15, 2022 and ended on January 31, 2023. The electronic documents were also posted on the WVDEP's internet site at www.dep.wv.gov/tmdl. An ESRI StoryMap has been created to provide an overview of the TMDL at https://storymaps.arcgis.com/stories/4f0820b824254fb1a5ca172c6092a020. Based on the foregoing, EPA finds that the TMDL has been subject to WVDEP's public participation process.

V. Discussion of Reasonable Assurance

The CWA section 303(d) requires that a TMDL be "established at a level necessary to implement the applicable water quality standard." Documenting adequate reasonable assurance increases the probability that regulatory and voluntary mechanisms will be applied such that the pollution reduction levels specified in the TMDL are achieved and, therefore, applicable water quality standards are attained.

Where a TMDL is developed for waters impaired by both point and nonpoint sources, in EPA's best professional judgment, determinations of reasonable assurance that the TMDL's LAs will be achieved could include whether practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) are likely to be implemented. Where there is a demonstration that nonpoint source load reductions can and will be achieved, a TMDL writer can determine that reasonable assurance exists and, on the basis of that reasonable assurance, allocate greater loadings to point sources.

Reasonable assurance is addressed in section 13.0 of the TMDL Report. Based on the foregoing, EPA finds acceptable the reasonable assurances set forth in the TMDL Report. To the extent public comment states that the TMDL Report lacks implementation plans for the load allocations, although TMDLs should include reasonable assurance, neither CWA Section 303(d)(1)(C) nor 40 C.F.R. § 130.2(i) require that TMDLs include plans to implement the TMDL.

Attachment 1

Waterbodies and Impairments Addressed in the Tug Fork River Watershed TMDL (Provided in Table 3-3 in TMDL Report)

TMDL Watershed	AUID NHD Code	Stream Name	WV Code	Trout	DO	FC	Fe	Mn	pH	Al
Tug Fork	WV-BST_01	Tug Fork	WVBST			X				
Tug Fork	WV-BST_02	Tug Fork	WVBST			X	M			
Tug Fork	WV-BST_03	Tug Fork	WVBST			X				
Tug Fork	WV-BST_04	Tug Fork	WVBST			X	XRe			
Tug Fork	WV-BST_05	Tug Fork	WVBST			X	X			
Tug Fork	WV-BST_06	Tug Fork	WVBST			X	XRe			
Tug Fork	WV-BST_07	Tug Fork	WVBST			X	X			
Tug Fork	WV-BST_08	Tug Fork	WVBST			X	M			
Tug Fork	WV-BST_09	Tug Fork	WVBST			X	X			
Tug Fork	WV-BST_10	Tug Fork	WVBST			X	X			
Mill Creek	WV-BST-2_02	Mill Creek	WVBST-1			X	X			
Mill Creek	WV-BST-2_03	Mill Creek	WVBST-1			X	X			
Mill Creek	WV-BST-2-E_01	Paddle Creek	WVBST-1-A			X				
Mill Creek	WV-BST-2-S_01	Left Fork/Mill Creek	WVBST-1-E			X				
Mill Creek	WV-BST-2-S-6_01	Rush Branch	WVBST-1-E-3			X	X			
Mill Creek	WV-BST-2-T_01	Right Fork/Mill Creek	WVBST-1-D			X				
Mill Creek	WV-BST-2-T-5_01	Grassy Branch	WVBST-1-D-1				M			
Powdermill Branch	WV-BST-8_01	Powdermill Branch	WVBST-3			X	X			
Bull Branch	WV-BST-9_01	Bull Branch	WVBST-4				X			
Stone Branch	WV-BST-10_01	Stone Branch	WVBST-5			X	X			
Lost Creek	WV-BST-12_01	Lost Creek	WVBST-7			X				
Lost Creek	WV-BST-12_02	Lost Creek	WVBST-7			X				
Lost Creek	WV-BST-12-M_01	Right Fork/Lost Creek	WVBST-7-D			X				
Drag Creek	WV-BST-16_01	Drag Creek	WVBST-10			X	X			

Drag Creek	WV-BST-16-C_01	Painter Branch	WVBST-10-0.5A			X				
Camp Creek	WV-BST-18_01	Camp Creek	WVBST-12			X				
Peters Branch	WV-BST-19_01	Peters Branch	WVBST-13			X				
Bull Creek	WV-BST-21_01	Bull Creek	WVBST-14			X				
Bull Creek	WV-BST-21_02	Bull Creek	WVBST-14			X	M			
Bull Creek	WV-BST-21-E_01	Right Fork/Bull Creek	WVBST-14-B			X				
Lick Branch	WV-BST-24_01	Lick Branch	WVBST-15			X	X			
Silver Creek	WV-BST-25_01	Silver Creek	WVBST-16			X				
Jennie Creek	WV-BST-26_01	Jennie Creek	WVBST-17			X	M			
Jennie Creek	WV-BST-26_02	Jennie Creek	WVBST-17			X	X			
Jennie Creek	WV-BST-26_03	Jennie Creek	WVBST-17			X	M			
Jennie Creek	WV-BST-26-M_01	Upper Honey Branch	WVBST-17-F				M			
Stonecoal Creek	WV-BST-27_01	Stonecoal Creek	WVBST-18			X	X			
Marrowbone Creek	WV-BST-29_02	Marrowbone Creek	WVBST-19			X	M			
Marrowbone Creek	WV-BST-29_03	Marrowbone Creek	WVBST-19			X	M			
Marrowbone Creek	WV-BST-29-A_01	Vinson Branch	WVBST-19-A				M			
Marrowbone Creek	WV-BST-29-C_01	Left Fork/Marrowbone Creek	WVBST-19-B				M			
Marrowbone Creek	WV-BST-29-J_01	Neely Branch	WVBST-19-F				M			
Marrowbone Creek	WV-BST-29-M_01	Laurel Branch	WVBST-19-I			X				
Marrowbone Creek	WV-BST-29-O_01	Antley Branch	WVBST-19-J			X				
Upper Burning Creek	WV-BST-32_01	Upper Burning Creek	WVBST-22				M			
Parsley Big Branch	WV-BST-33_01	Parsley Big Branch	WVBST-23			X	M			
Pigeon Creek	WV-BST-35_01	Pigeon Creek	WVBST-24				M			
Pigeon Creek	WV-BST-35_02	Pigeon Creek	WVBST-24				M			
Pigeon Creek	WV-BST-35_03	Pigeon Creek	WVBST-24			X	XRe			
Pigeon Creek	WV-BST-35_04	Pigeon Creek	WVBST-24			X	XRe			
Pigeon Creek	WV-BST-35_05	Pigeon Creek	WVBST-24				M			
Pigeon Creek	WV-BST-35_06	Pigeon Creek	WVBST-24			X	X			
Pigeon Creek	WV-BST-35-E_01	Big Branch	WVBST-24-B			X	M			
Pigeon Creek	WV-BST-35-J_01	Mill Branch	WVBST-24-D			X				

Pigeon Creek	WV-BST-35-K_02	Laurel Fork/Pigeon Creek	WVBST-24-E			X	M			
Pigeon Creek	WV-BST-35-K_03	Laurel Fork/Pigeon Creek	WVBST-24-E			X				
Pigeon Creek	WV-BST-35-K_04	Laurel Fork/Pigeon Creek	WVBST-24-E			X	M			
Pigeon Creek	WV-BST-35-K-1_01	Right Fork/Laurel Fork/Pigeon Creek	WVBST-24-E-1			X	M			
Pigeon Creek	WV-BST-35-K-1_02	Right Fork/Laurel Fork/Pigeon Creek	WVBST-24-E-1			X				
Pigeon Creek	WV-BST-35-K-1-F_01	Buck Branch	WVBST-24-E-1-B				M			
Pigeon Creek	WV-BST-35-K-1-H_01	Bubby Branch	WVBST-24-E-1-D				M			
Pigeon Creek	WV-BST-35-K-3_01	Spruce Fork	WVBST-24-E-2			X	M			
Pigeon Creek	WV-BST-35-K-3-A_01	Left Fork/Spruce Fork	WVBST-24-E-2-A				M			
Pigeon Creek	WV-BST-35-K-7_01	Rockhouse Branch	WVBST-24-E-5				M			
Pigeon Creek	WV-BST-35-K-10_01	Paw Paw Branch	WVBST-24-E-7				M			
Pigeon Creek	WV-BST-35-K-11_01	UNT/Laurel Fork RM 9.61	WVBST-24-E-7.3				M			
Pigeon Creek	WV-BST-35-K-16_01	Panther Branch	WVBST-24-E-8				M			
Pigeon Creek	WV-BST-35-M_01	Oldhouse Branch	WVBST-24-F.5			X				
Pigeon Creek	WV-BST-35-O_01	UNT/Pigeon Creek RM 6.72 (White Branch)	WVBST-24-G			X				
Pigeon Creek	WV-BST-35-P_01	Hensley Big Branch	WVBST-24-H			X				
Pigeon Creek	WV-BST-35-R_01	Ruth Trace Branch	WVBST-24-J			X				
Pigeon Creek	WV-BST-35-S_02	Trace Fork	WVBST-24-K				M			
Pigeon Creek	WV-BST-35-S_03	Trace Fork	WVBST-24-K			X	M			
Pigeon Creek	WV-BST-35-S-8_01	Riffe Branch	WVBST-24-K-2			X				
Pigeon Creek	WV-BST-35-S-10_01	Right Fork/Trace Fork	WVBST-24-K-4			X	M			
Pigeon Creek	WV-BST-35-S-10-B_01	Left Fork/Right Fork/Trace Fork	WVBST-24-K-4-A			X				
Pigeon Creek	WV-BST-35-S-13_01	Dingess Camp Branch	WVBST-24-K-7			X				
Pigeon Creek	WV-BST-35-S-15_01	Simmons Fork	WVBST-24-K-8			X				
Pigeon Creek	WV-BST-35-T_01	Conley Branch	WVBST-24-L			X				

Pigeon Creek	WV-BST-35-V_01	Hell Creek	WVBST-24-M			X				
Pigeon Creek	WV-BST-35-Z_02	Elk Creek	WVBST-24-N			X	M			
Pigeon Creek	WV-BST-35-Z-6_01	Fivemile Creek	WVBST-24-N-2			X				
Pigeon Creek	WV-BST-35-Z-9_01	Middle Fork/Elk Creek	WVBST-24-N-5			X				
Pigeon Creek	WV-BST-35-Z-10_01	Left Fork/Elk Creek	WVBST-24-N-4				M			
Pigeon Creek	WV-BST-35-AA_01	Millstone Branch	WVBST-24-O			X	XRe			
Pigeon Creek	WV-BST-35-AC_01	Pigeonroost Creek	WVBST-24-P			X				
Pigeon Creek	WV-BST-35-AF_01	Rockhouse Fork	WVBST-24-Q				M			
Pigeon Creek	WV-BST-35-AF_03	Rockhouse Fork	WVBST-24-Q			X	M			
Pigeon Creek	WV-BST-35-AF-4_01	Upper Curry Branch	WVBST-24-Q-4				M			
Pigeon Creek	WV-BST-35-AF-6_01	South Branch/Rockhouse Fork	WVBST-24-Q-5			X				
Pigeon Creek	WV-BST-35-AF-7_01	Big Pigeonroost Branch	WVBST-24-Q-6			X	X			
Pigeon Creek	WV-BST-35-AF-11_01	Spring Branch	WVBST-24-Q-7				M			
Pigeon Creek	WV-BST-35-AG_01	Stonecoal Branch	WVBST-24-Q.5			X				
Pigeon Creek	WV-BST-35-AM_01	UNT/Pigeon Creek RM 20.01	WVBST-24-S.3				M		X	
Pigeon Creek	WV-BST-35-AS_01	Oldfield Branch	WVBST-24-T			X	X			
Pigeon Creek	WV-BST-35-AT_01	Bird Branch	WVBST-24-U			X				
Pigeon Creek	WV-BST-35-AX_01	Meador Branch	WVBST-24-W			X				
Pigeon Creek	WV-BST-35-BA_01	Rover Branch	WVBST-24-Z			X				
Pigeon Creek	WV-BST-35-BB_01	Slick Rock Branch	WVBST-24-AA			X				
Pigeon Creek	WV-BST-35-BC_01	Little Muncy Branch	WVBST-24-BB			X				
Pigeon Creek	WV-BST-35-BE_01	Grant Branch	WVBST-24-DD				X			
Pigeon Creek	WV-BST-35-BG_01	Thacker Fork	WVBST-24-FF				M			
Road Branch	WV-BST-38_01	Road Branch	WVBST-26				X			
Miller Creek	WV-BST-39_01	Miller Creek	WVBST-27				M			
Miller Creek	WV-BST-39_02	Miller Creek	WVBST-27				X			
Dans Branch	WV-BST-43_01	Dans Branch	WVBST-29			X	X			
Buffalo Creek	WV-BST-45_01	Buffalo Creek	WVBST-31			X	M			

