Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01L-01-HG** **Lake Gordonsville**

Cause Location: Includes the entirety of Lake Gordonsville, also known as Bowlers Mill Lake.

City / County: Louisa Co.

Use(s): Fish Consumption

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

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 09/30/04, limits largemouth bass consumption to no more than two meals per month.

Additionally, an exceedance of the risk-based tissue value (TV) of 300 ppb for mercury (HG) was recorded in 2 species (largemouth bass and bluegill sunfish) of fish sampled (5 total excursions) in 2017 at fish tissue monitoring station 8-DOV001.20, near the dam.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01L_DOV01A06 / Lake Gordonsville / Segment includes all of Lake Gordonsville.	5A	Mercury in Fish Tissue	2006	L	77.31

Lake Gordonsville **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		**77.31**	

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-01-BAC** **South Anna River**

Cause Location: Begins at the headwaters of the South Anna River and continues downstream until the confluence with Dove Fork. Begins again at the start of waterbody F02R, where Wheeler Creek intersects the South Anna River, and continues downstream until the confluence with Rock Creek.

City / County: Louisa Co. Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (18 of 38 samples - 47.4%) at DEQ station 8-SAR089.35 at Route 613; E. coli bacteria criterion excursions (3 of 14 samples - 21.4%) at DEQ station 8-SAR097.82 at Route 603; E. coli bacteria criterion excursions (3 of 13 samples - 23.1%) at DEQ station 8-SAR099.81 at Route 860; E. coli bacteria criterion excursions (8 of 13 samples - 61.5%) at station 8-SAR101.03 at Route 231.

The Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F01R-01) watershed (Eq. ID POL0337) was approved by the EPA on 8/2/2006 (Fed ID 24423); the EPA approved a modification on 4/27/2015 (Fed ID 64651). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_SAR02A02 / South Anna River / Segment begins at the confluence with an unnamed tributary, approximately 0.25 mile downstream of the Route 231 bridge, and continues downstream until the confluence with Dove Fork.	4A	Escherichia coli (E. coli)	2002	L	3.90
VAN-F01R_SAR02B10 / South Anna River / Segment begins at the headwaters of the South Anna River and continues downstream until the confluence with an unnamed tributary, approximately 0.25 mile downstream of the Route 231 bridge.	4A	Escherichia coli (E. coli)	2002	L	3.19
VAN-F02R_SAR02A00 / South Anna River / Segment begins at the start of waterbody F02R, where Wheeler Creek intersects the South Anna River, and continues downstream until the confluence with Rock Creek.	4A	Escherichia coli (E. coli)	2006	L	3.98

South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**11.07**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-02-BAC** **Wheeler Creek**

Cause Location: Begins at the headwaters of Wheeler Creek and continues downstream until the confluence with Hudson Creek.

City / County: Albemarle Co. Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (8 of 11 samples - 72.7%) at DEQ station 8-WLR000.31 upstream of the confluence with Camp Creek. 2014 Assessment: E. coli bacteria criterion excursions (3 of 6 samples - 50.0%) at DEQ station 8-WLR000.26 at Route 640.

The Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F02R-01) watershed was approved by the EPA on 8/2/2006 (Fed ID 24424); the EPA approved a modification on 4/27/2015 (Fed ID 64664). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_WLR01A04 / Wheeler Creek / Segment begins at the confluence with Camp Creek and continues downstream until the confluence with Hudson Creek.	4A	Escherichia coli (E. coli)	2010	L	0.24
VAN-F01R_WLR01B10 / Wheeler Creek / Segment begins at the headwaters of Wheeler Creek and continues downstream until the confluence with Camp Creek.	4A	Escherichia coli (E. coli)	2012	L	6.00

Wheeler Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.24**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-02-BEN** **Wheeler Creek**

Cause Location: Begins at the headwaters of Wheeler Creek and continues downstream until the confluence with Camp Creek.

City / County: Albemarle Co. Louisa Co.

