Tennessee and Big Sandy River Basins

Cause Group Code: O01R-01-BAC South Fork Holston River and Tributaries

Cause Location: These segments of the South Fork Holston River include from the mainstem South Fork Holston River from the headwaters downstream to the Barton Creek confluence; from the Rowland Creek confluence downstream to the Grosses Creek confluence; from the Grosses Creek confluence to south of Loves Mill; and the Lower South Fork Holston River from the South Holston Lake backwaters upstream to the Rush Creek confluence.

Tributaries included: Bishop Branch from the confluence with South Fork Holston River upstream to the confluence with Parker Branch.
Grosses Creek from the headwaters downstream to the confluence with South Fork Holston River.
Slemp Creek from the headwaters downstream to the confluence with the South Fork Holston River.
St. Clair Creek, a South Fork Holston River tributary south of St. Clair Bottom.
Cressy Creek, a South Fork Holston River tributary south of Sugar Grove. Beaverdam Creek, mainstem of TN state line upstream to the confluence with the South Fork Holston River. Laurel Creek, from the South Fork Holston River confluence upstream to the state line near Iron Mountain.

Cause City/County: Smyth County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station 6CBSC000.10 had a 91% exceedance of the previous E.coli water quality standard. Station 6CGRC000.68 had a 67% exceedance of the previous E. coli water quality standard. Station 6CSFH110.45 has a 33% exceedance, station 6CSLM000.67 had a 40% exceedance, 6CSTC000.20 had a 23% exceedance of the previous E. coli water quality standard

Stations 6CSFH097.42 and 6CSFH075.61 had one STV exceedance, but insufficient data to analyze geomean. Stations 6CCRS001.15 had 2 or more STV exceedances in the same 90-day period represented by 10+ samples. Stations 6CSFH093.01, 6CBVD000.07, and 6CLAL001.21 had geomean exceedances in any 90-day period.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O01R_BSC01A02 / Bishop Branch / South Fork Holston tributary from south at Riverside.	4A	Escherichia coli (E. coli)	2010	L	0.48
VAS-O01R_CRS01B04 / Cressy Creek / South Holston River tributary south of Sugar Grove.	4A	Escherichia coli (E. coli)	2022	L	1.63
VAS-O01R_GRC01A00 / Grosses Creek / From the headwaters downstream to the South Fork Holston River confluence, southeast of Loves Mill.	4A	Escherichia coli (E. coli)	2010	L	4.01
VAS-O01R_SFH01A00 / South Fork Holston River / Mainstem South Fork Holston River from Rowland Creek confluence downstream to Grosses Creek confluence.	4A	Escherichia coli (E. coli)	2002	L	8.73
VAS-O01R_SFH03A00 / South Fork Holston River / Mainstem South Fork Holston River from headwaters downstream to Barton Branch confluence.	4A	Escherichia coli (E. coli)	2010	L	9.58
VAS-O01R_SLM01A02 / Slemp Creek / Upper Slemp Creek, north of Sugar Grove.	4A	Escherichia coli (E. coli)	2010	L	3.85
VAS-O01R_STC01A02 / Saint Clair Creek / A South Fork Holston tributary south of St. Clair Bottom.	4A	Escherichia coli (E. coli)	2016	L	3.68

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O02R_BVD01A00 / Beaverdam Creek / Beaverdam Creek mainstem from Tennessee line upstream to its confluence with South Fork Holston River in Damascus.	4A	Escherichia coli (E. coli)	2022	L	2.02
VAS-O02R_LAL01A04 / Laurel Creek / From South Fork Holston River confluence upstream to state line near Iron Mountain.	4A	Escherichia coli (E. coli)	2022	L	6.10
VAS-O02R_SFH01B02 / South Fork Holston River / South Fork Holston River from Grosses Creek confluence south of Loves Mill. downstream to Rush Creek confluence.	4A	Escherichia coli (E. coli)	2022	L	6.14
VAS-O02R_SFH02A00 / South Fork Holston River / Lower South Fork Holston River from Rockhouse Run confluence at South Holston Lake backwaters, river mile 73.00, upstream to the Rush Creek confluence.	4A	Escherichia coli (E. coli)	2004	L	12.99

South Fork Holston River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			59.21

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O01R_SFH03A00 / South Fork Holston River / Mainstem South Fork Holston River from headwaters downstream to Barton Branch confluence.	4A	Fecal Coliform	2004	L	9.58

South Fork Holston River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			9.58

Sources: Grazing in Riparian or Shoreline Zones; Livestock (Grazing or Feeding Operations); Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O01R-02-PH Hurricane Creek Tributary

Cause Location: This is an unnamed tributary of Hurricane Creek in Smyth County north of the Appalachian Trail.

Cause City/County: Smyth County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: pH measurements at station 6CXEE000.72 failed to meet the pH water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O01R_XEE01A08 / Hurricane Creek tributary / On Hurricane Mountain.	5A	pH	2010	L	1.12

Hurricane Creek Tributary

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			1.12

Sources: Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-01-HG South Fork Holston River

Cause Location: This segment extends from the Grosses Creek confluence downstream to Rush Creek.

Cause City/County: Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Two samples at station 6CSFH0088.91 exceeded the Mercury screening values in 2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O02R_SFH01B02 / South Fork Holston River / South Fork Holston River from Grosses Creek confluence south of Loves Mill. downstream to Rush Creek confluence.	5A	Mercury in Fish Tissue	2010	L	6.14

South Fork Holston River

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			6.14

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-03-HG Beaverdam Creek

Cause Location: This segment extends from the Tennessee state line upstream to its confluence with the South Fork Holston River.

Cause City/County: Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: The Virginia Department of Health's level of concern was exceeded for Mercury in one fish tissue sample and the Department of Environmental Quality's screening value for Mercury was exceeded in an additional sample.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O02R_BVD01A00 / Beaverdam Creek / Beaverdam Creek mainstem from Tennessee line upstream to its confluence with South Fork Holston River in Damascus.	5A	Mercury in Fish Tissue	2010	L	2.02

Beaverdam Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			2.02

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: O02R-05-BAC Whitetop Laurel Creek

Cause Location: Mainstem from Pennington Branch confluence upstream of Konnarock, downstream to the Green Cove Creek confluence and from the Straight Branch confluence downstream to the Laurel Creek confluence at Laureldale.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CWLC011.55 had a 17% exceedance of the previous E. coli water quality standard. Station 6CWLC000.79 had geomean exceedance in any 90-day period.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O02R_WLC01A00 / Whitetop Laurel Creek / South of Straight Mountain, the mainstem from Little Laurel Creek confluence upstream of Konnarock, downstream to the Green Cove Creek confluence.	4A	Escherichia coli (E. coli)	2012	L	3.80
VAS-O02R_WLC01A06 / Whitetop Laurel Creek / Mainstem from Straight Branch confluence downstream to Laurel Creek confluence at Laureldale.	4A	Escherichia coli (E. coli)	2022	L	3.19

Whitetop Laurel Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			6.99

Sources: Livestock (Grazing or Feeding Operations); Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O03R-01-BAC Middle Fork Holston River and Tributaries

Cause Location: These segments extend from the headwaters above Groseclose downstream to the Rt. 91 bridge in Washington County and also includes from the PWS segment upstream to Edmondson Dam.

Tributaries included: Dulton Branch, a Middle Fork Holston River headwaters tributary originating on Glade Mountain and confluencing at Groseclose. Unnamed Middle Fork Holston River tributary that enters at the Rt. 803 crossing near the USGS gaging station.

Cause City/County: Smyth County; Washington County; Wythe County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: Stations 6CMFH055.88 and 6CXDY000.17 had a 67% exceedances of the previous E.coli water quality standard. Station 6CMFH045.72 had a 22% exceedance of the previous water quality standard.

Stations 6BDUT000.14 and 6CMFH013.21 had one STV exceedance in one or multiple 90-day windows but insufficient data to analyze geomean. Stations 6CMFH040.67, 6CMFH053.36, and 6CMFH027.14 has 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_MFH01A00 / Middle Fork Holston River / From Marion raw water intake, near Mt Carmel, downstream to Hungry Mother Creek confluence, including Town of Marion.	4A	Fecal Coliform	2002	L	5.50
VAS-O03R_MFH02A00 / Middle Fork Holston River / From Marion raw water intake, 45.83, through Atkins to the Snavely Branch confluence.	4A	Fecal Coliform	2002	L	5.15
VAS-O03R_MFH04A98 / Middle Fork Holston River / From Dutton Branch confluence at Groseclose downstream to the at the Snavely Branch confluence.	4A	Fecal Coliform	2002	L	4.25
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream to Rt. 91 bridge.	4A	Fecal Coliform	2002	L	9.20
VAS-O05R_MFH05A04 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Edmondson Dam upstream to Rt. 91 bridge, downstream to Rt. 91 bridge confluence.	4A	Fecal Coliform	2006	L	3.80

Middle Fork Holston River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			27.9

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_DUT01A04 / Dulton Branch / Middle Fork Holston River headwaters tributary originating on Glade Mountain and confluences at Groseclose.	4A	Escherichia coli (E. coli)	2020	L	3.32

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_MFH01A00 / Middle Fork Holston River / From Marion raw water intake, near Mt Carmel, downstream to Hungry Mother Creek confluence, including Town of Marion.	4A	Escherichia coli (E. coli)	2010	L	5.50
VAS-O03R_MFH02A00 / Middle Fork Holston River / From Marion raw water intake, 45.83, through Atkins to the Snavely Branch confluence.	4A	Escherichia coli (E. coli)	2010	L	5.15
VAS-O03R_MFH04A98 / Middle Fork Holston River / From Dutton Branch confluence at Groseclose downstream to the at the Snavely Branch confluence.	4A	Escherichia coli (E. coli)	2014	L	4.25
VAS-O03R_MFH05A04 / Middle Fork Holston River / Mainstem headwaters upstream of Dutton Branch confluence at Groseclose, originates in Kinser Valley in Wythe County.	4A	Escherichia coli (E. coli)	2010	L	3.42
VAS-O04R_MFH01A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Hungry Mother Creek confluence downstream to Sulfur Spring Creek confluence.	4A	Escherichia coli (E. coli)	2004	L	12.60
VAS-O05R_MFH03A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from PWS segment upstream to Edmondson Dam.	4A	Escherichia coli (E. coli)	2006	L	3.87
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream to Rt. 91 bridge.	4A	Escherichia coli (E. coli)	2020	L	9.20
VAS-O05R_XDY01A08 / Middle Fork Holston tributary / Enters at SR 803 crossing near the USGS gauging station.	4A	Escherichia coli (E. coli)	2008	L	0.89

Middle Fork Holston River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			48.2

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O03R-01-BEN Middle Fork Holston River

Cause Location: This segment includes the Middle Fork Holston River from the headwaters downstream to the Dutton Branch confluence.

Cause City/County: Smyth County; Wythe County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Station 6CMFH055.88 was impaired based on the VSCI scores of 72.6 and 57.9 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_MFH05A04 / Middle Fork Holston River / Mainstem headwaters upstream of Dutton Branch confluence at Groseclose, originates in Kinser Valley in Wythe County.	4A	Benthic Macroinvertebrates Bioassessments	2010	H	3.42

Middle Fork Holston River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.42

Sources: Grazing in Riparian or Shoreline Zones; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O03R-02-BAC Bear Creek

Cause Location: Middle Fork Holston River tributary, west of Atkins, parallel to Route 622.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station at 6CBER000.17 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_BER01A02 / Bear Creek & tributaries / Middle Fork Holston River tributary flows south, west of Atkins.	4A	Escherichia coli (E. coli)	2010	L	6.51

Bear Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			6.51

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O03R-03-BAC Staley Creek

Cause Location: This segment is a Middle Fork Holston River tributary, parallel to Route 16, south of Marion to the National Forest border.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station at 6CSTA000.05 has a 64% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O03R_STA01A02 / Staley Creek / Middle Fork Holston River tributary from I 81 upstream to National Forest just north of Rocky Hollow, including east Currin Valley.	4A	Escherichia coli (E. coli)	2010	L	5.58
VAS-O03R_STA01B10 / Staley Creek / Middle Fork Holston River tributary on the west side of Marion, upstream to I 81.	4A	Escherichia coli (E. coli)	2010	L	1.02
VAS-O03R_STA02A04 / Staley Creek / Headwaters in western Currin Valley.	4A	Escherichia coli (E. coli)	2020	L	1.46

Staley Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			8.06

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O04L-01-HG Hungry Mother Lake

Cause Location: This segment includes Hungry Mother Lake from its headwaters to the dam.

Cause City/County: Smyth County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6CHUN005.24 on 9/29/2020 show mercury levels above the fish tissue value of 300 ppb in two walleye composite samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O04L_HUN01A02 / Hungry Mother Lake / Man made reservoir located within Hungry Mother State Park in Smyth County.	5A	Mercury in Fish Tissue	2010	L	103.23

Hungry Mother Lake

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		103.23	

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: O04R-01-BAC Hungry Mother Creek

Cause Location: These segments include from the reservoir downstream to the Middle Fork Holston River confluence and the reservoir backwaters upstream.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6CHUN001.34 had a 42% exceedance of the previous E.coli water quality standard. Station 6CHUN006.54 had geomean exceedances in any 90-day period.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O04R_HUN02A02 / Hungry Mother Creek / Hungry Mother Creek downstream from dam to Middle Fork Holston River west of Marion.	4A	Escherichia coli (E. coli)	2006	L	4.83
VAS-O04R_HUN02B04 / Hungry Mother Creek & tributaries / From the reservoir backwaters upstream.	4A	Escherichia coli (E. coli)	2022	L	24.50

Hungry Mother Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			29.33

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O04R-03-BAC Laurel Springs Creek

Cause Location: This segment flows north from Adwolf to the Middle Fork Holston River.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station, 6CLRL000.35, had a 50% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O04R_LRL01A04 / Laurel Springs Creek / Flows north from Adwolf to Middle Fork Holston River.	4A	Escherichia coli (E. coli)	2006	L	2.12

Laurel Springs Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.12

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O04R-04-BAC Walker Creek

Cause Location: This segment flows from the headwaters downstream to the Middle Fork Holston River near the intersection of route 659 and route 645.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station, 6CWAL000.09, had a 67% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O04R_WAL01A02 / Walker Creek & tributaries / A Middle Fork Holston River tributary from north of Little Brushy Mountain.	4A	Escherichia coli (E. coli)	2006	L	13.53

Walker Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			13.53

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O04R-05-BAC Sulphur Spring Branch and Tributaries

Cause Location: This segment is a Middle Fork Holston River tributary north of Chilhowie that runs parallel to Route 107 to the intersection with Route 617.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CSUL000.09 has a 75% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O04R_SUL01A12 / Sulphur Spring Creek and tributaries / Middle Fork Holston River tributary that drains Lyons Gap area of Little Brushy Mountain northwest of Chilhowie.	4A	Escherichia coli (E. coli)	2012	L	11.28

Sulphur Spring Branch and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.28

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-01-BAC Three Creeks

Cause Location: These segments include the following tributaries to Middle Fork Holston River: Hutton, Hall, Byers, and their tributaries (Cedar Creek, West Fork Cedar Creek, East Fork Cedar Creek, Plum Creek, unnamed tributary to Hutton Creek, unnamed tributary to Hall Creek and Tattle Branch).

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: Stations 6CBYS000.08,6CCED000.04, 6CHAL000.75, 6CHAL002.60, 6CHTO000.24, 6CPLU000.02, and 6CTAT000.50 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence.	4A	Escherichia coli (E. coli)	1996	L	0.50
VAS-O05R_CED01A94 / Cedar Creek / From confluence of East Fork Cedar Creek and West Fork Cedar Creek through Cedarville to Middle Fork Holston confluence.	4A	Escherichia coli (E. coli)	2006	L	5.61
VAS-O05R_HAL01A94 / Hall Creek / Mainstem from headwaters north of Emory through Emory and Henry College to Byers Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	6.91
VAS-O05R_HTO01A94 / Hutton Creek / Headwaters east of Glade Spring downstream to Middle Fork Holston River confluence and tributaries.	4A	Escherichia coli (E. coli)	2006	L	5.16
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	2.33
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	2.78

Three Creeks

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			23.29

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence.	4A	Fecal Coliform	2004	L	0.50
VAS-O05R_CED01A94 / Cedar Creek / From confluence of East Fork Cedar Creek and West Fork Cedar Creek through Cedarville to Middle Fork Holston confluence.	4A	Fecal Coliform	2002	L	5.61

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_CWF01A02 / West Fork Cedar Creek / Cedar Creek tributary west of Meadowview.	4A	Fecal Coliform	2002	L	1.54
VAS-O05R_ECE01A02 / Cedar Creek / Cedar Creek tributary through Meadowview.	4A	Fecal Coliform	2002	L	1.11
VAS-O05R_HAL01A94 / Hall Creek / Mainstem from headwaters north of Emory through Emory and Henry College to Byers Creek confluence.	4A	Fecal Coliform	2002	L	6.91
VAS-O05R_HTO01A94 / Hutton Creek / Headwaters east of Glade Spring downstream to Middle Fork Holston River confluence and tributaries.	4A	Fecal Coliform	2002	L	5.16
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence.	4A	Fecal Coliform	2002	L	2.33
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence.	4A	Fecal Coliform	2002	L	2.78
VAS-O05R_XCD01A02 / Tributary to Hutton Creek / Headwaters near Litz through Glade Spring down to Middle Fork Holston River confluence and tributaries.	4A	Fecal Coliform	2002	L	4.11
VAS-O05R_XCG01A02 / Hall Creek tributary / Mainstem from headwaters to Hall Creek confluence west of Patrick Henry High School.	4A	Fecal Coliform	2002	L	1.71

Three Creeks

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			31.76

Sources: Animal Feeding Operations (NPS); Crop Production (Crop Land or Dry Land); Grazing in Riparian or Shoreline Zones; Livestock (Grazing or Feeding Operations); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-01-BEN Three Creeks

Cause Location: These segments include the following tributaries to Middle Fork Holston River: Hall and surrounding tributaries (Byers Creek, Cedar Creek, West Fork Cedar Creek, East Fork Cedar Creek, Plum Creek, unnamed tributary to Hutton Creek, unnamed tributary to Hall Creek, Tattle Branch).

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Station 6CBYS000.08 has VSCI score of 53.4 and 63.1 in 2019 and 53.8 and 65.7 in 2017. Station 6CTAT000.50 had VSCI score of 62.2 and 58.0 in 2019 and 58.7 and 66.2 in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_BYS01A94 / Byers Creek / Byers Creek from Hall Creek and Indian Run confluence downstream to Middle Fork Holston River confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	H	0.50
VAS-O05R_CED01A94 / Cedar Creek / From confluence of East Fork Cedar Creek and West Fork Cedar Creek through Cedarville to Middle Fork Holston confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	H	5.61
VAS-O05R_CWF01A02 / West Fork Cedar Creek / Cedar Creek tributary west of Meadowview.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	1.54
VAS-O05R_ECE01A02 / Cedar Creek / Cedar Creek tributary through Meadowview.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	1.11
VAS-O05R_HAL01A94 / Hall Creek / Mainstem from headwaters north of Emory through Emory and Henry College to Byers Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	H	6.91
VAS-O05R_PLU01A02 / Plum Creek / Headwaters at Jamison Gap downstream to Hutton Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	2.33
VAS-O05R_TAT01A02 / Tattle Branch / Mainstem south of Old Glade Spring from headwaters to Byers Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	H	2.78
VAS-O05R_XCD01A02 / Tributary to Hutton Creek / Headwaters near Litz through Glade Spring down to Middle Fork Holston River confluence and tributaries.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	4.11
VAS-O05R_XCG01A02 / Hall Creek tributary / Mainstem from headwaters to Hall Creek confluence west of Patrick Henry High School.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	1.71

Three Creeks

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			26.6

Sources: Animal Feeding Operations (NPS); Crop Production (Crop Land or Dry Land); Grazing in Riparian or Shoreline Zones; Livestock (Grazing or Feeding Operations); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-02-BAC Greenway Creek

Cause Location: This segment includes the mainstem from the headwaters downstream to the confluence with the Middle Fork Holston River.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station 6CGRW000.09 had a 83% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_GRW01A02 / Greenway Creek / Tributary to Middle Fork Holston River at Neff, west of Meadowview.	4A	Escherichia coli (E. coli)	2008	L	5.02

Greenway Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.02

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-02-BEN Greenway Creek

Cause Location: This segment includes the mainstem from the headwaters downstream to the confluence with the Middle Fork Holston River.

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological station located at 6CGRW002.31 was impaired based on VSCI scores of 66.3 and 59 in 2019.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_GRW01A02 / Greenway Creek / Tributary to Middle Fork Holston River at Neff, west of Meadowview.	5A	Benthic Macroinvertebrates Bioassessments	2010	H	5.02

Greenway Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.02

Sources: Grazing in Riparian or Shoreline Zones; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O05R-05-BEN Middle Fork Holston River

Cause Location: This segment includes the mainstem Middle Fork Holston River from the Sulphur Springs Creek confluence to Edmondson Dam.

Cause City/County: Smyth County; Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological station 6CMFH023.41 was impaired based on VSCI score of 57 and 53 in 2005. 6CMFH011.23 had VSCI scores of 62.8 and 73.3 in 2018 and station 6CMFH026.00 had VSCI scores of 52.1 and 63.8 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O05R_MFH04A00 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Sulphur Spring Creek downstream to Rt. 91 bridge.	4A	Benthic Macroinvertebrates Bioassessments	2008	H	9.2
VAS-O05R_MFH05A04 / Middle Fork Holston River / Mainstem Middle Fork Holston River from Edmondson Dam upstream to Rt. 91 bridge, downstream to Rt. 91 bridge confluence.	4A	Benthic Macroinvertebrates Bioassessments	2006	H	3.8

Middle Fork Holston River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			13

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06L-01-DO South Holston Lake

Cause Location: TVA owned reservoir in Tennessee and Virginia. The dam is located in Tennessee. South Holston Reservoir is used to generate hydroelectric power and provide flood control and recreational opportunities.

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Dissolved Oxygen/5A

Cause Description: At 6CSFH062.93, 19 excursions of the dissolved oxygen WQS were recorded in 157 observations (12.1%) during the 2015 and 2019 monitoring seasons.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06L_SFH01A00 / South Holston Reservoir / 7,580 acre reservoir owned and operated by the Tennessee Valley Authority to generate hydroelectric power and provide flood control recreational opportunities. The dam is located in Tennessee; acreage given is Virginia only.	5A	Dissolved Oxygen	2022	L	1699.98

South Holston Lake

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:		1699.98	

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06L-01-HG South Holston Lake

Cause Location: TVA owned reservoir in Tennessee and Virginia. The dam is located in Tennessee. South Holston Reservoir is used to generate hydroelectric power and provide flood control and recreational opportunities.

Cause City/County: Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6CSFH070.80 on 9/29/2020 show mercury levels above the tissue value (300 ppb) in composite samples of three species (smallmouth bass, largemouth bass, and golden redhorse).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06L_SFH01A00 / South Holston Reservoir / 7,580 acre reservoir owned and operated by the Tennessee Valley Authority to generate hydroelectric power and provide flood control recreational opportunities. The dam is located in Tennessee; acreage given is Virginia only.	5A	Mercury in Fish Tissue	2010	L	1699.98

South Holston Lake

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		1699.98	

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06L-01-PCB South Holston Lake

Cause Location: TVA owned reservoir in Tennessee and Virginia. The dam is located in Tennessee. South Holston Reservoir is used to generate hydroelectric power and provide flood control and recreational opportunities.

Cause City/County: Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: Fish tissue collected at 6CSFH070.80 on 9/29/2020 show polychlorinated biphenyls (PCB) levels above the tissue value (18 ppb) in a composite sample of carp.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06L_SFH01A00 / South Holston Reservoir / 7,580 acre reservoir owned and operated by the Tennessee Valley Authority to generate hydroelectric power and provide flood control recreational opportunities. The dam is located in Tennessee; acreage given is Virginia only.	5A	PCBs in Fish Tissue	2010	L	1699.98

South Holston Lake

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:		1699.98	

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-01-BAC Wolf Creek and Tributaries

Cause Location: These segments extend from the upper mainstem at Route 11 downstream to the lake backwaters and also includes the lower mainstem from the Town Creek confluence through the Great Knobs, downstream to the Route 75 bridge.