Buffalo Creek	WV-BST-45-B_01	South Fork/Buffalo Creek	WVBST-31-B			X				
Sugartree Creek	WV-BST-46_01	Sugartree Creek	WVBST-32			X	XRe			
Williamson Creek	WV-BST-47_01	Williamson Creek	WVBST-33			X	XRe			
Sycamore Creek	WV-BST-48_01	Sycamore Creek	WVBST-34			X	M			
Lick Creek	WV-BST-49_01	Lick Creek	WVBST-35			X	X			
Lick Creek	WV-BST-49-C_01	UNT/Lick Creek RM 2.14					M			
Dick Williamson Branch	WV-BST-50_01	Dick Williamson Branch	WVBST-36			X	M			
Sprouse Creek	WV-BST-54_01	Sprouse Creek	WVBST-38				XRe			
Ferrell Branch	WV-BST-55_01	Ferrell Branch	WVBST-39				M			
Ferrell Branch	WV-BST-55-B_01	UNT/Ferrell Branch RM 0.83	WVBST-39-B				X			
Mate Creek	WV-BST-57_01	Mate Creek	WVBST-40				M			
Mate Creek	WV-BST-57_02	Mate Creek	WVBST-40			X	M			
Mate Creek	WV-BST-57_03	Mate Creek	WVBST-40			X	M			
Mate Creek	WV-BST-57-B_01	Rutherford Branch	WVBST-40-B			X	XRe			
Mate Creek	WV-BST-57-D_01	Mitchell Branch	WVBST-40-C			X	X			
Mate Creek	WV-BST-57-G_01	Chafin Branch	WVBST-40-D				XRe			
Mate Creek	WV-BST-57-K_01	Double Camp Fork	WVBST-40-H			X	M			
Mate Creek	WV-BST-57-K-1_01	UNT/Double Camp Fork RM 1.36					M			
Mate Creek	WV-BST-57-L_01	Straight Fork	WVBST-40-I				M			
Sulphur Creek	WV-BST-58_01	Sulphur Creek	WVBST-41			X	M			
Thacker Creek	WV-BST-61_01	Thacker Creek	WVBST-42				XRe	X	X	X
Thacker Creek	WV-BST-61-A_01	Scissorsville Branch	WVBST-42-A				XRe			
Thacker Creek	WV-BST-61-B_01	Mauchlinville Branch	WVBST-42-B				X			
Grapevine Creek	WV-BST-62_01	Grapevine Creek	WVBST-43				X			
Grapevine Creek	WV-BST-62-A_01	Lick Fork	WVBST-43-A				XRe			
Grapevine Creek	WV-BST-62-B_01	Wolfpen Fork	WVBST-43-B				M			
Grapevine Creek	WV-BST-62-C_01	Millseat Branch	WVBST-43-B.5				X			
Sand Branch	WV-BST-64_01	Sand Branch	WVBST-44				X			
Beech Creek	WV-BST-67_02	Beech Creek	WVBST-46			X				

Beech Creek	WV-BST-67-D_01	Grapevine Fork	WVBST-46-B			X	M			
Beech Creek	WV-BST-67-D-1_01	UNT/Grapevine Fork RM 0.22	WVBST-46-B-1			X	M			
Tug Fork	WV-BST-70_01	Laurel Branch	WVBST-49				M			
Alum Creek	WV-BST-72_01	Alum Creek	WVBST-50			X				
Ben Creek	WV-BST-74_01	Ben Creek	WVBST-52			X	M			
Ben Creek	WV-BST-74_02	Ben Creek	WVBST-52			X	M			
Ben Creek	WV-BST-74_03	Ben Creek	WVBST-52			X	X			
Ben Creek	WV-BST-74-D_01	Left Fork/Ben Creek	WVBST-52-B				M			
Ben Creek	WV-BST-74-D_02	Left Fork/Ben Creek	WVBST-52-B			X				
Ben Creek	WV-BST-74-L_01	White Oak Hollow	WVBST-52-G.5			X	M			
Turkey Creek	WV-BST-77_01	Turkey Creek	WVBST-55			X				
Fourpole Creek	WV-BST-78_01	Fourpole Creek	WVBST-56			X	M			
Fourpole Creek	WV-BST-78-B_01	UNT/Fourpole Creek RM 2.87	WVBST-56-A.4			X				
Bull Creek	WV-BST-79_01	Bull Creek	WVBST-57			X	X			
Bull Creek	WV-BST-79_02	Bull Creek	WVBST-57			X				
Bull Creek	WV-BST-79-D_01	Left Fork/Bull Creek	WVBST-57-B			X	X			
Bull Creek	WV-BST-79-J_01	UNT/Bull Creek RM 4.71	WVBST-57-G			X				
Mohawk Branch	WV-BST-80_01	Mohawk Branch	WVBST-58				M		M	M
Longpole Creek	WV-BST-81_02	Longpole Creek	WVBST-59			X				
Longpole Creek	WV-BST-81-J_01	Panther Fork	WVBST-59-B				M			
Panther Creek	WV-BST-83_03	Panther Creek	WVBST-60				XRe			
Panther Creek	WV-BST-83_04	Panther Creek	WVBST-60			X	XRe			
Panther Creek	WV-BST-83-A_01	Greenbrier Fork	WVBST-60-A			X				
Panther Creek	WV-BST-83-B_01	Trap Fork	WVBST-60-B			X				
Panther Creek	WV-BST-83-C_01	Trace Fork	WVBST-60-C			X				
Panther Creek	WV-BST-83-E_01	Cub Branch	WVBST-60-D				XRe			
Panther Creek	WV-BST-83-I_01	Hurricane Branch	WVBST-60-G				M			
Panther Creek	WV-BST-83-P_01	Meathouse Fork	WVBST-60-H				M			
Horse Creek	WV-BST-88_01	Horse Creek	WVBST-63			X	M			

Horse Creek	WV-BST-88-D_01	UNT/Horse Creek RM 1.52					M			
War Branch	WV-BST-91_01	War Branch	WVBST-65			X	X			
Negro Branch	WV-BST-93_01	Negro Branch	WVBST-66			X				
Tug Fork	WV-BST-95_01	Rock Branch	WVBST-68				M			
Johnnycake Branch	WV-BST-96_01	Johnnycake Branch	WVBST-69			X				
Johnnycake Branch	WV-BST-96-C_01	UNT/Johnnycake Branch RM 1.76	WVBST-69-C			X	M			
Dry Fork	WV-BST-98_03	Dry Fork	WVBST-70	RM 31.1 to HW (Abv Canebrake)			M			
Dry Fork	WV-BST-98_04	Dry Fork	WVBST-70			X	M			
Dry Fork	WV-BST-98_05	Dry Fork	WVBST-70			X				
Dry Fork	WV-BST-98_06	Dry Fork	WVBST-70			X				
Dry Fork	WV-BST-98_07	Dry Fork	WVBST-70			X				
Dry Fork	WV-BST-98-A_01	Coon Branch	WVBST-70-A			X	X			
Dry Fork	WV-BST-98-H_01	Mile Branch	WVBST-70-C			X	M		M	
Dry Fork	WV-BST-98-H-2_01	UNT/Mile Branch RM 0.98	WVBST-70-C-2						M	M
Dry Fork	WV-BST-98-H-2-A_01	UNT/UNT RM 0.34/Mile Branch RM 0.98	WVBST-70-C-2-A						M	
Dry Fork	WV-BST-98-J_01	Crane Creek	WVBST-70-D			X				
Dry Fork	WV-BST-98-K_01	Betsy Branch	WVBST-70-E			X				
Dry Fork	WV-BST-98-L_01	Grapevine Branch	WVBST-70-F			X	X			
Dry Fork	WV-BST-98-O_01	Beartown Branch	WVBST-70-I			X	XRe			
Dry Fork	WV-BST-98-V_01	Oozley Branch	WVBST-70-L			X				
Dry Fork	WV-BST-98-W_01	Bradshaw Creek	WVBST-70-M			X				
Dry Fork	WV-BST-98-W_03	Bradshaw Creek	WVBST-70-M			X				
Dry Fork	WV-BST-98-W-6_01	Groundhog Branch	WVBST-70-M-1			X	M			
Dry Fork	WV-BST-98-W-8_01	Hite Fork	WVBST-70-M-2			X	X			
Dry Fork	WV-BST-98-W-8-A_01	Middle Fork/Hite Fork	WVBST-70-M-2-A				M			

Dry Fork	WV-BST-98-W-8-B_01	Dry Monday Branch	WVBST-70-M-2-B				M			
Dry Fork	WV-BST-98-W-10_01	Wolfpen Branch	WVBST-70-M-3			X	M			
Dry Fork	WV-BST-98-Z_01	Little Slate Creek	WVBST-70-N				M			
Dry Fork	WV-BST-98-Z_02	Little Slate Creek	WVBST-70-N			X				
Dry Fork	WV-BST-98-Z_03	Little Slate Creek	WVBST-70-N		X	X	M			
Dry Fork	WV-BST-98-Z-6_01	Right Fork/Little Slate Creek	WVBST-70-N-1				M			
Dry Fork	WV-BST-98-Z-13_01	Mudlick Branch	WVBST-70-N-2				M			
Dry Fork	WV-BST-98-AD_01	Atwell Branch	WVBST-70-O			X	XRe			
Dry Fork	WV-BST-98-AE_01	Johnnycake Hollow	WVBST-70-P			X				
Dry Fork	WV-BST-98-AF_01	Bartley Creek	WVBST-70-Q			X				
Dry Fork	WV-BST-98-AP_01	Pruett Branch	WVBST-70-S			X	M			
Dry Fork	WV-BST-98-AQ_01	Barrenshe Creek	WVBST-70-T				M			
Dry Fork	WV-BST-98-AQ_02	Barrenshe Creek	WVBST-70-T			X				
Dry Fork	WV-BST-98-AQ-5_01	Clear Fork Branch	WVBST-70-T-2			X	M			
Dry Fork	WV-BST-98-AT_02	War Creek	WVBST-70-U			X				
Dry Fork	WV-BST-98-AT-10_01	Big Branch	WVBST-70-U-1				M			
Dry Fork	WV-BST-98-AT-10-F_01	UNT/Big Branch RM 1.28	WVBST-70-U-1-F				M			
Dry Fork	WV-BST-98-AW_01	Jacobs Fork	WVBST-70-W			X				
Dry Fork	WV-BST-98-AW_03	Jacobs Fork	WVBST-70-W			X	M			
Dry Fork	WV-BST-98-AW_04	Jacobs Fork	WVBST-70-W			X	M			
Dry Fork	WV-BST-98-AW_05	Jacobs Fork	WVBST-70-W			X				
Dry Fork	WV-BST-98-AW-3_03	Big Creek	WVBST-70-W-1			X				
Dry Fork	WV-BST-98-AW-3-E_01	UNT/Big Creek RM 1.98	WVBST-70-W-1- 0.7A				M			
Dry Fork	WV-BST-98-AW-3-F_01	Mountain Fork	WVBST-70-W-1-A				M			
Dry Fork	WV-BST-98-AW-3-Z_01	Middle Fork/Big Creek	WVBST-70-W-1-G				M			

Dry Fork	WV-BST-98-AW-10_01	Cucumber Creek	WVBST-70-W-5			X				
Dry Fork	WV-BST-98-AW-24_02	Horsepen Creek	WVBST-70-W-6			X				
Dry Fork	WV-BST-98-AW-24-C_01	UNT/Horsepen Creek RM 1.48	WVBST-70-W-6- 0.5A			X	X			
Dry Fork	WV-BST-98-AW-24-K_01	Low Gap Branch	WVBST-70-W-6-B				M			
Dry Fork	WV-BST-98-BO_03	Beech Fork	WVBST-70-AA				M			
Dry Fork	WV-BST-98-BO-1_01	31 Hollow (Right Fork/Beech Fork)	WVBST-70-AA-1				M			
Lick Branch	WV-BST-100_01	Lick Branch	WVBST-71			X	M			
Tug Fork	WV-BST-101_01	Harman Branch	WVBST-72				M			
Sandy Huff Branch	WV-BST-102_01	Sandy Huff Branch	WVBST-73			X				
Snipe Branch	WV-BST-104_01	Snipe Branch	WVBST-75			X				
Clear Fork	WV-BST-106_01	Clear Fork	WVBST-76			X	XRe			
Clear Fork	WV-BST-106_02	Clear Fork	WVBST-76			X	XRe			
Clear Fork	WV-BST-106_03	Clear Fork	WVBST-76			X	X			
Clear Fork	WV-BST-106-M_01	Crane Trace Branch	WVBST-76-C				M			
Clear Fork	WV-BST-106-Q_01	Daycamp Branch	WVBST-76-E				M			
Clear Fork	WV-BST-106-Y_01	Wolfpen Branch	WVBST-76-I			X				
River Laurel Branch	WV-BST-108_01	River Laurel Branch	WVBST-77			X				
Spice Creek	WV-BST-109_01	Spice Creek	WVBST-78			X	M			
Spice Creek	WV-BST-109_02	Spice Creek	WVBST-78			X	X			
Spice Creek	WV-BST-109-A_01	Shabbyroom Branch	WVBST-78-B			X	XRe			
Spice Creek	WV-BST-109-G_01	Honeycamp Branch	WVBST-78-D				XRe			
Spice Creek	WV-BST-109-H_01	Coontree Branch	WVBST-78-E			X	XRe			
Spice Creek	WV-BST-109-I_01	Stonecoal Branch	WVBST-78-F				XRe			
Spice Creek	WV-BST-109-J_01	Badway Branch	WVBST-78-G			X	XRe			
Spice Creek	WV-BST-109-L_01	Newson Branch	WVBST-78-H			X	X			
Spice Creek	WV-BST-109-M_01	Moorecamp Branch	WVBST-78-I			X	XRe			
Lower Hensley Creek	WV-BST-115_01	Lower Hensley Creek	WVBST-79			X				
Hensley Creek	WV-BST-116_01	Hensley Creek	WVBST-80			X				

