



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N01R-01-BAC Big Horse Creek

Location: Tributary to North Fork New River in North Carolina. This is a loop that flows into Virginia from North Carolina and back into North Carolina. This segment was previously BHC01A02 and BUR01A02.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The ambient water quality monitoring station 9-BHO017.70 had a 25% exceedance of the E. coli water quality standard.

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Big Horse Creek Recreation			
Escherichia coli - Total Impaired Size by Water Type:			7.90
Big Horse Creek Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			7.90

Sources:

Animal Feeding Operations
(NPS)

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N01R-02-BAC Little Helton Creek

Location: A tributary to Helton Creek. The segment extends from the Virginia state line upstream.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The ambient water quality monitoring station 9-LHC001.92 had a 58% exceedance of the E. coli water quality standard.

Little Helton Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			6.30
Little Helton Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			6.30

Sources:

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N02R-02-BAC

New River and Grassy Creek

Location: This segment begins at the North Carolina state line, includes Fields Dam, and extends downstream to the New River confluence with Saddle Creek at the Route 601 bridge. Grassy Creek from the headwaters downstream to the North Carolina state line and Bridle Creek, a tributary of the New River west of Rt. 601.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station located at 9-NEW187.46 had an 18% exceedance of the E. coli water quality standard and station 9-NEW181.66 had a 25% exceedance. 9-NEW172.45 had 16% that exceeded WQS. Station 9-GRA003.36 had a 33% exceedance. Level III citizen data at station 9-BRL1-NCNR indicate a 46% violation rate.

New River and Grassy Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			19.67
New River and Grassy Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			8.92

Sources:

Grazing in Riparian or
Shoreline Zones

Source Unknown

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: **N02R-02-HG** **New River**

Location: This segment begins at the upper mainstem at the North Carolina state line at river mile 189.06, and extends downstream to the Saddle Creek confluence, it includes the mainstem from the North Carolina line in N04 downstream to the confluence with Rock Creek and the mainstem from Buddle Branch downstream to the confluence with Reed Creek.

City / County: Grayson Co. Wythe Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

Station 9-NEW171.94 showed smallmouth bass, rock bass and carp exceeded the level of concern for Mercury; a second flathead catfish exceeded the Virginia Department of Health's level of concern. Station 9-NEW158.40 was monitored for sediment and fish tissue. Mercury exceeded the level of concern in several species. 9-NEW117.47 was monitored for sediment and fish tissue in 2004. Mercury was found in the fish tissue.

New River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fish Consumption			
Mercury in Fish Tissue - Total Impaired Size by Water Type:			30.12

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N02R-03-BAC

Wilson Creek

Location: This segment includes the Wilson Creek mainstem from the New River confluence upstream 8.8 miles.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station 9-WLS002.57 had a 27% exceedance of the E. coli water quality standard.

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Wilson Creek Recreation			
Escherichia coli - Total Impaired Size by Water Type:			8.90
Wilson Creek Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			8.90

Sources:

Grazing in Riparian or
Shoreline Zones

Livestock (Grazing or
Feeding Operations)



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N03R-01-BAC **Fox Creek**

Location: This segment includes the mainstem of Fox Creek from the Mill Creek confluence to the New River confluence, Middle Fox Creek from the Fox Creek confluence upstream 4.1 miles and Mill Creek from the confluence with Fox Creek upstream to the headwaters. Little Fox Creek is included in this segment and it extends from the Fox Creek confluence upstream 2.2 miles.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

Designated a natural trout stream. The AWQM station, 9-FXC003.35, had a 25% exceedance in the E. coli water quality standard, station 9-LFX000.06 had a 45% exceedance of the E.coli standards, stations 9-MIR000.13 and 9-MIR000.28 both had a 25% exceedance of the E. coli water quality standard.

Fox Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli - Total Impaired Size by Water Type:			19.11
Fox Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			7.65

Sources:

Grazing in Riparian or
Shoreline Zones

Livestock (Grazing or
Feeding Operations)

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: **N04R-02-BAC** **Little River**

Location: This segment includes the Little River mainstem from NC state line, river mile 5.20, to the confluence at New River.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station, 9-LVR001.34, had a 25% exceedance of the fecal coliform water quality standard in the 2004 WQA. The station was moved to 9-NEW002.65 in 2003 and had a 16% exceedance of the E. coli water quality standard. Station 9-LVR002.65 had a 16% exceedance of the E.coli water quality standard.

Little River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			6.55

Sources:

Rural (Residential Areas)



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N04R-03-BAC

Peach Bottom Creek

Location: This segment includes the mainstem from the headwaters downstream to the confluence with the New River. This also includes Rock Creek from the U.S. 21 crossing to the confluence with the New River.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station, 9-PBC001.12, had a 33% exceedance of the E.coli water quality standard, at 9-PBC008.61 25% exceed and at 9-RCK000.50 58% exceed.

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Peach Bottom Creek Recreation			
Escherichia coli - Total Impaired Size by Water Type:			22.01
Peach Bottom Creek Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			2.81

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N04R-07-BAC

Saddle Creek

Location: This segment includes the mainstem from the New River confluence upstream 3.09 miles, west of Independence.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station, 9-SDL000.05, had a 41% exceedance of the E.coli water quality standard.

Saddle Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			3.17

Sources:

Animal Feeding Operations
(NPS)

Livestock (Grazing or
Feeding Operations)



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N05R-01-BEN **Elk Creek**

Location: This segment includes the mainstem from the confluence of Comers Rock Branch downstream to Turkey Fork.

City / County: Grayson Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Probabilistic Monitoring station located at 9-EKC013.81 was impaired based on the VSCI score.

Elk Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			9.38

Sources:

Animal Feeding Operations
(NPS)

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N06R-03-BAC

Meadow Creek & New River

Location: This segment includes Meadow Creek and its tributaries and New River from Elk Creek confluence downstream to Eagle Bottom Creek confluence.

City / County: Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

AWQM station located at 9-MCR000.20 had a 77% exceedance of the E. coli water quality standard. 9-NEW148.23 has E.coli exceedance rate of 25%.

Meadow Creek & New River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			20.94

Sources:

Livestock (Grazing or Feeding Operations)

Rural (Residential Areas)

Source Unknown

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N06R-04-BAC **Brush Creek**

Location: A New River tributary, north of Fries Junction, WQS Section 2.

City / County: Carroll Co. Grayson Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Station 9-BRU003.59 had a 25% exceedance of the E. coli water quality standard.

Brush Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			7.29

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N07R-01-BAC

Crooked Creek

Location: This segment extends from the headwaters of Crooked Creek downstream to the confluence with New River at Byllesby.

City / County: Carroll Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station, 9-CRK020.79, had a 25% exceedance of the E. coli water quality standard. This segment is designated natural trout waters. Station 9-CRK015.69 had a 50% exceedance of the E.coli water quality standard. 9-CRK003.00 has 33% exceedance.

Crooked Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli - Total Impaired Size by Water Type:			27.90
Crooked Creek Recreation	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			23.54

Sources:

Grazing in Riparian or
Shoreline Zones

Source Unknown

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N07R-01-TEMP Crooked Creek

Location: This segment of Crooked Creek begins at Route 707 and continues to Route 620.

City / County: Carroll Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

The AWQM station located at 9-CRK015.69 had a 25% exceedance of the temperature standard for natural trout streams.