Tributaries included: Spoon Gap Creek, a Wolf Creek tributary near Green Spring.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station, 6CWLF001.18, had a 66% exceedance of the previous E.coli water quality standard and station 6CWLF007.55 had a 55% exceedance of the previous E.coli water quality standard. Station 6CSPO001.45 had a 15% exceedance of the previous E.coli water quality standard.

Station 6CWLF008.00 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town Creek confluence through the Great Knobs, downstream to Rt. 75 bridge.	4A	Fecal Coliform	2004	L	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters.	4A	Fecal Coliform	2006	L	0.41
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring.	4A	Fecal Coliform	2004	L	2.93

Wolf Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			6.67

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_SPO01A16 / Spoon Gap Creek / A Wolf Creek tributary near Green Spring.	4A	Escherichia coli (E. coli)	2016	L	2.67
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town Creek confluence through the Great Knobs, downstream to Rt. 75 bridge.	4A	Escherichia coli (E. coli)	2008	L	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters.	4A	Escherichia coli (E. coli)	2010	L	0.41
VAS-O06R_WLF02B08 / Wolf Creek / Upper mainstem from the Town Creek confluence past Stone Mill, upstream to Rt. 11 in west Abingdon.	4A	Escherichia coli (E. coli)	2010	L	2.36

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring.	4A	Escherichia coli (E. coli)	2010	L	2.93

Wolf Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.7

Sources: Livestock (Grazing or Feeding Operations); Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-01-BEN Wolf Creek

Cause Location: This segment includes the mainstem of Wolf Creek from the Town Creek confluence downstream to the lake backwaters.

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological monitoring station 6CWLF was impaired based on VSCI scores of 57.8 and 51.8 in the 2019 monitoring season. Station 6CWLF005.95 was impaired based on VSCI scores of 53.5 and 55.3 in 2019 and 42.3 and 42.9 in 2019.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town Creek confluence through the Great Knobs, downstream to Rt. 75 bridge.	4A	Benthic Macroinvertebrates Bioassessments	2002	H	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters.	4A	Benthic Macroinvertebrates Bioassessments	2006	H	0.41
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring.	4A	Benthic Macroinvertebrates Bioassessments	2006	H	2.93

Wolf Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			6.67

Sources: Grazing in Riparian or Shoreline Zones; Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-01-PCB Wolf Creek

Cause Location: This segment extends from the Town Creek confluence downstream to the lake backwaters.

Cause City/County: Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: This segment was listed based on the Virginia Department of Health's fish consumption advisory for polychlorinated biphenyls.

Fish tissue was collected in 2020 at station 6BWLF006.55, 2 composite samples of norther hogsucker showed no exceedances of the tissue value for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_WLF01A98 / Wolf Creek / Lower mainstem from Town Creek confluence through the Great Knobs, downstream to Rt. 75 bridge.	5A	PCBs in Fish Tissue	2006	L	3.33
VAS-O06R_WLF02B06 / Wolf Creek / Lower end of Wolf Creek from Rt. 75 bridge near Green Spring downstream to South Holston Lake backwaters.	5A	PCBs in Fish Tissue	2006	L	0.41
VAS-O06R_WLF03A06 / Wolf Creek / From upper Rt. 75 bridge near Abingdon downstream to Rt. 75 bridge near Green Spring.	5A	PCBs in Fish Tissue	2006	L	2.93

Wolf Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			6.67

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-02-BAC Fifteen Mile Creek and Tributaries

Cause Location: These segments extend from the headwaters downstream to the confluence with the South Holston Reservoir.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Stations 6CFIF000.96 and 6CFIF006.16 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_FIF01A02 / Fifteenmile Creek & tributaries / From north of Watauga Road to South Holston Lake backwaters.	5A	Escherichia coli (E. coli)	2008	L	8.99
VAS-O06R_FIF02A08 / Fifteenmile Creek / From Lee Highway near I81 Exit 19, to beginning of PWS waters just north of Watauga Road.	5A	Escherichia coli (E. coli)	2008	L	3.94

Fifteen Mile Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.93

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-02-BEN Fifteen Mile Creek Tirbutary

Cause Location: Fifteen Mile Creek tributary, north of the eastern end of Rt. 677.

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6CXAN000.89 was impaired based on VSCI score of 42.7 and 53.4 in the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_XAN01A22 / Fifteen Mile Creek Tributary / Fifteenmile Creek tributary, north of eastern end Rt.677 (old landfill side).	5A	Benthic Macroinvertebrates Bioassessments	2022	L	4.33

Fifteen Mile Creek Tirbutary

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.33

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-03-BAC Spring Creek

Cause Location: This segment extends from the South Holston Reservoir backwaters upstream to the headwaters.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6CSPR001.18 had a 42% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_SPR01A02 / Spring Creek / Spring Creek from South Holston Lake backwaters upstream.	5A	Escherichia coli (E. coli)	2008	L	4.44

Spring Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.44

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-04-BAC Town Creek

Cause Location: This segment includes the mainstem from the headwaters, through the Town of Abingdon to the Wolf Creek confluence.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CTOW000.58 had a 42% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_TOW01A00 / Town Creek / Mainstem from the headwaters, flows from northeast through Town of Abingdon, southwest to the Wolf Creek confluence.	4A	Escherichia coli (E. coli)	2012	L	4.76

Town Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.76

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O06R-06-BAC Cox Mill Creek

Cause Location: A South Holston Lake tributary.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: DEQ special study monitoring station located at 6CMLC000.65 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O06R_CXC01A18 / Cox Mill Creek / South Holston Lake tributary.	5A	Escherichia coli (E. coli)	2018	L	3.51

Cox Mill Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.51

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-01-BAC Beaver Creek and Tributaries

Cause Location: These segments include the headwaters of Beaver Creek downstream to the Tennessee political boundary.

Tributaries included: Little Creek, from the headwaters downstream to the TN state line in the City of Bristol. Mumpower Creek, a tributary to Little Creek parallel to Rt. 640, north of Bristol city limits. Unnamed Little Creek tributary, from the headwaters downstream to the confluence of Mumpower Creek, parallel to Campground Road

Cause City/County: Bristol; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: Station 6CBEV022.29 had a 50% exceedance of the previous E.coli water quality standard and stations 6CLTL000.26, 6CMUM000.65, and 6CXDR000.34 had 88%, 41%, and 67% exceedances of the prior water quality standard.

Trend monitoring station 6CBEV020.86 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries.	4A	Escherichia coli (E. coli)	2006	L	7.28
VAS-O07R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park.	4A	Escherichia coli (E. coli)	2006	L	7.77
VAS-O07R_LTL01A96 / Little Creek / Headwaters, downstream to the Tennessee state line in the City of Bristol.	4A	Escherichia coli (E. coli)	2006	L	2.30
VAS-O07R_MUM01A06 / Mumpower Creek / A tributary to Little Creek parallel SR 640, north of Bristol City limits.	4A	Escherichia coli (E. coli)	2006	L	2.91
VAS-O07R_XDR01A06 / Little Creek / Headwaters west of Haskell, downstream to the confluence of Mumpower Creek parallel to Campground Road.	4A	Escherichia coli (E. coli)	2006	L	2.81

Beaver Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			23.07

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_LTL01A96 / Little Creek / Headwaters, downstream to the Tennessee state line in the City of Bristol.	4A	Fecal Coliform	2004	L	2.3

Beaver Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			2.3

Sources: Rural (Residential Areas); Unrestricted Cattle Access; Wastes from Pets

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-01-BEN Beaver Creek

Cause Location: This segment includes the mainstem from the headwaters of Beaver Creek downstream to the Tennessee political boundary including its tributaries.

Cause City/County: Bristol; Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological stations located at 6CBEV015.27 and 6CBEV023.99 was found to be impaired based on VSCI scores of 47.5 and 54.9 and 55.2 and 65.3 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries.	4A	Benthic Macroinvertebrates Bioassessments	1998	L	7.28
VAS-O07R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park.	4A	Benthic Macroinvertebrates Bioassessments	1998	L	7.77

Beaver Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			15.05

Sources: Crop Production (Crop Land or Dry Land); Rural (Residential Areas); Unrestricted Cattle Access; Urban Runoff/Storm Sewers

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-01-PCB Beaver Creek and Little Creek

Cause Location: These segments include the headwaters of Beaver Creek downstream to the Tennessee political boundary and Little Creek from the headwaters downstream to the Tennessee political boundary in the City of Bristol.

Cause City/County: Bristol; Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: VDH fish consumption advisory originally issued 5/15/2003 and amended 12/13/2007 & 7/27/2005 and includes the area from the Beaver Creek dam downstream approximately 10 miles to the VA/TN state line within the City of Bristol including the tributary of Little Creek. Carp, largemouth bass, and smallmouth bass should not be consumed; no more than two eight ounce meals of any other species should be consumed.

Fish tissue stations (6CBEV015.27 and 6CLTL000.26) found polychlorinated biphenyls (PCB's) in carp and stonerollers above DEQ's screening value.

Recent fish tissue collected in 2020 at 6CBEV015.27 included 3 composite samples of rock bass, northern hogsucker, and white sucker. All samples exceeded the tissue screening value for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_BEV01A94 / Beaver Creek / Mainstem from Beaver Creek dam (nonfunctional) thru the City of Bristol, downstream to Tennessee state line including tributaries.	5A	PCBs in Fish Tissue	2006	L	7.28
VAS-O07R_BEV02A94 / Beaver Creek / From headwaters of Beaver Creek near Ratcliff Knob downstream to Beaver Creek flood control dam in Sugar Hollow Park.	5A	PCBs in Fish Tissue	2006	L	7.77
VAS-O07R_LTL01A96 / Little Creek / Headwaters, downstream to the Tennessee state line in the City of Bristol.	5A	PCBs in Fish Tissue	2006	L	2.30

Beaver Creek and Little Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			17.35

Sources: Illegal Dumps or Other Inappropriate Waste Disposal

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-04-BAC Sinking Creek

Cause Location: This segment includes the headwaters downstream to the Tennessee state line, east of the City of Bristol.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6CSNK006.68 had one STV exceedance but insufficient data to analyze geomean.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_SNK01A02 / Sinking Creek / Headwaters downstream to the Tennessee state line, east of City of Bristol.	5A	Escherichia coli (E. coli)	2012	L	3.8

Sinking Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.8

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O07R-05-BAC Stoffel Creek

Cause Location: This segment is located northwest of the City of Bristol, near the Three Springs community.

Cause City/County: Bristol; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6CSTO000.86 has 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O07R_STO01A12 / Stoffel Creek & tributaries / Drains the Three Springs community, northwest of City of Bristol.	5A	Escherichia coli (E. coli)	2012	L	5.22

Stoffel Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.22

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O08R-01-BAC Boozy Creek

Cause Location: This is a South Fork Holston Lake tributary to Tennessee, parallel to Route 618.

Cause City/County: Scott County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6CBOO002.71 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O08R_BOO01A12 / Boozy Creek / South Fork Holston Lake tributary parallel to the Tennessee state line, from Anderson Cemetery downstream.	5A	Escherichia coli (E. coli)	2012	L	2.54

Boozy Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.54

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O09R-01-BAC Lick Creek

Cause Location: This segment extends from the Lynn Camp confluence, river mile 4.31, downstream to the North Fork Holston River confluence.

Cause City/County: Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CLIB000.08 had a 33% exceedance, station 6CLIB001.06 had a 25% exceedance, and station 6CLIB003.65 had a 16% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O09R_LIB01A02 / Lick Creek / From the Lynn Camp confluence at river mile 4.31, downstream to the North Fork Holston confluence.	4A	Escherichia coli (E. coli)	2006	L	5.73

Lick Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.73

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O09R-03-BAC North Fork Holston River

Cause Location: This segment includes the mainstem from the headwaters downstream to the Crewey Branch confluence, and from the Crewey Branch confluence downstream through Riverside to Locust Cove Creek, and the mainstem from the Lick Branch confluence downstream to the Lick Creek confluence.

Cause City/County: Bland County; Smyth County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6CNFH127.12 had a 58% exceedance, station 6CNFH113.36 had a 17% exceedance, and station 6CNFH124.62 had a 33% exceedance of the previous E.coli water quality standard.

Station 6CNFH098.47 had 1 STV exceedance but insufficient data to analyze geomean.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O09R_NFH01A02 / North Fork Holston River / Mainstem from Lick Creek confluence downstream to Crewey Branch confluence.	4A	Escherichia coli (E. coli)	2010	L	13.77
VAS-O09R_NFH01A98 / North Fork Holston River / Mainstem from Crewey Branch confluence downstream through Riverside to Locust Cove Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	1.74
VAS-O09R_NFH01B02 / North Fork Holston River / Mainstem from Lick Branch confluence near Bland/Wythe County line downstream to Lick Creek confluence.	4A	Escherichia coli (E. coli)	2014	L	12.58
VAS-O09R_NFH01C02 / North Fork Holston River / Mainstem from headwaters near Sharon Springs, downstream through Ceres, to Lick Branch confluence.	4A	Escherichia coli (E. coli)	2010	L	12.24

North Fork Holston River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			40.33

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O09R_NFH01C02 / North Fork Holston River / Mainstem from headwaters near Sharon Springs, downstream through Ceres, to Lick Branch confluence.	4A	Fecal Coliform	2006	L	12.24

North Fork Holston River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			12.24

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-BAC North Fork Holston River

Cause Location: This segment extends from the Laurel Creek confluence downstream to the confluence of Tumbling Creek. It also includes the mainstem from the confluence of Big Moccasin Creek downstream to the Tennessee line.

Cause City/County: Scott County; Smyth County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM station 6CNFH081.69 had 1 STV exceedance but insufficient data to analyze geomean. Trend monitoring station 6CNFH085.20 had 2 STV hits in the same 90-day period with less than 10 samples and trend monitoring station 6CNFH008.78 had 1 STV exceedance but insufficient data to analyze geomean.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence.	4A	Escherichia coli (E. coli)	2008	L	1.84
VAS-O10R_NFH02A00 / North Fork Holston River / From Laurel Creek confluence near Broadford, downstream Rt. 91 near Allison Gap.	4A	Escherichia coli (E. coli)	2006	L	8.51
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek.	4A	Escherichia coli (E. coli)	2006	L	4.92
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).	4A	Escherichia coli (E. coli)	2006	L	5.33

North Fork Holston River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			20.6

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence.	4A	Fecal Coliform	2006	L	1.84
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).	4A	Fecal Coliform	2004	L	5.33

North Fork Holston River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			7.17

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-HG North Fork Holston River

Cause Location: This segment begins in Saltville at the Robertson Branch confluence and extends downstream to the Tennessee state line.

Cause City/County: Scott County; Smyth County; Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/4A

Cause Description: Mercury (Hg) contamination of the fish tissue prior to 1972 led to a ban on fish consumption by the Virginia Department of Health. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. Station 6CNFH080.43 exceeded the screening value for Hg in the water column and 6CNFH039.18 exceeded the screening values for Hg in sediment and fish tissue.

Recent fish tissue was collected in 2020. At 6CNFH080.85, 6 samples were collected of 5 species (smallmouth bass, black redhorse sucker, northern hogsucker, smallmouth bass, redbreast sunfish, rock bass); all samples exceeded the tissue value for mercury.

At 6CNFH039.18, 2 samples were collected of 2 species (rock bass, redbreast sunfish); all samples exceeded the tissue value for mercury.

At 6CNFH008.80, 6 samples were collected of 4 species (smallmouth bass, channel catfish, northern hogsucker, golden redhorse); four samples exceeded the tissue value for mercury.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence.	4A	Mercury in Fish Tissue	1994	L	1.84
VAS-O11R_NFH01A00 / North Fork Holston River / Segment from Brumley Creek confluence downstream to Cabin Creek confluence.	4A	Mercury in Fish Tissue	1994	L	1.88
VAS-O11R_NFH02A94 / North Fork Holston River / From Route 80 crossing at River Bridge community downstream to Brumley Creek confluence.	4A	Mercury in Fish Tissue	1994	L	6.29
VAS-O11R_NFH02B10 / North Fork Holston River / From Tumbling Creek confluence downstream to Rt. 80 bridge crossing.	4A	Mercury in Fish Tissue	1994	L	8.52
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek.	4A	Mercury in Fish Tissue	1994	L	4.92
VAS-O12R_NFH01B02 / North Fork Holston River / Mainstem near Maces Spring from Livingston Creek confluence downstream to Cove Creek confluence.	4A	Mercury in Fish Tissue	1994	L	4.28
VAS-O12R_NFH01C02 / North Fork Holston River / Mainstem near Mendota from Abrams Creek confluence to Livingston Creek confluence.	4A	Mercury in Fish Tissue	1994	L	8.18
VAS-O12R_NFH02A00 / North Fork Holston River / Mainstem from Cabin Creek confluence near Mongle Spring to Little Moccasin Creek confluence at Holston community.	4A	Mercury in Fish Tissue	1994	L	2.84

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_NFH02C04 / North Fork Holston River / Mainstem near Walnut Grove, from Smith Creek confluence at Horseshoe Bend, downstream to Abrams Creek confluence near Stacher Ford.	4A	Mercury in Fish Tissue	1994	L	10.81
VAS-O12R_NFH03C04 / North Fork Holston River / Mainstem near Roebuck, from Smith Creek confluence at the Holston community upstream to the Little Moccasin Creek confluence at Horseshoe Bend.	4A	Mercury in Fish Tissue	1994	L	8.44
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).	4A	Mercury in Fish Tissue	1994	L	5.33
VAS-O13R_NFH02A94 / North Fork Holston River / Mainstem from the confluence of Cove Creek south of Maces Spring, downstream to confluence of Big Moccasin Creek south of Weber City.	4A	Mercury in Fish Tissue	1994	L	18.73

North Fork Holston River

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			82.06

Sources: Industrial Point Source Discharge; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-PCB North Fork Holston River

Cause Location: This segment begins in Saltville at river mile 85.40 and extends to the Tennessee state line.

Cause City/County: Scott County; Smyth County; Washington County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: VDH issued a fish consumption advisory on 4/12/1974 that prohibits the consumption of any fish species from Saltville to the VA/TN state line, approximately 84 miles, due to contamination from mercury. PCBs were added as a contaminant to the advisory on 12/23/2004.

Recent fish tissue was collected in 2020. At 6CNFH080.45, 3 samples of 3 species (smallmouth bass, black redhorse sucker, northern hogsucker); all samples exceeded tissue screening value for PCBs.

At 6CNFH039.18, 4 samples were collected of 3 species (rock bass, redbreast sunfish, flathead catfish); none exceeded tissue screening value for PCBs.

At 6CNFH008.80, 7 samples were collected of 5 species (smallmouth bass, channel catfish, redbreast sunfish, northern hogsucker, golden redhorse sucker); 2 samples exceeded tissue screening value for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_NFH01A94 / North Fork Holston River / From Rt. 91 near Broady Bottom above Saltville to Robertson Branch confluence.	5A	PCBs in Fish Tissue	1996	L	1.84
VAS-O11R_NFH02B10 / North Fork Holston River / From Tumbling Creek confluence downstream to Rt. 80 bridge crossing.	5A	PCBs in Fish Tissue	1996	L	8.52
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek.	5A	PCBs in Fish Tissue	1996	L	4.92
VAS-O12R_NFH01B02 / North Fork Holston River / Mainstem near Maces Spring from Livingston Creek confluence downstream to Cove Creek confluence.	5A	PCBs in Fish Tissue	1996	L	4.28
VAS-O12R_NFH01C02 / North Fork Holston River / Mainstem near Mendota from Abrams Creek confluence to Livingston Creek confluence.	5A	PCBs in Fish Tissue	1996	L	8.18
VAS-O12R_NFH02A00 / North Fork Holston River / Mainstem from Cabin Creek confluence near Mongle Spring to Little Moccasin Creek confluence at Holston community.	5A	PCBs in Fish Tissue	1996	L	2.84
VAS-O12R_NFH02C04 / North Fork Holston River / Mainstem near Walnut Grove, from Smith Creek confluence at Horseshoe Bend, downstream to Abrams Creek confluence near Stacher Ford.	5A	PCBs in Fish Tissue	1996	L	10.81
VAS-O12R_NFH03C04 / North Fork Holston River / Mainstem near Roebuck, from Smith Creek confluence at the Holston community upstream to the Little Moccasin Creek confluence at Horseshoe Bend.	5A	PCBs in Fish Tissue	1996	L	8.44

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O13R_NFH01A94 / North Fork Holston River / Mainstem from confluence of Big Moccasin Creek downstream to Tennessee state line, WQS Section 1a (TH45).	5A	PCBs in Fish Tissue	1996	L	5.33
VAS-O13R_NFH02A94 / North Fork Holston River / Mainstem from the confluence of Cove Creek south of Maces Spring, downstream to confluence of Big Moccasin Creek south of Weber City.	5A	PCBs in Fish Tissue	1996	L	18.73

North Fork Holston River

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			73.89

Sources: Industrial Point Source Discharge; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-01-PH Little Tumbling Creek

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain Station Wildlife Management Area.

Cause City/County: Smyth County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: At 6CLTC004.59, 23% of pH measurements fall below the WQS for Class VI waters.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area.	5A	pH	2020	L	5.8

Little Tumbling Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			5.8

Sources: Natural Sources; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-05-BAC North Fork Holston River Tributaries

Cause Location: These segments include the headwaters of Laurel Creek within Jefferson National Forest upstream of the Roaring Fork confluence downstream to the North Fork Holston River confluence; Locust Cove Creek which is a tributary to the North Fork Holston River; Robertson Branch from the headwaters to the confluence with the North Fork Holston River; Turkey Run Creek from the headwaters to the confluence with the North Fork Holston River at McCready; and Beaver Creek from the headwaters on Walker Mountain east of Page Hollow, downstream to the confluence with the North Fork Holston River.

Cause City/County: Bland County; Smyth County; Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6CRRB000.06, 6CTUR000.03, 6CBVR000.08, and 6CLAE000.62 had 25%, 45%, 67%, and 21% exceedances of the previous E.coli water quality standard.

Station 6CLOC000.14 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_BVR01A02 / Beaver Creek / From headwaters on Walker Mountain east of Page Hollow, downstream to mile 2.8 near Oak Grove.	4A	Escherichia coli (E. coli)	2010	L	1.93
VAS-O10R_BVR01B04 / Beaver Creek / From North Fork Holston River confluence near North Holston upstream 2.8 miles.	4A	Escherichia coli (E. coli)	2010	L	2.83
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within Jefferson National Forest upstream of the Roaring Fork confluence through Poor Valley.	4A	Escherichia coli (E. coli)	2010	L	2.65
VAS-O10R_LAE02A02 / Laurel Creek, middle / From Little Tumbling Creek confluence at Tannersville downstream to confluence with North Fork Holston River. at Broadford.	4A	Escherichia coli (E. coli)	2010	L	6.48
VAS-O10R_LOC01A02 / Locust Cove Creek / A North Fork Holston tributary near Rich Valley High School from headwaters near Rt. 16 on Brushy Mountain in Jefferson National Forest.	4A	Escherichia coli (E. coli)	2006	L	8.88
VAS-O10R_RRB01A02 / Robertson Branch / Mainstem from headwaters at Redrock Mountain downstream through Allison Gap to North Fork Holston River confluence.	4A	Escherichia coli (E. coli)	2010	L	3.26
VAS-O10R_TUR01A10 / Turkey Run Creek / A North Fork Holston River tributary from Whiterock Mountain to confluence with North Fork Holston River at McCready.	4A	Escherichia coli (E. coli)	2010	L	3.71

North Fork Holston River Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			29.74

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within Jefferson National Forest upstream of the Roaring Fork confluence through Poor Valley.	4A	Fecal Coliform	2004	L	2.65
VAS-O10R_LAE02A02 / Laurel Creek, middle / From Little Tumbling Creek confluence at Tannersville downstream to confluence with North Fork Holston River. at Broadford.	4A	Fecal Coliform	2006	L	6.48
VAS-O10R_LOC01A02 / Locust Cove Creek / A North Fork Holston tributary near Rich Valley High School from headwaters near Rt. 16 on Brushy Mountain in Jefferson National Forest.	4A	Fecal Coliform	2006	L	8.88

North Fork Holston River Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			18.01

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-05-BEN Laurel Creek

Cause Location: This segment includes the headwaters within Jefferson National Forest in Bland County downstream to the confluence with Roaring Fork.