Use(s): Aquatic Life

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

2016 Assessment: Three biological monitoring events in 2009 and 2010 at station 8-WLR000.31 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_WLR01B10 / Wheeler Creek / Segment begins at the headwaters of Wheeler Creek and continues downstream until the confluence with Camp Creek.	5A	Benthic Macroinvertebrates Bioassessments	2008	L	6.00

Wheeler Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**6.00**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-03-BAC** **Hudson Creek**

Cause Location: Begins at the confluence of Bunch Creek and Fielding Creek and continues downstream until the confluence with Wheeler Creek.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 11 samples - 18.2%) at DEQ ambient station 8-HUD001.80 at Route 695.

The Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F02R-01) watershed (Eq. ID POL0335) was approved by the EPA on 8/2/2006 (Fed ID 24424); the EPA approved a modification on 4/27/2015 (Fed ID 64664). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_HUD01A04 / Hudson Creek / Segment begins at the confluence of Bunch Creek and Fielding Creek and continues downstream until the confluence with Wheeler Creek.	4A	Escherichia coli (E. coli)	2012	L	3.61

Hudson Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.61**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-03-BEN** **Camp Creek**

Cause Location: Begins at the confluence with Central Branch and continues downstream to the confluence with Wheeler Creek.

City / County: Louisa Co.

Use(s): Aquatic Life

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

2016 Assessment: A total of three biological monitoring events in 2009 and 2010 at station 8-CMP000.28 at Route 717 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_CMP01A12 / Camp Creek / Segment begins at the confluence with Central Branch and continues downstream to the confluence with Wheeler Creek.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	2.01

Camp Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**2.01**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-04-BAC** **Camp Creek**

Cause Location: Begins at the confluence with Central Branch and continues downstream to the confluence with Wheeler Creek.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (6 of 11 samples - 54.5%) at DEQ ambient station 8-CMP000.28 at Route 717.

The Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F02R-01) watershed (Eq. ID POL0335) was approved by the EPA on 8/2/2006 (Fed ID 24424); the EPA approved a modification on 4/27/2015 (Fed ID 64664). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_CMP01A12 / Camp Creek / Segment begins at the confluence with Central Branch and continues downstream to the confluence with Wheeler Creek.	4A	Escherichia coli (E. coli)	2012	L	2.01

Camp Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.01**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F01R-04-BEN** **South Anna River**

Cause Location: Begins at the headwaters of the South Anna River and continues downstream until the confluence with an unnamed tributary, approximately 0.25 mile downstream of the Route 231 bridge. Begins again at the confluence with Mill Creek and continues downstream until the mouth of watershed F01, at the confluence with Wheeler Creek.

City / County: Louisa Co. Orange Co.

Use(s): Aquatic Life

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

Four biological monitoring events in 2016 and 2017 at DEQ station 8-SAR101.03 at Route 231 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community. Four biological monitoring events in 2016 and 2017 at DEQ station 8-SAR091.64 at Route 695 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F01R_SAR01A02 / South Anna River / Segment begins at the confluence with Mill Creek and continues downstream until the mouth of watershed F01, at the confluence of Wheeler Creek to the South Anna River.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	4.95
VAN-F01R_SAR02B10 / South Anna River / Segment begins at the headwaters of the South Anna River and continues downstream until the confluence with an unnamed tributary, approximately 0.25 mile downstream of the Route 231 bridge.	5A	Benthic Macroinvertebrates Bioassessments	2020	L	3.19

South Anna River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**8.14**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-01-BAC** **South Anna River**

Cause Location: Begins at the confluence with Rock Creek and continues downstream until the confluence with Beaver Creek.

City / County: Fluvanna Co. Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 6 samples - 33.3%) at DEQ station 8-SAR070.96 at Route 646 (2014 Assessment). E. coli bacteria criterion excursions (4 of 7 samples - 57.1%) at DEQ station 8-SAR083.25 at Route 649.