Tug Fork	WV-BST-121_01	Twin Branch	WVBST-84				M			
Davy Branch	WV-BST-123_01	Davy Branch	WVBST-85			X	M			
Davy Branch	WV-BST-123-A_01	Left Fork/Davy Branch	WVBST-85-A			X	XRe			
Davy Branch	WV-BST-123-G_01	UNT/Davy Branch RM 3.28	WVBST-85-G			X	X			
Jenny Branch	WV-BST-125_01	Jenny Branch	WVBST-87			X				
Shannon Branch	WV-BST-132_01	Shannon Branch	WVBST-94			X	X			
Upper Shannon Branch	WV-BST-133_01	Upper Shannon Branch	WVBST-95			X	XRe			
Browns Creek	WV-BST-137_01	Browns Creek	WVBST-98			X				
Browns Creek	WV-BST-137_02	Browns Creek	WVBST-98			X	M			
Browns Creek	WV-BST-137-D_01	Puncheoncamp Branch	WVBST-98-A			X	XRe			
Browns Creek	WV-BST-137-H_01	Trail Fork	WVBST-98-B			X	X			
Elkhorn Creek	WV-BST-138_01	Elkhorn Creek	WVBST-99	ENTIRE		X	X			
Elkhorn Creek	WV-BST-138_03	Elkhorn Creek	WVBST-99	ENTIRE		X	M			
Elkhorn Creek	WV-BST-138_04	Elkhorn Creek	WVBST-99	ENTIRE		X	X			
Elkhorn Creek	WV-BST-138_05	Elkhorn Creek	WVBST-99	ENTIRE		X	X			
Elkhorn Creek	WV-BST-138-E_01	Mill Creek	WVBST-99-A				M			
Elkhorn Creek	WV-BST-138-O_01	Laurel Branch	WVBST-99-E			X	X			
Elkhorn Creek	WV-BST-138-P_01	Rockhouse Branch	WVBST-99-F				X			
Elkhorn Creek	WV-BST-138-Q_01	Bottom Creek	WVBST-99-G			X	X			
Elkhorn Creek	WV-BST-138-Q-3_01	UNT/Bottom Creek RM 2.88					M			
Elkhorn Creek	WV-BST-138-V_01	Coalbank Branch	WVBST-99-I			X	X			
Elkhorn Creek	WV-BST-138-V-2_01	UNT/Coalbank Branch RM 0.58	WVBST-99-I-0.6				X			
Elkhorn Creek	WV-BST-138-V-3_01	UNT/Coalbank Branch RM 0.82	WVBST-99-I-0.7			X	X			
Elkhorn Creek	WV-BST-138-V-4_01	Dans Branch	WVBST-99-I-1				M			
Elkhorn Creek	WV-BST-138-V-5_01	UNT/Coalbank Branch RM 1.43	WVBST-99-I-2			X	X			
Elkhorn Creek	WV-BST-138-X_01	Burk Creek	WVBST-99-K				M			
Elkhorn Creek	WV-BST-138-X-1_01	UNT/Burk Creek RM 0.72					M			

Elkhorn Creek	WV-BST-138-Z_01	North Fork/Elkhorn Creek	WVBST-99-L			X	M			
Elkhorn Creek	WV-BST-138-Z_03	North Fork/Elkhorn Creek	WVBST-99-L			X				
Elkhorn Creek	WV-BST-138-Z-1_01	Buzzard Branch	WVBST-99-L-1				M			
Elkhorn Creek	WV-BST-138-Z-3_01	Bearwallow Branch	WVBST-99-L-2			X	M			
Elkhorn Creek	WV-BST-138-Z-5_01	Greenbrier Hollow (Leftwich Branch)	WVBST-99-L-3			X				
Elkhorn Creek	WV-BST-138-Z-6_01	Windmill Gap Branch	WVBST-99-L-4			X				
Elkhorn Creek	WV-BST-138-AJ_01	UNT/Elkhorn Creek RM 20.15	WVBST-99-O.7			X	X			
Elkhorn Creek	WV-BST-138-AH_01	Johns Knob Branch	WVBST-99-O				M			
Elkhorn Creek	WV-BST-138-AM_01	Angle Hollow	WVBST-99-Q				M			
Elkhorn Creek	WV-BST-138-AM-1_01	Little Fork	WVBST-99-Q-1				M			
Little Indian Creek	WV-BST-139_01	Little Indian Creek	WVBST-100			X	XRe			
Jed Branch	WV-BST-142_01	Jed Branch	WVBST-102				XRe			
Rock Narrows Branch	WV-BST-143_01	Rock Narrows Branch	WVBST-103				XRe			
Harris Branch	WV-BST-144_01	Harris Branch	WVBST-104				X			
Mitchell Branch	WV-BST-146_01	Mitchell Branch	WVBST-105			X	XRe			
Sugarcamp Branch	WV-BST-147_01	Sugarcamp Branch	WVBST-106				XRe			
Grapevine Branch	WV-BST-149_01	Grapevine Branch	WVBST-107				X			
Tug Fork	WV-BST-150_01	Mill Creek	WVBST-108				M			
Sandlick Creek	WV-BST-152_01	Sandlick Creek	WVBST-109				XRe			
Sandlick Creek	WV-BST-152_02	Sandlick Creek	WVBST-109			X	XRe			
Sandlick Creek	WV-BST-152-A_01	Right Fork/Sandlick Creek	WVBST-109-A			X	XRe			
Sandlick Creek	WV-BST-152-B_01	UNT/Sandlick Creek RM 1.61					M			
Sandlick Creek	WV-BST-152-C_01	Left Fork/Sandlick Creek	WVBST-109-B				XRe			
Sandlick Creek	WV-BST-152-C-3_01	UNT/Left Fork RM 0.89/Sandlick Creek	WVBST-109-B-3				X			

Sandlick Creek	WV-BST-152-C-3-A_01	UNT/UNT RM 0.01/Left Fork RM 0.89/Sandlick Creek	WVBST-109-B-3-A						X	
Sandlick Creek	WV-BST-152-E_01	UNT/Sandlick Creek RM 3.00	WVBST-109-D			X				
Adkin Branch	WV-BST-153_01	Adkin Branch	WVBST-110				XRe			
Belcher Branch	WV-BST-154_01	Belcher Branch	WVBST-111				XRe			
Turnhole Branch	WV-BST-155_01	Turnhole Branch	WVBST-112				XRe			
Harmon Branch	WV-BST-156_01	Harmon Branch	WVBST-113				XRe			
Leslie Branch	WV-BST-157_01	Leslie Branch	WVBST-114			X	X			
South Fork/Tug Fork	WV-BST-163_01	South Fork/Tug Fork	WVBST-115			X	X			
South Fork/Tug Fork	WV-BST-163_02	South Fork/Tug Fork	WVBST-115				XRe			
South Fork/Tug Fork	WV-BST-163_03	South Fork/Tug Fork	WVBST-115			X	XRe			
South Fork/Tug Fork	WV-BST-163-B_01	Tea Branch	WVBST-115-A			X	XRe			
South Fork/Tug Fork	WV-BST-163-D_01	McClure Branch	WVBST-115-B				XRe			
South Fork/Tug Fork	WV-BST-163-E_01	Milam Branch	WVBST-115-C				M			
South Fork/Tug Fork	WV-BST-163-F_01	Jump Branch	WVBST-115-D			X	XRe			
South Fork/Tug Fork	WV-BST-163-G_01	Spice Creek	WVBST-115-E				XRe			
South Fork/Tug Fork	WV-BST-163-J_01	Laurel Branch	WVBST-115-F			X	XRe			
South Fork/Tug Fork	WV-BST-163-K_01	Road Fork	WVBST-115-G				X			
South Fork/Tug Fork	WV-BST-163-M-1_01	UNT/UNT RM 0.04/South Fork RM 5.46/Tug Fork	WVBST-115-I-1				X			
South Fork/Tug Fork	WV-BST-163-N_01	UNT/South Fork RM 5.85/Tug Fork	WVBST-115-J			X				
South Fork/Tug Fork	WV-BST-163-N-1_01	UNT/UNT RM 0.15/South Fork RM 5.85/Tug Fork	WVBST-115-J-1				X			
UNT/Tug Fork RM 148.42	WV-BST-164_01	UNT/Tug Fork RM 148.42	WVBST-115.2			X				
Belcher Branch	WV-BST-166_01	Belcher Branch	WVBST-116				XRe			

Loop Branch	WV-BST-168_01	Loop Branch	WVBST-117			X	X			
Mill Branch	WV-BST-170_01	Mill Branch	WVBST-118				XRe			
UNT/Tug Fork RM 152.09	WV-BST-172_01	UNT/Tug Fork RM 152.09	WVBST-118.7			X				
Dry Branch	WV-BST-173_01	Dry Branch	WVBST-119				XRe			
Little Creek	WV-BST-174_01	Little Creek	WVBST-120			X	XRe			
Little Creek	WV-BST-174-B_01	Indian Grave Branch	WVBST-120-A			X	X			
Little Creek	WV-BST-174-C_01	Puncheoncamp Branch	WVBST-120-B			X	XRe			
UNT/Little Creek RM 2.34	WV-BST-174-E_01	UNT/Little Creek RM 2.34					M			
UNT/Tug Fork RM 154.02	WV-BST-176_01	UNT/Tug Fork RM 154.02	WVBST-120.3			X				
Millseat Branch	WV-BST-178_01	Millseat Branch	WVBST-121			X	XRe			
Ballard Harmon Branch	WV-BST-179_01	Ballard Harmon Branch	WVBST-122			X	XRe			
Sams Branch	WV-BST-181_01	Sams Branch	WVBST-123			X	XRe			

Note:
RM river mile
UNT unnamed tributary
Al aluminum impairment
DO dissolved oxygen impairment
FC fecal coliform bacteria impairment
Fe iron impairment
Mn manganese impairment
pH acidity impairment
M impairment determined via modeling
X impairment determined via sampling
X-Re re-do of previous TMDL

Attachment 2

Individual TMDLs in the Tug Fork River Watershed TMDL (Provided in Section 10 of the TMDL Report)

1.0 Iron TMDLs

TMDL Watershed	AUID Stream Code	Stream Name	WV Code	Load Allocation (lbs/day)	Wasteload Allocation (lbs/day)	Margin of Safety (lbs/day)	Iron TMDL (lbs/day)
Tug Fork	WV-BST_02	Tug Fork	WVBST	7.99	5.52	0.71	14.22
Tug Fork	WV-BST_04	Tug Fork	WVBST	62.02	171.34	12.28	245.64
Tug Fork	WV-BST_05	Tug Fork	WVBST	109.93	264.76	19.72	394.41
Tug Fork	WV-BST_06	Tug Fork	WVBST	273.75	477.52	39.54	790.81
Tug Fork	WV-BST_07	Tug Fork	WVBST	372.57	492.68	45.54	910.79
Tug Fork	WV-BST_08	Tug Fork	WVBST	1,547.31	962.98	132.12	2,642.41
Tug Fork	WV-BST_09	Tug Fork	WVBST	5,051.88	1,201.15	329.11	6,582.13
Tug Fork	WV-BST_10	Tug Fork	WVBST	10,159.71	1,832.76	631.18	12,623.65
Mill Creek	WV-BST-2_03	Mill Creek	WVBST-1	36.82	6.13	2.26	45.21
Mill Creek	WV-BST-2_02	Mill Creek	WVBST-1	25.33	4.56	1.57	31.46
Mill Creek	WV-BST-2-S-6_01	Rush Branch	WVBST-1-E-3	1.50	0.31	0.10	1.91
Mill Creek	WV-BST-2-T-5_01	Grassy Branch	WVBST-1-D-1	2.09	0.44	0.13	2.67
Powdermill Branch	WV-BST-8_01	Powdermill Branch	WVBST-3	1.10	8.82	0.52	10.44
Bull Branch	WV-BST-9_01	Bull Branch	WVBST-4	1.13	0.23	0.07	1.44
Stone Branch	WV-BST-10_01	Stone Branch	WVBST-5	0.76	0.18	0.05	1.00
Drag Creek	WV-BST-16_01	Drag Creek	WVBST-10	5.46	1.21	0.35	7.02
Bull Creek	WV-BST-21_02	Bull Creek	WVBST-14	8.84	1.85	0.56	11.26
Lick Branch	WV-BST-24_01	Lick Branch	WVBST-15	0.86	0.15	0.05	1.07
Jennie Creek	WV-BST-26_03	Jennie Creek	WVBST-17	16.36	27.40	2.30	46.07
Jennie Creek	WV-BST-26_02	Jennie Creek	WVBST-17	12.63	23.05	1.88	37.55