Cause City/County: Bland County; Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological station located at 6CLAE018.29 was impaired based on VSCI scores of 55.3 and 78.7 in 2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LAE01A02 / Laurel Creek / Headwaters within Jefferson National Forest upstream of the Roaring Fork confluence through Poor Valley.	5A	Benthic Macroinvertebrates Bioassessments	2002	L	2.65

Laurel Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.65

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-08-BEN Little Tumbling Creek

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain State Wildlife Management Area.

Cause City/County: Smyth County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4C

Cause Description: Discharge from Laurel Bed Lake into boggy area (possibly created by Beaver dams).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area.	4C	Benthic Macroinvertebrates Bioassessments	NA	NA	5.8

Little Tumbling Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.8

Sources: Natural Sources; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O10R-08-TEMP Little Tumbling Creek

Cause Location: This segment includes from the power line crossing upstream to the Laurel Bed Lake discharge in Clinch Mountain Station Wildlife Management Area.

Cause City/County: Smyth County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: At station 6CLTC004.59, 3 of 13 (23%) temperature measurements exceeded WQS for Class VI waters.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O10R_LTC01A02 / Little Tumbling Creek / Between Clinch Mountain and Flattop Mountain from power line crossing upstream to headwaters in Clinch Mountain State Wildlife Management Area.	5A	Temperature	2020	L	5.8

Little Tumbling Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			5.8

Sources: Natural Sources; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O11L-02-TEMP Laurel Bed Lake

Cause Location: This lake is owned by the Department of Wildlife Resources and lies within Clinch Mountain Wildlife Management Area.

Cause City/County: Russell County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5C

Cause Description: At 6CLAU001.84, 17 of 73 temperature measurements exceeded WQS during the 2016 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11L_LAU01A02 / Laurel Bed Lake / DWR owned lake within the Clinch Mountain Wildlife Management Area. Mountain slope, 20 to 30 degrees, maximum depth 11.3 M, managed as a warm water fishery.	5C	Temperature	2010	L	359.43

Laurel Bed Lake

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:		359.43	

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-03-BEN North Fork Holston River

Cause Location: This segment extends from the confluence of Robertson Branch downstream to the confluence of Tumbling Creek.

Cause City/County: Scott County; Smyth County; Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: A biological station located at 6CNFH080.45 was impaired based on the VSCI scores of 55 and 52.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	4.92

North Fork Holston River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.92

Sources: Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-03-CHLR North Fork Holston

Cause Location: This segment of the North Fork Holston River extends from the confluence with Robertson Branch in Saltville to the Tumbling Creek confluence.

Cause City/County: Scott County; Smyth County; Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Chloride/4A

Cause Description: The benthic Total Maximum Daily Load (TMDL) was completed in 2006 and confirmed that there was a chloride impairment due to natural conditions.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_NFH03A94 / North Fork Holston River / From confluence of Robertson Branch near Allison Gap, downstream to confluence of Tumbling Creek.	4A	Chloride	1996	L	4.92

North Fork Holston

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Chloride - Total Impaired Size by Water Type:			4.92

Sources: Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-04-BAC Logan Creek

Cause Location: Logan Creek is a North Fork Holston tributary. This segment includes the mainstem from the headwaters to the North Fork Holston confluence.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CLOG000.12 had a 25% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_LOG01A02 / Logan Creek / From headwaters, north of Meadowview through Lindell parallel to Rt. 80, to North Fork Holston River confluence.	4A	Escherichia coli (E. coli)	2006	L	5.43

Logan Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.43

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-05-BAC Toole Creek

Cause Location: Toole Creek is a North Fork Holston tributary. This segment includes the mainstem from headwaters to North Fork Holston confluence.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CTOO000.25 had a 25% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_TOO01A98 / Toole Creek / A North Fork Holston tributary. Mainstem from headwaters through Whites Mill community to North Fork Holston confluence.	4A	Escherichia coli (E. coli)	2006	L	5.85

Toole Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.85

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-08-BAC Brumley Creek

Cause Location: From North Fork Holston River confluence upstream 4 miles to Duncanville.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Relisted in 2016: AWQM station 6CBRU000.20 had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_BRU01B04 / Brumley Creek / From North Fork Holston confluence upstream 4 miles to Duncanville.	4A	Escherichia coli (E. coli)	2008	L	4.18

Brumley Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.18

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-09-BAC East Fork Wolf Creek

Cause Location: This segment parallels Route 80 north of Hayter's Gap.

Cause City/County: Russell County; Smyth County; Tazewell County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CEFW000.46 has a 17% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_EWF01A12 / East Fork Wolf Creek / In Poor Valley parallel to Route 80 north of Hayters Gap community.	4A	Escherichia coli (E. coli)	2012	L	3.48

East Fork Wolf Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.48

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-11-BAC Finley Creek

Cause Location: This segment is a North Fork Holston River tributary at Glenford parallel to Route 741, west of Lindell.

Cause City/County: Russell County; Smyth County; Tazewell County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CFIN001.26 has a 42% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_FIN01A12 / Finley Creek / North Fork Holston River tributary at Glenford, west of Lindell, Parallels Rt.741 and unmaintained road.	4A	Escherichia coli (E. coli)	2012	L	1.9

Finley Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			1.9

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O11R-12-BAC Wolf Creek and West Fork Wolf Creek

Cause Location: These segments include Wolf Creek, a North Fork Holston River tributary downstream of Hayters Gap and West Fork Wolf Creek, west of Hayters Gap between Little Mountain and Clinch Mountain parallel to Route 689.

Cause City/County: Russell County; Smyth County; Tazewell County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station at 6CWOC000.02 had a 33% exceedance of the previous E.coli water quality standard. 6CWOL000.04 is impaired based on geomean exceedances in any 90-day period.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O11R_WOC01A12 / West Fork Wolf Creek / Poor Valley between Little Mountain and Clinch Mountain west of Hayters Gap community.	4A	Escherichia coli (E. coli)	2012	L	3.16
VAS-O11R_WOL01A02 / Wolf Creek / A North Fork Holston River tributary downstream of Hayters Gap community.	4A	Escherichia coli (E. coli)	2022	L	0.96

Wolf Creek and West Fork Wolf Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.12

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-02-BAC Abrams Creek

Cause Location: Abrams Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to the North Fork Holston River confluence.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CABR001.00 had a 25% exceedance of the previous water quality standard for E.coli.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_ABR01A00 / Abrams Creek / Mainstem from Burson Place to confluence with North Fork Holston River near Stacher Ford.	4A	Escherichia coli (E. coli)	2006	L	11.78

Abrams Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.78

Sources: Livestock (Grazing or Feeding Operations); Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-03-BAC Cove Creek and Tribs

Cause Location: Cove Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to the North Fork Holston River confluence. Rich Valley Unnamed Tributary is a tributary to Fleenor Branch near Valley Institute Elementary School.

Cause City/County: Scott County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CCOV002.44 had a 27% exceedance of the previous bacteria water quality standard. Station 6AXEO000.25 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_COV01A00 / Cove Creek / From headwaters south of Valley Institute to North Fork Holston River confluence south of Maces Spring.	4A	Escherichia coli (E. coli)	2006	L	13.36
VAS-O12R_XEO01A12 / Rich Valley unnamed tributary / Unnamed tributary to Fleenor Branch near Valley Institute.	4A	Escherichia coli (E. coli)	2018	L	0.85

Cove Creek and Tribs

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			14.21

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-03-BEN Greendale Creek

Cause Location: This segment extends from the North Fork Holston River confluence upstream 4.1 miles.

Cause City/County: Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological station located at 6CGRN003.29 was impaired based on VSCI scores of 48.0 and 49.5 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_GRN01A00 / Greendale Creek / Greendale Creek from North Fork Holston confluence east of Rt. 19 bridge, upstream 4.1 miles to Black Hollow Road.	5A	Benthic Macroinvertebrates Bioassessments	2010	H	5.03

Greendale Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.03

Sources: Highway/Road/Bridge Runoff (Non-construction Related); Livestock (Grazing or Feeding Operations); Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-04-BAC Little Moccasin Creek

Cause Location: Little Moccasin Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to the North Fork Holston River confluence.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CLMC000.05 had 2 or more STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_LMC01A02 / Little Moccasin Creek / Mainstem from headwaters on Brumley Mountain to North Fork Holston River confluence, west of Highway 19 bridge at Holston community.	4A	Escherichia coli (E. coli)	2006	L	5.02

Little Moccasin Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.02

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-04-BEN Rich Valley Unnamed Tributary

Cause Location: Unnamed tributary to Fleenor Branch near Valley Institute Elementary School.

Cause City/County: Scott County; Washington County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6CXEO000.25 was impaired based on VSCI scores of 52.3 and 38.9 in 2017 and 53 and 42.9 in 2019.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_XEO01A12 / Rich Valley unnamed tributary / Unnamed tributary to Fleenor Branch near Valley Institute.	5A	Benthic Macroinvertebrates Bioassessments	2020	H	0.85

Rich Valley Unnamed Tributary

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			0.85

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-05-BAC Nordyke Creek

Cause Location: A North Fork Holston River tributary originating near Rush Corner.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6CNOR000.14 had a 2 or more STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_NOR01A02 / Nordyke Creek / A North Fork Holston tributary originating near Rush Corner.	4A	Escherichia coli (E. coli)	2006	L	6.15

Nordyke Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			6.15

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: O12R-06-BAC Smith Creek and Gaspard Creek

Cause Location: Smith Creek is a North Fork Holston River tributary. This segment includes the mainstem from the headwaters to the North Fork Holston River confluence and Gaspard Creek a Smith Creek tributary near Craigs Mill.

Cause City/County: Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6CSMI000.22 had a 42% exceedance and station 6CGAS000.45 had a 36% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O12R_GAS01A16 / Gaspard Creek / Smith Creek tributary near Craigs Mill.	4A	Escherichia coli (E. coli)	2016	L	1.38
VAS-O12R_SMI01A02 / Smith Creek / Tributary originating near Withers, confluences with North Fork Holston at Horseshoe Bend.	4A	Escherichia coli (E. coli)	2006	L	8.12

Smith Creek and Gaspard Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			9.5

Sources: Grazing in Riparian or Shoreline Zones; Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O13R-02-BEN Hilton Creek

Cause Location: Mainstem from the water intake downstream through the Hiltons community and Hilton Gap to the North Fork Holston River confluence.

Cause City/County: Scott County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Probabilistic monitoring station 6CHIL000.42 was impaired based on a VSCI score of 29.2 during the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O13R_HIL01A08 / Hilton Creek / Mainstem segment from water intake downstream through Hilton community and Hilton Gap to North Fork Holston confluence.	5A	Benthic Macroinvertebrates Bioassessments	2022	L	1.85

Hilton Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.85

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: O13R-03-BAC North Fork Holston River Tributaries

Cause Location: These segments include: Blue Springs Branch, a tributary at Maces Spring from the headwaters to the confluence of the North Fork Holston River; Dowell Branch, the mainstem downstream to the confluence with the North Fork Holston River; Hilton Creek, from the water intake downstream to confluence with the North Fork Holston River; Possum Creek, from the TN state line near Kermit to the confluence with the North Fork Holston River; and 1.34 miles of an unnamed tributary immediately downstream of Hiltons Creek at Owen Corner,

Cause City/County: Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6CBLU000.15, 6CDOW000.02, 6CPSM000.04, 6CPSM015.79, and 6CXBV000.21 are impaired based on the previous bacteria water quality standard. Station 6CHIL000.02 has 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O13R_BLU01A08 / Blue Springs Branch & tributaries / Tributary at Maces Spring, flows through Eddington Gap.	4A	Escherichia coli (E. coli)	2008	L	3.74
VAS-O13R_DOW01A08 / Dowell Branch / North Fork Holston tributary that flows through Dowell Gap between Blue Springs Branch and Hilton Creek.	4A	Escherichia coli (E. coli)	2008	L	1.79
VAS-O13R_HIL01A08 / Hilton Creek / Mainstem segment from water intake downstream through Hilton community and Hilton Gap to North Fork Holston confluence.	4A	Escherichia coli (E. coli)	2008	L	1.85
VAS-O13R_PSM01A02 / Possum Creek / From Jones Branch confluence south of Kermit at SR 634, to North Fork Holston River confluence near Tennessee state line.	4A	Escherichia coli (E. coli)	2010	L	15.90
VAS-O13R_PSM02B06 / Possum Creek / From Tennessee state line to Jones Branch confluence south of Kermit.	4A	Escherichia coli (E. coli)	2018	L	6.04
VAS-O13R_XBV01A08 / Unnamed tributary at Owen Corner / Tributary from north confluences with North Fork Holston River at Brickyard Gap downstream of Hiltons Creek.	4A	Escherichia coli (E. coli)	2008	L	1.38

North Fork Holston River Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			30.7

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: O14R-01-BAC Big Moccasin Creek

Cause Location: These segments begins 8.01 miles upstream of the PWS segment and continues downstream to rivermile 18.91 at unnamed tributary. It also includes the mainstem from Red Hill Branch confluence downstream to the North Fork Holston River confluence.

Cause City/County: Scott County; Washington County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6CBMC000.38, 6CBMC026.32, and 6CBMC042.54 are impaired based on the previous bacteria water quality standard.

Station 6CBMC049.05 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-O14R_BMC01A98 / Big Moccasin Creek / From confluence of Big Moccasin and Little Moccasin Creeks downstream to North Fork Holston River confluence.	4A	Escherichia coli (E. coli)	2012	L	2.87
VAS-O14R_BMC04A00 / Big Moccasin Creek / From Middle Fork Moccasin Creek and South Fork Moccasin Creek confluence downstream 7.87 miles to Lick Skillet Hollow.	4A	Escherichia coli (E. coli)	2010	L	8.24
VAS-O14R_BMC05A02 / Big Moccasin Creek / Upstream of Snowflake and downstream of Dean Branch confluence south of Nickelsville.	4A	Escherichia coli (E. coli)	2008	L	10.55
VAS-O14R_BMC06A02 / Big Moccasin Creek / Segment is approximately half in Scott County and half in Russell County, upstream at Fugues Hill and ends at Dean Branch confluence.	4A	Escherichia coli (E. coli)	2008	L	9.69
VAS-O14R_BMC07A02 / Big Moccasin Creek / From end of PWS segment at Fugate Hill upstream 8.01 miles to Lick Skillet Hollow.	4A	Escherichia coli (E. coli)	2008	L	8.25

Big Moccasin Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			39.6

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01L-03-DO Lake Witten

Cause Location: In Cavitts Creek Park, this recreation reservoir was constructed by the U.S. Natural Resource Conservation Service. The lake is owned by Tazewell County.

Cause City/County: Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Dissolved Oxygen/4C

Cause Description: At 6BCAV004.60, excursions of the dissolved oxygen WQS (45/102) were observed during the 2019 monitoring season. Trophic state index scores are < 60; impairment is due to natural sources.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01L_CAV01A10 / Lake Witten / In Cavitts Creek Park this recreation reservoir was constructed by the U.S. Natural Resource Conservation Service, the lake is owned by Tazewell County.	4C	Dissolved Oxygen	NA	NA	53.17

Lake Witten

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:		53.17	

Sources: Natural Sources

Tennessee and Big Sandy River Basins

Cause Group Code: P01L-03-HG Lake Witten

Cause Location: This Lake is located in Cavitts Creek Park in Tazewell County.

Cause City/County: Tazewell County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6BCAV002.88 on 5/11/2007 show mercury levels above the tissue value (300 ppb) in two composite largemouth bass samples. In 2008, VDH issued a fish consumption advisory limiting consumption of largemouth bass to no more than two meals per month. Fish tissue collected on 5/19/2020 show no elevated levels of mercury; however, the fish consumption advisory remains in effect.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01L_CAV01A10 / Lake Witten / In Cavitts Creek Park this recreation reservoir was constructed by the U.S. Natural Resource Conservation Service, the lake is owned by Tazewell County.	5A	Mercury in Fish Tissue	2010	L	53.17

Lake Witten

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		53.17	

Sources: Atmospheric Deposition - Toxics; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-01-BAC Clinch River

Cause Location: This segment includes the mainstream from Lincolnshire Branch confluence downstream to Deskin Creek.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BCLN346.60 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_CLN01A98 / Clinch River / Mainstem from North Fork Clinch River confluence through Town of Tazewell to Plum Creek confluence.	4A	Escherichia coli (E. coli)	2010	L	6.14
VAS-P02R_CLN01A98 / Clinch River / Mainstream from Plum Creek near Pisgah downstream to Deskins Creek near Maxwell.	4A	Escherichia coli (E. coli)	2010	L	6.11

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.25

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_CLN01A98 / Clinch River / Mainstem from North Fork Clinch River confluence through Town of Tazewell to Plum Creek confluence.	4A	Fecal Coliform	2004	L	6.14
VAS-P02R_CLN01A98 / Clinch River / Mainstream from Plum Creek near Pisgah downstream to Deskins Creek near Maxwell.	4A	Fecal Coliform	2006	L	6.11

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			12.25

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-01-BEN Cavitts Creek

Cause Location: This segment includes the lower mainstem of Cavitts Creek from Johnson Branch to the confluence with the Clinch River at River Jack.

Cause City/County: Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station at 6BCAV000.05 was impaired based on VSCI scores of 40.4 and 70.8 in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_CAV01A00 / Cavitts Creek / Lower mainstem from Johnson Branch to confluence with Clinch River at River Jack.	4A	Benthic Macroinvertebrates Bioassessments	2016	L	2.4

Cavitts Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.4

Sources: Animal Feeding Operations (NPS); Loss of Riparian Habitat

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-02-BAC Plum Creek and North Fork Clinch River

Cause Location: This segment extends from the headwaters of Plum Creek to the Clinch River confluence and North Fork Clinch River downstream to the confluence with the South Fork Clinch River at Fourway.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6BPLU000.40 and 6BNCL000.30 both had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_NCL01A04 / North Fork Clinch River / Confluences with South Fork Clinch River at Fourway and extends upstream to unnamed tributary just past the SR 651/US460 intersection.	4A	Escherichia coli (E. coli)	2010	L	2.62
VAS-P01R_PLU01A04 / Plum Creek / Central Tazewell County from Frog Level to Clinch River confluence.	4A	Escherichia coli (E. coli)	2010	L	2.89

Plum Creek and North Fork Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.51

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_PLU01A04 / Plum Creek / Central Tazewell County from Frog Level to Clinch River confluence.	4A	Fecal Coliform	2004	L	2.89

Plum Creek and North Fork Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			2.89

Sources: Grazing in Riparian or Shoreline Zones; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P01R-03-BAC South Fork Clinch River and Cavitts Creek

Cause Location: This segment includes the South Fork Clinch River and its tributaries from the Tazewell raw water intake upstream 5 miles and Cavitts Creek from the Johnson Branch confluence downstream to the confluence with the Clinch River at Riverjack.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BSFK000.77 had a 41% exceedance of the previous E.coli water quality standard and station 6BCAV000.02 had a 25% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P01R_CAV01A00 / Cavitts Creek / Lower mainstem from Johnson Branch to confluence with Clinch River at River Jack.	4A	Escherichia coli (E. coli)	2010	L	2.40
VAS-P01R_SFK01A10 / South Fork Clinch River / Portion of South Fork Clinch River from Tazewell raw water intake upstream 5 miles.	4A	Escherichia coli (E. coli)	2010	L	4.17

South Fork Clinch River and Cavitts Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			6.57

Sources: Rural (Residential Areas); Unrestricted Cattle Access; Wastes from Pets

Tennessee and Big Sandy River Basins

Cause Group Code: P02R-02-BAC Laurel Fork

Cause Location: An Indian Creek tributary parallel to Whetstone Ridge that confluences at the Mouth of Laurel.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BLRF000.03 had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P02R_LRF01A10 / Laurel Fork / Indian Creek tributary parallel Whetstone Ridge, confluences at Mouth of Laurel.	4A	Escherichia coli (E. coli)	2012	L	4.57

Laurel Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.57

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-01-BAC Clinch River Tributaries

Cause Location: These segments include: Middle Creek, from river mile 2.53 downstream to the Clinch River confluence; Coal Creek, from the confluence with Left Fork Coal Creek to the confluence with the Clinch River; Big Creek from the confluence with West Fork to the confluence with the Clinch River; Mudlick Creek from the confluence with Zeke Creek downstream to the confluence with the Clinch River; Town Hill Creek from the confluence with Little Town Hill Creek to the confluence with the Clinch River; Deskin Branch which extends from an unnamed tributary through the golf course in Maxwell to the confluence with the Clinch River; and Pounding Mill Branch, a Clinch River tributary south of Pounding Mill.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6BDES000.06, 6BBIG000.12, 6BMCK000.11, 6BMID000.20, and 6BTHC000.03 are impaired based on the previous bacteria water quality standard. Stations 6BPON000.04 and 6BCOL000.12 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P02R_DES01A10 / Deskin Branch / Clinch River tributary that flows through Golf Course at Maxwell to Clinch River.	4A	Escherichia coli (E. coli)	2010	L	0.53
VAS-P02R_PON01A10 / Pounding Mill Branch / A Clinch River tributary, south of Pounding Mill.	4A	Escherichia coli (E. coli)	2018	L	4.35
VAS-P03R_BIG01A10 / Big Creek / Clinch River tributary from north of Richlands.	4A	Escherichia coli (E. coli)	2010	L	1.39
VAS-P03R_COL01A04 / Coal Creek / From confluence with Clinch River, at Raven, upstream through Red Ash to Left Fork Coal Creek confluence.	4A	Escherichia coli (E. coli)	2010	L	3.12
VAS-P03R_MCK01A10 / Mudlick Creek / A Clinch River tributary from the north at Doran.	4A	Escherichia coli (E. coli)	2010	L	2.11
VAS-P03R_MID01A98 / Middle Creek / Lower mainstem from Stony Ridge downstream to Clinch River confluence near Cedar Bluff.	4A	Escherichia coli (E. coli)	2006	L	3.05
VAS-P03R_THC01A10 / Town Hill Creek / Clinch River tributary from the north at Clinch Valley Memorial Cemetery.	4A	Escherichia coli (E. coli)	2010	L	0.25

Clinch River Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			14.8

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-01-BEN Big Creek

Cause Location: This segment includes from the confluence with West Fork downstream to the confluence with the Clinch River.

Cause City/County: Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6BBIG000.19 was impaired based on VSCI scores of 48.2 and 48.5 during the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P03R_BIG01A10 / Big Creek / Clinch River tributary from north of Richlands.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	1.39

Big Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.39

Sources: Coal Mining; Rural (Residential Areas); Silviculture Activities

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-02-BAC Clinch River

Cause Location: The community of Raven is located here and the segment includes the mainstem from just upstream of the Town Hill Creek confluence downstream to the Mill Creek confluence. It also includes the mainstem of the Clinch River from the Mill Creek confluence upstream to former Raven-Doran raw water intake.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM station located at 6BCLN315.11 had a 33% exceedance of the previous E.coli water quality standard and 6BCLN321.13 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P03R_CLN01A98 / Clinch River / From the former raw water intake just upstream of the Town Hill Creek confluence downstream to the Mill Creek confluence south of Raven.	4A	Fecal Coliform	2002	L	5.55

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			5.55

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P03R_CLN01A98 / Clinch River / From the former raw water intake just upstream of the Town Hill Creek confluence downstream to the Mill Creek confluence south of Raven.	4A	Escherichia coli (E. coli)	2010	L	5.55
VAS-P03R_CLN02A00 / Clinch River / Clinch River from Town of Richlands former raw water raw water intake upstream to Dry Branch confluence, near Cedar Bluff.	4A	Escherichia coli (E. coli)	2004	L	3.01

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			8.56

Sources: Rural (Residential Areas); Urban Runoff/Storm Sewers

Tennessee and Big Sandy River Basins

Cause Group Code: P03R-02-HG Clinch River

Cause Location: This segment begins just upstream of the Town Hill confluence and continues downstream to the Mill Creek confluence.