The Pamunkey River and Tributaries modified bacteria TMDL for the South Anna River watershed (EQ ID POL0335) was approved by EPA on 08/02/2006 (Fed ID 24424); the EPA approved a modification on 4/27/2015 (Fed ID 64664). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_SAR01A00 / South Anna River / Segment begins at the confluence with Harris Creek and continues downstream until the confluence with Beaver Creek.	4A	Escherichia coli (E. coli)	2004	L	4.97
VAN-F02R_SAR01B20 / South Anna River / Segment begins at the confluence with Roundabout Creek and continues downstream until the confluence with Harris Creek.	4A	Escherichia coli (E. coli)	2004	L	1.00
VAN-F02R_SAR01C18 / South Anna River / Segment begins at the confluence with Rock Creek and continues downstream to the confluence with Roundabout Creek.	4A	Escherichia coli (E. coli)	2018	L	8.19

South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**14.16**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-01-BEN** **Fosters Creek**

Cause Location: Begins at the headwaters of Fosters Creek and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Aquatic Life

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

Four biological monitoring events in 2015 and 2016 at DEQ station 8-FOS000.84 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_FOS01A06 / Fosters Creek / Segment begins at the headwaters of Fosters Creek and continues downstream until the confluence with the South Anna River.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	4.91

Fosters Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**4.91**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-02-BAC** **Unnamed tributary to South Anna River**

Cause Location: Begins at the headwaters of an unnamed tributary to the South Anna River and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Recreation

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

2014 Assessment: E. coli bacteria criterion excursions (1 of 2 samples - 50.0%) at DEQ station 8-XIE000.27 upstream of Route 697 and E. coli bacteria criterion excursions (1 of 2 samples - 50.0%) at DEQ station 8-XIE000.40 upstream of the Twin Oaks STP.

The Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F02R-01) watershed (Eq. ID POL0335) was approved by the EPA on 8/2/2006 (Fed ID 24424); the EPA approved a modification on 4/27/2015 (Fed ID 64664). The SWCB approved the modified TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_XIE01A08 / Unnamed tributary to South Anna River / Segment begins at the headwaters of an unnamed tributary to the South Anna River and continues downstream until the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2008	L	1.34

Unnamed tributary to South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.34**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-03-BAC** **Fosters Creek**

Cause Location: Begins at the headwaters of Fosters Creek and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (3 of 11 samples - 27.3%) at DEQ station 8-FOS000.84 at Route 640.

A new TMDL is not required for this impaired segment of Fosters Creek because the downstream Pamunkey River and Tributaries modified bacteria TMDL (Fed ID 64664, 04/27/2015) included modeling, source identification, and reductions that covered the entire South Anna River (F02R-01) watershed (Eq. ID POL0335). The SWCB approved the modified TMDL on 12/11/2014. This impairment was previously nested in the Pamunkey River Basin bacteria TMDL (24424, 08/02/2006).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_FOS01A06 / Fosters Creek / Segment begins at the headwaters of Fosters Creek and continues downstream until the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2014	L	4.91

Fosters Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.91**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Urban Runoff/Storm Sewers	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-04-BAC** **Roundabout Creek**

Cause Location: Begins at the confluence with an unnamed tributary to Roundabout Creek, approximately 0.9 rivermile downstream from the Route 64 crossing, and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria excursions (6 of 11 samples - 54.5%) at DEQ station 8-RDB001.72 at Route 640.

A new TMDL is not required for this impaired segment of Roundabout Creek because the downstream Pamunkey River and Tributaries modified bacteria TMDL (Fed ID 64664, 04/27/2015) included modeling, source identification, and reductions that covered the entire South Anna River (F02R-01) watershed (Eq. ID POL0335). The SWCB approved the modified TMDL on 12/11/2014. This impairment was previously nested in the Pamunkey River Basin bacteria TMDL (24424, 08/02/2006).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_RDB01A04 / Roundabout Creek / Segment begins at the confluence with an unnamed tributary to Roundabout Creek, approximately 0.9 rivermile downstream from the Route 64 crossing, and continues downstream until the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2014	L	3.84

Roundabout Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.84**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-05-BAC** **Harris Creek**

Cause Location: Begins at the confluence with an unnamed tributary at rivermile 6.97 and continues downstream to the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria excursions (2 of 12 samples - 16.7%) at DEQ station 8-HRS001.35 at Route 604.