Jennie Creek	WV-BST-26_01	Jennie Creek	WVBST-17	5.09	15.94	1.11	22.14
Jennie Creek	WV-BST-26-M_01	Upper Honey Branch	WVBST-17-F	0.62	1.91	0.13	2.67
Stonecoal Creek	WV-BST-27_01	Stonecoal Creek	WVBST-18	3.09	5.02	0.43	8.54
Marrowbone Creek	WV-BST-29_03	Marrowbone Creek	WVBST-19	26.93	52.91	4.20	84.05
Marrowbone Creek	WV-BST-29_02	Marrowbone Creek	WVBST-19	12.27	35.64	2.52	50.43
Marrowbone Creek	WV-BST-29-A_01	Vinson Branch	WVBST-19-A	0.87	0.14	0.05	1.07
Marrowbone Creek	WV-BST-29-C_01	Left Fork/Marrowbone Creek	WVBST-19-B	2.51	0.58	0.16	3.25
Marrowbone Creek	WV-BST-29-J_01	Neely Branch	WVBST-19-F	1.73	5.41	0.38	7.52
Upper Burning Creek	WV-BST-32_01	Upper Burning Creek	WVBST-22	3.45	14.49	0.94	18.89
Parsley Big Branch	WV-BST-33_01	Parsley Big Branch	WVBST-23	1.65	0.40	0.11	2.16
Pigeon Creek	WV-BST-35_06	Pigeon Creek	WVBST-24	235.13	497.32	38.55	770.99
Pigeon Creek	WV-BST-35_05	Pigeon Creek	WVBST-24	156.43	320.96	25.13	502.52
Pigeon Creek	WV-BST-35_04	Pigeon Creek	WVBST-24	95.41	235.16	17.40	347.97
Pigeon Creek	WV-BST-35_03	Pigeon Creek	WVBST-24	35.78	100.85	7.19	143.82
Pigeon Creek	WV-BST-35_02	Pigeon Creek	WVBST-24	19.56	83.74	5.44	108.73
Pigeon Creek	WV-BST-35_01	Pigeon Creek	WVBST-24	8.43	51.69	3.16	63.28
Pigeon Creek	WV-BST-35-AA_01	Millstone Branch	WVBST-24-O	1.11	0.34	0.08	1.52
Pigeon Creek	WV-BST-35-AF_03	Rockhouse Fork	WVBST-24-Q	19.56	40.35	3.15	63.07
Pigeon Creek	WV-BST-35-AF_01	Rockhouse Fork	WVBST-24-Q	6.49	14.16	1.09	21.74
Pigeon Creek	WV-BST-35-AF-11_01	Spring Branch	WVBST-24-Q-7	1.53	8.47	0.53	10.53
Pigeon Creek	WV-BST-35-AF-4_01	Upper Curry Branch	WVBST-24-Q-4	0.38	5.42	0.31	6.11
Pigeon Creek	WV-BST-35-AF-7_01	Big Pigeonroost Branch	WVBST-24-Q-6	1.62	3.66	0.28	5.56
Pigeon Creek	WV-BST-35-AM_01	UNT/Pigeon Creek RM 20.01	WVBST-24-S.3	0.44	0.08	0.03	0.55
Pigeon Creek	WV-BST-35-AS_01	Oldfield Branch	WVBST-24-T	1.20	3.59	0.25	5.05
Pigeon Creek	WV-BST-35-BE_01	Grant Branch	WVBST-24-DD	1.29	16.47	0.93	18.69
Pigeon Creek	WV-BST-35-BG_01	Thacker Fork	WVBST-24-FF	0.85	32.69	1.77	35.31
Pigeon Creek	WV-BST-35-E_01	Big Branch	WVBST-24-B	3.89	29.20	1.74	34.83
Pigeon Creek	WV-BST-35-K_04	Laurel Fork/Pigeon Creek	WVBST-24-E	34.24	144.94	9.43	188.61
Pigeon Creek	WV-BST-35-K_02	Laurel Fork/Pigeon Creek	WVBST-24-E	10.89	46.57	3.02	60.49
Pigeon Creek	WV-BST-35-K-1_01	Right Fork/Laurel Fork/Pigeon Creek	WVBST-24-E-1	3.42	20.20	1.24	24.86
Pigeon Creek	WV-BST-35-K-10_01	Paw Paw Branch	WVBST-24-E-7	0.84	1.07	0.10	2.01

Pigeon Creek	WV-BST-35-K-11_01	UNT/Laurel Fork RM 9.61	WVBST-24-E-7.3	0.69	2.59	0.17	3.45
Pigeon Creek	WV-BST-35-K-16_01	Panther Branch	WVBST-24-E-8	0.74	4.54	0.28	5.55
Pigeon Creek	WV-BST-35-K-1-F_01	Buck Branch	WVBST-24-E-1-B	0.52	0.17	0.04	0.73
Pigeon Creek	WV-BST-35-K-1-H_01	Bubby Branch	WVBST-24-E-1-D	0.56	4.85	0.28	5.69
Pigeon Creek	WV-BST-35-K-3_01	Spruce Fork	WVBST-24-E-2	3.61	44.36	2.52	50.50
Pigeon Creek	WV-BST-35-K-3-A_01	Left Fork/Spruce Fork	WVBST-24-E-2-A	2.29	19.99	1.17	23.45
Pigeon Creek	WV-BST-35-K-7_01	Rockhouse Branch	WVBST-24-E-5	0.51	11.93	0.65	13.09
Pigeon Creek	WV-BST-35-S_03	Trace Fork	WVBST-24-K	24.91	63.15	4.63	92.69
Pigeon Creek	WV-BST-35-S_02	Trace Fork	WVBST-24-K	18.11	47.86	3.47	69.44
Pigeon Creek	WV-BST-35-S-10_01	Right Fork/Trace Fork	WVBST-24-K-4	4.94	18.94	1.26	25.14
Pigeon Creek	WV-BST-35-Z_02	Elk Creek	WVBST-24-N	13.04	19.78	1.73	34.55
Pigeon Creek	WV-BST-35-Z-10_01	Left Fork/Elk Creek	WVBST-24-N-4	3.42	11.93	0.81	16.16
Road Branch	WV-BST-38_01	Road Branch	WVBST-26	2.56	0.51	0.16	3.23
Miller Creek	WV-BST-39_02	Miller Creek	WVBST-27	10.23	33.44	2.30	45.97
Miller Creek	WV-BST-39_01	Miller Creek	WVBST-27	3.74	20.79	1.29	25.81
Dans Branch	WV-BST-43_01	Dans Branch	WVBST-29	1.60	0.37	0.10	2.07
Buffalo Creek	WV-BST-45_01	Buffalo Creek	WVBST-31	8.24	5.31	0.71	14.26
Sugartree Creek	WV-BST-46_01	Sugartree Creek	WVBST-32	1.99	0.41	0.13	2.52
Williamson Creek	WV-BST-47_01	Williamson Creek	WVBST-33	1.58	0.25	0.10	1.92
Sycamore Creek	WV-BST-48_01	Sycamore Creek	WVBST-34	4.58	0.94	0.29	5.81
Lick Creek	WV-BST-49_01	Lick Creek	WVBST-35	3.40	0.64	0.21	4.26
Lick Creek	WV-BST-49-C_01	UNT/Lick Creek RM 2.14		0.29	0.00	0.02	0.31
Dick Williamson Branch	WV-BST-50_01	Dick Williamson Branch	WVBST-36	1.18	0.23	0.07	1.49
Sprouse Creek	WV-BST-54_01	Sprouse Creek	WVBST-38	0.41	17.42	0.94	18.77
Ferrell Branch	WV-BST-55_01	Ferrell Branch	WVBST-39	1.73	5.43	0.38	7.53
Ferrell Branch	WV-BST-55-B_01	UNT/Ferrell Branch RM 0.83	WVBST-39-B	0.38	0.54	0.05	0.97
Mate Creek	WV-BST-57_03	Mate Creek	WVBST-40	22.06	14.85	1.94	38.85
Mate Creek	WV-BST-57_02	Mate Creek	WVBST-40	13.83	13.10	1.42	28.35
Mate Creek	WV-BST-57_01	Mate Creek	WVBST-40	6.45	8.20	0.77	15.43
Mate Creek	WV-BST-57-B_01	Rutherford Branch	WVBST-40-B	1.37	0.29	0.09	1.74
Mate Creek	WV-BST-57-D_01	Mitchell Branch	WVBST-40-C	1.92	0.51	0.13	2.56

Mate Creek	WV-BST-57-G_01	Chafin Branch	WVBST-40-D	0.75	0.77	0.08	1.60
Mate Creek	WV-BST-57-K_01	Double Camp Fork	WVBST-40-H	1.41	3.16	0.24	4.80
Mate Creek	WV-BST-57-K-1_01	UNT/Double Camp Fork RM 1.36		0.02	2.81	0.15	2.97
Mate Creek	WV-BST-57-L_01	Straight Fork	WVBST-40-I	2.77	3.00	0.30	6.07
Sulphur Creek	WV-BST-58_01	Sulphur Creek	WVBST-41	0.94	0.24	0.06	1.25
Thacker Creek	WV-BST-61_01	Thacker Creek	WVBST-42	6.21	58.45	3.40	68.07
Thacker Creek	WV-BST-61-A_01	Scissorsville Branch	WVBST-42-A	1.27	4.94	0.33	6.53
Thacker Creek	WV-BST-61-B_01	Mauchlinville Branch	WVBST-42-B	0.24	17.62	0.94	18.80
Grapevine Creek	WV-BST-62_01	Grapevine Creek	WVBST-43	3.56	37.58	2.17	43.30
Grapevine Creek	WV-BST-62-A_01	Lick Fork	WVBST-43-A	0.38	9.65	0.53	10.56
Grapevine Creek	WV-BST-62-B_01	Wolfpen Fork	WVBST-43-B	0.40	8.10	0.45	8.95
Grapevine Creek	WV-BST-62-C_01	Millseat Branch	WVBST-43-B.5	0.34	13.37	0.72	14.43
Sand Branch	WV-BST-64_01	Sand Branch	WVBST-44	0.36	1.51	0.10	1.98
Beech Creek	WV-BST-67-D_01	Grapevine Fork	WVBST-46-B	1.19	9.29	0.55	11.03
Beech Creek	WV-BST-67-D-1_01	UNT/Grapevine Fork RM 0.22	WVBST-46-B-1	0.07	5.91	0.31	6.29
Tug Fork	WV-BST-70_01	Laurel Branch	WVBST-49	0.68	0.15	0.04	0.87
Ben Creek	WV-BST-74_03	Ben Creek	WVBST-52	26.30	105.80	6.95	139.06
Ben Creek	WV-BST-74_02	Ben Creek	WVBST-52	14.12	44.38	3.08	61.58
Ben Creek	WV-BST-74_01	Ben Creek	WVBST-52	3.33	37.92	2.17	43.43
Ben Creek	WV-BST-74-D_01	Left Fork/Ben Creek	WVBST-52-B	5.07	47.84	2.79	55.70
Ben Creek	WV-BST-74-L_01	White Oak Hollow	WVBST-52-G.5	0.64	0.13	0.04	0.81
Fourpole Creek	WV-BST-78_01	Fourpole Creek	WVBST-56	6.56	4.61	0.59	11.76
Bull Creek	WV-BST-79_01	Bull Creek	WVBST-57	7.68	6.89	0.77	15.34
Bull Creek	WV-BST-79-D_01	Left Fork/Bull Creek	WVBST-57-B	6.20	0.94	0.38	7.52
Mohawk Branch	WV-BST-80_01	Mohawk Branch	WVBST-58	0.58	1.81	0.13	2.52
Longpole Creek	WV-BST-81-J_01	Panther Fork	WVBST-59-B	0.66	9.74	0.55	10.95
Panther Creek	WV-BST-83_04	Panther Creek	WVBST-60	55.95	15.18	3.74	74.88
Panther Creek	WV-BST-83_03	Panther Creek	WVBST-60	25.72	4.45	1.59	31.75
Panther Creek	WV-BST-83-E_01	Cub Branch	WVBST-60-D	0.52	0.10	0.03	0.65
Panther Creek	WV-BST-83-I_01	Hurricane Branch	WVBST-60-G	2.15	5.07	0.38	7.59
Panther Creek	WV-BST-83-P_01	Meathouse Fork	WVBST-60-H	8.32	1.48	0.52	10.32