Cause City/County: Tazewell County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Three fish samples collected in 2007 exceeded the Department of Environmental Quality's screening value for Mercury. Fish tissue was collected at 6BCLN315.11 on 11/19/2020. 2 samples, 2 species (green sunfish and rock bass); no samples exceeded the tissue value for mercury.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P03R_CLN01A98 / Clinch River / From the former raw water intake just upstream of the Town Hill Creek confluence downstream to the Mill Creek confluence south of Raven.	5A	Mercury in Fish Tissue	2010	L	5.55

Clinch River

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			5.55

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-01-BAC Lewis Creek and Hess Creek

Cause Location: This segment includes the mainstem from the Stone Branch confluence downstream to the Clinch River confluence.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BLWS004.84 had a 29% exceedance of the previous E.coli water quality standard. Stations 6BLWS000.06 and 6BHES000.05 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_HES01A10 / Hess Creek / A Swords Creek tributary flowing from Groundhog Hollow to the east, south of Dye.	4A	Escherichia coli (E. coli)	2010	L	1.05
VAS-P04R_LWS01A10 / Lewis Creek / Grassy Creek confluence downstream to Stone Branch confluence, at Flatrock.	4A	Escherichia coli (E. coli)	2010	L	3.45
VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence.	4A	Escherichia coli (E. coli)	2010	L	4.98

Lewis Creek and Hess Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			9.48

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence.	4A	Fecal Coliform	2006	L	4.98

Lewis Creek and Hess Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			4.98

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-01-BEN Lewis Creek

Cause Location: This segment includes the mainstem from the Stone Branch confluence downstream to the Clinch River confluence.

Cause City/County: Russell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6BLWS000.90 was impaired based on VSCI scores of 28.7 and 56.9 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_LWS01A98 / Lewis Creek / Mainstem from the Stone Branch confluence downstream through Putnam, to the Clinch River confluence.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	4.98

Lewis Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.98

Sources: Crop Production (Crop Land or Dry Land); Impacts from Abandoned Mine Lands (Inactive); Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-01-TEMP Mill Creek

Cause Location: From the Clinch River confluence near West Raven upstream to the confluence of Right Fork Mill Creek

Cause City/County: Russell County; Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: 2 of 12 temperature measurements at 6BMLG000.55 exceeded the water quality standard for Class VI waters.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_MLG01A00 / Mill Creek / From Clinch River confluence near West Raven upstream 2.7 miles along Tazewell/Russell County line to the confluence of Right Fork Mill Creek.	5A	Temperature	2022	L	3.22

Mill Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			3.22

Sources: Rural (Residential Areas); Source Unknown; Streambank Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-02-BAC Swords Creek

Cause Location: This segment extends from the Sulphur Spring Branch confluence downstream to the confluence with the Clinch River.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6BSWO001.81 had 32% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_SWD01A00 / Swords Creek / Mainstem from Sulphur Spring Branch confluence at Dye downstream to confluence with Clinch River at the Swords Creek community,	4A	Escherichia coli (E. coli)	2010	L	2.92

Swords Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.92

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-02-BEN Swords Creek

Cause Location: This segment includes the mainstem from the Sculpture Spring Branch confluence downstream to the confluence with Clinch River.

Cause City/County: Russell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station located at 6BSWO000.11 was impaired based on VSCI scores of 46.5 and 67.5 in 2019.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_SWD01A00 / Swords Creek / Mainstem from Sulphur Spring Branch confluence at Dye downstream to confluence with Clinch River at the Swords Creek community,	5A	Benthic Macroinvertebrates Bioassessments	2006	L	2.92

Swords Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.92

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-03-BAC Clinch River

Cause Location: Clinch River mainstem from the Lewis Creek confluence downstream to the Big Cedar Creek confluence.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6BCLN288.41 had 2 STV exceedances in the same 90-day window with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_CLN01A00 / Clinch River / Clinch River mainstem from Lewis Creek confluence downstream to Big Cedar Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	11.85

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.85

Sources: Grazing in Riparian or Shoreline Zones; Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-03-BEN Mill Creek

Cause Location: From the Clinch River confluence near West Raven upstream to the confluence of Right Fork Mill Creek.

Cause City/County: Russell County; Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station located at 6BMLG000.55 was impaired based on VSCI scores of 55.5 and 53.4 in 2013. Recent VSCI data, 60.7 in 2019, is improving, but insufficient to delist.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_MLG01A00 / Mill Creek / From Clinch River confluence near West Raven upstream 2.7 miles along Tazewell/Russell County line to the confluence of Right Fork Mill Creek.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	3.22

Mill Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.22

Sources: Rural (Residential Areas); Source Unknown; Streambank Modifications/Destabilization

Tennessee and Big Sandy River Basins

Cause Group Code: P04R-04-BEN Big Lick Creek

Cause Location: A Sulphur Spring Branch tributary, enters from the east at Dye.

Cause City/County: Russell County; Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6BBLC000.19 was impaired based on VSCI scores of 55.7 and 59 in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P04R_BLC01A10 / Big Lick Creek / Sulphur Spring Branch tributary, enters from east at Dye.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	5.21

Big Lick Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.21

Sources: Rural (Residential Areas); Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-01-BAC Indian Creek

Cause Location: This segment extends from the Highway 19 bridge to the Little River confluence at Wardell.

Cause City/County: Russell County; Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BIDN000.69 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_IDN01A04 / Indian Creek / Highway 19 crossing to Little River confluence at Wardell.	4A	Escherichia coli (E. coli)	2010	L	4.1

Indian Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.1

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_IDN01A04 / Indian Creek / Highway 19 crossing to Little River confluence at Wardell.	4A	Fecal Coliform	2004	L	4.1

Indian Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			4.1

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-04-BAC Little River

Cause Location: These segments include the mainstem of Little River from the confluence with Grays Branch downstream to the confluence with the Clinch River.

Cause City/County: Russell County; Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BLTR0018.19 had a 57% exceedance of the previous E.coli water quality standard. 6BLTR000.75 had geomean exceedances in any 90-day period.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LTR01A00 / Little River / From the Grays Branch confluence at the Tazewell/Russell County line downstream to the confluence with Clinch River.	4A	Escherichia coli (E. coli)	2022	L	14.03
VAS-P05R_LTR02A00 / Little River / Little River above Claypool Hill STP downstream to Laurel Creek confluence near Wardell.	4A	Escherichia coli (E. coli)	2010	L	5.26
VAS-P05R_LTR02A02 / Little River / Laurel Creek confluence near Wardell downstream to Grays Branch confluence at Russell/Tazewell County line.	4A	Escherichia coli (E. coli)	2012	L	4.12

Little River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			23.41

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LTR02A00 / Little River / Little River above Claypool Hill STP downstream to Laurel Creek confluence near Wardell.	4A	Fecal Coliform	2004	L	5.26
VAS-P05R_LTR02A02 / Little River / Laurel Creek confluence near Wardell downstream to Grays Branch confluence at Russell/Tazewell County line.	4A	Fecal Coliform	2008	L	4.12

Little River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			9.38

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P05R-05-BAC Maiden Spring Creek and Liberty Creek

Cause Location: This segment begins at the unnamed tributary at Buchanan Cemetery and continues downstream to the Little River confluence. Liberty Creek from the spring downstream of the Rt. 608 bridge upstream to an unnamed tributary.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station 6BMSC001.53 had a 43% exceedance of the previous bacteria water quality standard and station 6BMSC008.98 had a 29% exceedance of the previous bacteria standard. Station 6BLIB001.89 had 2 or more STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_LIB01A02 / Liberty Creek / Mainstem from mile 1.6 downstream to Little River confluence, west of Morris Knob.	4A	Escherichia coli (E. coli)	2020	L	1.88
VAS-P05R_LIB02A04 / Liberty Creek / At Liberty from spring downstream of Rt. 608 bridge upstream parallel to SR 91 to unnamed tributary confluence.	4A	Escherichia coli (E. coli)	2020	L	1.89
VAS-P05R_MSC01A02 / Maiden Spring Creek / From the Little River confluence upstream to foot of Morris Knob north of Robbins Gap,	4A	Escherichia coli (E. coli)	2016	L	6.70
VAS-P05R_MSC01C04 / Maiden Spring Creek / This is the middle segment of Maiden Spring Creek from unnamed tributary with Buchanan Cemetery downstream through Thompson Valley to a Morris Knob tributary.	4A	Escherichia coli (E. coli)	2010	L	9.52

Maiden Spring Creek and Liberty Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			19.99

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P05R_MSC01A02 / Maiden Spring Creek / From the Little River confluence upstream to foot of Morris Knob north of Robbins Gap,	4A	Fecal Coliform	2004	L	6.70
VAS-P05R_MSC01C04 / Maiden Spring Creek / This is the middle segment of Maiden Spring Creek from unnamed tributary with Buchanan Cemetery downstream through Thompson Valley to a Morris Knob tributary.	4A	Fecal Coliform	2004	L	9.52

Maiden Spring Creek and Liberty Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			16.22

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-01-BAC Big Cedar Creek and Tributaries

Cause Location: These segments begin 5 miles upstream of Lebanon's raw water intake and continues downstream to the confluence with the Clinch River.

Tributaries included: Loop Creek, from Route 80 to the Elk Garden Creek confluence. Burgess Creek, from the Campbell Branch confluence to the Big Cedar Creek confluence. Elk Garden Creek, from Elk Garden to the confluence with Big Cedar Creek.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6BBCD001.89, 6BBCD006.66, 6BBCD009.83, 6BBUG000.10, 6BEKG004.18, 6BLOO004.25 and 6BLOO006.03 are impaired based on the previous bacteria water quality standard. 6BEKG008.48 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P06R_BCD01A98 / Big Cedar Creek / From vicinity of Daughertys Cave downstream to confluence with Clinch River.	4A	Escherichia coli (E. coli)	2006	L	4.20
VAS-P06R_BCD02A00 / Big Cedar Creek / East of Lebanon, from Lebanon raw water intake downstream to Little Cedar Creek confluence.	4A	Escherichia coli (E. coli)	2006	L	2.80
VAS-P06R_BCD02A02 / Big Cedar Creek / North of Lebanon, from Little Cedar Creek confluence to SR 640 bridge near Daughertys Cave.	4A	Escherichia coli (E. coli)	2008	L	1.11
VAS-P06R_BCD03A00 / Big Cedar Creek / Big Cedar Creek headwaters from Lebanon's raw water intake to a point 5 miles upstream on Clinch Mountain.	4A	Escherichia coli (E. coli)	2006	L	3.30
VAS-P06R_BUG01A06 / Burgess Creek / South of Lebanon from Campbell Branch confluence to confluence with Big Cedar Creek.	4A	Escherichia coli (E. coli)	2006	L	1.56
VAS-P06R_EKG01A06 / Elk Garden Creek / From Elk Garden to confluence with Big Cedar Creek upstream to the end of PWS segment.	4A	Escherichia coli (E. coli)	2006	L	3.50
VAS-P06R_EKG01A10 / Elk Garden Creek / Enters Big Cedar Creek near Elk Garden to the north above Rosedale.	4A	Escherichia coli (E. coli)	2012	L	8.09
VAS-P06R_LOO01A06 / Loop Creek / West of Corn Valley, from near Rt. 80 upstream to Elk Garden Creek confluence.	4A	Escherichia coli (E. coli)	2006	L	2.60
VAS-P06R_LOO01B12 / Loop Creek / East of Lebanon from near Rt. 80, upstream to Sturgeon Branch confluence on the west side of Clinch Mountain.	4A	Escherichia coli (E. coli)	2012	L	3.99

Big Cedar Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			31.15

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P06R_BCD01A98 / Big Cedar Creek / From vicinity of Daughertys Cave downstream to confluence with Clinch River.	4A	Fecal Coliform	2006	L	4.20
VAS-P06R_BCD02A02 / Big Cedar Creek / North of Lebanon, from Little Cedar Creek confluence to SR 640 bridge near Daughertys Cave.	4A	Fecal Coliform	2004	L	1.11

Big Cedar Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			5.31

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-02-BAC Little Cedar Creek

Cause Location: These segments include Little Cedar Creek from the western edge of Lebanon to the confluence with Big Cedar Creek.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BLTL001.11 had a 72% exceedance rate of the previous E. coli water quality standard. Station 6BLTL003.31 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P06R_LTL01A10 / Little Cedar Creek / Drains Lebanon, from the Campbell Branch confluence, Willis area, upstream to near SR 654.	4A	Escherichia coli (E. coli)	2018	L	6.04
VAS-P06R_LTL01A12 / Little Cedar Creek / A Big Cedar Creek tributary east of Lebanon.	4A	Escherichia coli (E. coli)	2012	L	2.20

Little Cedar Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			8.24

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P06R-02-BEN Little Cedar Creek

Cause Location: Little Cedar Creek drains Lebanon from the Campbell Branch confluence, in the Willis area, upstream to near Rt. 654.

Cause City/County: Russell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Probabilistic monitoring station 6BLTL003.31 was impaired based on VSCI scores of 48.5 and 51.9 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P06R_LTL01A10 / Little Cedar Creek / Drains Lebanon, from the Campbell Branch confluence, Willis area, upstream to near SR 654.	5A	Benthic Macroinvertebrates Bioassessments	2020	H	6.04

Little Cedar Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			6.04

Sources: Loss of Riparian Habitat; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P07R-01-BAC Clinch River and Tributaries

Cause Location: This segment includes the mainstem from the Big Cedar Creek confluence downstream to the Dumps Creek confluence.

Tributaries included: Thompson Creek, from Coulwood to the confluence with the Clinch River.
Weaver Creek, from the confluence with Hart Creek to the confluence with the Clinch River.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6BTMP003.58, 6BTMP006.26, and 6BWEA000.02 are impaired based on the previous bacteria water quality standard. Trend monitoring station 6BCLN271.50 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P07R_CLN01A00 / Clinch River / Mainstem from Big Cedar Creek confluence downstream to Dumps Creek confluence at Carbo.	4A	Escherichia coli (E. coli)	2006	L	14.11
VAS-P07R_TMP01A06 / Thompson Creek / From Coulwood to confluence with Clinch River at Artrip.	4A	Escherichia coli (E. coli)	2006	L	4.45
VAS-P07R_TMP02A10 / Thompson Creek / Headwaters, west of Honaker downstream to just east of Coulwood parallel to N&W Railroad.	4A	Escherichia coli (E. coli)	2012	L	3.41
VAS-P07R_WEA01A06 / Weaver Creek / From headwaters at Bradley Gap on Big A Mountain to confluence with Clinch River west of Artrip.	4A	Escherichia coli (E. coli)	2006	L	9.50

Clinch River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			31.47

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P07R-02-BEN Mill Creek

Cause Location: A Clinch River tributary, from the headwaters on Copper Ridge to Pennus Hollow.

Cause City/County: Russell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station located at 6BMIF003.28 was impaired based on VSCI scores of 57.5 and 58 during the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P07R_MIF01A10 / Mill Creek / A Clinch River tributary, from headwaters on Copper Ridge to Pennus Hollow.	5A	Benthic Macroinvertebrates Bioassessments	2014	H	1.85

Mill Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.85

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P09L-01-HG Bark Camp Lake

Cause Location: A Virginia DWR owned lake off Rt. 822 in Scott County. Also known as Corder Bottom Lake.

Cause City/County: Scott County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6BLSR008.12 on 5/18/2020 show mercury levels above the fish tissue value of 300 ppb in a largemouth bass composite sample.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09L_LSR01A02 / Bark Camp Lake / Virginia DWR owned lake off Rt. 822 in Scott County, also known as Corder Bottom Lake.	5A	Mercury in Fish Tissue	2010	L	41.07

Bark Camp Lake

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		41.07	

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-01-BAC Clinch River

Cause Location: These segments include the mainstem of the Clinch River from the Guest River confluence downstream to Little Stony Creek and from Little Stony Creek downstream to the Staunton Creek confluence, and from the Dumps Creek confluence downstream of the Lick Creek confluence, and from Lick Creek at St. Paul downstream to PWS segment.

Cause City/County: Russell County; Scott County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6BCLN242.00 and 6BCLN250.67 are impaired based on the previous bacteria water quality standard. Station 6BCLN237.09 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_CLN01A00 / Clinch River / Mainstem Clinch from Little Stony Creek confluence north of Mill Island downstream, past Dungannon, to Staunton Creek confluence.	4A	Escherichia coli (E. coli)	2012	L	6.00
VAS-P09R_CLN01A08 / Clinch River / Mainstem from Lick Creek confluence at Saint Paul downstream to PWS segment, near Craigen Tunnel.	4A	Escherichia coli (E. coli)	2014	L	3.32
VAS-P09R_CLN01B00 / Clinch River / Five miles of Clinch River mainstem above Carfax raw water intake, from Bull Run upstream to near Craigen Tunnel.	4A	Escherichia coli (E. coli)	2014	L	4.94
VAS-P09R_CLN02B08 / Clinch River / Mainstem from Guest River confluence at Bangor, downstream to confluence of Little Stony Creek near Mill Island.	4A	Escherichia coli (E. coli)	2014	L	5.46

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			19.72

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_CLN01A00 / Clinch River / Mainstem Clinch from Little Stony Creek confluence north of Mill Island downstream, past Dungannon, to Staunton Creek confluence.	4A	Fecal Coliform	2004	L	6

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			6

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-02-BAC Clinch River

Cause Location: The Clinch River mainstem from the Lick Creek confluence at Boody, upstream to an unnamed tributary at rivermile 259.68.

Cause City/County: Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station at 6BCLN256.31 had a 30% exceedance of the previous bacteria water quality standard

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_CLN01C00 / Clinch River / Clinch River mainstem from Lick Creek confluence at Boody, upstream to unnamed tributary @ 259.68, includes Kiser Bend, site of Clinch River Steam Plant.	5A	Escherichia coli (E. coli)	2012	L	4.22

Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.22

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-03-BAC Staunton Creek and Fall Creek

Cause Location: This segment includes both Staunton and Fall Creek from their headwaters to their confluences with the Clinch River.

Cause City/County: Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BFLC000.52 had a 41% exceedance of the previous E.coli water quality standard and stations 6BSUT001.71 and 6BSUT004.66 had a 17% and a 41% exceedance of the previous E.coli standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_FLC01A02 / Fall Creek / Fall Creek from Beaver Hollow confluence to Clinch River east of Dungannon.	4A	Escherichia coli (E. coli)	2006	L	3.01
VAS-P09R_SUT01A02 / Staunton Creek & tributaries / Tributaries to Clinch River from Stone Mountain north of Buckner Ridge in Jefferson National Forest, east of Wood.	4A	Escherichia coli (E. coli)	2006	L	9.74

Staunton Creek and Fall Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.75

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-05-BAC Russell Creek

Cause Location: This segment includes the headwaters of Russell Creek downstream to the confluence with the Clinch River.

Cause City/County: Russell County; Scott County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BRUS001.25 had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_RUS01A06 / Russell Creek / Clinch River tributary near Shannon Tunnel, through Virginia City from Nancy Ridge.	4A	Escherichia coli (E. coli)	2008	L	5.23

Russell Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.23

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-08-BAC Cowan Creek

Cause Location: This segment includes from Copper Ridge near Sunny Point at rivermile 2.7 to the confluence with Sinking Creek.

Cause City/County: Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Station 6BCOC001.19 had a 17% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_COC01A02 / Cowan Creek / Cowan Creek from Copper Ridge near Sunny Point at 2.7 to confluence with Sinking Creek.	5A	Escherichia coli (E. coli)	2018	L	4.16

Cowan Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.16

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P09R-09-BAC Ramey Branch

Cause Location: A Corder Branch tributary west of Flatwoods.

Cause City/County: Scott County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6ARAM002.32 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P09R_RAM01A20 / Ramey Branch / Corder Branch tributary west of Flatwoods.	4A	Escherichia coli (E. coli)	2020	L	3.58

Ramey Branch

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.58

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-01-BAC Lick Creek and Tributaries

Cause Location: This segment includes the headwaters of Lick Creek and continues downstream to the confluence with the Clinch River, it also includes Cigarette Hollow and Right Fork Lick Creek and Gravel Lick Creek.

Cause City/County: Dickenson County; Russell County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM station 6BLCC006.75 and citizen monitoring station 6BGRV-BLT1-MRRP are impaired based on the previous bacteria water quality standard. Station 6BLCC000.09 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P10R_GRV01A10 / Gravel Lick Creek / Lick Creek tributary from Hamlin upstream to Gravel Lick, north of Red Oak Ridge.	4A	Escherichia coli (E. coli)	2012	L	2.50
VAS-P10R_LCC01A98 / Lick Creek / Mainstem from unnamed tributary confluence at river mile 4.83, north of Sun, downstream to Clinch River confluence near Saint Paul.	4A	Escherichia coli (E. coli)	2006	L	4.92
VAS-P10R_LCC02A02 / Lick Creek / Mainstem from headwaters south of Trammel, through Dante, downstream to unnamed tributary confluence at river mile 4.85.	4A	Escherichia coli (E. coli)	2006	L	4.70

Lick Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.12

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P10R_LCC01A98 / Lick Creek / Mainstem from unnamed tributary confluence at river mile 4.83, north of Sun, downstream to Clinch River confluence near Saint Paul.	4A	Fecal Coliform	2002	L	4.92
VAS-P10R_LCC02A02 / Lick Creek / Mainstem from headwaters south of Trammel, through Dante, downstream to unnamed tributary confluence at river mile 4.85.	4A	Fecal Coliform	2002	L	4.70
VAS-P10R_LCR01A98 / Right Fork Lick Creek / Headwaters at Flint Gap downstream to Lick Creek confluence in Dante.	4A	Fecal Coliform	2004	L	3.04
VAS-P10R_XBM01A98 / Cigarette Hollow / Headwaters on Flat Top Ridge to Right Fork confluence.	4A	Fecal Coliform	2004	L	1.14

Lick Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			13.8

Sources: Rural (Residential Areas); Septage Disposal; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-01-BEN Lick Creek and Tributaries

Cause Location: This segment includes the headwaters of Lick Creek and continues downstream to the confluence with the Clinch River, it also includes Cigarette Hollow, Right Fork Lick and Laurel Branch.

Cause City/County: Dickenson County; Russell County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological station located at 6BLCC000.09 was impaired based on VSCI scores of 47.6 and 58 in 2016 and 57.4 and 59.7 in 2019.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P10R_LCC01A98 / Lick Creek / Mainstem from unnamed tributary confluence at river mile 4.83, north of Sun, downstream to Clinch River confluence near Saint Paul.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	4.92
VAS-P10R_LCC02A02 / Lick Creek / Mainstem from headwaters south of Trammel, through Dante, downstream to unnamed tributary confluence at river mile 4.85.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	4.70
VAS-P10R_LCR01A98 / Right Fork Lick Creek / Headwaters at Flint Gap downstream to Lick Creek confluence in Dante.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	3.04
VAS-P10R_LEL01A98 / Laurel Branch / Headwaters of Laurel Branch and Left Fork through West Dante community to Lick Creek confluence at Dante,	4A	Benthic Macroinvertebrates Bioassessments	2004	L	5.53
VAS-P10R_XBM01A98 / Cigarette Hollow / Headwaters on Flat Top Ridge to Right Fork confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	1.14

Lick Creek and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			19.33

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Loss of Riparian Habitat; Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P10R-06-BAC Honey Branch

Cause Location: A Lick Creek tributary near Morefield, upstream to Honeycomb Branch, WQS Section 2.

Cause City/County: Dickenson County; Russell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: station 6BHON002.08 had a 23% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P10R_HON01A14 / Honey Branch / A Lick Creek tributary near Morefield, upstream to Honeycomb Branch.	4A	Escherichia coli (E. coli)	2018	L	2.89

Honey Branch

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.89

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-01-BEN Guest River and Tributaries

Cause Location: This segment begins at the confluence with Sepulcher Creek and extends downstream to the confluence with the Clinch River and also includes Critical Fork, Bear Creek, and Selcer Branch.