Crooked Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Temperature, water - Total Impaired Size by Water Type:			4.36

Sources:

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N08R-03-BAC

Shorts Creek and Unnamed Tributary

Location: This segment includes Shorts Creek and continues until it enters New River at Jackson Ferry. This segment also includes an unnamed tributary to Shorts Creek that enters at Jackson Ferry and flows west from Rackettown.

City / County: Carroll Co. Wythe Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station, 9-SRT000.12, had a 100% exceedance of the E. coli water quality standard.

Shorts Creek and Unnamed Tributary	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			14.26
Shorts Creek and Unnamed Tributary	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			10.95

Sources:

Animal Feeding Operations
(NPS)

Grazing in Riparian or
Shoreline Zones

Livestock (Grazing or
Feeding Operations)

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: **N09R-03-BEN** **Dean Branch**

Location: A Cripple Creek tributary at Porters Crossroads.

City / County: Smyth Co. Wythe Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The freshwater probabilistic monitoring station at 9-DEN000.03 was impaired based on VSCI scores of 54.70 and 57.54.

Dean Branch	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			1.92

Sources:

Animal Feeding Operations
(NPS)

Livestock (Grazing or
Feeding Operations)

Non-Point Source



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N10R-01-TEMP **Reed Creek**

Location: Reed Creek mainstem from Venrick Run upstream to South Fork.

City / County: Wythe Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

Water temperature was exceeded for Class VI WQS at 9-RDC038.01 and at 9-RDC033.94.

Reed Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Temperature, water - Total Impaired Size by Water Type:			1.43

Sources:

Grazing in Riparian or
Shoreline Zones

Loss of Riparian Habitat



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N11R-02-BEN **Reed Creek tributary**

Location: This segment includes an unnamed tributary of Reed Creek that drains the Wytheville Community College at the east end of the town of Wytheville.

City / County: Wythe Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station 9-XES000.94 was impaired based on VSCI scores of 41 and 51.

Reed Creek tributary	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			2.67

Sources:

Grazing in Riparian or
Shoreline Zones

Rural (Residential Areas)

Streambank
Modifications/destabilization

Urban Runoff/Storm Sewers



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N13R-01-BAC

Big Reed Island Creek

Location: This segment begins at the headwaters of Big Reed Island Creek and continues downstream to the confluence with Pine Creek.

City / County: Carroll Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station located at 9-RIC049.29 had a 50% exceedance of the E.coli water quality standard.

Big Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			19.85

Sources:

Animal Feeding Operations
(NPS)

Grazing in Riparian or
Shoreline Zones



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N13R-01-BEN

Big Reed Island Creek

Location: This segment begins at the headwaters of Big Reed Island Creek and continues downstream to the confluence with Pine Creek.

City / County: Carroll Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Probabilistic Monitoring station located at 9-RIC051.80 was impaired based on the VSCI scores of 53 for both Spring and Fall in 2004.

Big Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			19.85

Sources:

Animal Feeding Operations
(NPS)

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N13R-02-BAC

Snake Creek

Location: From the Big Reed Island confluence upstream 3.5 miles to near the Macey Branch confluence, WQS Section 2, iii.

City / County: Carroll Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station located at 9-SKE000.98 had a 41% exceedance of the E.coli water quality standard.

Snake Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			3.54

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N14R-01-BAC

Big Reed Island Creek

Location: This segment includes the mainstem of Big Reed Island Creek from the confluence of Snake Creek downstream to the confluence with Bobbitt Creek, from Bobbitt Creek to the Greasy Creek confluence, and from the Island Creek confluence downstream to the Big Branch confluence.

City / County: Carroll Co. Pulaski Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station, 9-RIC029.23, had a 14% exceedance of the fecal coliform water quality standard and station 9-RIC018.90 had a 25% exceedance of the E. coli water quality standard.

Big Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			13.81

Big Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			21.36

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N14R-02-BAC Greasy Creek

Location: This segment begins at the Carroll county line and continues downstream to the confluence with Big Reed Island Creek.

City / County: Floyd Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station located at 9-GSC000.03 had a 33% exceedance of the E.coli water quality standard.

Greasy Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			13.63

Sources:

Grazing in Riparian or
Shoreline Zones



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N14R-03-BAC

Big Reed Island Creek

Location: This segment includes the lower mainstem of Big Reed Island Creek from the Greasy Creek confluence downstream to the New River confluence.

City / County: Carroll Co. Pulaski Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station located at 9-RIC000.50 had a 25% exceedance of the E. coli water quality standard.

Big Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			9.85

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N14R-03-BEN **Island Creek**

Location: A Big Reed Island Creek tributary northeast of Hillsville.

City / County: Carroll Co. Floyd Co. Pulaski Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Benthic sampling at 9-ISL003.05 indicated impairment of the aquatic life use. In spring 2010 VSCI was 55.

Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			13.35

Sources:

Grazing in Riparian or
Shoreline Zones

Livestock (Grazing or
Feeding Operations)

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N15R-01-BAC

Little Reed Island Creek

Location: This segment begins 5 miles above the Hillsville public water intake and extends downstream to the confluence with Big Reed Island Creek.

City / County: Carroll Co. Pulaski Co. Wythe Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

AWQM station 9-LRI001.62 had a 36% exceedance of the E.coli water quality standard, station 9-LRI009.11 had a 22% exceedance, station 9-LRI017.64 had a 41% exceedance, station 9-LRI023.48 had a 50% exceedance, and station 9-LRI031.58 had a 25% exceedance of the E. coli water quality standard.

Little Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			35.98

Sources:

Livestock (Grazing or Feeding Operations)

On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Unspecified Domestic Waste



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N15R-01-TEMP Little Reed Island Creek

Location: This segment begins approximately 1 mile below the Hillsville water intake and continues downstream to the Big Reed Island Creek confluence.

City / County: Carroll Co. Pulaski Co. Wythe Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

AWQM station 9-LRI017.64 had a 25% exceedance of the temperature standard.

Little Reed Island Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Temperature, water - Total Impaired Size by Water Type:			19.70

Sources:

Loss of Riparian Habitat



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N16R-01-BAC

Big Macks Creek

Location: Big Macks Creek mainstem from its confluence with the New River upstream to the Camp Powhatan Dam (NE42).

City / County: Pulaski Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

9-BMK001.11 (Rt. 693 Bridge, Julia Simpkins Rd.) There are no additional data beyond the 2014 Integrated Report (IR). This 2014 initial 303(d) Listing is a result of escherichia coli (E.coli) exceeding the 235 cfu/100 ml instantaneous criterion in two of 12 samples. Values in excess of the criterion are 250 and 575 cfu/100 ml.

Big Macks Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			3.78

Sources:

On-site Treatment Systems
(Septic Systems and
Similar Decentralized
Systems)

Unspecified Domestic
Waste

Wet Weather Discharges
(Non-Point Source)

Wildlife Other than
Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N18R-02-BAC

Connellys Run

Location: Bacteria impairment begins near the headwaters of Connellys Run at an unnamed tributary (37°07'04" / 80°32'16") downstream to its mouth on the New River.