Horse Creek	WV-BST-88_01	Horse Creek	WVBST-63	4.90	2.77	0.40	8.08
Horse Creek	WV-BST-88-D_01	UNT/Horse Creek RM 1.52		0.33	1.39	0.09	1.81
War Branch	WV-BST-91_01	War Branch	WVBST-65	1.67	7.80	0.50	9.97
Tug Fork	WV-BST-95_01	Rock Branch	WVBST-68	0.82	1.97	0.15	2.93
Johnnycake Branch	WV-BST-96-C_01	UNT/Johnnycake Branch RM 1.76	WVBST-69-C	0.53	1.82	0.12	2.48
Dry Fork	WV-BST-98_04	Dry Fork	WVBST-70	64.04	32.83	5.10	101.96
Dry Fork	WV-BST-98_03	Dry Fork	WVBST-70	52.78	20.93	3.88	77.59
Dry Fork	WV-BST-98-A_01	Coon Branch	WVBST-70-A	0.89	0.24	0.06	1.18
Dry Fork	WV-BST-98-AD_01	Atwell Branch	WVBST-70-O	1.00	1.78	0.15	2.93
Dry Fork	WV-BST-98-AP_01	Pruett Branch	WVBST-70-S	0.89	0.42	0.07	1.38
Dry Fork	WV-BST-98-AQ_01	Barrenshe Creek	WVBST-70-T	2.87	12.57	0.81	16.25
Dry Fork	WV-BST-98-AQ-5_01	Clear Fork Branch	WVBST-70-T-2	1.59	2.66	0.22	4.48
Dry Fork	WV-BST-98-AT-10_01	Big Branch	WVBST-70-U-1	3.07	0.68	0.20	3.95
Dry Fork	WV-BST-98-AT-10-F_01	UNT/Big Branch RM 1.28	WVBST-70-U-1-F	1.39	0.34	0.09	1.82
Dry Fork	WV-BST-98-AW_04	Jacobs Fork	WVBST-70-W	84.02	55.51	7.34	146.87
Dry Fork	WV-BST-98-AW_03	Jacobs Fork	WVBST-70-W	72.39	31.10	5.45	108.94
Dry Fork	WV-BST-98-AW-24-C_01	UNT/Horsepen Creek RM 1.48	WVBST-70-W-6-0.5A	0.07	2.74	0.15	2.96
Dry Fork	WV-BST-98-AW-24-K_01	Low Gap Branch	WVBST-70-W-6-B	7.87	1.23	0.48	9.59
Dry Fork	WV-BST-98-AW-3-E_01	UNT/Big Creek RM 1.98	WVBST-70-W-1-0.7A	0.41	3.61	0.21	4.22
Dry Fork	WV-BST-98-AW-3-F_01	Mountain Fork	WVBST-70-W-1-A	5.28	1.17	0.34	6.79
Dry Fork	WV-BST-98-AW-3-Z_01	Middle Fork/Big Creek	WVBST-70-W-1-G	1.00	0.47	0.08	1.55
Dry Fork	WV-BST-98-BO_03	Beech Fork	WVBST-70-AA	19.38	13.68	1.74	34.81
Dry Fork	WV-BST-98-BO-1_01	31 Hollow (Right Fork/Beech Fork)	WVBST-70-AA-1	4.53	10.67	0.80	16.00
Dry Fork	WV-BST-98-H_01	Mile Branch	WVBST-70-C	2.53	4.28	0.36	7.18
Dry Fork	WV-BST-98-L_01	Grapevine Branch	WVBST-70-F	0.78	0.21	0.05	1.04
Dry Fork	WV-BST-98-O_01	Beartown Branch	WVBST-70-I	2.07	1.77	0.20	4.05
Dry Fork	WV-BST-98-W-10_01	Wolfpen Branch	WVBST-70-M-3	1.05	10.36	0.60	12.01
Dry Fork	WV-BST-98-W-6_01	Groundhog Branch	WVBST-70-M-1	0.97	0.26	0.06	1.29
Dry Fork	WV-BST-98-W-8_01	Hite Fork	WVBST-70-M-2	8.66	3.89	0.66	13.21
Dry Fork	WV-BST-98-W-8-A_01	Middle Fork/Hite Fork	WVBST-70-M-2-A	2.69	2.57	0.28	5.54

Dry Fork	WV-BST-98-W-8-B_01	Dry Monday Branch	WVBST-70-M-2-B	2.78	0.64	0.18	3.60
Dry Fork	WV-BST-98-Z_03	Little Slate Creek	WVBST-70-N	12.35	2.85	0.80	16.00
Dry Fork	WV-BST-98-Z_01	Little Slate Creek	WVBST-70-N	3.94	0.98	0.26	5.18
Dry Fork	WV-BST-98-Z-13_01	Mudlick Branch	WVBST-70-N-2	2.89	0.65	0.19	3.72
Dry Fork	WV-BST-98-Z-6_01	Right Fork/Little Slate Creek	WVBST-70-N-1	1.43	0.28	0.09	1.80
Lick Branch	WV-BST-100_01	Lick Branch	WVBST-71	1.00	1.83	0.15	2.98
Tug Fork	WV-BST-101_01	Harman Branch	WVBST-72	2.08	1.17	0.17	3.41
Clear Fork	WV-BST-106_03	Clear Fork	WVBST-76	17.10	4.83	1.15	23.08
Clear Fork	WV-BST-106_02	Clear Fork	WVBST-76	6.85	2.09	0.47	9.41
Clear Fork	WV-BST-106_01	Clear Fork	WVBST-76	1.80	0.56	0.12	2.49
Clear Fork	WV-BST-106-M_01	Crane Trace Branch	WVBST-76-C	1.33	0.39	0.09	1.81
Clear Fork	WV-BST-106-Q_01	Daycamp Branch	WVBST-76-E	0.97	0.30	0.07	1.34
Spice Creek	WV-BST-109_02	Spice Creek	WVBST-78	7.78	2.40	0.54	10.71
Spice Creek	WV-BST-109_01	Spice Creek	WVBST-78	3.38	1.03	0.23	4.63
Spice Creek	WV-BST-109-A_01	Shabbyroom Branch	WVBST-78-B	0.79	0.26	0.06	1.10
Spice Creek	WV-BST-109-G_01	Honeycamp Branch	WVBST-78-D	0.54	0.42	0.05	1.01
Spice Creek	WV-BST-109-H_01	Coontree Branch	WVBST-78-E	0.40	0.13	0.03	0.55
Spice Creek	WV-BST-109-I_01	Stonecoal Branch	WVBST-78-F	0.47	0.13	0.03	0.63
Spice Creek	WV-BST-109-J_01	Badway Branch	WVBST-78-G	0.42	0.13	0.03	0.58
Spice Creek	WV-BST-109-L_01	Newson Branch	WVBST-78-H	0.35	0.10	0.02	0.47
Spice Creek	WV-BST-109-M_01	Moorecamp Branch	WVBST-78-I	0.19	0.06	0.01	0.27
Tug Fork	WV-BST-121_01	Twin Branch	WVBST-84	2.01	0.64	0.14	2.79
Davy Branch	WV-BST-123_01	Davy Branch	WVBST-85	3.42	2.83	0.33	6.58
Davy Branch	WV-BST-123-A_01	Left Fork/Davy Branch	WVBST-85-A	1.04	0.33	0.07	1.44
Davy Branch	WV-BST-123-G_01	UNT/Davy Branch RM 3.28	WVBST-85-G	0.27	0.36	0.03	0.67
Shannon Branch	WV-BST-132_01	Shannon Branch	WVBST-94	1.83	3.54	0.28	5.65
Upper Shannon Branch	WV-BST-133_01	Upper Shannon Branch	WVBST-95	1.32	3.66	0.26	5.25
Browns Creek	WV-BST-137_02	Browns Creek	WVBST-98	5.52	18.24	1.25	25.02
Browns Creek	WV-BST-137-D_01	Puncheoncamp Branch	WVBST-98-A	1.30	12.77	0.74	14.81
Browns Creek	WV-BST-137-H_01	Trail Fork	WVBST-98-B	1.24	4.55	0.30	6.10
Elkhorn Creek	WV-BST-138_05	Elkhorn Creek	WVBST-99	62.84	178.23	12.69	253.76

Elkhorn Creek	WV-BST-138_04	Elkhorn Creek	WVBST-99	40.43	118.98	8.39	167.80
Elkhorn Creek	WV-BST-138_03	Elkhorn Creek	WVBST-99	12.90	28.13	2.16	43.19
Elkhorn Creek	WV-BST-138_01	Elkhorn Creek	WVBST-99	7.00	14.89	1.15	23.04
Elkhorn Creek	WV-BST-138-AH_01	Johns Knob Branch	WVBST-99-O	0.70	0.22	0.05	0.97
Elkhorn Creek	WV-BST-138-AJ_01	UNT/Elkhorn Creek RM 20.15	WVBST-99-O.7	0.39	1.55	0.10	2.04
Elkhorn Creek	WV-BST-138-AM_01	Angle Hollow	WVBST-99-Q	1.88	8.29	0.54	10.71
Elkhorn Creek	WV-BST-138-AM-1_01	Little Fork	WVBST-99-Q-1	0.46	5.47	0.31	6.24
Elkhorn Creek	WV-BST-138-E_01	Mill Creek	WVBST-99-A	0.99	1.06	0.11	2.16
Elkhorn Creek	WV-BST-138-O_01	Laurel Branch	WVBST-99-E	5.59	11.86	0.92	18.36
Elkhorn Creek	WV-BST-138-P_01	Rockhouse Branch	WVBST-99-F	0.39	12.46	0.68	13.53
Elkhorn Creek	WV-BST-138-Q_01	Bottom Creek	WVBST-99-G	2.04	27.58	1.56	31.18
Elkhorn Creek	WV-BST-138-Q-3_01	UNT/Bottom Creek RM 2.88		0.42	15.86	0.86	17.13
Elkhorn Creek	WV-BST-138-V_01	Coalbank Branch	WVBST-99-I	2.56	15.74	0.96	19.27
Elkhorn Creek	WV-BST-138-V-2_01	UNT/Coalbank Branch RM 0.58	WVBST-99-I-0.6	0.42	3.57	0.21	4.20
Elkhorn Creek	WV-BST-138-V-3_01	UNT/Coalbank Branch RM 0.82	WVBST-99-I-0.7	0.91	5.68	0.35	6.93
Elkhorn Creek	WV-BST-138-V-4_01	Dans Branch	WVBST-99-I-1	0.16	3.73	0.21	4.10
Elkhorn Creek	WV-BST-138-V-5_01	UNT/Coalbank Branch RM 1.43	WVBST-99-I-2	0.22	2.12	0.12	2.46
Elkhorn Creek	WV-BST-138-X_01	Burk Creek	WVBST-99-K	0.83	18.15	1.00	19.98
Elkhorn Creek	WV-BST-138-X-1_01	UNT/Burk Creek RM 0.72		0.04	15.83	0.84	16.70
Elkhorn Creek	WV-BST-138-Z_01	North Fork/Elkhorn Creek	WVBST-99-L	5.15	1.68	0.36	7.19
Elkhorn Creek	WV-BST-138-Z-1_01	Buzzard Branch	WVBST-99-L-1	3.97	16.16	1.06	21.19
Elkhorn Creek	WV-BST-138-Z-3_01	Bearwallow Branch	WVBST-99-L-2	1.08	11.75	0.68	13.51
Little Indian Creek	WV-BST-139_01	Little Indian Creek	WVBST-100	1.48	0.47	0.10	2.06
Jed Branch	WV-BST-142_01	Jed Branch	WVBST-102	0.37	0.85	0.06	1.29
Rock Narrows Branch	WV-BST-143_01	Rock Narrows Branch	WVBST-103	1.01	2.19	0.17	3.37
Harris Branch	WV-BST-144_01	Harris Branch	WVBST-104	0.18	3.67	0.20	4.05
Mitchell Branch	WV-BST-146_01	Mitchell Branch	WVBST-105	0.97	1.85	0.15	2.97
Sugarcamp Branch	WV-BST-147_01	Sugarcamp Branch	WVBST-106	1.39	0.51	0.10	2.00
Grapevine Branch	WV-BST-149_01	Grapevine Branch	WVBST-107	0.11	5.48	0.29	5.89
Tug Fork	WV-BST-150_01	Mill Creek	WVBST-108	2.65	3.47	0.32	6.44