Cause City/County: Norton; Scott County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: DEQ biological stations 6BGUE006.50 and 6BGUE016.54 were impaired based on VSCI scores. Probabilistic monitoring station 6BSEL001.81 was impaired based on VSCI scored. Non agency data for Critical Fork, Bear Creek indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_BER02A00 / Bear Creek / Bear Creek from Town of Wise raw water intake downstream to Yellow Creek confluence, southeast of Wise.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	3.10
VAS-P11R_CRI01A14 / Critical Fork / Guest River tributary, origin on Indian Mountain and confluence at Dixiana.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.31
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Branch confluence south of Coeburn downstream to Crab Orchard Branch confluence.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	3.10
VAS-P11R_GUE03A06 / Guest River / Mainstem from Sepulcher Creek confluence at Addington (mile 26.21) downstream to the Parson Branch confluence, immediately upstream of the Rt. 23 bridge near Esserville.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	2.62
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	16.78
VAS-P11R_GUE04A96 / Guest River / Mainstem from headwaters near Fox Gap downstream to the confluence of Sepulcher Creek at Addington.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	8.94
VAS-P11R_SEL01A14 / Selcer Branch / Hurricane Creek tributary east of Wise	4A	Benthic Macroinvertebrates Bioassessments	2014	L	2.06
VAS-P11R_XHW01A14 / Bear Creek tributary / South of Clinch Valley College, flows north from Gibson Cemetery area.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.21

Guest River and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			43.27

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Rural (Residential Areas); Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-03-BAC Guest River and Bear Creek

Cause Location: This segment extends from the Guest River mainstem at the confluence with Crab Orchard Creek downstream to the confluence with the Clinch River and Bear Creek from the confluence with Yellow Creek confluence downstream to the Guest River confluence and also includes Glade Creek and Yellow Creek.

Cause City/County: Norton; Scott County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6BBER001.14, 6BGLA000.18, 6BGUE026.55, 6BGUE021.41, 6BGUE026.55, 6BGUE013.71, 6BGUE006.50, 6BSEP000.55, and 6BYLP001.50 are impaired based on the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_BER01A98 / Bear Creek / Bear Creek from Yellow Creek confluence downstream to the Guest River confluence west of Ramsey.	4A	Escherichia coli (E. coli)	2010	L	1.94
VAS-P11R_GLA01A14 / Glade Creek / Yellow Creek tributary, Town of Wise.	4A	Escherichia coli (E. coli)	2014	L	1.91
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor.	4A	Escherichia coli (E. coli)	2004	L	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Branch confluence south of Coeburn downstream to Crab Orchard Branch confluence.	4A	Escherichia coli (E. coli)	2006	L	3.10
VAS-P11R_GUE03A06 / Guest River / Mainstem from Sepulcher Creek confluence at Addington (mile 26.21) downstream to the Parson Branch confluence, immediately upstream of the Rt. 23 bridge near Esserville.	4A	Escherichia coli (E. coli)	2012	L	2.62
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence.	4A	Escherichia coli (E. coli)	2012	L	16.78
VAS-P11R_GUE04A96 / Guest River / Mainstem from headwaters near Fox Gap downstream to the confluence of Sepulcher Creek at Addington.	4A	Escherichia coli (E. coli)	2012	L	8.94
VAS-P11R_SEP01A98 / Sepulcher Creek / Headwaters at Glamorgan to Guest River confluence near Addington.	4A	Escherichia coli (E. coli)	2018	L	2.93
VAS-P11R_YLO01A98 / Yellow Creek / Mainstem from headwaters at Berry Chapel, east of Wise, to Bear Creek confluence.	4A	Escherichia coli (E. coli)	2014	L	3.17

Guest River and Bear Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			45.54

Virginia Department of Environmental Quality
Appendix 4 - Fact Sheets for
Impaired (Category 4 or 5) Waters in 2022

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor.	4A	Fecal Coliform	2002	L	4.15

Guest River and Bear Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			4.15

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-03-PCB Guest River and Bear Creek

Cause Location: This segment begins at the confluence with Parson's Branch and continues downstream to the confluence with the Clinch River and Bear Creek from the Yellow Creek confluence downstream to the Guest River confluence.

Cause City/County: Norton; Wise County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: Sediment and Fish Tissue stations located at 6BGUE020.37, 6BGUE014.49 and 6BGUE009.33 indicated levels of polychlorinated biphenyls (PCBs) in carp that exceeded DEQ's screening value for PCBs. Sediment and Fish Tissue stations located at 6BGUE001.14 and 6BGUE006.45 found PCB levels that exceeded the Virginia Department of health's level of concern. PCBs were detected in carp and sediment at station 6BBER001.14.

Recent fish tissue collected at 6BGUE006.45 on 10/20/2020. 3 samples, 3 species (river chub, stoneroller, northern hogsucker); no samples exceeded the tissue screening value for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_BER01A98 / Bear Creek / Bear Creek from Yellow Creek confluence downstream to the Guest River confluence west of Ramsey.	5A	PCBs in Fish Tissue	2004	L	1.94
VAS-P11R_GUE01A00 / Guest River / Mainstem, from Crab Orchard Branch confluence downstream to confluence with Clinch River near Bangor.	5A	PCBs in Fish Tissue	2004	L	4.15
VAS-P11R_GUE02A98 / Guest River / Mainstem from Bad Branch confluence south of Coeburn downstream to Crab Orchard Branch confluence.	5A	PCBs in Fish Tissue	2006	L	3.10
VAS-P11R_GUE03A98 / Guest River / Mainstem from the Parson Branch confluence downstream to the Bad Branch confluence.	5A	PCBs in Fish Tissue	2006	L	16.78

Guest River and Bear Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			25.97

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-05-BAC Crab Orchard Creek

Cause Location: This segment extends from the headwaters downstream to the Guest River confluence.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BCRA000.31 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_CRA01A98 / Crab Orchard (Branch) Creek / Headwaters south of Little Tom Tunnel to Guest River confluence, south of Crab Orchard.	4A	Escherichia coli (E. coli)	2006	L	2.75

Crab Orchard Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.75

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-06-BAC Little Tom's Creek

Cause Location: This segment includes the headwaters and continues downstream to the Tom's Creek confluence.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BLTF000.68 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_LTF01A98 / Little Tom's Creek / From origin on Stone Mountain through Banner to Tom's Creek confluence in Coeburn.	4A	Escherichia coli (E. coli)	2006	L	4.79

Little Tom's Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.79

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_LTF01A98 / Little Tom's Creek / From origin on Stone Mountain through Banner to Tom's Creek confluence in Coeburn.	4A	Fecal Coliform	2004	L	4.79

Little Tom's Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			4.79

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-08-BAC Toms Creek

Cause Location: This segment extends from the headwaters of Toms Creek downstream to the Guest River confluence.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM stations located at 6BTMS000.35 had 2 STV hits in the same 90-day period with less than 10 samples. Station 6BTMS001.51 had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_TMS01A98 / Toms Creek / Lower mainstem from raw water intake downstream to the Guest River confluence near Riverview.	4A	Escherichia coli (E. coli)	2006	L	6.36
VAS-P11R_TMS02A00 / Toms Creek & tributaries / Upper Toms Creek from Coeburn's raw water intake to its headwaters on Sandy Ridge including tributaries, WQS Section 2f.	4A	Escherichia coli (E. coli)	2006	L	6.26

Toms Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.62

Sources: Rural (Residential Areas); Septage Disposal; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P11R-12-PH Mill Creek

Cause Location: Pine Camp Creek tributary from Stone Mountain in Jefferson National Forest south of Riverview.

Cause City/County: Norton; Scott County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: Station 6BMIA000.36 had 1 of 5 pH measurements that did not meet water quality standards.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P11R_MIA01A08 / Mill Creek / Pine Camp Creek tributary from Stone Mountain in Jefferson National Forest south of Riverview.	5A	pH	2020	L	2.24

Mill Creek

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
pH - Total Impaired Size by Water Type:			2.24

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-01-BEN Bark Camp Branch

Cause Location: This segment begins at the headwaters, includes the tributary, and continues downstream to the Stony Creek confluence.

Cause City/County: Scott County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: DEQ biological station 6BBAR000.97 was impaired based on a VSCI score of 59.3.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P12R_BAR01A02 / Bark Camp Branch & tributaries / Headwaters and tributary from Osborne Rock on Stone Mountain downstream to Stony Creek confluence in Glades Wildlife Management Area.	5A	Benthic Macroinvertebrates Bioassessments	2004	L	3.07

Bark Camp Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.07

Sources: Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-01-PH Bark Camp Branch

Cause Location: This segment begins at the headwaters, includes the tributary, and continues downstream to the Stony Creek confluence.

Cause City/County: Scott County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: The biological station 6BBAR000.97 found that 8 of 8 pH measurements did not meet water quality standards.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P12R_BAR01A02 / Bark Camp Branch & tributaries / Headwaters and tributary from Osborne Rock on Stone Mountain downstream to Stony Creek confluence in Glades Wildlife Management Area.	5A	pH	2010	L	3.07

Bark Camp Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			3.07

Sources: Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P12R-02-PH Devil Fork

Cause Location: Devil Fork is a tributary to Straight Fork in Jefferson National Forest, north of Stone Mountain.

Cause City/County: Scott County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: The DEQ Biological monitoring station 6BDEV000.07 found that 10 of 13 pH measurements did not meet water quality standards.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P12R_DEV01A02 / Devil Fork / Devil Fork is a tributary to Straight Fork in Jefferson National Forest, north of Stone Mountain located on the East Stone Gap USGS Quad Map.	5A	pH	2014	L	4.4

Devil Fork

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			4.4

Sources: Atmospheric Deposition - Acidity; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P13R-02-PCB Stock Creek

Cause Location: From stream mile 4.56 downstream to the Clinch River confluence at Clinchport.

Cause City/County: Scott County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: AWQM and sediment/fish tissue station located at 6BSTO004.56 had one fish that exceeded the DEQ screening value for PCBs.

Recent fish tissue collected on 10/22/2020. 2 samples, 2 species (rock bass and stoneroller); no samples exceeded the tissue screening value for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P13R_STO01A00 / Stock Creek / From stream mile 4.56, near Sunbright, downstream to the Clinch River confluence at Clinchport.	5A	PCBs in Fish Tissue	2004	L	4.79

Stock Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			4.79

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P13R-03-BAC Clinch River, Cove Creek and Stock Creek

Cause Location: This segment includes the mainstem Clinch River from Copper Creek upstream to the Cove Creek confluence, Lower Cove Creek from its confluence with Millstone Branch to the Clinch River, and Stock Creek from the impoundment east of Sunbright downstream to the Clinch River confluence.

Cause City/County: Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6BCLN213.02, 6BCLN227.34, 6BCOV001.68, 6BSTO000.45, 6BSTO004.56 are impaired based on the previous bacteria water quality standard. Trend monitoring station 6BCLN206.70 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P13R_CLN01A02 / Clinch River / Mainstem Clinch River from Copper Creek confluence near Speers Ferry downstream to the Tennessee state line near Shelby Creek.	4A	Escherichia coli (E. coli)	2008	L	9.63
VAS-P13R_CLN02A02 / Clinch River / Mainstem Clinch River from Copper Creek confluence upstream to Cove Creek confluence near Starnes Slant.	4A	Escherichia coli (E. coli)	2014	L	13.02
VAS-P13R_CLN03A02 / Clinch River / Mainstem Clinch River from Stony Creek confluence near Fort Blackmore downstream to Cove Creek confluence.	4A	Escherichia coli (E. coli)	2020	L	3.46
VAS-P13R_COV01B08 / Cove Creek / Lower Cove Creek from its confluence with Millstone Branch to confluence with Clinch River north of Starnes Slant.	4A	Escherichia coli (E. coli)	2008	L	7.14
VAS-P13R_STO01A00 / Stock Creek / From stream mile 4.56, near Sunbright, downstream to the Clinch River confluence at Clinchport.	4A	Escherichia coli (E. coli)	2008	L	4.79
VAS-P13R_STO02A98 / Stock Creek / From the impoundment east of Sunbright downstream to stream mile 4.56.	4A	Escherichia coli (E. coli)	2014	L	0.55

Clinch River, Cove Creek and Stock Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			38.59

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-01-BAC Copper Creek and Tributaries

Cause Location: This segment extends from just above Dickensonville downstream to the Obeys Creek confluence, the lower most segment of Valley Creek that confluences with Copper Creek and Moll Creek from the headwaters to the confluence with Copper Creek and tributaries. The lower mainstem of Amos Branch from south of Crackers Neck downstream to the Copper Creek confluence and Obeys Creek from 2.5 miles above the Copper Creek confluence upstream to the headwaters.

Cause City/County: Russell County; Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM stations 6BAMO002.28, 6BCOP023.91, 6BCOP047.75, 6BCOP052.77, 6BMOL000.03, 6BMOL003.98, 6BPTR000.02, and 6BVAL000.25 are impaired based on the previous water quality standard. 6BOBE005.56 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P14R_AMO02A02 / Amos Branch / Headwaters on Copper Ridge, north of Crackers Neck.	4A	Escherichia coli (E. coli)	2020	L	1.34
VAS-P14R_COP02A02 / Copper Creek / From the Valley Creek confluence upstream to the Grassy Creek confluence.	4A	Escherichia coli (E. coli)	2014	L	21.26
VAS-P14R_COP02B08 / Copper Creek / From the Grassy Creek confluence upstream to beginning of WQS Class V waters.	4A	Escherichia coli (E. coli)	2008	L	10.02
VAS-P14R_COP03A02 / Copper Creek / Copper Creek from mile 52.5 through Dickensonville to 56.8.	4A	Escherichia coli (E. coli)	2008	L	4.53
VAS-P14R_COP03A08 / Copper Creek / From Valley Creek confluence downstream to Obeys Creek confluence.	4A	Escherichia coli (E. coli)	2014	L	7.71
VAS-P14R_MOL01A08 / Moll Creek & tributaries / From Copper Creek upstream, to second tributary, includes Porter Hollow.	4A	Escherichia coli (E. coli)	2008	L	2.78
VAS-P14R_MOL01B10 / Moll Creek & tributaries / Headwaters and tributaries of Moll Creek.	4A	Escherichia coli (E. coli)	2014	L	9.61
VAS-P14R_OBE02A02 / Obeys Creek / From 2.5 miles above Copper Creek confluence upstream to headwaters on Copper Ridge.	4A	Escherichia coli (E. coli)	2020	L	5.51
VAS-P14R_PTR01A14 / Porter Hollow / Moll Creek tributary.	4A	Escherichia coli (E. coli)	2014	L	1.85
VAS-P14R_VAL01A02 / Valley Creek, lower / Lower segment, from near Farley Chapel to confluence with Copper Creek.	4A	Escherichia coli (E. coli)	2008	L	1.05

Copper Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			65.66

Sources: Grazing in Riparian or Shoreline Zones; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-02-BEN Blackoak Branch Tributary

Cause Location: This segment is north of Spivey Mill parallel to Route 665.

Cause City/County: Scott County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological station located at 6BXGD000.01 was impaired based on VSCI scores of 54.7 and 74.3 in 2019

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P14R_XGD01A12 / Blackoak Branch tributary / North of Manville School flows from Copper Creek Knobs.	5A	Benthic Macroinvertebrates Bioassessments	2012	H	0.77

Blackoak Branch Tributary

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			0.77

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P14R-03-BEN Obeys Creek

Cause Location: This segment of Obeys Creek includes from the headwaters downstream to just north of Addington Store.

Cause City/County: Scott County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6BOBE005.85 is impaired based on a VSCI score of 43 in 2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P14R_OBE02A02 / Obeys Creek / From 2.5 miles above Copper Creek confluence upstream to headwaters on Copper Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2020	H	5.51

Obeys Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.51

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P15R-00-BAC North Fork Clinch River

Cause Location: This segment includes the upper mainstem from 5 miles above the Duffield raw water intake at Jasper. It also includes from the Fraley Branch confluence and extends downstream to the Tennessee political boundary and includes Drakes Branch, a North Fork Clinch River tributary near Pattonsville.

Cause City/County: Lee County; Scott County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BNFC010.65 had a 42% exceedance of the previous E.coli water quality standard, station 6BNFC018.68 had a 33% exceedance, station 6BNFC003.80 had a 42% exceedance, station 6BNFC022.47 had a 17% exceedance, and station 6BDAK001.71 had a 25% exceedance of the previous E. coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P15R_DAK01A10 / Drakes Branch / A North Fork Clinch tributary, south of Pattonsville.	4A	Escherichia coli (E. coli)	2014	L	2.46
VAS-P15R_NFC01A00 / North Fork Clinch River / Upper mainstem from 5 miles above Duffield raw water intake at Jasper.	4A	Escherichia coli (E. coli)	2018	L	4.56
VAS-P15R_NFC01B00 / North Fork Clinch River / Mainstem from Pattonsville Branch confluence downstream to Cox Branch confluence.	4A	Escherichia coli (E. coli)	2008	L	7.89
VAS-P15R_NFC01B08 / North Fork Clinch River / Mainstem from Fraley Branch confluence downstream to the Pattonsville Branch confluence.	4A	Escherichia coli (E. coli)	2008	L	3.51
VAS-P15R_NFC01C02 / North Fork Clinch River / Mainstem from the Cox Branch confluence near Fairview downstream to Tennessee state line near Dona.	4A	Escherichia coli (E. coli)	2010	L	5.73
VAS-P15R_NFC02A10 / North Fork Clinch River / South of Duffield downstream to Fraley Branch confluence.	4A	Escherichia coli (E. coli)	2018	L	2.77

North Fork Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			26.92

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P15R_NFC01C02 / North Fork Clinch River / Mainstem from the Cox Branch confluence near Fairview downstream to Tennessee state line near Dona.	4A	Fecal Coliform	2002	L	5.73

North Fork Clinch River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			5.73

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P15R-01-BEN Dry Branch

Cause Location: North Fork Clinch tributary, north of Duffield.

Cause City/County: Lee County; Scott County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station at 6BDRA001.07 was impaired based on a VSCI score of 46.2 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P15R_DRA01A08 / Dry Branch / North Fork Clinch tributary, north of Duffield.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	3.22

Dry Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.22

Sources: Rural (Residential Areas); Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P16R-01-BAC Blackwater Creek

Cause Location: This segment includes the Blackwater Creek mainstem from the East Fork Blackwater Creek confluence downstream to the Tennessee political boundary and the East Fork Blackwater Creek mainstem from the Confluence of North Fork Blackwater Creek to the Blackwater Creek confluence.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BBKW005.82 had a 41% exceedance of the previous E.coli water quality standard. Station 6BBCD001.05 had a 17% exceedance of the previous E.coli water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P16R_BCE01A00 / East Fork Blackwater Creek / East Fork Blackwater Creek mainstem from the confluence of North Fork Blackwater Creek to the Blackwater Creek confluence.	4A	Escherichia coli (E. coli)	2016	L	1.94
VAS-P16R_BKW01A02 / Blackwater Creek / Blackwater Creek mainstem from East Fork Blackwater Creek confluence downstream to Tennessee state line.	4A	Escherichia coli (E. coli)	2008	L	2.10

Blackwater Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.04

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P16R_BKW01A02 / Blackwater Creek / Blackwater Creek mainstem from East Fork Blackwater Creek confluence downstream to Tennessee state line.	4A	Fecal Coliform	2004	L	2.1

Blackwater Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			2.1

Sources: Septage Disposal; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-00-BEN Dark Hollow

Cause Location: This segment is a Powell River tributary south of Appalachia.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6BDAR000.26 was impaired based on VSCI scores of 48 and 54 in 2011.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_DAR01A02 / Dark Hollow / A Powell River tributary south of Appalachia and north of Little Stone Mountain.	5A	Benthic Macroinvertebrates Bioassessments	2004	L	1.41

Dark Hollow

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.41

Sources: Atmospheric Deposition - Acidity; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-00-PH Dark Hollow

Cause Location: This segment is a Powell River tributary south of Appalachia.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: The biological monitoring station located at 6BDAR000.26 resulted in low VSCI scores. 11 of 11 pH measurements failed to meet water quality standards.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_DAR01A02 / Dark Hollow / A Powell River tributary south of Appalachia and north of Little Stone Mountain.	5A	pH	2012	L	1.41

Dark Hollow

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			1.41

Sources: Atmospheric Deposition - Acidity; Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-01-BAC Callahan Creek

Cause Location: This segment includes the mainstem of Callahan Creek from above Appalachia at Possum Trot Hollow downstream to confluence with Preacher Creek.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6BCAL003.19 had a 64% exceedance and station 6BCAL001.57 had a 36% exceedance of the previous E.coli standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CAL01A98 / Callahan Creek / Lower mainstem from the Preacher Creek confluence at Andover, downstream to the confluence with Powell River in Appalachia.	4A	Escherichia coli (E. coli)	2008	L	1.68
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover.	4A	Escherichia coli (E. coli)	2006	L	3.64

Callahan Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.32

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover.	4A	Fecal Coliform	2004	L	3.64

Callahan Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			3.64

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-01-BEN Callahan Creek and Tributaries

Cause Location: This segment includes the West Fork of Callahan Creek and the lower mainstem of Callahan Creek from the Preacher Creek confluence downstream to the confluence with Powell River, Mud Lick Creek, Halls Branch, and an unnamed tributary to Callahan Creek that flows from Ninemile Spur upstream of Stonega.

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological monitoring station located at 6BCAL000.03 was impaired based on VSCI scores. Non agency biological data from Appalachian Technical Services indicates impairment on West Fork Callahan Creek, Mud Lick Creek, Halls Branch and an unnamed tributary to Callahan Creek.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CAL01A98 / Callahan Creek / Lower mainstem from the Preacher Creek confluence at Andover, downstream to the confluence with Powell River in Appalachia.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	1.68
VAS-P17R_CAL01B04 / Callahan Creek / Above Appalachia from Possum Trot Hollow upstream of Stonega downstream to Preacher Creek confluence at Andover.	4A	Benthic Macroinvertebrates Bioassessments	2012	L	3.64
VAS-P17R_CAL01C14 / Callahan Creek / Origin is near Stonega Gap on Black Mountain, upstream of coal company guard shack, access limited.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	3.80
VAS-P17R_CLA01A14 / West Fork Callahan Creek / Bluff Spur drainage.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	2.53
VAS-P17R_HLS01A14 / Halls Branch / A tributary to Mud Lick Creek from Bluff Spur, north of Osaka.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.94
VAS-P17R_MIK01A06 / Mud Lick Creek / From Roda to confluence with Callahan Creek near Osaka.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	2.91
VAS-P17R_MIK02A14 / Mud Lick Creek / Sawmill Hollow, upstream of Roda.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	3.13

Callahan Creek and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			19.63

Sources: Coal Mining; Sewage Discharges in Unsewered Areas; Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-02-BAC Powell River

Cause Location: This segment begins at the Benges Branch confluence and continues downstream to Roaring Fork and includes the mainstem from Pigeon Creek downstream to Dakota Street in Big Stone Gap, river mile 177.53 and from the Benges Branch confluence upstream to the Buckeye Branch confluence.

Cause City/County: Norton; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: Stations 6BPOW179.20 and 6BPOW194.75 2 STV hits in the same 90-day period with less than 10 samples. Station 6BPOW193.38 is impaired based on the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01A94 / Powell River / Powell River from Roaring Branch confluence, 180.83, downstream to South Fork Powell River confluence in the Town of Big Stone Gap, river mile 177.53.	4A	Escherichia coli (E. coli)	2006	L	2.71
VAS-P17R_POW01B02 / Powell River / Mainstem Powell River from Benges Branch confluence upstream of Josephine downstream to Roaring Fork confluence at Kent Junction.	4A	Escherichia coli (E. coli)	2010	L	5.47
VAS-P17R_POW01C02 / Powell River / Powell River, from the Benges Branch confluence upstream to the Buckeye Branch confluence, north of Rogers Ridge.	4A	Escherichia coli (E. coli)	2020	L	9.03
VAS-P17R_POW02C06 / Powell River / The mainstem of Powell River south of Appalachia from Pigeon Creek confluence to Roaring Creek confluence.	4A	Escherichia coli (E. coli)	2008	L	1.00

Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			18.21

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01B02 / Powell River / Mainstem Powell River from Benges Branch confluence upstream of Josephine downstream to Roaring Fork confluence at Kent Junction.	4A	Fecal Coliform	2006	L	5.47

Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			5.47

Sources: Agriculture; Sanitary Sewer Overflows (Collection System Failures); Sewage Discharges in Unsewered Areas; Wastes from Pets

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-02-BEN Powell River

Cause Location: These segments include the headwaters of the mainstem of the Powell River, south of Divides Ridge to the Benges Branch confluence; the mainstem at Appalachia, from the Pigeon Creek confluence to the Roaring Creek confluence; and the Powell River from the Roaring Branch confluence downstream to the South Fork Powell River confluence.