City / County: Radford City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal coliform (FC) bacteria excursions of the former WQS 400 cfu/100 ml instantaneous criterion cause non-support of the Recreational Use for 2.85 miles. The impairment for the 2004 303(d) Listed water remains. Escherichia coli (E.coli) replaces fecal coliform (FC) bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-CNL000.01 (Bissett Park Bridge, Radford) There are no additional data since the 2014 IR where escherichia coli (E.coli) data exceed the 235 cfu/100 ml instantaneous criterion in five of 24 samples. Excessive values range from 790 to greater than 2000 cfu/100 ml. 2012 and 2010 E.coli data exceed the 235 cfu/100 ml instantaneous criterion in four of 12 samples. Excessive values range from 260 to 1260 cfu/100 ml. The 2006 assessment finds FC exceedances of the former WQS instantaneous criterion of 400 cfu/100 ml in three of 11 observations. The range of excursions is from 500 to 1900 cfu/100 ml. The initial 2004 303(d) Listing is based on FC exceedances of the former WQS instantaneous criterion of 400 cfu/100 ml in three of nine observations with the range of exceedance the same as 2006.

Connellys Run	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			2.85

Sources:

Livestock (Grazing or Feeding Operations)

Municipal (Urbanized High Density Area)

Unspecified Domestic Waste

Wastes from Pets

Wildlife Other than Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N18R-03-BAC

Plum Creek

Location: The upstream limit is the headwaters of Plum Creek extending downstream to its mouth on the New River.

City / County: Montgomery Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This 2004 303(d) Listed water extends for 4.72 miles on Plum Creek. The original Listing basis is two of nine fecal coliform observations exceeding the former 400 cfu/100 ml instantaneous criterion. Escherichia coli (E.coli) replaces fecal coliform (FC) bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-PLM000.60 (Rt. 11 just above the mouth of Plum Creek) No new data since the 2014 data window where Escherichia coli (E.coli) exceeds the WQS 235 cfu/100 ml instantaneous criterion in seven of 24 observations. Values in excess of the instantaneous criterion range from 240 to 1600 cfu/100 ml. Both the 2012 and 2010 assessments find E.coli exceeds the WQS 235 cfu/100 ml instantaneous criterion in four of 12 observations. Values in excess of the instantaneous criterion range from 240 to 1020 cfu/100 ml. Fecal coliform (FC) exceeds the former WQS 400 cfu/100 ml instantaneous criterion in two of 11 observations in 2006 and 2008. Values in excess of the former standard are 1100 and 1500 cfu/100 ml.

9PLM-2-NCNR (Plum Cr. Rd. Bridge Off Rt. 11) The 2012 assessment finds full support from E.coli results where no exceedances are recorded from 11 samples. This station is located near the headwaters of Plum Cr. The maximum E.coli result is 225 cfu/100 ml.

Plum Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			4.72
Escherichia coli - Total Impaired Size by Water Type:			

Sources:

Livestock (Grazing or Feeding Operations)

Municipal (Urbanized High Density Area)

On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Unspecified Domestic Waste

Wildlife Other than Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N22R-02-BAC **Stroubles Creek**

Location: The upstream end is at the Duck Pond dam on the southwest end of the VPI&SU campus on the Blacksburg Quad. The downstream end is at the Slate Branch mouth on Stroubles Creek.

City / County: Montgomery Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal coliform (FC) bacteria exceedances of the former 1000 cfu/100 ml WQS instantaneous criterion in 2002 cause impairment of the Recreational Use. Three of 23 observations exceed the former criterion at station 9-STE002.41 Rt. 705 Bridge (Coal Hollow Road). The 2004 IR at 9-STE002.41 records four exceedances from 35 samples in excess of the current 400 cfu/100 ml WQS instantaneous criterion. Escherichia coli (E.coli) bacteria replaced fecal coliform (FC) in 2006 as the indicator as required by Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters]. 2008 results find E.coli exceedances at 9-STE002.41 are three of 31 samples and resulted in 2.11 miles delisted with the 2008 IR. This 2.11 mile delisted portion (partial - length) returned with the 2010 303(d) Listing.

9-STE002.41- (Rt. 705 Bridge- Coal Hollow Road) The 2016 data window finds eleven of 36 escherichia coli (E.coli) samples exceed the 235 cfu/100 ml instantaneous criterion. Twelve of 36 samples exceeded that criterion in 2014. Values in excess of the instantaneous criterion range from 250 to greater than 2000 cfu/100 ml within the 2014 and 2016 data windows. The 2012 data window finds eight of 36 observations exceeding the 235 cfu/100 ml instantaneous criterion. Exceeding values range from 280 to greater than 2000 cfu/100 ml. 2010 E.coli samples find eight exceed the 235 cfu/100 ml instantaneous criterion from a total of 32 samples with the same range of exceedance.

9-STE007.29 (Rt. 657 Bridge below old B'Burg STP) There is no new data within the 2016 data window. Escherichia coli (E. coli) samples find eight exceed the 235 cfu/100 ml instantaneous criterion from a total of 24 samples. Exceeding values range from 280 to greater than 2000 cfu/100 ml within the 2014 data window. The 2012 IR reports eight E.coli samples exceed the instantaneous criterion from a total of 33. Exceeding values range from 280 to greater than 2000 cfu/100 ml. 2010 results find eight exceed from a total of 32 samples with the same range of exceedance as 2012. 2008 E.coli results exceed in five of 25 samples. The 2008 exceedance range is from 300 to greater than 2000 cfu/100 ml. 2006 E.coli samples reveal five exceed the instantaneous criterion from a total of 16. Exceeding values range from 490 to greater than 5000 cfu/100 ml.

Stroubles Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			7.19
Escherichia coli - Total Impaired Size by Water Type:			

Sources:

- | | | | |
|--|---|---|----------------------------|
| Discharges from Municipal Separate Storm Sewer Systems (MS4) | Livestock (Grazing or Feeding Operations) | Municipal (Urbanized High Density Area) | Unspecified Domestic Waste |
| Wastes from Pets | Wet Weather Discharges (Non-Point Source) | Wildlife Other than Waterfowl | |



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N22R-04-BAC **Toms Creek**

Location: Toms Creek from the mouth of Big Run upstream to its headwaters.

City / County: Montgomery Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

This initial 2014 Listing is a result of bacteria data showing impairment of the Recreational Use.

9-TOM012.78- (Lower bike path off Deerfield Drive) Three of 12 escherichia coli (E.coli) samples exceed the 235 cfu/100 ml instantaneous criterion. Exceeding values range from 275 to 950 cfu/100 ml.

Note: Level 2 Citizen data indicates the impairment extends downstream to the Toms Creek confluence with the New River.

Toms Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			6.13

Sources:

- | | | | |
|---|---|----------------------------|------------------|
| Livestock (Grazing or Feeding Operations) | Municipal (Urbanized High Density Area) | Unspecified Domestic Waste | Wastes from Pets |
| Wet Weather Discharges (Non-Point Source) | Wildlife Other than Waterfowl | | |



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N22R-04-TEMP Toms Creek

Location: Toms Creek mainstem waters just below the Poverty Creek confluence upstream to its headwaters.

City / County: Montgomery Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5C

The initial 2008 5.71 mile impairment is extends upstream 6.13 miles (2012) and downstream 4.56 miles (2014) with data provided by the National Committee for the New River (NCNR). The Aquatic Life Use is impaired for a total of 16.40 miles based on the initial 2008 temperature exceedances and 2012 / 2014 Citizen temperature measurements of the Class V 21°C stockable trout water criterion.

9TOM-1-NCNR (Off Glade Rd. at Heritage Park Trail Lv. 3) Seven temperature measurements exceed the Class V 21°C criterion ranging from at 21.5°C to 26.1°C from 32 measurements within the 2016 and 2014 data windows. Excursions occur during the summer months Lv. 3 [IM]. Two temperature measurements exceed the Class V 21°C criterion at 24.5°C on 7/19/2010 and 24.0°C on 8/19/2010 from 10 measurements for 2012.