Sandlick Creek	WV-BST-152_02	Sandlick Creek	WVBST-109	8.63	23.57	1.69	33.89
Sandlick Creek	WV-BST-152_01	Sandlick Creek	WVBST-109	2.72	5.77	0.45	8.94
Sandlick Creek	WV-BST-152-A_01	Right Fork/Sandlick Creek	WVBST-109-A	1.60	0.49	0.11	2.19
Sandlick Creek	WV-BST-152-B_01	UNT/Sandlick Creek RM 1.61		0.07	2.38	0.13	2.59
Sandlick Creek	WV-BST-152-C_01	Left Fork/Sandlick Creek	WVBST-109-B	2.92	10.45	0.70	14.07
Sandlick Creek	WV-BST-152-C-3_01	UNT/Left Fork RM 0.89/Sandlick Creek	WVBST-109-B-3	1.10	6.02	0.37	7.50
Adkin Branch	WV-BST-153_01	Adkin Branch	WVBST-110	1.13	2.16	0.17	3.46
Belcher Branch	WV-BST-154_01	Belcher Branch	WVBST-111	0.93	6.48	0.39	7.79
Turnhole Branch	WV-BST-155_01	Turnhole Branch	WVBST-112	0.94	0.31	0.07	1.32
Harmon Branch	WV-BST-156_01	Harmon Branch	WVBST-113	1.82	13.58	0.81	16.21
Leslie Branch	WV-BST-157_01	Leslie Branch	WVBST-114	0.68	13.58	0.75	15.01
South Fork/Tug Fork	WV-BST-163_03	South Fork/Tug Fork	WVBST-115	13.79	68.48	4.33	86.61
South Fork/Tug Fork	WV-BST-163_02	South Fork/Tug Fork	WVBST-115	5.94	46.87	2.78	55.59
South Fork/Tug Fork	WV-BST-163_01	South Fork/Tug Fork	WVBST-115	3.30	43.40	2.46	49.15
South Fork/Tug Fork	WV-BST-163-B_01	Tea Branch	WVBST-115-A	0.30	1.32	0.09	1.71
South Fork/Tug Fork	WV-BST-163-D_01	McClure Branch	WVBST-115-B	0.26	0.88	0.06	1.20
South Fork/Tug Fork	WV-BST-163-E_01	Milam Branch	WVBST-115-C	0.49	2.29	0.15	2.92
South Fork/Tug Fork	WV-BST-163-F_01	Jump Branch	WVBST-115-D	0.83	11.64	0.66	13.13
South Fork/Tug Fork	WV-BST-163-G_01	Spice Creek	WVBST-115-E	2.46	5.00	0.39	7.85
South Fork/Tug Fork	WV-BST-163-J_01	Laurel Branch	WVBST-115-F	1.77	0.56	0.12	2.45
South Fork/Tug Fork	WV-BST-163-K_01	Road Fork	WVBST-115-G	0.68	7.14	0.41	8.24
South Fork/Tug Fork	WV-BST-163-M-1_01	UNT/UNT RM 0.04/South Fork RM 5.46/Tug Fork	WVBST-115-I-1	0.32	2.04	0.12	2.48
South Fork/Tug Fork	WV-BST-163-N-1_01	UNT/UNT RM 0.15/South Fork RM 5.85/Tug Fork	WVBST-115-J-1	0.01	5.22	0.27	5.50
Belcher Branch	WV-BST-166_01	Belcher Branch	WVBST-116	0.01	12.46	0.66	13.13
Loop Branch	WV-BST-168_01	Loop Branch	WVBST-117	1.06	2.68	0.20	3.94
Mill Branch	WV-BST-170_01	Mill Branch	WVBST-118	0.97	9.86	0.57	11.41
Dry Branch	WV-BST-173_01	Dry Branch	WVBST-119	0.24	1.32	0.08	1.65
Little Creek	WV-BST-174_01	Little Creek	WVBST-120	5.76	11.79	0.92	18.47
Little Creek	WV-BST-174-B_01	Indian Grave Branch	WVBST-120-A	0.59	4.23	0.25	5.08

Little Creek	WV-BST-174-C_01	Puncheoncamp Branch	WVBST-120-B	1.02	4.53	0.29	5.84
UNT/Little Creek RM 2.34	WV-BST-174-E_01	UNT/Little Creek RM 2.34		0.49	1.09	0.08	1.66
Millseat Branch	WV-BST-178_01	Millseat Branch	WVBST-121	1.71	0.53	0.12	2.35
Ballard Harmon Branch	WV-BST-179_01	Ballard Harmon Branch	WVBST-122	1.07	0.59	0.09	1.75
Sams Branch	WV-BST-181_01	Sams Branch	WVBST-123	1.14	0.27	0.07	1.49

UNT=unnamed tributary; RM=river mile

2.0 pH TMDL

TMDL Watershed	AUID Stream Code	Stream Name	WV Code	LA daily average net acidity load under TMDL condition (lbs as CaCO3/day)	WLA daily average net acidity load under TMDL condition (lbs as CaCO3/day)	MOS daily average net acidity load (lbs as CaCO3/day)	TMDL daily average net acidity load (lbs as CaCO3/day)
Pigeon Creek	WV-BST-35-AM_01	UNT/Pigeon Creek RM 20.01	WVBST-24-S.3	-216.8	0.0	-11.4	-228.2
Thacker Creek	WV-BST-61_01	Thacker Creek	WVBST-42	-6831.7	-241.2	-372.3	-7445.2
Mohawk Branch	WV-BST-80_01	Mohawk Branch	WVBST-58	-208.4	-114.6	-17.0	-340.0
Dry Fork	WV-BST-98-H_01	Mile Branch	WVBST-70-C	-854.4	-219.5	-56.5	-1130.5
Dry Fork	WV-BST-98-H-2_01	UNT/Mile Branch RM 0.98	WVBST-70-C-2	-236.7	-111.3	-18.3	-366.4
Dry Fork	WV-BST-98-H-2-A_01	UNT/UNT RM 0.34/Mile Branch RM 0.98	WVBST-70-C-2-A	-95.4	-31.2	-6.7	-133.2
Sandlick Creek	WV-BST-152-C-3-A_01	UNT/UNT RM 0.01/Left Fork RM 0.89/Sandlick Creek	WVBST-109-B-3-A	-143.1	-170.7	-16.5	-330.3

3.0 Aluminum TMDL

TMDL Watershed	AUID Stream Code	Stream Name	WV Code	Load Allocation (lbs/day)	Wasteload Allocation (lbs/day)	Margin of Safety (lbs/day)	Al TMDL (lbs/day)
Thacker Creek	WV-BST-61_01	Thacker Creek	WVBST-42	34.35	2.76	1.95	39.07

Mohawk Branch	WV-BST-80_01	Mohawk Branch	WVBST-58	0.09	1.28	0.07	1.44
Dry Fork	WV-BST-98-H-2_01	UNT/Mile Branch RM 0.98	WVBST-70-C-2	0.20	2.17	0.12	2.49

4.0 Manganese TMDLs

TMDL Watershed	AUID Stream Code	Stream Name	WV Code	Load Allocation (lbs/day)	Wasteload Allocation (lbs/day)	Margin of Safety (lbs/day)	Mn TMDL (lbs/day)
Thacker Creek	WV-BST-61_01	Thacker Creek	WVBST-42	46.01	3.82	2.62	52.45

5.0 Fecal Coliform Bacteria TMDLs

TMDL Watershed	AUID Stream Code	Stream Name	WV Code	Load Allocations (counts /day)	Wasteload Allocation (counts /day)	Margin of Safety (counts /day)	TMDL (counts /day)
Tug Fork	WV-BST_01	Tug Fork	WVBST	3.00E+09		1.58E+08	3.16E+09
Tug Fork	WV-BST_02	Tug Fork	WVBST	8.13E+09		4.28E+08	8.56E+09
Tug Fork	WV-BST_03	Tug Fork	WVBST	2.10E+10	3.79E+06	1.11E+09	2.21E+10
Tug Fork	WV-BST_04	Tug Fork	WVBST	4.50E+10	7.58E+06	2.37E+09	4.74E+10
Tug Fork	WV-BST_05	Tug Fork	WVBST	6.69E+10	5.69E+09	3.82E+09	7.64E+10
Tug Fork	WV-BST_06	Tug Fork	WVBST	1.52E+11	1.48E+10	8.80E+09	1.76E+11
Tug Fork	WV-BST_07	Tug Fork	WVBST	1.88E+11	1.51E+10	1.07E+10	2.13E+11
Tug Fork	WV-BST_08	Tug Fork	WVBST	6.28E+11	1.80E+10	3.40E+10	6.80E+11
Tug Fork	WV-BST_09	Tug Fork	WVBST	1.86E+12	2.88E+10	9.95E+10	1.99E+12
Tug Fork	WV-BST_10	Tug Fork	WVBST	3.50E+12	3.29E+10	1.86E+11	3.72E+12
Mill Creek	WV-BST-2_02	Mill Creek	WVBST-1	2.77E+10	4.55E+07	1.46E+09	2.92E+10
Mill Creek	WV-BST-2_03	Mill Creek	WVBST-1	4.17E+10	5.30E+07	2.20E+09	4.40E+10
Mill Creek	WV-BST-2-E_01	Paddle Creek	WVBST-1-A	3.76E+09	3.79E+06	1.98E+08	3.96E+09
Mill Creek	WV-BST-2-S_01	Left Fork/Mill Creek	WVBST-1-E	8.67E+09	3.79E+06	4.56E+08	9.13E+09
Mill Creek	WV-BST-2-S-6_01	Rush Branch	WVBST-1-E-3	2.05E+09	3.79E+06	1.08E+08	2.16E+09
Mill Creek	WV-BST-2-T_01	Right Fork/Mill Creek	WVBST-1-D	8.99E+09		4.73E+08	9.47E+09
Powdermill Branch	WV-BST-8_01	Powdermill Branch	WVBST-3	1.44E+09		7.60E+07	1.52E+09
Stone Branch	WV-BST-10_01	Stone Branch	WVBST-5	7.49E+08		3.94E+07	7.88E+08
Lost Creek	WV-BST-12_01	Lost Creek	WVBST-7	1.41E+09		7.44E+07	1.49E+09
Lost Creek	WV-BST-12_02	Lost Creek	WVBST-7	8.48E+09	3.79E+06	4.47E+08	8.93E+09
Lost Creek	WV-BST-12-M_01	Right Fork/Lost Creek	WVBST-7-D	1.20E+09		6.31E+07	1.26E+09
Drag Creek	WV-BST-16_01	Drag Creek	WVBST-10	4.74E+09	3.79E+06	2.49E+08	4.99E+09
Drag Creek	WV-BST-16-C_01	Painter Branch	WVBST-10-0.5A	5.04E+08		2.65E+07	5.30E+08
Camp Creek	WV-BST-18_01	Camp Creek	WVBST-12	2.95E+09		1.55E+08	3.10E+09
Peters Branch	WV-BST-19_01	Peters Branch	WVBST-13	4.22E+08		2.22E+07	4.44E+08
Bull Creek	WV-BST-21_01	Bull Creek	WVBST-14	3.15E+09		1.66E+08	3.31E+09

Bull Creek	WV-BST-21_02	Bull Creek	WVBST-14	9.24E+09	7.58E+06	4.87E+08	9.73E+09
Bull Creek	WV-BST-21-E_01	Right Fork/Bull Creek	WVBST-14-B	3.32E+09	3.79E+06	1.75E+08	3.50E+09
Lick Branch	WV-BST-24_01	Lick Branch	WVBST-15	7.25E+08	1.14E+07	3.88E+07	7.75E+08
Silver Creek	WV-BST-25_01	Silver Creek	WVBST-16	1.97E+09		1.04E+08	2.07E+09
Jennie Creek	WV-BST-26_01	Jennie Creek	WVBST-17	5.16E+09	4.90E+08	2.97E+08	5.95E+09
Jennie Creek	WV-BST-26_02	Jennie Creek	WVBST-17	1.28E+10	4.90E+08	7.00E+08	1.40E+10
Jennie Creek	WV-BST-26_03	Jennie Creek	WVBST-17	1.75E+10	5.09E+08	9.49E+08	1.90E+10
Stonecoal Creek	WV-BST-27_01	Stonecoal Creek	WVBST-18	4.24E+09		2.23E+08	4.47E+09
Marrowbone Creek	WV-BST-29_02	Marrowbone Creek	WVBST-19	1.26E+10		6.63E+08	1.33E+10
Marrowbone Creek	WV-BST-29_03	Marrowbone Creek	WVBST-19	2.75E+10		1.45E+09	2.90E+10
Marrowbone Creek	WV-BST-29-M_01	Laurel Branch	WVBST-19-I	1.81E+09		9.51E+07	1.90E+09
Marrowbone Creek	WV-BST-29-O_01	Antley Branch	WVBST-19-J	9.68E+08		5.09E+07	1.02E+09
Parsley Big Branch	WV-BST-33_01	Parsley Big Branch	WVBST-23	1.63E+09		8.58E+07	1.72E+09
Pigeon Creek	WV-BST-35_03	Pigeon Creek	WVBST-24	3.30E+10	2.38E+08	1.75E+09	3.50E+10
Pigeon Creek	WV-BST-35_04	Pigeon Creek	WVBST-24	9.16E+10	2.14E+09	4.93E+09	9.86E+10
Pigeon Creek	WV-BST-35_06	Pigeon Creek	WVBST-24	1.96E+11	2.59E+09	1.05E+10	2.09E+11
Pigeon Creek	WV-BST-35-E_01	Big Branch	WVBST-24-B	8.19E+09	9.79E+06	4.32E+08	8.63E+09
Pigeon Creek	WV-BST-35-J_01	Mill Branch	WVBST-24-D	5.70E+08		3.00E+07	6.00E+08
Pigeon Creek	WV-BST-35-K_02	Laurel Fork/Pigeon Creek	WVBST-24-E	9.86E+09		5.19E+08	1.04E+10
Pigeon Creek	WV-BST-35-K_03	Laurel Fork/Pigeon Creek	WVBST-24-E	3.12E+10		1.64E+09	3.28E+10
Pigeon Creek	WV-BST-35-K_04	Laurel Fork/Pigeon Creek	WVBST-24-E	4.29E+10	7.58E+06	2.26E+09	4.52E+10
Pigeon Creek	WV-BST-35-K-1_01	Right Fork/Laurel Fork/Pigeon Creek	WVBST-24-E-1	4.13E+09		2.17E+08	4.34E+09
Pigeon Creek	WV-BST-35-K-1_02	Right Fork/Laurel Fork/Pigeon Creek	WVBST-24-E-1	9.40E+09	7.58E+06	4.95E+08	9.90E+09
Pigeon Creek	WV-BST-35-K-3_01	Spruce Fork	WVBST-24-E-2	6.72E+09		3.54E+08	7.08E+09
Pigeon Creek	WV-BST-35-M_01	Oldhouse Branch	WVBST-24-F.5	4.89E+08		2.58E+07	5.15E+08
Pigeon Creek	WV-BST-35-O_01	UNT/Pigeon Creek RM 6.72 (White Branch)	WVBST-24-G	3.84E+08		2.02E+07	4.04E+08
Pigeon Creek	WV-BST-35-P_01	Hensley Big Branch	WVBST-24-H	2.58E+09		1.36E+08	2.71E+09
Pigeon Creek	WV-BST-35-R_01	Ruth Trace Branch	WVBST-24-J	8.62E+08		4.54E+07	9.07E+08
Pigeon Creek	WV-BST-35-S_03	Trace Fork	WVBST-24-K	2.83E+10	2.47E+08	1.50E+09	3.00E+10
Pigeon Creek	WV-BST-35-S-8_01	Riffe Branch	WVBST-24-K-2	3.56E+09		1.87E+08	3.75E+09
Pigeon Creek	WV-BST-35-S-10_01	Right Fork/Trace Fork	WVBST-24-K-4	5.06E+09	2.38E+08	2.79E+08	5.57E+09