A new TMDL is not required for this impaired segment of Harris Creek because the downstream Pamunkey River and Tributaries modified bacteria TMDL (Fed ID 64664, 04/27/2015) included modeling, source identification, and reductions that covered the entire South Anna River watershed (Eq. ID POL0335). The SWCB approved the modified TMDL on 12/11/2014. This impairment was previously nested in the Pamunkey River Basin bacteria TMDL (24424, 08/02/2006).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_HRS01A16 / Harris Creek / Segment begins at confluence with an unnamed tributary at rivermile 6.97 and continues downstream to the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2016	L	6.97

Harris Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.97**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F02R-06-BAC** **Rock Creek**

Cause Location: Begins at the confluence with Little Rock Creek and continues downstream to the confluence with South Anna River.

City / County: Fluvanna Co. Louisa Co.

Use(s): Recreation

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

E. coli bacteria excursions (2 of 12 samples - 16.7%) at DEQ station 8-RKC001.35 at Route 640.

A new TMDL is not required for this segment of Rock Creek because the downstream Pamunkey River and Tributaries modified bacteria TMDL (Fed ID 64664, 04/27/2015) included modeling, source identification, and reductions that covered the entire South Anna River (F02R-01) watershed (Eq. ID POL0335). The SWCB approved the modified TMDL on 12/11/2014. This impairment was previously nested in the Pamunkey River Basin bacteria TMDL (24424, 08/02/2006).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F02R_RKC01A16 / Rock Creek / Segment begins at the confluence with Little Rock Creek and continues downstream to the confluence with South Anna River.	4A	Escherichia coli (E. coli)	2016	L	2.72

Rock Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.72**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Urban Runoff/Storm Sewers	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-01-BEN** **Cub Creek**

Cause Location: Begins at the confluence with Turners Creek and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Aquatic Life

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

2018 Assessment: Two biological monitoring events in 2012 at station 8-CUB002.73 at Route 648 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_CUB01A08 / Cub Creek / Segment begins at the confluence with Turners Creek and continues downstream until the confluence with the South Anna River.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	3.10

Cub Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**3.10**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-02-BAC** **Taylors Creek**

Cause Location: Begins at the headwaters of Taylors Creek and continues downstream until the confluence with the South Anna River.

City / County: Hanover Co. Louisa Co.

Use(s): Recreation

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

E. coli bacteria excursions (4 of 24 samples - 16.7%) at DEQ station 8-TLR005.50 at Route 610. E. coli bacteria excursions (2 of 12 samples - 16.7%) at DEQ station 8-TLR009.82 at Route 664.

The Pamunkey River and Tributaries modified bacteria TMDL for the Taylors Creek watershed (Eq. ID POL0336) was approved by EPA on 04/27/2015 (Fed ID 64655). The SWCB approved the modified TMDL on 12/11/2014. This impairment was previously nested in the Pamunkey River Basin bacteria TMDL (24425, 08/02/2006).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_TLR01A00 / Taylors Creek / Segment begins at the headwaters of Taylors Creek and continues downstream until the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2008	L	16.54

Taylors Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**16.54**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-02-BEN** **Taylors Creek**

Cause Location: Begins at the headwaters of Taylors Creek and continues downstream until the confluence with the South Anna River.

City / County: Hanover Co. Louisa Co.