9-TOM005.32- (Rt. 725 Bridge upstream of Poverty Creek) Both the 2010 and 2008 IRs find two temperature measurements exceed the Class V 21°C criterion from 13 observations. Exceedances occur on 8/15/2005 at 24.4°C and 21.4 °C on 8/15/2006. There are no additional data beyond the 2008 Integrated Report (IR).

9TOM-2-NCNR (Poverty Creek Rd. Bridge Lv. 3) The 2016 data window finds three of 11 temperature measurements exceed the Class V 21°C criterion. Excessive values range from 22 to 24.5°C and occur in the summer months. The 2012 Integrated Report (IR) finds three temperature exceedances of the Class V 21°C criterion occur on 6/16/2010 at 22°C; 7/19/2010 at 24.0°C and 8/16/2010 at 24.5°C from 11 measurements for 2012.

9TOM-3-NCNR (Mt. Zion Road Bridge Lv. 3) Seven temperature measurements exceed the Class V 21°C criterion ranging from at 22.0°C to 24.7°C from 33 measurements within the 2016 data window. Excursions occur during the summer months.

Toms Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			16.40
Temperature, water - Total Impaired Size by Water Type:			

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N22R-05-BAC New River

Location: New River mainstem from the Radford Army Arsenal Plant upstream intake/Pepper's Ferry Region POTW outfall downstream to the confluence with Back Creek (NE62).

City / County: Montgomery Co. Pulaski Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The initial 2016 303(d) Listing of these waters is a result of escherichia coli (E.Coli) excursions of the 235 cfu/100 ml instantaneous criterion in three of 23 samples. All three exceeding samples were found to have E.Coli concentrations of 250 cfu/100 ml. These waters are not meeting the Recreational Use.

9-NEW066.90 (New River at Whitethorne) Escherichia coli exceeds the 235 cfu/100 ml instantaneous criterion in three of 23 samples. Exceeding values were all 250 cfu/100 ml.

New River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			9.78
Escherichia coli - Total Impaired Size by Water Type:			9.78

Sources:

Livestock (Grazing or Feeding Operations)
Wildlife Other than Waterfowl

Unspecified Domestic Waste

Wastes from Pets

Wet Weather Discharges (Non-Point Source)



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N22R-06-BEN

Unnamed Tributaries XEJ and XEH to Slate Branch

Location: Unnamed Tributary XEH from its mouth on Slate Branch upstream to its headwaters. And Unnamed Tributary XEJ from its mouth on Unnamed Tributary XEH upstream to its headwaters.

City / County: Montgomery Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The 2008 assessment finds the Aquatic Life Use via the General Standard (Benthic) is impaired for a total of 2.51 miles. Unnamed Tributary to Slate Branch- XEH for 1.68 miles and Unnamed Tributary XEJ to XEH for 0.83 miles. There are no additional data for 9-XEH000.75 and 9-XEJ000.10 beyond the 2008 Integrated Report (IR). 9-XEH000.01 is a new station assessed in 2016.

9-XEH000.75- (Downstream of Villages Development at NRV Mall) There are no additional data beyond the 2008 IR. Bio 'IM' Two 2006 Virginia Stream Condition Index (VSCI) surveys with an average score of 23.1. This station was sampled at the request of the WCRO VWP program with the goal of collecting water quality data prior to new development immediately upstream near the New River Valley Mall complex. A crayfish/macro invertebrate kill in January 2006 impacted the stream with the source occurring somewhere above this station. The most noticeable difference between this site and the reference station is the low abundance of organisms collected in the spring sample compared to the reference site. The abundance increased in the fall and is comparable to the reference site (Falling Branch).

9-XEH000.01 (Near Huckleberry Trail, Downstream of XEJ) - This stream was originally sampled at a location upstream (9-XEH000.75). The 2016 IR finds four VSCI scores average 52.0 (2013-2014). The headwaters of Slate Branch are developed with residential and commercial properties as well as Rt. 460 and Peppers Ferry Road. Storm water runoff from these areas may have an impact on water quality at the sampling station which is about one mile downstream of the New River Valley Mall. Habitat scores at this station were relatively good considering the proximity to developed lands upstream and appear favorable for macroinvertebrates. Specific conductance was high at this site during all surveys. Periphyton and algal growth was always thick even during the fall surveys which may be an indication of excessive nutrients.

9-XEJ000.10- (North of NRV Mall) There are no additional data beyond the 2008 IR. Bio 'IM' Two 2006 VSCI surveys with an average score of 23.8. This station was sampled at the request of the WCRO VWP program with the goal of collecting water quality data prior to new development immediately upstream and north of the New River Valley Mall and above the Huckleberry Tail crossing. The main source of impact appears to be recent development and urban land use resulting in altered hydrology, excessive storm water runoff, sediment deposition, bank erosion, and riparian vegetation removal.

Unnamed Tributaries XEJ and XEH to Slate Branch	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			2.51

Sources:

- | | | | |
|--------------------------|---|--|--|
| Loss of Riparian Habitat | Municipal (Urbanized High Density Area) | Sediment Resuspension (Clean Sediment) | Streambank Modifications/destabilization |
|--------------------------|---|--|--|



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N23R-01-BAC

Sinking Creek

Location: Sinking Creek mainstem waters from just downstream of the Rt. 778 Bridge upstream to the mouth of Gravel Hill Branch.

City / County: Craig Co. Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The initial 21.03 mile 2010 303(d) Listing of these waters is due to bacteria excursions of the WQS instantaneous criterion for escherichia coli (E.coli).

9-SNK012.06 (Rt. 42 Bridge)- One exceedance of the E.Coli instantaneous criterion (235 cfu/100 ml) occurs within the 2016 data window at 600 cfu/100 ml. The 2010 IR found three of 12 E.coli samples exceed the 235 cfu/100 ml instantaneous criterion. The exceedance range is from 250 to greater than 2000 cfu/100 ml.

9-SNK005.38 (Rt. 778 Bridge)- There are no new data within the 2016 data window. E.coli excursions of the 235 cfu/100 ml instantaneous criterion occur in four of 23 observations within the 2014 data window. Values in excess of the instantaneous criterion range from 275 to 600 cfu/100 ml. E.coli excursions of the instantaneous criterion occur in two of 11 observations within the 2010 and 2012 data windows. Values in excess of the instantaneous criterion are 480 and 600 cfu/100 ml.

Sinking Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			21.03

Sources:

Livestock (Grazing or Feeding Operations)

On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Unspecified Domestic Waste

Wet Weather Discharges (Non-Point Source)

Wildlife Other than Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N25R-01-BAC Walker Creek

Location: Walker Creek from the Route 52 crossing downstream to the confluence with Kimberling Creek and Town Creek from the headwaters downstream to the confluence with Crab Orchard Creek.

City / County: Bland Co. Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station located at 9-WLK060.32 had a 20% and 9-WLK044.06 has 16% exceedance of the E. coli water quality standard and station 9-TNC000.53 had a 52% exceedance of the E. coli water quality standard.

Walker Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			37.93
<hr/>			
Walker Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			25.07

Sources:

Grazing in Riparian or
Shoreline Zones

On-site Treatment Systems
(Septic Systems and
Similar Decentralized
Systems)

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N26R-01-BAC

East Wilderness Creek, Nobusiness Creek and Kimberling Creek

Location: This segment includes the mainstem of Nobusiness Creek from the Kimberling Creek confluence upstream 6.4 miles, East Wilderness Creek from the confluence with Wolfpen Branch upstream 3.2 miles, and Kimberling Creek from the Nobusiness Creek confluence to the confluence with Walker Creek.