Pigeon Creek	WV-BST-35-S-10-B_01	Left Fork/Right Fork/Trace Fork	WVBST-24-K-4-A	1.71E+09		8.97E+07	1.79E+09
Pigeon Creek	WV-BST-35-S-13_01	Dingess Camp Branch	WVBST-24-K-7	7.05E+08		3.71E+07	7.42E+08
Pigeon Creek	WV-BST-35-S-15_01	Simmons Fork	WVBST-24-K-8	7.67E+08		4.03E+07	8.07E+08
Pigeon Creek	WV-BST-35-T_01	Conley Branch	WVBST-24-L	1.60E+09		8.41E+07	1.68E+09
Pigeon Creek	WV-BST-35-V_01	Hell Creek	WVBST-24-M	3.07E+09		1.61E+08	3.23E+09
Pigeon Creek	WV-BST-35-Z_02	Elk Creek	WVBST-24-N	1.40E+10		7.36E+08	1.47E+10
Pigeon Creek	WV-BST-35-Z-6_01	Fivemile Creek	WVBST-24-N-2	1.85E+09		9.75E+07	1.95E+09
Pigeon Creek	WV-BST-35-Z-9_01	Middle Fork/Elk Creek	WVBST-24-N-5	2.99E+09		1.57E+08	3.15E+09
Pigeon Creek	WV-BST-35-AA_01	Millstone Branch	WVBST-24-O	1.44E+09		7.56E+07	1.51E+09
Pigeon Creek	WV-BST-35-AC_01	Pigeonroost Creek	WVBST-24-P	1.23E+09		6.48E+07	1.30E+09
Pigeon Creek	WV-BST-35-AF_03	Rockhouse Fork	WVBST-24-Q	2.50E+10	8.33E+06	1.32E+09	2.64E+10
Pigeon Creek	WV-BST-35-AF-6_01	South Branch/Rockhouse Fork	WVBST-24-Q-5	8.15E+08		4.29E+07	8.58E+08
Pigeon Creek	WV-BST-35-AF-7_01	Big Pigeonroost Branch	WVBST-24-Q-6	1.94E+09		1.02E+08	2.04E+09
Pigeon Creek	WV-BST-35-AG_01	Stonecoal Branch	WVBST-24-Q.5	1.69E+09		8.89E+07	1.78E+09
Pigeon Creek	WV-BST-35-AS_01	Oldfield Branch	WVBST-24-T	1.53E+09		8.04E+07	1.61E+09
Pigeon Creek	WV-BST-35-AT_01	Bird Branch	WVBST-24-U	5.86E+08		3.08E+07	6.17E+08
Pigeon Creek	WV-BST-35-AX_01	Meador Branch	WVBST-24-W	4.57E+08		2.40E+07	4.81E+08
Pigeon Creek	WV-BST-35-BA_01	Rover Branch	WVBST-24-Z	8.10E+08		4.27E+07	8.53E+08
Pigeon Creek	WV-BST-35-BB_01	Slick Rock Branch	WVBST-24-AA	9.40E+08		4.95E+07	9.89E+08
Pigeon Creek	WV-BST-35-BC_01	Little Muncy Branch	WVBST-24-BB	7.25E+08		3.82E+07	7.63E+08
Dans Branch	WV-BST-43_01	Dans Branch	WVBST-29	1.55E+09	1.14E+07	8.23E+07	1.65E+09
Buffalo Creek	WV-BST-45_01	Buffalo Creek	WVBST-31	9.47E+09	3.79E+06	4.98E+08	9.97E+09
Buffalo Creek	WV-BST-45-B_01	South Fork/Buffalo Creek	WVBST-31-B	1.56E+09		8.21E+07	1.64E+09
Sugartree Creek	WV-BST-46_01	Sugartree Creek	WVBST-32	1.86E+09		9.77E+07	1.95E+09
Williamson Creek	WV-BST-47_01	Williamson Creek	WVBST-33	1.66E+09		8.75E+07	1.75E+09
Sycamore Creek	WV-BST-48_01	Sycamore Creek	WVBST-34	4.06E+09		2.14E+08	4.28E+09
Lick Creek	WV-BST-49_01	Lick Creek	WVBST-35	3.21E+09		1.69E+08	3.38E+09
Dick Williamson Branch	WV-BST-50_01	Dick Williamson Branch	WVBST-36	1.07E+09	5.30E+07	5.89E+07	1.18E+09
Mate Creek	WV-BST-57_02	Mate Creek	WVBST-40	1.52E+10		8.02E+08	1.60E+10
Mate Creek	WV-BST-57_03	Mate Creek	WVBST-40	2.58E+10		1.36E+09	2.71E+10
Mate Creek	WV-BST-57-B_01	Rutherford Branch	WVBST-40-B	1.22E+09		6.42E+07	1.28E+09
Mate Creek	WV-BST-57-D_01	Mitchell Branch	WVBST-40-C	2.48E+09		1.30E+08	2.61E+09
Mate Creek	WV-BST-57-K_01	Double Camp Fork	WVBST-40-H	2.01E+09		1.06E+08	2.11E+09

Sulphur Creek	WV-BST-58_01	Sulphur Creek	WVBST-41	8.40E+08		4.42E+07	8.84E+08
Beech Creek	WV-BST-67_02	Beech Creek	WVBST-46	1.70E+10		8.97E+08	1.79E+10
Beech Creek	WV-BST-67-D_01	Grapevine Fork	WVBST-46-B	1.90E+09		9.98E+07	2.00E+09
Beech Creek	WV-BST-67-D-1_01	UNT/Grapevine Fork RM 0.22	WVBST-46-B-1	3.76E+08		1.98E+07	3.96E+08
Alum Creek	WV-BST-72_01	Alum Creek	WVBST-50	5.46E+09		2.87E+08	5.75E+09
Ben Creek	WV-BST-74_01	Ben Creek	WVBST-52	6.15E+09		3.24E+08	6.47E+09
Ben Creek	WV-BST-74_02	Ben Creek	WVBST-52	1.38E+10		7.28E+08	1.46E+10
Ben Creek	WV-BST-74_03	Ben Creek	WVBST-52	2.68E+10	3.92E+07	1.41E+09	2.82E+10
Ben Creek	WV-BST-74-D_02	Left Fork/Ben Creek	WVBST-52-B	1.14E+10	3.92E+07	6.04E+08	1.21E+10
Ben Creek	WV-BST-74-L_01	White Oak Hollow	WVBST-52-G.5	3.32E+08		1.75E+07	3.50E+08
Turkey Creek	WV-BST-77_01	Turkey Creek	WVBST-55	2.84E+09		1.49E+08	2.99E+09
Fourpole Creek	WV-BST-78_01	Fourpole Creek	WVBST-56	7.37E+09		3.88E+08	7.75E+09
Fourpole Creek	WV-BST-78-B_01	UNT/Fourpole Creek RM 2.87	WVBST-56-A.4	6.35E+08		3.34E+07	6.69E+08
Bull Creek	WV-BST-79_01	Bull Creek	WVBST-57	7.63E+09		4.02E+08	8.03E+09
Bull Creek	WV-BST-79_02	Bull Creek	WVBST-57	1.83E+10		9.62E+08	1.92E+10
Bull Creek	WV-BST-79-D_01	Left Fork/Bull Creek	WVBST-57-B	6.38E+09		3.36E+08	6.72E+09
Bull Creek	WV-BST-79-J_01	UNT/Bull Creek RM 4.71	WVBST-57-G	1.03E+09		5.42E+07	1.08E+09
Longpole Creek	WV-BST-81_02	Longpole Creek	WVBST-59	1.45E+10		7.64E+08	1.53E+10
Panther Creek	WV-BST-83_04	Panther Creek	WVBST-60	5.16E+10	3.18E+07	2.72E+09	5.44E+10
Panther Creek	WV-BST-83-A_01	Greenbrier Fork	WVBST-60-A	3.22E+09		1.70E+08	3.39E+09
Panther Creek	WV-BST-83-B_01	Trap Fork	WVBST-60-B	3.01E+09		1.58E+08	3.16E+09
Panther Creek	WV-BST-83-C_01	Trace Fork	WVBST-60-C	6.29E+09		3.31E+08	6.62E+09
Horse Creek	WV-BST-88_01	Horse Creek	WVBST-63	5.98E+09		3.15E+08	6.29E+09
War Branch	WV-BST-91_01	War Branch	WVBST-65	2.50E+09		1.32E+08	2.63E+09
Negro Branch	WV-BST-93_01	Negro Branch	WVBST-66	2.04E+09		1.07E+08	2.14E+09
Johnnycake Branch	WV-BST-96_01	Johnnycake Branch	WVBST-69	3.70E+09		1.95E+08	3.90E+09
Johnnycake Branch	WV-BST-96-C_01	UNT/Johnnycake Branch RM 1.76	WVBST-69-C	8.16E+08		4.29E+07	8.59E+08
Dry Fork	WV-BST-98_04	Dry Fork	WVBST-70	8.48E+10	9.79E+07	4.47E+09	8.93E+10
Dry Fork	WV-BST-98_05	Dry Fork	WVBST-70	1.70E+11	1.08E+09	8.99E+09	1.80E+11
Dry Fork	WV-BST-98_06	Dry Fork	WVBST-70	2.04E+11	1.52E+09	1.08E+10	2.17E+11
Dry Fork	WV-BST-98_07	Dry Fork	WVBST-70	2.53E+11	1.64E+09	1.34E+10	2.68E+11
Dry Fork	WV-BST-98-A_01	Coon Branch	WVBST-70-A	1.43E+09		7.53E+07	1.51E+09