Use(s): Aquatic Life

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

Two biological monitoring events in 2013 at DEQ station 8-TLR005.30 and four biological monitoring events in 2014 and 2015 at DEQ station 8-TLR014.44 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_TLR01A00 / Taylors Creek / Segment begins at the headwaters of Taylors Creek and continues downstream until the confluence with the South Anna River.	5A	Benthic Macroinvertebrates Bioassessments	2016	L	16.54

Taylors Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**16.54**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-03-BEN** **Fork Creek**

Cause Location: Begins at the confluence with an unnamed tributary at rivermile 7.63 and continues downstream to the confluence with South Branch Fork Creek.

City / County: Goochland Co. Louisa Co.

Use(s): Aquatic Life

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

Four biological monitoring events in 2015 and 2016 at DEQ station 8-FRK001.78 (upstream of South Branch Fork Creek) resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_FRK02A16 / Fork Creek / Segment begins at the confluence with an unnamed tributary just upstream from Route 683 and continues downstream to the confluence with South Branch Fork Creek.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	4.33

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

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-03-DO** **Cub Creek**

Cause Location: Begins at the confluence with Turners Creek and continues downstream until the confluence with the South Anna River.

City / County: Louisa Co.

Use(s): Aquatic Life

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

Excursions less than the minimum dissolved oxygen criterion (4 of 12 samples - 33.3%) at station 8-CUB001.73 at Route 601.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_CUB01A08 / Cub Creek / Segment begins at the confluence with Turners Creek and continues downstream until the confluence with the South Anna River.	5A	Dissolved Oxygen	2008	L	3.10

Cub Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**3.10**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-04-BAC** **Fork Creek**

Cause Location: Begins at the perennial headwaters and continues downstream until the confluence with the South Anna River.

City / County: Goochland Co. Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 23 samples - 13.0%) at DEQ station 8-FRK006.02 at Route 683. E. coli bacteria criterion excursions (2 of 6 samples - 33.3%) at DEQ station 8-FRK001.66 at Route 640 (2012 Assessment).

The modified Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F04R-01) watershed was approved by the EPA on 4/27/2015 (Fed ID 64653). A new TMDL is not required for this impaired segment of Fork Creek because the original and modified bacteria TMDLs included modeling, source identification, and reductions that covered the entire South Anna River (F04R-01) watershed (Eq ID POL0341).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_FRK01A08 / Fork Creek / Segment begins at the confluence with South Branch Fork Creek and continues downstream until the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2008	L	1.79
VAN-F03R_FRK02A16 / Fork Creek / Segment begins at the confluence with an unnamed tributary just upstream from Route 683 and continues downstream to the confluence with South Branch Fork Creek.	4A	Escherichia coli (E. coli)	2016	L	4.33
VAN-F03R_FRK02B20 / Fork Creek / Segment begins at the perennial headwaters and continues downstream to the confluence with an unnamed tributary just upstream from Route 683.	4A	Escherichia coli (E. coli)	2016	L	1.50

Fork Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.62**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-04-BEN** **South Branch Fork Creek**

Cause Location: Begins at Windsor Lake Drive and continues downstream to the confluence with Fork Creek.

City / County: Goochland Co. Louisa Co.

Use(s): Aquatic Life

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

Four biological monitoring events in 2015 and 2016 at station 8-SBK000.03 above the confluence with Fork Creek resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_SBK01A18 / South Branch Fork Creek / Segment begins at Windsor Lake Drive and continues downstream to the confluence with Fork Creek.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	3.05

South Branch Fork Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**3.05**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-05-BEN** **Unnamed tributary to Taylors Creek**

Cause Location: Begins at the headwaters of the unnamed tributary to Taylors Creek and continues downstream to the confluence with Taylors Creek.

City / County: Hanover Co. Louisa Co.

Use(s): Aquatic Life

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

Two biological monitoring events in 2015 at DEQ station 8-XKA000.91 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_XKA01A18 / Unnamed tributary to Taylors Creek / Segment begins at the headwaters of the unnamed tributary to Taylors Creek and continues downstream to the confluence with Taylors Creek.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	1.43

Unnamed tributary to Taylors Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**1.43**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-07-BAC** **South Anna River**

Cause Location: Begins at the confluence with Northeast Creek and continues downstream until the confluence with an unnamed tributary to the South Anna River, approximately rivermile 66.97.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (10 of 34 samples - 29.4%) at DEQ station 8-SAR068.57 at Route 605.