City / County: Bland Co. Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station located at 9-KBL007.29 had a 17% exceedance and station 9-KBL001.67 had a 13% exceedance of the bacteria standard. AWQM station 9-EWL000.06 had 17% of the samples exceed the E.coli water quality standard. Station 9-NBS000.70 had a 63% exceedance of the E. coli water quality standard.

East Wilderness Creek, Nobusiness Creek and Kimberling Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			19.59
<hr/>			
East Wilderness Creek, Nobusiness Creek and Kimberling Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			6.83

Sources:

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N27R-01-BAC

Little Walker Creek

Location: Little Walker Creek mainstem from its confluence with Walker Creek upstream to the mouth of Spur Branch.

City / County: Pulaski Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The initial 2004 303(d) Listing of these waters is the result of fecal coliform (FC) bacteria exceedances (two exceeding from 18 observations) causing a 17.48 mile impairment. Escherichia coli (E.coli) replaces fecal coliform bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-LWK000.77 (Rt. 100 Bridge) Escherichia coli (E.coli) exceed the 235 cfu/100 ml instantaneous criterion in five of 22 samples within the 2016 data window. Exceedance range is 337 to greater than 2000 cfu/100 ml. The 2014 data window found three of 11 samples in exceedance of the instantaneous criterion. Values exceeding the criterion range from 275 to greater than 2000 cfu/100 ml. The 2008 through 2012 assessments find E.coli exceed the instantaneous criterion in five of 12 samples. Values exceeding the criterion range from 320 to 500 cfu/100 ml. Four of nine excursions are reported in 2006 with the range of exceedance from 350 to 500 cfu/100 ml.

Little Walker Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			17.48

Sources:

Livestock (Grazing or Feeding Operations)

On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Unspecified Domestic Waste

Wet Weather Discharges (Non-Point Source)

Wildlife Other than Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N29R-01-BAC New River

Location: New River mainstem waters from the confluence of Wolf Creek downstream to the backwaters of Bluestone Reservoir.

City / County: Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The initial 2006 303(d) Listing of these waters is a result of escherichia coli (E.coli) excursions of the 235 cfu/100 ml instantaneous criterion in two of nine samples. The impairment was delisted in 2008 where two of 21 samples exceeded the 235 cfu/100 ml instantaneous criterion. The waters remained fully supporting the Recreational Use through 2010 and 2012 IRs. The bacteria impairment returns with the 2014 Integrated Report (IR) as described below.

9-NEW030.15 (Route 460 Bridge at Glen Lyn) The 2016 and 2014 data windows find that Escherichia coli exceed the 235 cfu/100 ml instantaneous criterion in four of 36 samples. Exceeding values range from 250 to 550 and from 250 to 620 cfu/100 ml within the 2016 and 2014 data windows, respectively.

New River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			13.67
Escherichia coli - Total Impaired Size by Water Type:			13.67

Sources:

- | | | | |
|---|---|---|----------------------------|
| Livestock (Grazing or Feeding Operations) | Municipal (Urbanized High Density Area) | Sanitary Sewer Overflows (Collection System Failures) | Unspecified Domestic Waste |
| Wet Weather Discharges (Non-Point Source) | Wildlife Other than Waterfowl | | |



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N29R-01-PCB

New River, Reed Creek, Claytor Lake, Peak Creek, Stony Creek, Walker Creek, And Unknown Tributary XAG.

Location: The impairment begins at the I-77 bridge crossing the New River and extends downstream to the VA/WV State Line and includes the tributaries Peak Creek and Reed Creek as described below.

City / County: Giles Co. Montgomery Co. Pulaski Co. Radford City Wythe Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

PCB in Water Column / 5A

The Virginia Department of Health (VDH) issued a fish consumption advisory on August 6, 2001 for polychlorinated biphenyls (PCBs) for the lower portion of the New River (Rt. 114 Bridge downstream to the VA / WV State Line - 52.0 miles) based on fish tissue collections from Carp. An Advisory extension to Claytor dam was issued 8/06/2003 (11.47 miles) recommends that no carp be consumed in these waters and no more than two meals per month of flathead and channel catfish. The VDH PCB Fish Consumption Advisory was further extended upstream on the New River (13 miles) to the I-77 Bridge to include the lower portions of Peak Creek (4.02 miles), Reed Creek (16.35 miles) and Claytor Lake (4,287 acres) on 12/02/2004. The VDH advises consumption should not exceed two meals per month for carp and smallmouth bass. Stony Creek is a 2010 Integrated Report (IR) addition to the original 2002 303(d) Listing. An unnamed tributary (XAG) is an addition with the 2016 IR. The VDH level of concern is 50 parts per billion (ppb) in fish tissue.

Water column data from 2010 thru 2016 are listed below where excursions of the WQS water column criterion of 640 pg/L are contravened causing an Observed Effect (OE) or 303(d) Listing for 'PCBs in Water Column'. Water column data collection is in support of TMDL development for PCBs in the New River drainage. Sample collections are made in both wet weather (WW) and dry weather (DW) conditions.

2012 & 2014 Fish tissue and water column data follow reporting exceedances of the WQS based 20 ppb fish tissue value (TV) (VDH Lower Level of Concern 50 ppb). And excursions of the WQS water column criterion of 640 pg/L. Fish tissue data are in addition to previous years collections. Fish tissue data are reviewed by the VDH in making an advisory determination. A complete listing of fish tissue collection sites and associated fish tissue data are available at <http://www.deq.virginia.gov>. A more detailed presentation of the data can also be found using an interactive mapping application at <http://www.deq.virginia.gov>. The VDH Advisory information is also available via the web at <http://www.vdh.virginia.gov>.

9-RDC009.00 (Near Rt. 619 at Grahams Forge) 2012 two species analyzed - Carp exceeds WQS TV of 20 ppb (5 fish composite [62.6 - 69.4 cm] at 68.24 ppb. Remaining species analyzed Smallmouth Bass (5 fish composite [21.8 - 26.6 cm] at 3.04 ppb.

2014 two species analyzed - Carp composites exceed WQS TV of 20 ppb (4 fish composite [67.9 - 76.5 cm] at 75.67 ppb and (5 fish composite [64.5 - 69.8] at 85.77. Remaining species analyzed Smallmouth Bass (5 fish composite [23.1 - 30.3 cm] at 2.46 ppb.

9-NEW107.51 (New River near Allisonia) 2014 fish tissue WQS TV of 20 ppb: Three species analyzed - Channel Catfish exceeds WQS TV of 20 ppb; 3 fish composite [61.2 - 69.5 cm] at 23.02 ppb; Smallmouth Bass (3 fish composite [40.1 - 49.6 cm]) at 2.45 ppb; Carp exceeds (5 fish composite [56.5 - 70.4 cm]) at 45.12 ppb; and Carp (5 fish composite [55.3 - 71.3 cm] at 8.79 ppb.

9-NEW098.32 (Rt. 672 Bridge, Lighthouse) 2012 four species analyzed - Channel Catfish exceeds WQS TV of 20 ppb; (2 fish composite [70.5 - 71.5 cm] at 65.15 ppb. Remaining species analyzed Largemouth Bass (5 fish composite [34.5 - 43.1]) at 7.76 ppb; Spotted Bass (5 fish composite [34.2 - 38.2 cm]) at 11.00 ppb; and Carp (3 fish composite [45.8 - 56.5]) at 6.04 ppb.