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological monitoring stations located at 6BPOW179.20, 6BPOW184.19 were impaired based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01A94 / Powell River / Powell River from Roaring Branch confluence, 180.83, downstream to South Fork Powell River confluence in the Town of Big Stone Gap, river mile 177.53.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	2.71
VAS-P17R_POW01C02 / Powell River / Powell River, from the Benges Branch confluence upstream to the Buckeye Branch confluence, north of Rogers Ridge.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	9.03
VAS-P17R_POW02B06 / Powell River / Mainstem at Appalachia, from Pigeon Creek confluence upstream to Roaring Fork confluence at Kent Junction.	4A	Benthic Macroinvertebrates Bioassessments	2010	L	5.70
VAS-P17R_POW03C14 / Powell River / Headwaters of the mainstem, south of Divides Ridge.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.58

Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			19.02

Sources: Agriculture; Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Mountaintop Mining; Non-Point Source; Rural (Residential Areas); Silviculture Activities; Streambank Modifications/Destabilization; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-03-BEN Black Creek

Cause Location: This segment includes Black Creek and its tributaries from the impoundment downstream to the Powell River confluence.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The segment is impaired based on the VSCI scores of 48.22 and 54.18 at station 6BBLK000.13.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_BLK01A96 / Black Creek / Black Creek and tributaries from impoundment downstream to the Powell River confluence north of Blackwood.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	3.12

Black Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.12

Sources: Coal Mining; Coal Mining Discharges (Permitted); Impacts from Abandoned Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-04-BEN Unnamed tributary to Callahan Creek

Cause Location: Flows from Ninemile Spur upstream of Stonega, WQS Section 1.

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_XHO01A14 / Unnamed tributary to Callahan Creek. / Flows from Ninemile Spur upstream of Stonega, WQS Section 1 (TP03).	5A	Benthic Macroinvertebrates Bioassessments	2016	L	0.59

Unnamed tributary to Callahan Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			0.59

Sources: Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-07-BEN Pigeon Creek

Cause Location: This segment includes the headwaters of Pigeon Creek from Black Mtn, the KY line, through the Exeter community downstream to the Laurel Creek confluence.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological monitoring stations located at 6BPIG003.55 AND 6BPIG005.20 were impaired based on VSCI scores of 27 and 56 in 2010.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_PIG01B12 / Pigeon Creek / Headwaters from Little Black Mountain, the KY line, through the Exeter community downstream to the Laurel Fork confluence.	4A	Benthic Macroinvertebrates Bioassessments	2012	L	3.42

Pigeon Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.42

Sources: Coal Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-09-BEN Roaring Fork and Potcamp Fork

Cause Location: This segment includes from the headwaters above the Roaring Fork community to the Powell River confluence at Kent Junction, parallel to Route 603, including Potcamp Fork and Canepatch Creek.

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station located at 6BRIN000.31 was impaired based on VSCI scores of 45 and 68.1 in the 2020 monitoring season. Non agency biological monitoring data provided by Appalachian Technical Services indicates impairment on Potcamp Fork and Canepatch Creek.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_CPH01A14 / Canepatch Creek / Roaring Fork tributary from Rogers Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	8.73
VAS-P17R_POT01A14 / Potcamp Fork / A Roaring Fork tributary, segment is from headwaters downstream to Dunbar.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.86
VAS-P17R_RIN01A00 / Roaring Fork / Lower mainstem from Roaring Fork community to the Powell River confluence at Kent Junction.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	5.05
VAS-P17R_RIN01B14 / Roaring Fork / Headwaters on Black Mountain downstream to the Roaring Fork community.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	10.15

Roaring Fork and Potcamp Fork

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			26.79

Sources: Coal Mining; Mountaintop Mining; Silviculture Harvesting; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-11-BEN Powell River

Cause Location: This segment includes the mainstem Powell River from the Benges Branch confluence upstream of Josephine downstream to the Roaring Fork confluence and from the Benges Branch confluence upstream to the Buckeye Branch confluence.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological data provided by Appalachian Technical Services indicates impaired VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW01B02 / Powell River / Mainstem Powell River from Benges Branch confluence upstream of Josephine downstream to Roaring Fork confluence at Kent Junction.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	5.47

Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			5.47

Sources: Mountaintop Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-12-BEN Powell River

Cause Location: This segment includes the mainstem of the Powell River south of Appalachia from Pigeon Creek to the Roaring Creek confluence

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: This segment is bracketed by monitoring station 6BPOW179.20 with VSCI scores of 51.6 and 53.8 in 2016 and 45.2 ion 2017 and by 6BPOW184.19 with VSCI scores of 47.32 and 46.55 in 2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_POW02C06 / Powell River / The mainstem of Powell River south of Appalachia from Pigeon Creek confluence to Roaring Creek confluence.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	1

Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-13-BEN Looney Creek

Cause Location: This segment is a Powell River tributary west of Appalachia.

Cause City/County: Norton; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_LOC01A12 / Looney Creek / Powell River tributary west of Appalachia.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	6.05

Looney Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			6.05

Sources: Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P17R-14-PH Roaring Branch

Cause Location: North of Big Stone Gap from the headwaters near High Butte downstream to the confluence with the Powell River in Big Stone Gap, WQS Section 1.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: pH/5A

Cause Description: 64% of pH measurements failed to meet WQS at 6BRNN000.07.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P17R_RRN01A00 / Roaring Branch / North of Big Stone Gap from headwaters near High Butte downstream to the confluence with Powell River in Big Stone Gap.	5A	pH	2018	L	2.92

Roaring Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			2.92

Sources: Atmospheric Deposition - Acidity

Tennessee and Big Sandy River Basins

Cause Group Code: P18L-01-HG Big Cherry Reservoir

Cause Location: This reservoir is located east of East Stone Gap on Powell Mountain.

Cause City/County: Wise County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: At 6BPLL012.99, two largemouth bass samples exceeded the tissue value for mercury. In 2008, VDH issued a fish consumption advisory limiting consumption of largemouth bass to no more than two meals per month.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18L_PLL01L02 / Big Cherry Reservoir / East of East Stone Gap on Powell Mountain.	5A	Mercury in Fish Tissue	2010	L	104.01

Big Cherry Reservoir

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		104.01	

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-01-BAC South Fork Powell River

Cause Location: This segment begins at the Big Cherry Reservoir and continues downstream to the confluence with the Powell River.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM station located at 6BPLL006.38 had a 33% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_PLL02A00 / South Fork Powell River / From Big Cherry Reservoir dam on Little Mountain downstream to Beaverdam Creek confluence southeast of East Stone Gap.	4A	Escherichia coli (E. coli)	2012	L	6.45

South Fork Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			6.45

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_PLL02A00 / South Fork Powell River / From Big Cherry Reservoir dam on Little Mountain downstream to Beaverdam Creek confluence southeast of East Stone Gap.	4A	Fecal Coliform	2004	L	6.45

South Fork Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			6.45

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-02-BAC Butcher Fork

Cause Location: This segment includes the headwaters downstream to the South Fork Powell River confluence.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM station located at 6BBUH000.76 had a 22% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_BUH01A04 / Butcher Fork / From headwaters north of Buffalo Gap downstream to confluence with South Fork Powell River south of Big Stone Gap.	4A	Escherichia coli (E. coli)	2012	L	4.97

Butcher Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.97

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_BUH01A04 / Butcher Fork / From headwaters north of Buffalo Gap downstream to confluence with South Fork Powell River south of Big Stone Gap.	4A	Fecal Coliform	2004	L	4.97

Butcher Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			4.97

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-03-BAC South Fork Powell River

Cause Location: This segment includes the mainstem from the confluence of Beaverdam Creek, north of East Stone Gap, downstream to the confluence with the Powell River at Three Forks in Big Stone Gap.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station at 6BPLL001.61 had a 43% exceedance and station 6BPLL004.24 had a 50% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_PLL01A02 / South Fork Powell River / Mainstem from confluence of Beaverdam Creek downstream to Butcher Fork confluence at East Stone Gap.	4A	Escherichia coli (E. coli)	2010	L	1.98
VAS-P18R_PLL01A98 / South Fork Powell River / Mainstem from Butcher Fork confluence north of East Stone Gap downstream to confluence with Powell River at Three Forks in Big Stone Gap.	4A	Escherichia coli (E. coli)	2010	L	3.84

South Fork Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			5.82

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P18R-04-BAC Beaverdam Creek

Cause Location: A South Fork Powell River tributary east of East Stone Gap, from the headwaters near Buffalo Gap downstream.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BBEV000.17 had a 42% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P18R_BEV01A10 / Beaverdam Creek / A South Fork Powell River tributary, east of East Stone Gap, from headwaters near Buffalo Gap, downstream.	5A	Escherichia coli (E. coli)	2018	L	4.04

Beaverdam Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.04

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-01-BAC Mud Creek

Cause Location: This segment includes the mainstem from the Highway 58 crossing downstream to the Powell River confluence.

Cause City/County: Lee County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station located at 6BMDC000.33 had a 25% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P19R_MDC01A10 / Mud Creek / A Powell River tributary from Hwy 58 crossing to Powell River, east of Olinger.	4A	Escherichia coli (E. coli)	2010	L	1.82

Mud Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			1.82

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-01-BEN Powell River

Cause Location: This segment extends from confluence of Poor Valley Creek downstream to the Public Water Supply segment.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6BPOW162.89 was impaired based on a VSCI score of 54. Recent data at 6BPOW166.97indicated the impairment continues with VSCI scores of 50.9 and 78.5 in 2013 and 44.6 and 78.2 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P19R_POW03A00 / Powell River / Near Dryden from confluence of Poor Valley Creek downstream to PWS segment.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	6.62

Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			6.62

Sources: Agriculture

Tennessee and Big Sandy River Basins

Cause Group Code: P19R-02-BEN Poor Valley Creek

Cause Location: This segment includes the headwaters of Poor Valley Creek downstream to its confluence with the Powell River.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4C

Cause Description: This segment was miss-categorized in 2004. USFS monitored site 9120 and found a moderate impairment due to drought conditions.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P19R_PVC01A02 / Poor Valley Creek / Powell River tributary north of Dryden, from headwaters near Dalton Gap.	4C	Benthic Macroinvertebrates Bioassessments	NA	NA	2.82

Poor Valley Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.82

Sources: Drought-related Impacts

Tennessee and Big Sandy River Basins

Cause Group Code: P20L-01-HG Lake Keokee

Cause Location: This lake is located south of Exeter on Stone Mountain.

Cause City/County: Lee County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6BPWL025.32 on 5/21/2020 show mercury levels above the tissue value (300 ppb) in a composite sample of largemouth bass.

Previous fish tissue collected on 5/16/2007 show mercury levels above the tissue value in composite samples of largemouth bass and bluegill.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20L_PWL01L02 / Lake Keokee / This recreation impoundment was constructed in 1975, South of Exeter on Stone Mountain.	5A	Mercury in Fish Tissue	2010	L	96.22

Lake Keokee

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		96.22	

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: P20L-01-TEMP Lake Keokee

Cause Location: This lake is located south of Exeter on Stone Mountain.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: At 6BPWL024.64, 26% (17 of 65) temperature measurements exceed the WQS for Class V waters during the 2018 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20L_PWL01L02 / Lake Keokee / This recreation impoundment was constructed in 1975, South of Exeter on Stone Mountain.	5A	Temperature	2020	L	96.22

Lake Keokee

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:		96.22	

Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-00-BEN Straight Creek and Tributaries

Cause Location: This segment includes not only the headwaters of Straight Creek downstream to the North Fork Powell confluence but also its tributaries including Bailey's Trace, Ely Creek, Lick Branch, Puckett Creek, and Stone Creek.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The following DEQ biological stations were found to be moderately impaired: 6BSTA000.11, 6BSTA000.40, 6BSTA000.54, 6BSTA001.10, 6BSTA002.48, 6BSTA3.62, 6BSTC000.06, 6BSTC000.27 and 6BSTC003.27. A special study contracted by the Division o f Mine Land Reclamation and the united States Corp of Engineers verified the benthic impairments of Lick Branch and Ely Creek.

Recent biological data at 6BSRA000.11 had VSCI scores of 58.7 and 44.1 in 2017. 6BSRA003.22 had VSCI score of 54.5 and 55.2 in 2017. 6BSTC000.04 had VSCI scores of 65.7 and 54.1 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_BAI01A00 / Bailey's Trace & tributaries / Headwaters on Black Mountain downstream to Straight Creek confluence near St Charles, including Fawn Branch.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	4.70
VAS-P20R_ELC01A00 / Ely Creek & tributaries / Ely Creek and tributaries downstream to the confluence with Stone Creek.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	3.28
VAS-P20R_LCK01A00 / Lick Branch / Headwaters downstream to Puckett Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	0.75
VAS-P20R_PCK01A00 / Puckett Creek & tributaries / A Straight Creek tributary from headwaters to mouth at Maness, including tributaries, west of St. Charles.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	5.37
VAS-P20R_SRA01A94 / Straight Creek / From headwaters on Little Black Mountain downstream to North Fork Powell confluence near Pockett.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	6.81
VAS-P20R_STC02A00 / Stone Creek & tributaries / Headwaters and tributaries downstream to the Ely Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	7.22

Straight Creek and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			28.13

Sources: Acid Mine Drainage; Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Sewage Discharges in Unsewered Areas; Silviculture Activities

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-BAC North Fork Powell River

Cause Location: This segment extends from the Straight Creek confluence, river mile 6.25, downstream to the Powell River confluence and also includes the mainstem from the Payne Branch confluence downstream to the Wolf Harbor confluence.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BPWL001.49 had a 27% exceedance, station 6BPWLL004.10 had a 45% exceedance, and station 6BPWL006.02 had a 25% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_PWL01A00 / North Fork Powell River / From Straight Creek confluence near Pocket, river mile 6.25, through Pennington Gap, downstream to Powell River confluence west of Woodway.	4A	Escherichia coli (E. coli)	2004	L	6.06
VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem from Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket.	4A	Escherichia coli (E. coli)	2020	L	2.99

North Fork Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			9.05

Sources: Septage Disposal

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-BEN North Fork Powell River

Cause Location: This segment extends form the Straight Creek confluence at river mile 6.25, downstream to the Powell River confluence and also includes the mainstem from the Payne Branch confluence downstream to the Wolf Harbor confluence

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological monitoring stations 6BPWL004.40 was impaired based on VSCI scores of 49.4 and 72.5 in 2016 and 75.1 and 38.8 in 2019. Probabilistic monitoring station 6BPWL006.02 was impaired based on VSCI scores of 53.2 and 58.2 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_PWL01A00 / North Fork Powell River / From Straight Creek confluence near Pocket, river mile 6.25, through Pennington Gap, downstream to Powell River confluence west of Woodway.	4A	Benthic Macroinvertebrates Bioassessments	1994	L	6.06
VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem from Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket.	4A	Benthic Macroinvertebrates Bioassessments	2020	L	2.99

North Fork Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			9.05

Sources: Loss of Riparian Habitat; Silviculture Activities; Streambank Modifications/Destabilization; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-01-TEMP North Fork Powell River

Cause Location: This segment includes the mainstem from the Payne Branch confluence at Sigma downstream to the confluence with Straight Creek.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: Class V water quality standard for temperature was exceeded in 36% of the samples at the AWQM station located at 6BPWL006.59. Station 6BPWL010.36 had a 11% exceedance of the Class V water quality standard for temperature.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_PWL02A02 / North Fork Powell River / Mainstem from Payne Branch confluence at Sigma downstream to Wolf Harbor Branch confluence.	5A	Temperature	2016	L	7.67
VAS-P20R_PWL03B02 / North Fork Powell River / Mainstem from Wolf Harbour Branch confluence downstream to confluence of Straight Creek near Pocket.	5A	Temperature	2014	L	2.99

North Fork Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			10.66

Sources: Loss of Riparian Habitat; Silviculture Activities; Streambank Modifications/Destabilization; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-02-BAC Straight Creek and Tributaries

Cause Location: This segment includes Stone Creek from the confluence of Ely Creek to the Straight Creek confluence at the Stone Creek community and also includes Straight Creek from the headwaters downstream to the North Fork Powell confluence.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM stations located at 6BSRA000.10 and 6BSR001.11 had 2 STV hits in the same 90-day period with less than 10 samples. Station 6BSTC000.04 had a 64% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_SRA01A94 / Straight Creek / From headwaters on Little Black Mountain downstream to North Fork Powell confluence near Pockett.	4A	Escherichia coli (E. coli)	2002	L	6.81
VAS-P20R_STC01A96 / Stone Creek & tributaries / From the confluence of Ely Creek to the Straight Creek confluence at the Stone Creek community, parallels Rt. 421.	4A	Escherichia coli (E. coli)	2016	L	3.33

Straight Creek and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			10.14

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-03-BAC Reeds Creek

Cause Location: This segment includes Reeds Creek from the Meadow Fork confluence downstream to the Jones Creek confluence parallel to Route 628.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BREE000.22 had a 27% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_REE01A12 / Reeds Creek / Lone Mountain drainage, from Meadow Fork confluence downstream to confluence with North Fork Powell River at Purcell.	4A	Escherichia coli (E. coli)	2012	L	1.35

Reeds Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			1.35

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P20R-04-BEN North Fork Powell River Tributaries

Cause Location: These segments include the headwaters of Bundy Creek at Calvin; Cox Creek near Delvale; and Jones Creek from the headwaters at Trace Gap to the confluence with Reeds Creek, northeast of Purcell

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P20R_BUY01B14 / Bundy Creek / Headwaters, at Calvin, of a North Fork Powell River tributary.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.53
VAS-P20R_CXR01A14 / Cox Creek / Confluences with North Fork Powell River near Delvale.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.89
VAS-P20R_JON01A12 / Jones Creek / From Mud Creek confluence downstream to the confluence with Reeds Creek, Northeast of Purcell.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.93
VAS-P20R_JON01A14 / Jones Creek / Headwaters at Trace Gap down to the Mud Creek confluence.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.88

North Fork Powell River Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			8.23

Sources: Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-02-BAC Hardy Creek

Cause Location: This segment includes the Hardy Creek mainstem and its tributaries.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BHAR000.34 had a 27% exceedance and station 6BHAR002.41 has a 33% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_HAR01A02 / Hardy Creek & tributaries / Hardy Creek & tributaries from headwaters near Hagan downstream to Powell River confluence near White Shoals.	5A	Escherichia coli (E. coli)	2006	L	12.52

Hardy Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.52

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-03-BAC Powell River

Cause Location: This segment includes the Powell River from the confluence of Station Creek downstream to the confluence of Batie Creek, south of Jonesville.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BPOW138.91 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_POW02A02 / Powell River / Powell River from the confluence of Station Creek downstream to the confluence of Batie Creek south of Jonesville.	4A	Escherichia coli (E. coli)	2006	L	12.74

Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.74

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-03-BEN Powell River

Cause Location: This segment includes the mainstem of the Powell River from the confluence of North Fork Powell River downstream to the Town Creek confluence.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Probabilistic biological monitoring station 6BPOW156.57 was impaired based on VSCI scores of 50 and 57.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_POW02A02 / Powell River / Powell River from the confluence of Station Creek downstream to the confluence of Batie Creek south of Jonesville.	4A	Benthic Macroinvertebrates Bioassessments	2012	L	12.74
VAS-P21R_POW03A02 / Powell River / Mainstem Powell River from the confluence of North Fork Powell River west of Woodway downstream to Station Creek confluence near Poteet Ferry Bridge.	4A	Benthic Macroinvertebrates Bioassessments	2008	L	6.47

Powell River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			19.21

Sources: Agriculture; Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-04-BAC Dry Creek

Cause Location: From the Trading Creek confluence, along Route 656, downstream to the confluence with Hardy Creek near Route 650.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BDBR001.69 had a 18% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_DBR01A02 / Dry Creek / North of The Cedars, Dry Creek is a tributary to Hardy Creek arising south of Cumberland Mountain in Poor Valley.	5A	Escherichia coli (E. coli)	2012	L	8.87

Dry Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			8.87

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-05-BAC Town Creek

Cause Location: This segment includes the mainstem of Town Creek, originating on Chestnut Ridge, flowing southwest and draining the Town of Jonesville.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BTOW003.82 had a 63% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_TOW01B12 / Town Creek / Originates on Chestnut Ridge, flows south, then west, draining the Town of Jonesville.	5A	Escherichia coli (E. coli)	2012	L	3.74

Town Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.74

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: P21R-06-BAC Station Creek

Cause Location: This segment is located north of Wallen Ridge, parallel to U.S. 58, to the confluence with the Powell River at the Poteet Ferry Bridge.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6BSTN000.14 has a 45% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P21R_STN01A12 / Station Creek / A Powell River tributary that confluences at Poteet Ferry Bridge, north of Wallen Ridge.	4A	Escherichia coli (E. coli)	2012	L	2.31

Station Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.31

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P22R-01-BAC Wallen Creek

Cause Location: This segment includes from the headwaters on Powell Mountain downstream, parallel to Route 612, to the Route 70 crossing.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: Station 6BWAL014.54 had a 27% exceedance and station 6BWAL026.64 had a 36% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P22R_WAL02A02 / Wallen Creek, headwaters and tributaries / Upper Wallen Creek segment from headwaters on Powell Mountain downstream to Rasnic Hollow.	4A	Escherichia coli (E. coli)	2012	L	29.71
VAS-P22R_WAL02B02 / Wallen Creek / Middle Wallen Creek segment from Rasnic Hollow downstream to Route 70 crossing south of Wallen Ridge.	4A	Escherichia coli (E. coli)	2012	L	13.19

Wallen Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			42.9

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P22R-01-TEMP Wallen Creek

Cause Location: North of Powell Mountain, from headwaters through Stickleyville, downstream to Rasnic Hollow.

Cause City/County: Lee County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: Class V water quality standard for temperature was exceeded in 18% of the samples at the AWQM stations located at 6BWAL026.64 and 6BWAL014.54.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P22R_WAL02A02 / Wallen Creek, headwaters and tributaries / Upper Wallen Creek segment from headwaters on Powell Mountain downstream to Rasnic Hollow.	5A	Temperature	2012	L	29.71
VAS-P22R_WAL02B02 / Wallen Creek / Middle Wallen Creek segment from Rasnic Hollow downstream to Route 70 crossing south of Wallen Ridge.	5A	Temperature	2012	L	13.19

Wallen Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			42.9

Sources: Grazing in Riparian or Shoreline Zones; Loss of Riparian Habitat; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P23R-02-BAC Martin Creek

Cause Location: This segment includes the headwaters and extends downstream to the Tennessee political boundary.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BMTN003.56 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P23R_MTN01A00 / Martin Creek / Mainstem; from headwaters near Rose Hill, downstream to Tennessee state line,	5A	Escherichia coli (E. coli)	2008	L	9.66

Martin Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			9.66

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P23R-03-BAC Fourmile Creek

Cause Location: This segment includes from the headwaters, south of Ingles Chapel, parallel to Route 744 and flows south into Tennessee.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BFOU003.59 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P23R_FOU01A14 / Fourmile Creek / South of Ewing, flows south into TN.	5A	Escherichia coli (E. coli)	2014	L	2.37

Fourmile Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.37

Sources: Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P23R-04-BAC Powell River

Cause Location: From the Hardy Creek confluence downstream to the Yellow Creek confluence.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Station 6BPOW120.69 had a 25% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P23R_POW02A00 / Powell River / From Hardy Creek confluence near White Shoals downstream to Yellow Creek confluence.	5A	Escherichia coli (E. coli)	2020	L	8.47

Powell River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			8.47

Sources: Source Unknown; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P24R-01-BAC Indian Creek

Cause Location: This segment includes the mainstem from the confluence of Machine Branch downstream to the Tennessee political boundary and the mainstem from Ketron Mill to just south of Elydale School

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6BIND009.12 had a 50% exceedance of the previous bacteria water quality standard. Station 6BIND010.25 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P24R_IND01A00 / Indian Creek / Mainstem from the confluence of Machine Branch downstream to the Tennessee state line, near Gibson Station.	5A	Escherichia coli (E. coli)	2008	L	8.19
VAS-P24R_IND02A14 / Indian Creek / Indian Creek mainstem from the Meek Branch confluence, near Caylor, downstream to the confluence of Machine Branch, near Elydale.	5A	Escherichia coli (E. coli)	2014	L	4.45

Indian Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.64

Sources: Sewage Discharges in Unsewered Areas; Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: P24R-02-BAC Station Creek

Cause Location: From Gibson Gap on Cumberland Mountain in Cumberland Gap National Park to the TN line.