Dry Fork	WV-BST-98-H_01	Mile Branch	WVBST-70-C	1.74E+09		9.16E+07	1.83E+09
Dry Fork	WV-BST-98-J_01	Crane Creek	WVBST-70-D	5.51E+09		2.90E+08	5.80E+09
Dry Fork	WV-BST-98-K_01	Betsy Branch	WVBST-70-E	2.33E+09		1.22E+08	2.45E+09
Dry Fork	WV-BST-98-L_01	Grapevine Branch	WVBST-70-F	1.19E+09		6.26E+07	1.25E+09
Dry Fork	WV-BST-98-O_01	Beartown Branch	WVBST-70-I	2.05E+09		1.08E+08	2.16E+09
Dry Fork	WV-BST-98-V_01	Oozley Branch	WVBST-70-L	2.26E+09		1.19E+08	2.38E+09
Dry Fork	WV-BST-98-W_01	Bradshaw Creek	WVBST-70-M	5.94E+09		3.13E+08	6.25E+09
Dry Fork	WV-BST-98-W_03	Bradshaw Creek	WVBST-70-M	1.84E+10	7.58E+06	9.70E+08	1.94E+10
Dry Fork	WV-BST-98-W-6_01	Groundhog Branch	WVBST-70-M-1	1.50E+09		7.89E+07	1.58E+09
Dry Fork	WV-BST-98-W-8_01	Hite Fork	WVBST-70-M-2	7.66E+09	3.79E+06	4.03E+08	8.07E+09
Dry Fork	WV-BST-98-W-10_01	Wolfpen Branch	WVBST-70-M-3	1.62E+09		8.52E+07	1.70E+09
Dry Fork	WV-BST-98-Z_02	Little Slate Creek	WVBST-70-N	7.13E+09		3.75E+08	7.51E+09
Dry Fork	WV-BST-98-Z_03	Little Slate Creek	WVBST-70-N	9.94E+09		5.23E+08	1.05E+10
Dry Fork	WV-BST-98-AD_01	Atwell Branch	WVBST-70-O	1.36E+09		7.15E+07	1.43E+09
Dry Fork	WV-BST-98-AE_01	Johnnycake Hollow	WVBST-70-P	1.16E+09		6.11E+07	1.22E+09
Dry Fork	WV-BST-98-AF_01	Bartley Creek	WVBST-70-Q	3.22E+09		1.69E+08	3.39E+09
Dry Fork	WV-BST-98-AP_01	Pruett Branch	WVBST-70-S	9.88E+08		5.20E+07	1.04E+09
Dry Fork	WV-BST-98-AQ_02	Barrenshe Creek	WVBST-70-T	7.44E+09	1.14E+07	3.92E+08	7.84E+09
Dry Fork	WV-BST-98-AQ-5_01	Clear Fork Branch	WVBST-70-T-2	1.64E+09		8.61E+07	1.72E+09
Dry Fork	WV-BST-98-AT_02	War Creek	WVBST-70-U	8.06E+09		4.24E+08	8.48E+09
Dry Fork	WV-BST-98-AW_01	Jacobs Fork	WVBST-70-W	1.04E+10		5.47E+08	1.09E+10
Dry Fork	WV-BST-98-AW_03	Jacobs Fork	WVBST-70-W	4.13E+10		2.17E+09	4.35E+10
Dry Fork	WV-BST-98-AW_04	Jacobs Fork	WVBST-70-W	5.06E+10		2.66E+09	5.33E+10
Dry Fork	WV-BST-98-AW_05	Jacobs Fork	WVBST-70-W	6.86E+10		3.61E+09	7.22E+10
Dry Fork	WV-BST-98-AW-3_03	Big Creek	WVBST-70-W-1	1.72E+10		9.04E+08	1.81E+10
Dry Fork	WV-BST-98-AW-10_01	Cucumber Creek	WVBST-70-W-5	2.78E+09		1.46E+08	2.93E+09
Dry Fork	WV-BST-98-AW-24_02	Horsepen Creek	WVBST-70-W-6	2.63E+10		1.38E+09	2.76E+10
Dry Fork	WV-BST-98-AW-24-C_01	UNT/Horsepen Creek RM 1.48	WVBST-70-W-6-0.5A	3.69E+08		1.94E+07	3.89E+08
Lick Branch	WV-BST-100_01	Lick Branch	WVBST-71	1.27E+09		6.66E+07	1.33E+09
Sandy Huff Branch	WV-BST-102_01	Sandy Huff Branch	WVBST-73	2.71E+09		1.42E+08	2.85E+09
Snipe Branch	WV-BST-104_01	Snipe Branch	WVBST-75	8.31E+08		4.37E+07	8.75E+08

Clear Fork	WV-BST-106_01	Clear Fork	WVBST-76	1.51E+09	1.33E+08	8.65E+07	1.73E+09
Clear Fork	WV-BST-106_02	Clear Fork	WVBST-76	5.79E+09	1.33E+08	3.12E+08	6.24E+09
Clear Fork	WV-BST-106_03	Clear Fork	WVBST-76	1.23E+10	1.33E+08	6.53E+08	1.31E+10
Clear Fork	WV-BST-106-Y_01	Wolfpen Branch	WVBST-76-I	2.13E+09		1.12E+08	2.24E+09
River Laurel Branch	WV-BST-108_01	River Laurel Branch	WVBST-77	6.51E+08		3.42E+07	6.85E+08
Spice Creek	WV-BST-109_01	Spice Creek	WVBST-78	4.81E+09	2.27E+08	2.65E+08	5.31E+09
Spice Creek	WV-BST-109_02	Spice Creek	WVBST-78	9.03E+09	2.32E+08	4.87E+08	9.74E+09
Spice Creek	WV-BST-109-A_01	Shabbyroom Branch	WVBST-78-B	8.01E+08		4.22E+07	8.44E+08
Spice Creek	WV-BST-109-H_01	Coontree Branch	WVBST-78-E	4.57E+08		2.40E+07	4.81E+08
Spice Creek	WV-BST-109-J_01	Badway Branch	WVBST-78-G	4.38E+08		2.30E+07	4.61E+08
Spice Creek	WV-BST-109-L_01	Newson Branch	WVBST-78-H	5.76E+08		3.03E+07	6.06E+08
Spice Creek	WV-BST-109-M_01	Moorecamp Branch	WVBST-78-I	2.88E+08		1.52E+07	3.03E+08
Lower Hensley Creek	WV-BST-115_01	Lower Hensley Creek	WVBST-79	1.00E+09		5.26E+07	1.05E+09
Hensley Creek	WV-BST-116_01	Hensley Creek	WVBST-80	1.46E+09		7.66E+07	1.53E+09
Davy Branch	WV-BST-123_01	Davy Branch	WVBST-85	3.56E+09	7.58E+06	1.88E+08	3.75E+09
Davy Branch	WV-BST-123-A_01	Left Fork/Davy Branch	WVBST-85-A	1.15E+09		6.07E+07	1.21E+09
Davy Branch	WV-BST-123-G_01	UNT/Davy Branch RM 3.28	WVBST-85-G	2.73E+08		1.44E+07	2.88E+08
Jenny Branch	WV-BST-125_01	Jenny Branch	WVBST-87	1.05E+09		5.54E+07	1.11E+09
Shannon Branch	WV-BST-132_01	Shannon Branch	WVBST-94	1.36E+09		7.17E+07	1.43E+09
Upper Shannon Branch	WV-BST-133_01	Upper Shannon Branch	WVBST-95	1.21E+09		6.38E+07	1.28E+09
Browns Creek	WV-BST-137_01	Browns Creek	WVBST-98	3.19E+09		1.68E+08	3.36E+09
Browns Creek	WV-BST-137_02	Browns Creek	WVBST-98	7.73E+09		4.07E+08	8.14E+09
Browns Creek	WV-BST-137-D_01	Puncheoncamp Branch	WVBST-98-A	3.27E+09		1.72E+08	3.44E+09
Browns Creek	WV-BST-137-H_01	Trail Fork	WVBST-98-B	1.31E+09		6.88E+07	1.38E+09
Elkhorn Creek	WV-BST-138_01	Elkhorn Creek	WVBST-99	7.46E+09	3.79E+06	3.93E+08	7.86E+09
Elkhorn Creek	WV-BST-138_03	Elkhorn Creek	WVBST-99	1.22E+10	3.79E+06	6.43E+08	1.29E+10
Elkhorn Creek	WV-BST-138_04	Elkhorn Creek	WVBST-99	3.81E+10	1.82E+08	2.01E+09	4.03E+10
Elkhorn Creek	WV-BST-138_05	Elkhorn Creek	WVBST-99	5.58E+10	3.61E+08	2.96E+09	5.92E+10
Elkhorn Creek	WV-BST-138-O_01	Laurel Branch	WVBST-99-E	3.84E+09		2.02E+08	4.04E+09
Elkhorn Creek	WV-BST-138-Q_01	Bottom Creek	WVBST-99-G	3.16E+09	4.70E+07	1.69E+08	3.38E+09
Elkhorn Creek	WV-BST-138-V_01	Coalbank Branch	WVBST-99-I	3.45E+09	5.68E+07	1.85E+08	3.69E+09
Elkhorn Creek	WV-BST-138-V-3_01	UNT/Coalbank Branch RM 0.82	WVBST-99-I-0.7	9.25E+08		4.87E+07	9.74E+08

Elkhorn Creek	WV-BST-138-V-5_01	UNT/Coalbank Branch RM 1.43	WVBST-99-I-2	4.37E+08		2.30E+07	4.60E+08
Elkhorn Creek	WV-BST-138-Z_01	North Fork/Elkhorn Creek	WVBST-99-L	4.53E+09	1.14E+08	2.44E+08	4.89E+09
Elkhorn Creek	WV-BST-138-Z_03	North Fork/Elkhorn Creek	WVBST-99-L	1.34E+10	1.14E+08	7.13E+08	1.43E+10
Elkhorn Creek	WV-BST-138-Z-3_01	Bearwallow Branch	WVBST-99-L-2	1.33E+09		6.99E+07	1.40E+09
Elkhorn Creek	WV-BST-138-Z-5_01	Greenbrier Hollow (Leftwich Branch)	WVBST-99-L-3	1.50E+09		7.92E+07	1.58E+09
Elkhorn Creek	WV-BST-138-Z-6_01	Windmill Gap Branch	WVBST-99-L-4	1.57E+09	1.14E+08	8.87E+07	1.77E+09
Elkhorn Creek	WV-BST-138-AJ_01	UNT/Elkhorn Creek RM 20.15	WVBST-99-O.7	5.00E+08		2.63E+07	5.26E+08
Little Indian Creek	WV-BST-139_01	Little Indian Creek	WVBST-100	1.66E+09		8.73E+07	1.75E+09
Mitchell Branch	WV-BST-146_01	Mitchell Branch	WVBST-105	9.35E+08		4.92E+07	9.84E+08
Sandlick Creek	WV-BST-152_02	Sandlick Creek	WVBST-109	8.36E+09		4.40E+08	8.80E+09
Sandlick Creek	WV-BST-152-A_01	Right Fork/Sandlick Creek	WVBST-109-A	1.28E+09		6.75E+07	1.35E+09
Sandlick Creek	WV-BST-152-E_01	UNT/Sandlick Creek RM 3.00	WVBST-109-D	4.74E+08		2.50E+07	4.99E+08
Leslie Branch	WV-BST-157_01	Leslie Branch	WVBST-114	1.15E+09		6.06E+07	1.21E+09
South Fork/Tug Fork	WV-BST-163_01	South Fork/Tug Fork	WVBST-115	4.71E+09		2.48E+08	4.96E+09
South Fork/Tug Fork	WV-BST-163_03	South Fork/Tug Fork	WVBST-115	1.22E+10	3.79E+06	6.43E+08	1.29E+10
South Fork/Tug Fork	WV-BST-163-B_01	Tea Branch	WVBST-115-A	2.16E+08		1.14E+07	2.28E+08
South Fork/Tug Fork	WV-BST-163-F_01	Jump Branch	WVBST-115-D	5.21E+08		2.74E+07	5.48E+08
South Fork/Tug Fork	WV-BST-163-J_01	Laurel Branch	WVBST-115-F	1.10E+09		5.77E+07	1.15E+09
South Fork/Tug Fork	WV-BST-163-N_01	UNT/South Fork RM 5.85/Tug Fork	WVBST-115-J	1.75E+09		9.24E+07	1.85E+09
UNT/Tug Fork RM 148.42	WV-BST-164_01	UNT/Tug Fork RM 148.42	WVBST-115.2	2.93E+08		1.54E+07	3.08E+08
Loop Branch	WV-BST-168_01	Loop Branch	WVBST-117	8.76E+08		4.61E+07	9.22E+08
UNT/Tug Fork RM 152.09	WV-BST-172_01	UNT/Tug Fork RM 152.09	WVBST-118.7	4.27E+08		2.25E+07	4.50E+08
Little Creek	WV-BST-174_01	Little Creek	WVBST-120	5.12E+09	3.79E+06	2.70E+08	5.39E+09
Little Creek	WV-BST-174-B_01	Indian Grave Branch	WVBST-120-A	7.69E+08	3.79E+06	4.06E+07	8.13E+08
Little Creek	WV-BST-174-C_01	Puncheoncamp Branch	WVBST-120-B	7.88E+08		4.15E+07	8.29E+08
UNT/Tug Fork RM 154.02	WV-BST-176_01	UNT/Tug Fork RM 154.02	WVBST-120.3	2.15E+08		1.13E+07	2.27E+08
Millseat Branch	WV-BST-178_01	Millseat Branch	WVBST-121	1.23E+09		6.49E+07	1.30E+09
Ballard Harmon Branch	WV-BST-179_01	Ballard Harmon Branch	WVBST-122	1.43E+09		7.52E+07	1.50E+09
Sams Branch	WV-BST-181_01	Sams Branch	WVBST-123	8.16E+08		4.29E+07	8.58E+08

NA = not applicable; UNT = unnamed tributary; RM = river mile.

"Scientific notation" is a method of writing or displaying numbers in terms of a decimal number between 1 and 10 multiplied by a power of 10. The scientific notation of 10,492 for example, is 1.0492×10^4 or 1.0492E+4.