9-PKC009.53 (Upstream of XAG confluence) 2014 water column DW 197.02 pg/L- 'FS'; WW 799.75 pg/L- 'OE'.

9-XAG000.01 (Mouth of X-Trib XAG near former Allied Site) 2014- Water column PCB WQS criterion of 640 pg/L: DW 1,458.87 pg/L (7/31/2014); WW 1,754.02 pg/L (10/15/2014).

9-XFQ000.77 (Off Pierce Ave. near Calfee Park) 2014 water column PCB WQS criterion of 640 pg/L: DW 194.99 pg/L- 'FS'; WW 686.76 pg/L- 'OE'.

9-PKC007.82 (Route 99 Bridge) 2012 three species analyzed - Stoneroller exceeds WQS criterion of 20 ppb (15 fish comp. [14.3 - 16.0 cm] at 33.18 ppb. Remaining species analyzed Rock Bass (5 fish comp. [16.7 - 18.6 cm]); at 10.49 ppb) and



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Redbreast Sunfish (5 fish comp. [14.3 - 18.1 cm]; at 3.01 ppb).

2013 PCB water column excursions are DW 1,193.64 pg/L; WW 2,436.73 pg/L and 2014 one sample 'FS DW 389.51 pg/L and one excursion of the WQS 640 pg/L criterion at WW 1,252.42 pg/L.

9-PKC004.65 (Rt. 100 Bridge) 2012 four species analyzed. Channel catfish exceeds WQS criterion of 20 ppb (2 fish composite [63.1 - 69.0 cm] at 33.15 ppb. Remaining species analyzed Largemouth Bass (5 fish composite [33.4 - 40.8 cm]; at 2.68 ppb), Carp 2 sizes (4 fish composite [54.6 - 62.0 cm]; at 2.32 ppb) and (4 fish composite [54.6 - 62.0 cm]; at 9.16 ppb) and Smallmouth Bass (3 fish composite [35.3 - 42.6 cm]; at 6.90 ppb).

One 2014 water column sample exceeds the WQS criterion of 640 pg/L at 1,075.73 pg/L.

9-NEW088.86 (New River Claytor Lake at Dam) 2012 six species analyzed - Flathead Catfish exceeds WQS criterion of 20 ppb (2 fish composite [83.0 - 87.5 cm]) at 86.67 ppb. Remaining species analyzed Carp (4 fish composite [56.5 - 67.0 cm] at 2.05 ppb; Channel Catfish (1 fish [58.8 cm]) at 7.43 ppb; Largemouth Bass (5 fish composite [32.5 - 34.5 cm] at 0.36 ppb; Smallmouth Bass (4 fish composite [27.0 - 32.2 cm] at 0.88 ppb; Spotted Bass (3 fish composite [28.8 - 36.8 cm] at 0.00 ppb.

9-NEW085.94 (New River downstream of Claytor Dam) 2012 two species analyzed - Flathead Catfish exceeds WQS criterion of 20 ppb (5 fish composite [57.5 - 70.3 cm]) at 33.74 ppb. Remaining species analyzed Carp (5 fish composite [62.6 - 81.0 cm] at 11.27 ppb.

9-NEW081.72- (Route 11 Bridge - at Radford) 2010 water column PCB WQS criterion of 640 pg/L: DW 320 pg/L - 'FS'; WW exceeds at 4,739- 'OE'. 2011 water column WW 243.70 pg/L - 'FS'. 2013 water column WW exceeds at 647.88 pg/L- 'OE'.

9-NEW079.19 (New River below Radford University) 2012 one species two exceeding composites analyzed - Carp exceeds WQS criterion of 20 ppb (2 fish composite [67.5 - 76.5 cm] at 53.28 ppb and Carp exceeding (2 fish composite [76.8 - 83.6 cm] at 94.85 ppb.

9-NEW066.90 (New River at Whitethorne) 2012 one species analyzed exceeds WQS criterion of 20 ppb Carp (1 fish [72.0 cm] at 125.58 ppb.

9-LWK000.77 (Rt. 100 Bridge) 2011 PCB water column WW 642.4 pg/L- 'OE'; 2014 water column DW 39.79 pg/L- 'FS'.

9-WLK004.34 (Route 622 Bridge - Giles Co.) Water column samples find two excursions of the WQS criterion of 640 pg/L. 2010 WW at 1,706 pg/L and 2011 WW at 648.8 pg/L. And a third sample 2014 DW at 60.12 pg/L 'FS'.

9-NEW050.70 (New River near Pembroke) 2012 three species analyzed Carp exceeds WQS criterion of 20 ppb (2 fish composite [67.5 - 71.6 cm] at 419.87 ppb and Channel Catfish (1 fish [58.1 cm]) at 23.26 ppb. Remaining species analyzed Flathead Catfish (1 fish [51.4 cm] at 9.60 ppb.

9-SNC000.20- 2004 fish tissue finds with application of the new WQS TV for PCB (20 ppb) the addition of 3 species exceeding the new TV criterion. Rock Bass (10 fish composite [size 16-20 cm] at 25.21, Smallmouth Bass (3 fish composite [size 28.6 - 30.5 cm] at 22.13 and White sucker (1 fish [38.4 cm] at -0.08 ppb. Stony Creek is therefore a 2010 addition based on the new WQS PCB tissue value of 20 ppb.

9-NEW038.71 (New River below Celeanse) 2012 two species analyzed - Each of the following exceed the WQS criterion of 20 ppb. Carp (2 fish composite [68.1 - 69.0 cm] at 355.63 ppb and Flathead Catfish (1 fish [56.0 cm] at 25.39 ppb. 2010 water column PCB DW- 129 pg/L- 'FS; Wet 784 pg/L- 'OE' and 2011 water column PCB Wet- 222 pg/L- 'FS'

9-WFC003.69 (Route 724 Bridge at Gage) 2014 water column DW 114.7 pg/L- 'FS'; WW 1,527.45 pg/L- 'OE'.

9-WFC000.20 (Route 61 Bridge) 2011 water column WW 1,220.1 pg/L- 'OE'; 2013 water column WW 201.31 pg/L- 'FS'. 2014 water column WW 163.39 pg/L- 'FS'; DW 117.93 pg/L- 'FS'.

9-NEW030.15 (Route 460 Bridge at Glen Lyn) 2012 one species analyzed - Each of the following exceed the WQS criterion of 20 ppb. Carp 1 (1 fish [85.0 cm] at 234.01 ppb; Carp 2 (2 fish composite [72.5 - 74.8 cm]) at 448.15 ppb.

9-NEW031.00 (Above Glen Lyn) 2010 water column PCB DW- 66 pg/L 'FS'; WW- 841 pg/L 'OE'.

9-NEW028.95 (New River below Glen Lyn) 2010 water column PCB DW 177.5 pg/L- 'FS'; WW- 709.9 pg/L 'OE'. 2011 water



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

column PCB DW- 110.4 pg/L 'FS'; WW- 399.6 pg/l 'FS'. 2013 water column WW 284.08 pg/L- 'FS'; NA 116.76 pg/L- 'FS'.
2014 water column WW 529.48 pg/L- 'FS'; DW 121.59 pg/L- 'FS'.