Cause City/County: Lee County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: 44% of samples collected by the National Park Service exceeded the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-P24R_STT01A14 / Station Creek / From Gibson Gap on Cumberland Mountain, in Cumberland Gap National Park, to TN line.	5A	Escherichia coli (E. coli)	2018	L	3.12

Station Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			3.12

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-01-BAC Dry Fork

Cause Location: This segment includes from the headwaters in upper Baptist Valley to the West Virginia state line near SR 637.

Cause City/County: Tazewell County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6ADRK035.86 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q01R_DRK01A98 / Dry Fork / Mainstem from headwaters in upper Baptist Valley to West Virginia state line near SR 637.	5A	Escherichia coli (E. coli)	2018	L	11.61

Dry Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.61

Sources: Source Unknown; Unspecified Domestic Waste

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-02-BAC Jacobs Fork and Tributaries

Cause Location: At the West Virginia state line; Jacobs Fork and Brewster Hollow, east and south of Bishop.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: AWQM station 6AJBF010.88 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q01R_JBF01A10 / Jacobs Fork & tributaries / At West Virginia state line; Jacobs Fork and Brewster Hollow East and South of Bishop.	5A	Escherichia coli (E. coli)	2010	L	2.35

Jacobs Fork and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.35

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q01R-03-BEN Beech Fork

Cause Location: A Tug Fork tributary in the Amonate Community.

Cause City/County: Tazewell County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Probabilistic monitoring station 6ABEJ001.14 was impaired based on VSCI scores of 42.7 and 35.8 in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q01R_BEJ01A20 / Beech Fork / A Tug Fork tributary in the Amonate Community.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	2.68

Beech Fork

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.68

Sources: Coal Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-01-BEN Pawpaw Creek

Cause Location: This segment includes the mainstem from the Kentucky state line downstream to the Knox Creek confluence, along State Route 643.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6APPW000.50 was impaired based on VSCI scores of 50, 36 and 57 in 2005 and 2006.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_PPW01A94 / Pawpaw Creek / From Kentucky state line near Pawpaw downstream through Kelsa to Knox Creek confluence, along Rt. 643	4A	Benthic Macroinvertebrates Bioassessments	1994	L	4.23

Pawpaw Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.23

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Silviculture Activities

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-BAC Knox Creek and Guess Fork

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary and Guess Fork, a Knox Creek tributary, north of Hurley.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6AGIE000.04, 6AKOX017.71, and 6AKOX014.17 are impaired based on the previous bacteria water quality standard. Trend monitoring station 6AKOX006.52 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quad sheets.	4A	Fecal Coliform	2004	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia.	4A	Fecal Coliform	2002	L	7.76

Knox Creek and Guess Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			16.46

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quad sheets.	4A	Escherichia coli (E. coli)	2010	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia.	4A	Escherichia coli (E. coli)	2006	L	7.76
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentucky state line upstream through Hurley to the Straight Fork confluence at Blackey, WQS Section 3 (BS07/BS05).	4A	Escherichia coli (E. coli)	2002	L	9.54

Knox Creek and Guess Fork

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			26

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-BEN Knox Creek

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6AKOX011.67 was impaired based on VSCI scores of 43.3 and 47.7 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	7.76
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentucky state line upstream through Hurley to the Straight Fork confluence at Blackey, WQS Section 3 (BS07/BS05).	4A	Benthic Macroinvertebrates Bioassessments	1996	L	9.54

Knox Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			17.3

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Mountaintop Mining; Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-02-PCB Knox Creek and Tributaries

Cause Location: This segment includes the mainstem from the headwaters to the Kentucky political boundary. It also includes all tributaries to Knox Creek that were included in the December 2005 Virginia Department of Health (VDH) Fish Consumption Ban update including Guess Fork, Big Butt Branch and tributaries, Long Bottom Branch and Pawpaw Creek.

Cause City/County: Buchanan County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/5A

Cause Description: Fish Tissue stations located at 6AKOX023.25, 6AKOX020.36, 6AKOX019.30, 6AKOX017.97, 6AKOX014.37, 6AKOX012.06, 6AKOX010.98, 6AKOX008.14 indicated an exceedance of the DEQ screening value for polychlorinated biphenyls (PCBs) and the VDH human health criteria for PCBs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_BBB01A10 / Big Butt Branch & tributaries / A tributary to Knox Creek west of State Line Ridge.	5A	PCBs in Fish Tissue	2006	L	6.01
VAS-Q03R_CED01A16 / Cedar Branch / Knox Creek tributary NE of Kelsa.	5A	PCBs in Fish Tissue	2004	L	2.81
VAS-Q03R_GIE01A04 / Guess Fork / Knox Creek tributary from State Line Ridge, north of Hurley, found on Panther and Hurley quad sheets.	5A	PCBs in Fish Tissue	2006	L	8.70
VAS-Q03R_KOX01A00 / Knox Creek / Mainstem from Straight Fork confluence at Blackey upstream to the headwaters near Paynesville, West Virginia.	5A	PCBs in Fish Tissue	2004	L	7.76
VAS-Q03R_KOX02A98 / Knox Creek / Mainstem from Kentucky state line upstream through Hurley to the Straight Fork confluence at Blackey, WQS Section 3 (BS07/BS05).	5A	PCBs in Fish Tissue	2004	L	9.54
VAS-Q03R_LBT01A10 / Long Bottom Branch / Knox Creek tributary east of Blackey.	5A	PCBs in Fish Tissue	2004	L	1.42
VAS-Q03R_PPW01A94 / Pawpaw Creek / From Kentucky state line near Pawpaw downstream through Kelsa to Knox Creek confluence, along Rt. 643	5A	PCBs in Fish Tissue	2004	L	4.23
VAS-Q03R_PUM01A16 / Pumpkin Branch / Guess Fork tributary.	5A	PCBs in Fish Tissue	2004	L	1.64
VAS-Q03R_RAC02A16 / Race Fork / Knox Creek tributary.	5A	PCBs in Fish Tissue	2004	L	7.05
VAS-Q03R_VDH01A05 / Unsegmented rivers in BS04 / All tributaries to Knox Creek upstream of Blackey that were included in the December 2005 Virginia Department of Health Fish Consumption ban update.	5A	PCBs in Fish Tissue	2004	L	49.72

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_VDH02A05 / Unsegmented rivers in BS05 / All tributaries to Knox Creek between Blackey and Bee Branch that were included in the December 2005 Virginia Department of Health Fish Consumption ban update.	5A	PCBs in Fish Tissue	2004	L	71.56
VAS-Q03R_VDH03A05 / Unsegmented rivers in BS06 / All tributaries to Pawpaw Creek that were included in the December 2005 Virginia Department of Health Fish Consumption ban update.	5A	PCBs in Fish Tissue	2004	L	25.24
VAS-Q03R_VDH04A05 / Unsegmented rivers in BS07 / All tributaries to Knox Creek downstream of Pawpaw Creek that were included in the December 2005 Virginia Department of Health Fish Consumption ban update.	5A	PCBs in Fish Tissue	2004	L	5.15

Knox Creek and Tributaries

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			200.83

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q03R-03-BAC Pawpaw Creek

Cause Location: This segment includes the Pawpaw Creek mainstem from the Kentucky political boundary to the confluence with Knox Creek.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM stations 6APPW000.03 had a 42% exceedance and 6APPW000.49 had a 50% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q03R_PPW01A94 / Pawpaw Creek / From Kentucky state line near Pawpaw downstream through Kelsa to Knox Creek confluence, along Rt. 643	5A	Escherichia coli (E. coli)	2010	L	4.23

Pawpaw Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			4.23

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-BAC Levisa Fork and Tributaries

Cause Location: This segment includes the Levisa Fork mainstem from the headwaters downstream to the Slate Creek confluence, from the Bull Creek confluence downstream to the Kentucky state line, Slate Creek from the Upper Rockhouse Branch confluence downstream to the confluence with the Levisa Fork, the mainstem of Dismal Creek from the confluence of Hurricane Branch to the confluence with Levisa Fork and Little Prater Creek, a Levisa Fork tributary west of Tookland.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: AWQM stations 6ALEV152.46, 6ALEV156.82, 6ALEV143.80, 6BLRA000.10, and 6ASAT000.26 are impaired based on the previous bacteria water quality standard. Trend monitoring station 6ALEV131.52 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84.	4A	Fecal Coliform	2004	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Contrary Creek confluence through Keen Mountain to Garden Creek confluence.	4A	Fecal Coliform	2004	L	3.94
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71.	4A	Fecal Coliform	2004	L	8.27
VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy.	4A	Fecal Coliform	2002	L	9.37

Levisa Fork and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			25.53

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84.	4A	Escherichia coli (E. coli)	2010	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Contrary Creek confluence through Keen Mountain to Garden Creek confluence.	4A	Escherichia coli (E. coli)	2010	L	3.94

(continued)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71.	4A	Escherichia coli (E. coli)	2010	L	8.27
VAS-Q06R_LRA01A12 / Little Prater Creek / Levisa Fork tributary west of Tookland.	4A	Escherichia coli (E. coli)	2018	L	3.23
VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy.	4A	Escherichia coli (E. coli)	2008	L	9.37
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment.	4A	Escherichia coli (E. coli)	2006	L	2.68
VAS-Q08R_LEV02A00 / Levisa Fork / From Rocklick Branch at Big Rock upstream parallel Route 460 to Bull Creek confluence near Harman Junction.	4A	Escherichia coli (E. coli)	2008	L	4.73
VAS-Q08R_LEV03A02 / Levisa Fork / From Slate Creek confluence in Grundy downstream parallel Route 460 to Bull Creek confluence.	4A	Escherichia coli (E. coli)	2006	L	6.31

Levisa Fork and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			42.48

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-BEN Levisa Fork and Slate Creek

Cause Location: This segment includes the Levisa Fork mainstem from the confluence of Garden Creek, river mile 155.94, downstream to the confluence of Bull Creek and from the Rocklick Branch confluence downstream to the Kentucky state line. It also includes the Slate Creek mainstem from the Upper Rockhouse Branch confluence downstream to the confluence with the Levisa Fork.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The AWQM station located at 6ASAT000.05, 6ASAT004.52, 6ASAT007.71 were impaired based on VSCI scores. Station 6ALEV152.46 was impaired based on VSCI scores of 41 and 57 in 2007 and station 6ALEV130.29 was impaired based on VSCI scored of 38 and 54 in 2007.

Recent benthic data collected at 6ALEV158.93, 6ALEV138.19, 6ALEV143.80 and 6ASAT007.71 in inconclusive. VSCI score at 6ASAT000.26 were 62.6 and 45.2 in the 2018 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	3.95
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	8.27
VAS-Q07R_SAT01A00 / Slate Creek / Mainstem from the Upper Rockhouse Branch confluence near Matney downstream to the confluence with Levisa Fork in Grundy.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	9.37
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	2.68
VAS-Q08R_LEV03A02 / Levisa Fork / From Slate Creek confluence in Grundy downstream parallel Route 460 to Bull Creek confluence.	4A	Benthic Macroinvertebrates Bioassessments	2006	L	6.31

Levisa Fork and Slate Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			30.58

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Non-Point Source

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-01-PCB Levisa Fork and Garden Creek

Cause Location: This segment begins at the Levisa Fork headwaters and continues downstream to the Kentucky state line and Garden Creek from the confluence of Right Fork Garden Creek downstream to the confluence with Levisa Fork.

Cause City/County: Buchanan County

Use(s): Fish Consumption

Causes(s)/VA Category: PCBs in Fish Tissue/4A

Cause Description: The Fish Tissue station locate at 6AGAR000.16 found polychlorinated biphenyls (PCBs) in the sediment and station 6AGAR001.78 exceeded DEQ's screening value for PCBs. Station 6ALEV130.00 exceeded the Virginia Department of Health's (VDH)human health criteria for PCBs. PCBs were also detected a Fish Tissue station 6ALEV151.26, 6ALEV145.86, 6ALEV134.82, and 6ALEV130.00.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron.	4A	PCBs in Fish Tissue	2004	L	1.84
VAS-Q04R_LEV01A94 / Levisa Fork / Mainstem from the confluence of Garden Creek, river mile 155.94 at Oakwood, to the confluence of Dismal Creek at Route 460 crossing, river mile 151.84.	4A	PCBs in Fish Tissue	2006	L	3.95
VAS-Q04R_LEV01B02 / Levisa Fork / Levisa Fork downstream of Contrary Creek confluence through Keen Mountain to Garden Creek confluence.	4A	PCBs in Fish Tissue	2006	L	3.94
VAS-Q06R_LEV01A98 / Levisa Fork / Mainstem from Dismal Creek confluence, river mile 151.84, downstream to Slate Creek confluence in Grundy, river mile 143.71.	4A	PCBs in Fish Tissue	2006	L	8.27
VAS-Q08R_LEV01A00 / Levisa Fork / From Rocklick Branch at Big Rock downstream to the Kentucky state line. VPDES permit for Buchanan County PSA/Conaway WWTP is in this segment.	4A	PCBs in Fish Tissue	2006	L	2.68
VAS-Q08R_LEV02A00 / Levisa Fork / From Rocklick Branch at Big Rock upstream parallel Route 460 to Bull Creek confluence near Harman Junction.	4A	PCBs in Fish Tissue	2006	L	4.73
VAS-Q08R_LEV03A02 / Levisa Fork / From Slate Creek confluence in Grundy downstream parallel Route 460 to Bull Creek confluence.	4A	PCBs in Fish Tissue	2006	L	6.31

Levisa Fork and Garden Creek

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			31.72

Sources: Atmospheric Deposition; Contaminated Sediments; Non-Point Source

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-02-BAC Garden Creek and Right Fork Garden Creek

Cause Location: This segment includes the headwaters of Garden Creek downstream to the confluence with Levisa Fork and Right Fork Garden Creek from the headwaters downstream to the confluence with Garden Creek.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A; Fecal Coliform/4A

Cause Description: The AWQM station located at 6AGAR000.16 had a 18% exceedance, station 6AGRF002.36 had a 42% exceedance, station 6AGAR005.25 had a 25% exceedance, station 6AGRF004.97 had a 50% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron.	4A	Fecal Coliform	2002	L	1.84

Garden Creek and Right Fork Garden Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			1.84

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron.	4A	Escherichia coli (E. coli)	2008	L	1.84
VAS-Q04R_GAR01B02 / Garden Creek / From headwaters of Garden Creek near Lynn Spring Gap downstream to Right Fork confluence near Mount Heron.	4A	Escherichia coli (E. coli)	2008	L	6.02
VAS-Q04R_GRF01A02 / Right Fork Garden Creek / Headwaters of Right Fork Garden Creek downstream to Garden Creek confluence at Mount Heron.	4A	Escherichia coli (E. coli)	2008	L	10.40

Garden Creek and Right Fork Garden Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			18.26

Sources: Rural (Residential Areas); Sanitary Sewer Overflows (Collection System Failures); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q04R-02-BEN Garden Creek and Right Fork Garden Creek

Cause Location: This segment includes the headwaters of Garden Creek downstream to the confluence with Levisa Fork and Right Fork Garden Creek from the headwaters downstream to the confluence with Garden Creek.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological stations located at 6AGAR000.16, 6AGAR005.25 were impaired based on VSCI scores. Recent benthic data collection at 6AGRF000.56, 6AGRF002.36 and 6AGRF004.97 have VSCI scores ranging from 44.3 to 61.2 during the 2018 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q04R_GAR01A98 / Garden Creek / Garden Creek from confluence with Levisa Fork, upstream through Mavisdale to confluence of Right Fork Garden Creek near Mount Heron.	4A	Benthic Macroinvertebrates Bioassessments	1998	L	1.84
VAS-Q04R_GAR01B02 / Garden Creek / From headwaters of Garden Creek near Lynn Spring Gap downstream to Right Fork confluence near Mount Heron.	4A	Benthic Macroinvertebrates Bioassessments	2008	L	6.02
VAS-Q04R_GRF01A02 / Right Fork Garden Creek / Headwaters of Right Fork Garden Creek downstream to Garden Creek confluence at Mount Heron.	4A	Benthic Macroinvertebrates Bioassessments	2008	L	10.40

Garden Creek and Right Fork Garden Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			18.26

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-00-BEN Dismal Creek

Cause Location: This segment includes the headwaters of Dismal Creek near Redoak Ridge downstream through Jewell Valley and Whitewood to the Laurel Fork confluence.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological monitoring station located at 6ADIS022.34 was impaired based on VSCI scores of 48.8 and 52.9 in 2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q05R_DIS02A00 / Dismal Creek / Headwaters of Dismal Creek near Redoak Ridge downstream through Jewell Valley and Whitewood to Laurel Fork confluence.	4A	Benthic Macroinvertebrates Bioassessments	2016	L	9.14

Dismal Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			9.14

Sources: Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-00-TEMP Dismal Creek

Cause Location: This segment includes Dismal Creek from the confluence of Long Branch to the confluence with Levisa Fork.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: The AWQM station located at 6ADIS001.24 had a 17% exceedance of the temperature water quality standard for WQS Class V waters.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q05R_DIS01A00 / Dismal Creek / Dismal River from confluence of Long Branch downstream parallel SR 638 to confluence with Levisa Fork.	5A	Temperature	2008	L	5.39

Dismal Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			5.39

Sources: Loss of Riparian Habitat; Silviculture Activities; Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q05R-01-BAC Dismal Creek

Cause Location: This segment includes the mainstem of Dismal Creek from the Laurel Fork confluence downstream to the Long Branch confluence.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station 6ADIS014.33 had an 17% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q05R_DIS01B02 / Dismal Creek / Mainstem parallel to SR 638 from Laurel Fork confluence near Whitewood downstream through Pilgrims Knob to the Long Branch confluence.	4A	Escherichia coli (E. coli)	2010	L	12.45

Dismal Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			12.45

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q06R-01-BEN Big Prater Creek

Cause Location: Mainstem from the Trace Fork Branch confluence downstream to the confluence with the Levisa Fork at Vansant.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station at 6ABIP000.65 was impaired based on VSCI scores of 54.7 and 31.0 in the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q06R_BIP01A98 / Big Prater Creek / Mainstem from the Trace Fork Branch confluence downstream to the confluence with Levisa Fork at Vansant.	5A	Benthic Macroinvertebrates Bioassessments	2022	L	1.11

Big Prater Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.11

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive); Streambank Erosion; Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-01-BAC Bull Creek, Poplar Creek, and Home Creek

Cause Location: This segment includes the Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork, Cove Hollow. This segment also includes Poplar Creek at the confluence with Knotty Poplar Fork and continues downstream to the confluence with Levisa Fork. This segment also includes Home Creek, a tributary to the Levisa Fork.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The AWQM station located at 6ABLC000.85 had a 25% exceedance, station 6ABLC002.30 had an 85% exceedance, station 6APLR000.06 had a 25% exceedance, and station 6AHME000.42 has a 16% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_BLC01A98 / Bull Creek & tributaries / Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork, Cove Hollow.	4A	Escherichia coli (E. coli)	2008	L	28.45
VAS-Q08R_HME01A04 / Home Creek / Levisa Fork tributary south of Big Rock upstream to Spencer Fork confluence.	4A	Escherichia coli (E. coli)	2014	L	4.79
VAS-Q08R_PLR01A08 / Poplar Creek / Mainstem from Poplar Fork confluence downstream to 0.19 river mile above confluence with Levisa Fork near Harman Junction.	4A	Escherichia coli (E. coli)	2008	L	3.04
VAS-Q08R_PLR01A14 / Poplar Creek / Mainstem from Levisa Fork near Harman Junction upstream to first tributary at river mile 0.19.	4A	Escherichia coli (E. coli)	2008	L	0.20

Bull Creek, Poplar Creek, and Home Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			36.48

Sources: Illegal Dumps or Other Inappropriate Waste Disposal; Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-01-BEN Bull Creek and Tributaries

Cause Location: This segment includes the Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork and Cove Hollow.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6ABLC002.30 was impaired based on VSCI scores of 41 and 32 in 2006. Recent data indicated the benthic impairment continues.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_BLC01A98 / Bull Creek & tributaries / Bull Creek mainstem and tributaries, including Convict Hollow, Belcher Branch, Deel Fork, Cove Hollow.	4A	Benthic Macroinvertebrates Bioassessments	1998	L	28.45

Bull Creek and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			28.45

Sources: Coal Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-02-BEN Home Creek

Cause Location: This segment is a Levisa Fork tributary south of Big Rock, upstream to the Spencer Fork confluence, parallel to Route 650.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological monitoring station at 6AHME002.16 was impaired based on VSCI scores of 22.7 and 54.0 in 2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_HME01A04 / Home Creek / Levisa Fork tributary south of Big Rock upstream to Spencer Fork confluence.	4A	Benthic Macroinvertebrates Bioassessments	2010	L	4.79

Home Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.79

Sources: Coal Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-05-BAC Conaway Creek

Cause Location: This segment is a Levisa Fork tributary at Conaway near Kentucky state line upstream to Caney Fork confluence.

Cause City/County: Buchanan County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: AWQM station 6ACNW000.07 had a 42% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_CNW01A08 / Conaway Creek / Levisa Fork tributary at Conaway near Kentucky state line upstream to Caney Fork confluence.	4A	Escherichia coli (E. coli)	2016	L	2.63

Conaway Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.63

Sources: Illegal Dumps or Other Inappropriate Waste Disposal; Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-05-BEN Conaway Creek

Cause Location: Levisa Fork Tributary at Conaway near the Kentucky state line upstream to the Caney Fork confluence.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Biological monitoring station at 6ACNW000.07 was impaired based on VSCI scores of 36 and 52 in 2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_CNW01A08 / Conaway Creek / Levisa Fork tributary at Conaway near Kentucky state line upstream to Caney Fork confluence.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.63

Conaway Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.63

Sources: Coal Mining; Mountaintop Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-06-BEN State Line Branch

Cause Location: A tributary to Levisa Fork in KY north of Conaway.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station at 6ASLI000.06 had VSCI score of 49.5 and 56.5 during the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_SLB01A14 / State Line Branch / Tributary to Levisa Fork in KY north of Conaway.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.36

State Line Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.36

Sources: Coal Mining; Mountaintop Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-07-BEN Home Creek Headwaters

Cause Location: This segment includes the headwaters of Home Creek.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station has VSCI scores of 56.5 and 69.8 during the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_HME01B14 / Home Creek / Headwaters of Home Creek.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	0.8

Home Creek Headwaters

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			0.8

Sources: Coal Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-08-BEN Conaway Creek and Tributaries

Cause Location: Headwaters of Conaway Creek.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station 6ACNW003.48 has VSCI scores of 38.6 and 51.6 during the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_CEK01A20 / Caney Fork / Conaway Creek tributary.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.39
VAS-Q08R_CNW02A14 / Conaway Creek and tributaries / From Lick Branch down to the confluence with Caney Fork.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.85
VAS-Q08R_JIM01A20 / Jim Belcher Fork / Conaway Creek Tributary, WQS Section 3 (BS15).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.75

Conaway Creek and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			6.99

Sources: Coal Mining; Mountaintop Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q08R-09-BEN Poplar Creek

Cause Location: This segment includes the mainstem of Poplar Creek from the Poplar Fork confluence downstream to rivermile 0.19, above the confluence with the Levisa Fork near Harman Junction.

Cause City/County: Buchanan County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q08R_PLR01A08 / Poplar Creek / Mainstem from Poplar Fork confluence downstream to 0.19 river mile above confluence with Levisa Fork near Harman Junction.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	3.04

Poplar Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.04

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q09R-01-BAC Russell Fork and Tributaries

Cause Location: This segment includes the unassessed stream segments in the headwaters of Russell Fork downstream to the confluence of the Pound River near Bartlick and from the Kentucky state line upstream 2.2 miles. Hurricane Creek from the confluence of Carver Branch downstream to the confluence with Russell Fork. It also includes Little Pawpaw Creek, a Russell Fork tributary north of Cannady, Sullivan Branch, an Indian Creek tributary from the headwaters on Long Ridge north of Duty, and Grassy Creek, a PWS segment for Elkhorn City, KY.