This impairment was originally nested in the Pamunkey River Basin bacteria TMDL for the South Anna River (F04R-01) watershed (Federal ID 24444, 8/2/2006). The modified Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F04R-01) watershed was approved by the EPA on 4/27/2015. A new TMDL is not required for this impaired segment of the South Anna River because the original and modified bacteria TMDLs included modeling, source identification, and reductions that covered the entire South Anna River (F04R-01) watershed.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_SAR03A06 / South Anna River / Segment begins at the confluence with Northeast Creek and continues downstream until the confluence with an unnamed tributary to the South Anna River, approximately rivermile 66.97.	4A	Escherichia coli (E. coli)	2006	L	1.76

South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.76**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-08-BAC** **Deep Creek**

Cause Location: Begins at the headwaters of Deep Creek and continues downstream to the confluence with the South Anna River.

City / County: Goochland Co. Louisa Co.

Use(s): Recreation

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

2016 Assessment: E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-DEP000.37 at Route 640.

This impairment was originally nested in the Pamunkey River Basin bacteria TMDL for the South Anna River (F04R-01) watershed (Federal ID 24444, 8/2/2006). The modified Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F04R-01) watershed was approved by the EPA on 4/27/2015. A new TMDL is not required for this impaired segment of Deep Creek because the original and modified bacteria TMDLs included modeling, source identification, and reductions that covered the entire South Anna River (F04R-01) watershed (Eq ID POL0341).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_DEP01A12 / Deep Creek / Segment begins at the headwaters of Deep Creek and continues downstream to the confluence with the South Anna River.	4A	Escherichia coli (E. coli)	2012	L	5.79

Deep Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.79**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F03R-09-BAC** **South Anna River**

Cause Location: Begins at the confluence with Jones Creek and continues downstream until the confluence with an unnamed tributary at rivermile 31.5.

City / County: Hanover Co. Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (9 of 34 samples - 26.5%) at DEQ station 8-SAR035.05 at Route 617. E. coli bacteria criterion excursions (5 of 12 samples - 41.7%) at DEQ station 8-SAR038.45 at Route 635.

This impairment was originally nested in the Pamunkey River Basin bacteria TMDL for the South Anna River (F04R-01) watershed (Federal ID 24444, 8/2/2006). The modified Pamunkey River and Tributaries bacteria TMDL for the South Anna River (F04R-01) watershed was approved by the EPA on 4/27/2015. A new TMDL is not required for this impaired segment of the South Anna River because the original and modified bacteria TMDLs included modeling, source identification, and reductions that covered the entire South Anna River (F04R-01) watershed (Eq ID POL0341).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F03R_SAR01C06 / South Anna River / Segment begins at the confluence with Jones Creek and continues downstream until the confluence with an unnamed tributary at rivermile 31.5.	4A	Escherichia coli (E. coli)	2012	L	4.63

South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.63**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F04R-01-BAC** **South Anna River**

Cause Location: The South Anna River from the confluence with Taylors Creek downstream to the Ashland Municipal STP discharge near the confluence with Falling Creek.

City / County: Hanover Co.

Use(s): Recreation

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

The South Anna River from Route 33 to the Ashland Municipal STP was assessed as fully supporting but threatened during the 1998 cycle. In 2002, the segment was extended upstream to Taylors Creek and downgraded to impaired.

During the 2006 cycle, E. coli monitoring was conducted at the Route 33 bridge (8-SAR021.22), as well as at new stations 8-SAR014.47 and 8-SAR012.42. Exceedance rates were acceptable at the upstream stations (1/12 at 8-SAR021.22 and 0/9 at 8-SAR014.47), however there were 3 exceedances out of 12 samples at 8-SAR012.42. Because of the fully supporting status of the upstream portion, the impaired segment was shortened from the UT above Horseshoe Bridge Road downstream to the Ashland Municipal STP.