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
New River, Reed Creek, Claytor Lake, Peak Creek, Stony Creek, Walker Creek, And Unknown Tributary XAG. Fish Consumption			
PCB in Fish Tissue - Total Impaired Size by Water Type:		4,304.56	105.03
New River, Reed Creek, Claytor Lake, Peak Creek, Stony Creek, Walker Creek, And Unknown Tributary XAG. Fish Consumption			
PCB in Water Column - Total Impaired Size by Water Type:			15.08

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N30R-01-BAC

Wolf Creek and Tributaries

Location: This segment extends from the Burkes Garden Creek confluence downstream between the confluence with Clear Fork and Wilderness Creek and Little Creek, a Wolf Creek tributary upstream to the Tazewell County Sportsmen Club impoundment.

City / County: Bland Co.

Tazewell Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station located at 9-WFC039.16 had a 65% exceedance of the E.coli water quality standard. Station 9-WFC050.16 had a 78% exceedance, 9-WFC032.47 had 34%, and station 9-WFC024.57 had a 22% exceedance. Station 9-LTL001.22 had a 50% exceedance of the E. coli water quality standard.

Wolf Creek and Tributaries	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			31.05

Wolf Creek and Tributaries	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			9.11

Sources:

Grazing in Riparian or
Shoreline Zones

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N30R-01-BEN **Little Creek**

Location: This segment includes the mainstem from the confluence with Wolf Creek upstream to the Tazewell County Sportsmens' Club impoundment.

City / County: Bland Co. Tazewell Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Benthic station 9-LTL001.22 was impaired based on VSCI scores of 33, 46, and 54 in 2007 and 2008.

Little Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			1.89

Sources:

Grazing in Riparian or
Shoreline Zones

Loss of Riparian Habitat

Unrestricted Cattle Access



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N32R-00-BAC **Clear Fork**

Location: This segment included the Clear Fork mainstem from its confluence with Wolf Creek upstream 8.5 miles, parallel to Route 61.

City / County: Bland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The AWQM station located at 9-CLF000.06 had a 25% exceedance rate of the E. coli water quality standard.

Clear Fork	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			
Escherichia coli - Total Impaired Size by Water Type:			8.94

Sources:

Livestock (Grazing or Feeding Operations)

Rural (Residential Areas)



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N32R-01-BAC **Wolf Creek**

Location: Wolf Creek mainstem waters from the mouth of Clear Fork Creek downstream to the confluence of Wolf Creek with the New River.

City / County: Bland Co. Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The originally listed 2004 portion of the overall extent described above began near the intersection of Routes 61 and 724 at the confluence of an unnamed tributary extending downstream to the mouth of Wolf Creek on the New River. A total of 5.60 miles.

The 2006 Integrated Report (IR) extends the 2004 303(d) Listed fecal coliform (FC) bacteria impairment 16.71 miles upstream. The total bacteria impairment is 22.31 miles. Escherichia coli (E.coli) replaces fecal coliform (FC) bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-WFC017.31 (Bridge #6065 on Rt. 644 off Rt. 61) Six out of 36 E.Coli samples exceed the 235 cfu/100 ml instantaneous criterion within the 2016 data window. Exceedances range from 250 to greater than 2000 cfu/100 ml. Five exceeding values are found from 24 escherichia coli (E.coli) observations in 2014. The range of exceedance is from 250 to greater than 2000 cfu/100 ml. Two of 15 E.coli samples exceed the 235 cfu/100 ml criterion at 300 and 450 cfu/100 ml within the 2012 data window. The 2010 and 2008 assessments find two of 12 E.coli samples exceed the 235 cfu/100 ml criterion at 420 and 1000 cfu/100 ml. Two of nine E.coli samples exceed the criterion with the same exceedances in 2006.

9-WFC011.05- (Rt. 676 Bridge at Boxely) The 2016 data window finds two of 36 E.Coli samples exceed the 235 cfu/100 ml instantaneous criterion (400 cfu/100 ml and >2000 cfu/100 ml). One exceeding value of greater than 2000 cfu/100 ml exceeds the 235 cfu/100 ml instantaneous criterion from 12 observations within the 2014 data window. There were no additional data within the 2012 data window. Both the 2008 and 2010 assessments find E.coli bacteria exceed the instantaneous criterion in two of 10 samples. Exceeding values are both at 700 cfu/100 ml.

9-WFC005.61 (Rt. 673 Bridge at Penvir) Four of 35 E.Coli samples exceed the instantaneous criterion of 235 cfu/100 ml in the 2016 data window. Excursions range from 250 to 625 cfu/100 ml. The 2014 data window found two of 12 samples in exceedance of the 235 cfu/100 ml instantaneous criterion. Excessive values are 300 and 625 cfu/100 ml. There were no additional data within the 2012 data window. E.coli exceedances are found in five of 12 samples in 2008 and 2010. Values in excess of the 235 cfu/100 ml criterion range from 250 to greater than 2000. E.coli exceedances are found in three of nine samples and the same range of exceedance as in 2008.

9-WFC000.20 (Rt. 61 Bridge) The 2016 data window finds three of 48 samples exceed the 235 cfu/100 ml instantaneous criterion. Excursions range from 275 to 425 cfu/100 ml. Two of 24 escherichia coli (E.coli) samples exceed the 235 cfu/100 ml instantaneous criterion in 2014. The 2012 assessment finds one of 14 E.coli samples exceeding the instantaneous criterion of 235 cfu/100 ml at 1200. E.coli exceeds the instantaneous criterion in three of 12 samples in 2008 and 2010. Each excursion of the criterion is 520, 900 and 1200 cfu/100 ml. E.coli excursions in 2006 are two of nine samples with each excursion of the criterion at 520 and 900 cfu/100 ml. The 2004 Integrated Report (IR) finds FC exceedances of the 400 cfu/100 ml instantaneous criterion in two of 18 samples resulting in a 2004 impairment listing that remains. Exceeding values are 700 and 1500 cfu/100 ml.

Wolf Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			22.32
Escherichia coli - Total Impaired Size by Water Type:			22.32

Sources:

Livestock (Grazing or Feeding Operations)	Municipal (Urbanized High Density Area)	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)	Unspecified Domestic Waste
Wastes from Pets	Wet Weather Discharges (Non-Point Source)	Wildlife Other than Waterfowl	



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N32R-01-TEMP Wolf Creek

Location: Wolf Creek mainstem waters from the Bland/Giles County Line upstream to the confluence of Clear Fork Creek.

City / County: Bland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5C

The Aquatic Life Use impairment for temperature returns with the 2014 Integrated Report (IR).

9-WFC017.31 (Bridge #6065 on Rt. 644 off Rt. 61) The 2016 data window finds four of 36 exceedances of the 21°C Class V - Stockable Trout Waters criterion. One exceedance occurs at 22.9°C (7/23/13) in addition to the exceedances within the 2014 data window. Three of 24 temperature measurements exceed the WQS Class V - Stockable Trout water criterion of 21°C in 2014. Values in excess of the criterion are 24.7°C (7/12/2011), 23.0°C (6/25/2012) and 21.2°C (8/21/2012). These waters were delisted with the 2012 IR as temperature excursions of the WQS Class V criterion of 21°C are zero of 15 measurements or an exceedance rate of 0.0% at station 9-WFC017.31. Originally listed in 2008 these waters should have been listed in 2006 with two of nine exceeding values and a TMDL Schedule of 2018. Two of 12 temperature measurements exceed the Class V stockable trout water 21°C criterion within the 2008 and 2010 data windows. Exceeding values are 21.1°C on 8/4/2003 and 21.9°C on 8/30/2004.