Cause City/County: Buchanan County; Dickenson County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: AWQM station 6AHRC000.05, 6ARSS034.53, 6ALPP001.60, 6AGSS002.37 and 6ARSS014.15 are impaired based on the previous bacteria water quality standard. Stations 6ARSS041.08, 6ASLV000.85, and 6ARSS024.30 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q09R_HRC01A02 / Hurricane Creek / Mainstem from confluence of Carver Branch downstream to the confluence with Russell Fork at Davenport.	5A	Escherichia coli (E. coli)	2010	L	0.86
VAS-Q09R_RSS01A00 / Russell Fork / Russell Fork mainstem form Hollow Poplar Creek downstream following Buchanan/ Dickenson County line to confluence of Pawpaw Creek near Cannady.	5A	Escherichia coli (E. coli)	2010	L	7.47
VAS-Q09R_RSS02A00 / Russell Fork headwaters / Headwaters of Russell Fork on Big A Mountain downstream through Davenport to the confluence of Hollow Poplar Branch.	5A	Escherichia coli (E. coli)	2004	L	8.88
VAS-Q09R_SLV01A08 / Sullivan Branch / Indian Creek tributary from headwaters on Long Ridge north of Duty.	5A	Escherichia coli (E. coli)	2018	L	1.63
VAS-Q10R_LPP01A18 / Little Pawpaw Creek / Russell Fork tributary, north of Cannady.	5A	Escherichia coli (E. coli)	2018	L	2.93
VAS-Q10R_RSS01A00 / Russell Fork / Upper mainstem from confluence of Pawpaw Creek at the county line, downstream to Fryingpan Creek confluence in WQS Section 4 (BS21).	5A	Escherichia coli (E. coli)	2010	L	4.35
VAS-Q12R_GSS01A12 / Grassy Creek / Kentucky state line, WQS Section 4e. This is the PWS for Elkhorn City, Kentucky.	5A	Escherichia coli (E. coli)	2020	L	2.09
VAS-Q12R_RSS02A04 / Russell Fork / From Kentucky state line upstream 2.2 miles to protect Elkhorn City, Kentucky, raw water intake.	5A	Escherichia coli (E. coli)	2006	L	2.25
VAS-Q12R_RSS03A02 / Russell Fork / Mainstem from the Pound River confluence near Bartlick, upstream through Splashdam to the McClure River confluence in Haysi.	5A	Escherichia coli (E. coli)	2012	L	3.90

Russell Fork and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			34.36

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q09R-01-BEN Indian Creek

Cause Location: A Russell Fork tributary from the Cane Creek confluence at Duty, parallel to Route 602, downstream to the Russell Fork confluence at the Buchanan/Dickenson County line.

Cause City/County: Buchanan County; Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The probabilistic monitoring station located at 6AIND000.52 was impaired based on VSCI scores of 48.3 and 51.5 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q09R_IND01A10 / Indian Creek / Russell Fork tributary from Cane Creek confluence at Duty downstream to the Russell Fork confluence on Buchanan/Dickenson County line between Indian Ridge and Long Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	2.7

Indian Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.7

Sources: Coal Mining; Mountaintop Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q10R-01-BEN Fryingpan Creek

Cause Location: From headwaters on Sandy Ridge near Carrie downstream to the Priest Fork confluence.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The probabilistic monitoring station 6AFRY006.70 indicates impairment based on VSCI scores of 42.6 and 36.9 in 2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q10R_FRY02A04 / Fryingpan Creek / From headwaters on Sandy Ridge near Carrie downstream to the Priest Fork confluence, west of Sportsman Lake.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	9.45

Fryingpan Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			9.45

Sources: Coal Mining; Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q10R-02-BEN Little Pawpaw Creek

Cause Location: A Russell Fork tributary, north of Cannady.

Cause City/County: Buchanan County; Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6ALPP001.60 was impaired based on VSCI scores of 23.3 and 51.4 in 2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q10R_LPP01A18 / Little Pawpaw Creek / Russell Fork tributary, north of Cannady.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	2.93

Little Pawpaw Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.93

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-02-BAC McClure River and Tributaries

Cause Location: This segment begins at the Buffalo Creek confluence and continues downstream to the Road Branch confluence and Buffalo Creek from the headwaters downstream to the confluence with McClure River and includes Roaring Fork

Cause City/County: Dickenson County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/4A

Cause Description: The station identified as BC on Buffalo Creek had a 50% exceedance, station 6AMCR007.46 had a 16% exceedance, station 6AMCR014.69 had a 58% exceedance and station 6AROR-RF-MRRP had a 12% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_BFF01A08 / Buffalo Creek / A McClure River tributary north of Nora, confluence is at Buffalo Tunnel.	4A	Escherichia coli (E. coli)	2008	L	3.25
VAS-Q11R_BSB01A10 / Big Spraddle Branch / A McClure River tributary, west of Stratton.	4A	Escherichia coli (E. coli)	2012	L	2.31
VAS-Q11R_MCR02A00 / McClure River / West of Reedy Ridge, from Caney Creek confluence north of McClure, downstream to Road Branch confluence near Steinman.	4A	Escherichia coli (E. coli)	2006	L	9.68
VAS-Q11R_MCR03A06 / McClure River / Upstream of Caney Creek confluence at McClure through Stratton to the Buffalo Creek confluence near Buffalo Tunnel, includes the communities of McClure and Stratton.	4A	Escherichia coli (E. coli)	2006	L	3.39
VAS-Q11R_MCR04A06 / McClure River / From Buffalo Creek confluence north of Nora upstream to headwaters, parallels Sandy Ridge to the west.	4A	Escherichia coli (E. coli)	2012	L	8.70
VAS-Q11R_ROR01A14 / Roaring Fork / Tributary to McClure Creek upstream of Nora to Dark Hollow.	4A	Escherichia coli (E. coli)	2014	L	1.08

McClure River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			28.41

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-02-BEN Wakenva Branch

Cause Location: A Honey Branch tributary, west of Trammel.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station 6AWAK000.04 had VSCI score of 57.5 and 71.0 during the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_WAK01A14 / Wakenva Branch / Honey Branch tributary.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	1.8

Wakenva Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.8

Sources: Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-04-BEN Cowan Rose Branch

Cause Location: This segment includes Cowan Rose Branch, a tributary to Open Fork west of Carrico Ridge.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station 6ACRC000.19 had VSCI score of 54.6 and 61.8 during the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_CRC01A14 / Cowan Rose Branch / Spring Fork tributary west of Carico Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	3.3

Cowan Rose Branch

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.3

Sources: Coal Mining; Unspecified Land Disturbance

Tennessee and Big Sandy River Basins

Cause Group Code: Q11R-05-BEN Dismal Fork

Cause Location: This segment includes Dismal Fork, a Neece Creek tributary between Brushy Ridge and Dismal Ridge.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q11R_DIL01A14 / Dismal Fork / Neece Creek tributaries from Dismal Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	4.52

Dismal Fork

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.52

Sources: Coal Mining (Subsurface); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-BAC Russell Prater Creek

Cause Location: This segment extends from the headwaters at Poplar Gap downstream to the confluence with Russell Fork.

Cause City/County: Buchanan County; Dickenson County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: The AWQM station located at 6ARPC000.40 had 2 STV hits in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q12R_RPC01A96 / Russell Prater Creek / Flows west from the headwaters at Poplar Gap downstream to Russell Fork confluence in Haysi.	5A	Escherichia coli (E. coli)	2008	L	11.72

Russell Prater Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			11.72

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-BEN Russell Prater Creek

Cause Location: This segment extends from the headwaters of Russell Prater Creek downstream to the confluence with Russell Fork.

Cause City/County: Buchanan County; Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6ARPC000.52 was impaired based on VSCI scores of 49.7 and 57.3 in 2018. 6ARPC002.45 was impaired based on VSCI scores of 33 and 46 in 2005.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q12R_RPC01A96 / Russell Prater Creek / Flows west from the headwaters at Poplar Gap downstream to Russell Fork confluence in Haysi.	4A	Benthic Macroinvertebrates Bioassessments	1996	L	11.72

Russell Prater Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			11.72

Sources: Coal Mining; Impacts from Abandoned Mine Lands (Inactive)

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-01-TEMP Russell Fork

Cause Location: From the Kentucky state line upstream 2.2 miles.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5A

Cause Description: Station 6ARSS014.15 had 21% of temperature measurements exceed the water quality standard for Class V waters.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q12R_RSS02A04 / Russell Fork / From Kentucky state line upstream 2.2 miles to protect Elkhorn City, Kentucky, raw water intake.	5A	Temperature	2020	L	2.25

Russell Fork

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			2.25

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-05-BEN Middle Fork (Hunts Creek)

Cause Location: This segment is located parallel to Route 631 near Breaks.

Cause City/County: Buchanan County; Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores. DEQ biological monitoring station had VSCI scores of 44.9 and 27.2 during the 2019 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q12R_XGN01A12 / Middle Fork (Hunts Creek) / A Hunts Creek tributary north of Breaks in WQS Section 4 (BS35).	5A	Benthic Macroinvertebrates Bioassessments	2014	L	2.94

Middle Fork (Hunts Creek)

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.94

Sources: Loss of Riparian Habitat; Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q12R-06-BEN Grassy Creek

Cause Location: From the Kentucky state line upstream 2.2 miles.

Cause City/County: Buchanan County; Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Probabilistic monitoring station 6AGSS002.37 was impaired based on VSCI scores of 52.5 and 59.3 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q12R_GSS01A12 / Grassy Creek / Kentucky state line, WQS Section 4e. This is the PWS for Elkhorn City, Kentucky.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	2.09

Grassy Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.09

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q13L-01-DO John Flannagan Reservoir

Cause Location: Northeast of Clintwood near the Kentucky line.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Dissolved Oxygen/5A

Cause Description: At 6APNR001.82, 65 excursions of the dissolved oxygen WQS were recorded in 171 observations during the 2015 and 2019 monitoring seasons.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13L_PNR01A02 / John Flannagan Reservoir / This reservoir was built by USACOE to provide flood control, pollution abatement, fish and wildlife habitat, and recreational opportunities. NE of Clintwood near Kentucky state line.	5A	Dissolved Oxygen	2022	L	1177.22

John Flannagan Reservoir

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:		1177.22	

Sources: Source Unknown

Tennessee and Big Sandy River Basins

Cause Group Code: Q13L-01-HG John Flannagan Reservoir

Cause Location: This reservoir is located Northeast of Clintwood near the Kentucky state line.

Cause City/County: Dickenson County

Use(s): Fish Consumption

Causes(s)/VA Category: Mercury in Fish Tissue/5A

Cause Description: Fish tissue collected at 6APNR002.15 on 5/14/2007 show mercury levels above the tissue value (300 ppb) in two composite samples of largemouth bass.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13L_PNR01A02 / John Flannagan Reservoir / This reservoir was built by USACOE to provide flood control, pollution abatement, fish and wildlife habitat, and recreational opportunities. NE of Clintwood near Kentucky state line.	5A	Mercury in Fish Tissue	2010	L	1177.22

John Flannagan Reservoir

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		1177.22	

Sources: Atmospheric Deposition - Toxics

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-01-BEN South Fork Pound River and Tributaries

Cause Location: This segment includes the South Fork of the Pound River at the headwaters and continues downstream to the confluence with the North Fork Pound River including Phillips Creek, Hays Branch, and Glady Fork.

Cause City/County: Dickenson County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: Biological stations located at 6APNS008.73, 6APNS004.98 and 6APNS000.40 were impaired based on VSCI scores. Non agency biological monitoring data provided by Appalachian Technical Services indicated impairment based on VSCI scores.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_GLD01A14 / Glady Fork / Tributaries to South Fork Pound River near Glady Fork School.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	1.91
VAS-Q13R_HAY01A14 / Hays Branch / Tributary to South Fork Pound River south of Pound.	4A	Benthic Macroinvertebrates Bioassessments	2014	L	0.86
VAS-Q13R_PNS01A02 / South Fork Pound River / From unnamed tributary parallel to SR 620 immediately upstream of Rat Creek at Dewey, downstream to the Glady Fork confluence.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	3.44
VAS-Q13R_PNS01A94 / South Fork Pound River / Mainstem from Glady Fork confluence downstream to confluence with Pound River west of Town of Pound, WQS Section 4 (BS28).	4A	Benthic Macroinvertebrates Bioassessments	2002	L	3.59
VAS-Q13R_PNS02A02 / Phillips Creek (no longer exists) / Strip Mine at 37 03 25/-82 42 20	4A	Benthic Macroinvertebrates Bioassessments	2002	L	1.71
VAS-Q13R_PNS02B04 / South Fork Pound River / Mainstem only from Donald Branch downstream to unnamed tributary just upstream of Rat Creek, in Wise County.	4A	Benthic Macroinvertebrates Bioassessments	2004	L	2.22

South Fork Pound River and Tributaries

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			13.73

Sources: Mountaintop Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-02-BEN North Fork Pound River

Cause Location: This segment includes the mainstem from the headwaters downstream to the North Fork Pound Reservoir intake and from the backwaters of the North Fork Pound Lake downstream to the confluence with the Pound River.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/4A

Cause Description: The biological station located at 6APNK000.08 was impaired based on 2006 VSCI scores of 53 and 58.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNK01A96 / North Fork Pound River / Mainstem south of Horse Gap from the dam of North Fork Pound Lake, river mile 1.08, downstream to the confluence with Pound River.	4A	Benthic Macroinvertebrates Bioassessments	2002	L	1.3

North Fork Pound River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			1.3

Sources: Dam or Impoundment; Natural Conditions - Water Quality Standards Use Attainability Analyses Needed; Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-03-BAC Pound River, North Fork Pound River, and Tributaries

Cause Location: These segments include from the Georges Fork confluence upstream to the confluence with the North and South Fork Pound Rivers west of the Town of Pound and from the Georges Fork confluence downstream to the lake backwaters at Jerry Branch. Also included is the mainstem of the North Fork Pound River, south of Horse Gap, from the dam of North Fork Pound Lake downstream to the confluence with the Pound River.

Tributaries included: Bold Camp Creek, from the confluence with the Pound River to the confluence of Dotson Fork and Mullins Fork. Georges Fork, from the confluence with the Pound River upstream to the confluence with Howell Branch near Freeling.

Cause City/County: Dickenson County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: AWQM station 6APNR017.79, 6APNR028.76 , 6APNR035.66 are impaired based on the previous bacteria water quality standard.

Stations 6APNR019.09, 6ABCP001.40, 6AGRE000.19, and 6APNK000.08 had 2 or more STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_BCP01A22 / Bold Camp Creek / From the confluence with the Pound River to the confluence of Dotson Fork and Mullins Fork.	5A	Escherichia coli (E. coli)	2022	L	1.18
VAS-Q13R_GRE02B22 / Georges Fork / From the confluence with the Pound River upstream to the confluence with Howell Branct near Freeling.	5A	Escherichia coli (E. coli)	2022	L	3.05
VAS-Q13R_PNK01A96 / North Fork Pound River / Mainstem south of Horse Gap from the dam of North Fork Pound Lake, river mile 1.08, downstream to the confluence with Pound River.	5A	Escherichia coli (E. coli)	2022	L	1.30
VAS-Q13R_PNR01A00 / Pound River / Pound River flows west from the Georges Fork confluence upstream to the confluence of North Fork and South Fork Pound Rivers west of the Town of Pound.	5A	Escherichia coli (E. coli)	2008	L	16.94
VAS-Q13R_PNR02B02 / Pound River / From Georges Fork confluence downstream to lake backwaters near Jerry Branch.	5A	Escherichia coli (E. coli)	2006	L	3.23

Pound River, North Fork Pound River, and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			25.7

Sources: Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-03-TEMP North Fork Pound River

Cause Location: This segment includes the mainstem, south of Horse Gap from the dam of North Fork Pound Lake, downstream to the confluence with the Pound River.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Temperature/5C

Cause Description: Station 6APNK000.08 had a 26% exceedance of the water quality standard for temperature.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNK01A96 / North Fork Pound River / Mainstem south of Horse Gap from the dam of North Fork Pound Lake, river mile 1.08, downstream to the confluence with Pound River.	5C	Temperature	2010	L	1.3

North Fork Pound River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Temperature - Total Impaired Size by Water Type:			1.3

Sources: Dam or Impoundment; Natural Conditions - Water Quality Standards Use Attainability Analyses Needed; Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-04-BEN Indian Creek

Cause Location: Pound River tributary south of the Town of Pound upstream to Barn Branch confluence.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Station 6AIAC000.42 was impaired based on VSCI scores of 46.6 and 37.9 during the 2020 monitoring season.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_IAC01A10 / Indian Creek / Lower segment, Pound River tributary that is parallel to Hwy 23, south of the Town of Pound upstream to Barn Branch confluence.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	2.98

Indian Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.98

Sources: Coal Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-06-BEN Pound River

Cause Location: This segment includes the Pound River from Georges Fork confluence upstream to the confluence of the North Fork and South Fork Pound Rivers.

Cause City/County: Dickenson County; Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological station located at 6APNR023.86 was impaired based on VSCI scores of 52 and 32 in 2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNR01A00 / Pound River / Pound River flows west from the Georges Fork confluence upstream to the confluence of North Fork and South Fork Pound Rivers west of the Town of Pound.	5A	Benthic Macroinvertebrates Bioassessments	2004	L	16.94

Pound River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			16.94

Sources: Coal Mining; Rural (Residential Areas); Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-08-BAC Indian Creek

Cause Location: Lower segment of Indian Creek, parallel to US Highway 23, south of the Town of Pound upstream to the Barn Branch confluence.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Stations 6AIAC000.23 and 6AIAC002.23 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_IAC01A10 / Indian Creek / Lower segment, Pound River tributary that is parallel to Hwy 23, south of the Town of Pound upstream to Barn Branch confluence.	5A	Escherichia coli (E. coli)	2020	L	2.98

Indian Creek

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			2.98

Sources: Sanitary Sewer Overflows (Collection System Failures); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-09-BAC Big Branch

Cause Location: This segment includes Big Branch, a tributary to the South Fork Pound River off Route 671.

Cause City/County: Dickenson County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Citizen monitoring station 6A-BIGBR-NF-MRRP has a 16% exceedance of the previous bacteria water quality standard.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_BID01A14 / Big Branch / Tributary to South Fork Pound River south of North Fork Pound River Lake.	5A	Escherichia coli (E. coli)	2014	L	1.47

Big Branch

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			1.47

Sources: Rural (Residential Areas); Unrestricted Cattle Access

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-09-BEN North Fork Pound River

Cause Location: This segment includes the headwaters of the North Fork Pound River north of Flat Gap, including Bear Fork, downstream to Bad Creek confluence at Gilley.

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Biological Monitoring station at 6APNK008.28 was impaired based on VSCI scores of 37.4 and 61.3 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNK01A06 / North Fork Pound River / Headwaters of North Fork Pound River north of Flat Gap, downstream to Bad Creek confluence at Gilley.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	4.3

North Fork Pound River

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			4.3

Sources: Coal Mining; Mountaintop Mining; Silviculture Activities; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q13R-10-BAC South Fork Pound River

Cause Location: These segments include the mainstem South Fork Pound River from the Donald Branch downstream to confluence with the Pound River west of the Town of Pound.

Cause City/County: Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: AWQM station 6APNS003.38 is impaired based on the previous bacteria water quality standard.

Station 6APNS000.40 had 2 STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q13R_PNS01A02 / South Fork Pound River / From unnamed tributary parallel to SR 620 immediately upstream of Rat Creek at Dewey, downstream to the Glady Fork confluence.	5A	Escherichia coli (E. coli)	2016	L	3.44
VAS-Q13R_PNS01A94 / South Fork Pound River / Mainstem from Glady Fork confluence downstream to confluence with Pound River west of Town of Pound, WQS Section 4 (BS28).	5A	Escherichia coli (E. coli)	2014	L	3.59
VAS-Q13R_PNS02B04 / South Fork Pound River / Mainstem only from Donald Branch downstream to unnamed tributary just upstream of Rat Creek, in Wise County.	5A	Escherichia coli (E. coli)	2014	L	2.22

South Fork Pound River

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			9.25

Sources: Rural (Residential Areas)

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-01-BAC Cranesnest River and Tributaries

Cause Location: These segments include the mainstem from the headwaters, southeast of Hurricane, downstream to the confluence with Bartley Branch at the backwaters of the Flannagan Reservoir.

Tributaries included: Birchfield Creek, a tributary from the confluence of Happy Hollow downstream, parallel to Rt. 634, to the confluence with the Cranesnest River, south of Darwin. Dotson Creek, A Birchfield Creek tributary fro the Hurricane Branch confluence, parallel to Rt. 636 south of Bold Camp Mountain.

Cause City/County: Dickenson County; Wise County

Use(s): Recreation

Causes(s)/VA Category: Escherichia coli (E. coli)/5A

Cause Description: Stations 6ACNR009.17 and 6ACNR011.66 are impaired based on the previous bacteria water quality standard.

Stations 6ABLD000.90, 6ACNR017.24, 6ACNR021.72, and 6ADOT000.46 had 2 or more STV exceedances in the same 90-day period with less than 10 samples.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q14R_BLD01A10 / Birchfield Creek / A Cranesnest River tributary from confluence of Happy Hollow downstream parallel to SR 634 to Cranesnest River, south of Darwin.	5A	Escherichia coli (E. coli)	2020	L	2.52
VAS-Q14R_CNR01A00 / Cranesnest River / Mainstem Cranesnest River from headwaters southeast of Hurricane downstream to the Honeycamp Branch confluence, upstream of Clintwood.	5A	Escherichia coli (E. coli)	2010	L	12.93
VAS-Q14R_CNR02A02 / Cranesnest River / Mainstem Cranesnest River from Honeycamp Branch downstream to the Bartley Branch confluence at the backwaters of Flannagan Reservoir.	5A	Escherichia coli (E. coli)	2004	L	7.53
VAS-Q14R_DOT01A12 / Dotson Creek / A Birchfield Creek tributary from the Hurricane Branch confluence, parallel to SR 636 south of Bold Camp Mountain.	5A	Escherichia coli (E. coli)	2020	L	3.82

Cranesnest River and Tributaries

Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			26.8

Sources: Rural (Residential Areas); Sewage Discharges in Unsewered Areas

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-01-BEN Birchfield Creek

Cause Location: A Cranesnest River tributary from the confluence of Happy Hollow downstream, parallel to Rt. 634, to the Cranesnest River, south of Darwin.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Biological monitoring station 6ABLD000.90 were impaired based on VSCI scores of 58.6 in 2017 and 46.6 and 56.4 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q14R_BLD01A10 / Birchfield Creek / A Cranesnest River tributary from confluence of Happy Hollow downstream parallel to SR 634 to Cranesnest River, south of Darwin.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	2.52

Birchfield Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.52

Sources: Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-02-BEN Dotson Creek

Cause Location: A Birchfield Creek tributary parallel to Rt. 636, south of Bold Camp Mountain

Cause City/County: Wise County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: The biological monitoring station at 6ADOT000.46 was impaired based on VSCI scores of 46.6 and 56.4 in 2018.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q14R_DOT01A12 / Dotson Creek / A Birchfield Creek tributary from the Hurricane Branch confluence, parallel to SR 636 south of Bold Camp Mountain.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	3.82

Dotson Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			3.82

Sources: Coal Mining; Surface Mining

Tennessee and Big Sandy River Basins

Cause Group Code: Q14R-03-BEN Left Fork Rush Creek

Cause Location: South of Bise Ridge.

Cause City/County: Dickenson County

Use(s): Aquatic Life

Causes(s)/VA Category: Benthic Macroinvertebrates Bioassessments/5A

Cause Description: Probabilistic monitoring station 6ARLF000.06 was impaired based on VSCI scores of 43.1 and 52.8 during the 2016 and 2020 monitoring seasons.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAS-Q14R_RLF01A14 / Left Fork Rush Creek / South of Bise Ridge.	5A	Benthic Macroinvertebrates Bioassessments	2022	L	2.41

Left Fork Rush Creek

Aquatic Life	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			2.41

Sources: Source Unknown