Wolf Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Temperature, water - Total Impaired Size by Water Type:			7.91

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N33R-01-BAC **Laurel Creek**

Location: This segment extends from Wolf Creek upstream to the confluence of Dry Fork and from Dry Fork downstream to North Gap.

City / County: Bland Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Fecal Coliform / 5A

The AWQM station located at 9-LAC000.56 and 9-LAC002.17 had a 16% exceedance of the bacteria water quality standard while 9-DYF000.07 had 16% exceedance.

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Laurel Creek Recreation			
Escherichia coli - Total Impaired Size by Water Type:			8.20
Laurel Creek Recreation			
Fecal Coliform - Total Impaired Size by Water Type:			1.64

Sources:

Grazing in Riparian or
Shoreline Zones

Livestock (Grazing or
Feeding Operations)

Rural (Residential Areas)

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N33R-01-TEMP Dry Fork

Location: This segment includes Dry Fork downstream to north Gap, excluding the headwaters.

City / County: Bland Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Temperature, water / 5A

The AWQM station located at 9-DYF000.07 has a 17% exceedance of the temperature.

Dry Fork	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Temperature, water - Total Impaired Size by Water Type:			5.24

Sources:

Grazing in Riparian or
Shoreline Zones

Loss of Riparian Habitat



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N34R-01-BAC **Rich Creek**

Location: The impaired waters begin just downstream of Peterstown, West Virginia at the mouth of Brush Creek on Rich Creek and extends to the Rich Creek confluence on the New River (Peterstown, WV Quad).

City / County: Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The 2002 2.85 mile fecal coliform (FC) bacteria impairment remains. Escherichia coli (E.coli) replaces fecal coliform bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-RHC000.08 (Rt. 806 Bridge) 2014 and 2016 data windows escherichia coli exceedances occur in 14 of 35 observations. Exceedances range from 275 to 1575 cfu/100 ml. E.coli exceed the 235 cfu/100 ml instantaneous criterion in 14 of 32 samples within the 2012 data window. Exceedances range from 350 to 1010 cfu/100 ml. The 2010 assessment finds E.coli exceed the instantaneous criterion in 10 of 21 samples. Exceedances range from 400 to 1010 cfu/100 ml. E.coli exceed the instantaneous criterion in three of nine samples in 2008 ranging from 400 to 900 cfu/100 ml. Data within the 2006 data window exceed the former FC 400 cfu/100 ml instantaneous criterion in five of nine samples with an exceedance range of 1000 to 2800 cfu/100 ml. The 2004 IR reports FC exceeds the former instantaneous criterion in 10 of 18 samples. Exceeding values range from 500 to 2800 cfu/100 ml.

Rich Creek	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			2.85
Escherichia coli - Total Impaired Size by Water Type:			

Sources:

Municipal (Urbanized High Density Area)

Unspecified Domestic Waste

Wet Weather Discharges (Non-Point Source)

Wildlife Other than Waterfowl



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N35R-01-BAC Adair Run

Location: The Adair Run impairment begins at the Virginia / West Virginia State Line and extends downstream to the Adair Run confluence with the New River.

City / County: Giles Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The 2004 303(d) Listed 0.37 mile bacteria impaired waters find the Recreational Use is not supported. Escherichia coli (E.coli) replaces fecal coliform (FC) bacteria as the indicator as per Water Quality Standards [9 VAC 25-260-170. Bacteria; other waters].

9-ADR000.13 (Rt. 648 Bridge) There are no additional data within the 2016 data window. The 2014 assessment finds E.coli exceed the 235 cfu/100 ml WQS instantaneous criterion in five of 32 samples. Values in excess of the criterion range from 325 to 1650 cfu/100 ml. There are no additional data within the 2012 data window. The 2010 assessment finds escherichia coli exceed the 235 cfu/100 ml WQS instantaneous criterion in three of 20 samples. Values in excess of the criterion are 450, 1050 and 1200 cfu/100 ml. The 2004 IR reports fecal coliform exceeds the former 400 cfu/100 ml instantaneous criterion in six of 26 observations. Exceeding values range from 500 to 4200 cfu/100 ml. FC exceeds the former instantaneous criterion in six of 20 observations within the 2006 data window. Exceeding values range from 500 to 4200 cfu/100 ml. FC data within the 2008 data window find four of 14 samples exceeding the former instantaneous criterion.

Adair Run	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Recreation			0.37
Escherichia coli - Total Impaired Size by Water Type:			

Sources:

- | | |
|----------------------------|-------------------------------|
| Unspecified Domestic Waste | Wildlife Other than Waterfowl |
|----------------------------|-------------------------------|



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N36R-01-CDANE Bluestone River

Location: This segment includes the mainstem from the confluence with Big Branch downstream to West Virginia political boundary; may be found on the Bramwell quad sheet.

City / County: Tazewell Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Chlordane / 5A

The fish tissue and sediment sampling stations at 9-BST069.46 and 9-BST066.94 had total chlordane levels detected in the sediment in 2002 above DEQ's screening value.

Bluestone River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fish Consumption			
Chlordane - Total Impaired Size by Water Type:			0.62

Sources:

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N36R-01-PCB **Bluestone River**

Location: This segment begins at the Route 460 bridge downstream to the West Virginia political boundary. It also includes a segment of Beaverpond Creek that flows from West Virginia into Virginia, sometimes under city buildings and streets and into the Bluestone River and Brush Fork from the west Virginia state line to the confluence with the Bluestone River in Falls Mills.

City / County: Tazewell Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

PCB in Water Column / 5A

In April 2004 a Special Study was conducted by DEQ and USGS. An SPMD deployed at station 9-BPB000.02 indicated Total PCBs in the water column at 3700 pg/l and 1300 pg/l in 2005. SPMDs deployed at stations 9-BST066.18, 9-BST068.98 and 9-BST072.65 indicated PCB values of 1800 pg/l, 800 pg/l and 230 pg/l. Fish tissue and sediment stations 9-BST0666.94 and 9-BST069.46 found PCB in exceedance of DEQ's screening values in white suckers. Station 9-BST069.46 also had sediment samples that exceeded the ER_M for PCBs. SPMD sampling in 2004 indicated PCB was 3500 pg/l at station 9-BFK003.14.

Bluestone River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fish Consumption			
PCB in Fish Tissue - Total Impaired Size by Water Type:			13.62

Bluestone River	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fish Consumption			
PCB in Water Column - Total Impaired Size by Water Type:			4.47

Sources:

Inappropriate Waste Disposal

Source Unknown



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N37R-02-BEN **Laurel Fork**

Location: Upstream of the Curran Branch confluence at Boissevain to headwaters (parallel to the West Virginia state line), WQS Section 1.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5C

Probabilistic monitoring station at 9-LRR012.30 was impaired based on VSCI scores that were too low in 2012 and 2014.

Laurel Fork	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:			8.30

Sources:

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



Fact Sheets for Impaired (Category 5) Waters in 2016

New River Basin

Cause Group Code: N37R-02-DO

Laurel Fork

Location: This segment extends from upstream of the Curran Branch confluence at Boissevain to the headwaters.

City / County: Tazewell Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Additional investigation is recommended.

Laurel Fork	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Life			
Oxygen, Dissolved - Total Impaired Size by Water Type:			8.30

Sources:

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