The Pamunkey River Basin Bacteria TMDL was completed during the 2008 cycle and was approved by the EPA on 8/2/2006; the TMDL included the entire previously listed length.

Additional monitoring occurred during the 2014 cycle. Due to E. coli exceedances at 8-SAR021.22 (6/12), the segment was returned to its original length (Taylors Creek to the Ashland Municipal STP).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F04R_SAR01A98 / South Anna River / From Taylors Creek to 5 mi upstream of the Ashland PWS intake.	4A	Escherichia coli (E. coli)	2014	L	2.77
VAP-F04R_SAR02A98 / South Anna River / From 5 mi upstream of the Ashland PWS intake to the PWS intake.	4A	Escherichia coli (E. coli)	2014	L	5.04
VAP-F04R_SAR03A02 / South Anna River / From the Ashland PWS intake to the UT above Horseshoe Bridge Road.	4A	Escherichia coli (E. coli)	2014	L	0.54
VAP-F04R_SAR03B06 / South Anna River / From the UT above Horseshoe Bridge Road to the Ashland Municipal STP discharge.	4A	Escherichia coli (E. coli)	2008	L	8.90

South Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**17.25**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F04R-02-BAC** **South Anna River**

Cause Location: The South Anna River from the Ashland Municipal STP discharge near the confluence with Falling Creek downstream to its mouth.

City / County: Hanover Co.

Use(s): Recreation

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

The segment VAP-F04R-02 (00249) was initially listed as impaired of the Recreation Use during the 1998 cycle. During the 2006 cycle, E. coli monitoring at the Route 738 bridge (8-SAR001.11) was fully supporting (1/21); therefore, the segment was delisted.

However, during the 2008 cycle, the Pamunkey River Basin Bacteria TMDL was completed and was approved by the EPA on 8/2/2006. The TMDL addressed the original TMDL listing and assigned WLAs and LAs. The E. coli violation rate at station 8-SAR001.11 remained acceptable during the 2008 and 2010 cycles; therefore, the water was considered a Category 2C water.

During the 2012 cycle, the segment became impaired for E. coli again. It is considered Category 4A.

The exceedance rate was 7/36 during the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F04R_SAR03A98 / South Anna River / From the Ashland Municipal STP discharge to its mouth at the Pamunkey River.	4A	Escherichia coli (E. coli)	2012	L	4.76

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

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F04R-03-BAC** **Stagg Creek**

Cause Location: Headwaters to mouth at South Anna River

City / County: Hanover Co.

Use(s): Recreation

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

During the 2006 cycle, Stagg Creek was assessed as not supporting the Recreation Use due to E. coli exceedances at 8-STG005.46 (Route 657) and at 8-STG001.00 (Route 686).

No additional data has been collected at 8-STG005.46.

The segment was determined to be nested within the completed TMDL for the South Anna River bacterial impairment F04R-01-BAC; therefore, it will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F04R_STG01A06 / Stagg Creek / Headwaters to mouth at the South Anna River	4A	Escherichia coli (E. coli)	2006	L	6.56

Stagg Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.56**

Sources:

Agriculture	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F04R-03-DO** **Stagg Creek**

Cause Location: Headwaters to mouth at South Anna River

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

During the 2008 cycle, Stagg Creek was assessed as not supporting of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/11 at 8-STG005.46 (Route 686).

Additional monitoring was conducted in the 2016 cycle, however the data was insufficient for assessment (1/9). In addition, 2009 sampling at freshwater probabilistic monitoring station 8-STG000.73 was acceptable; therefore, further monitoring is warranted.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F04R_STG01A06 / Stagg Creek / Headwaters to mouth at the South Anna River	5C	Dissolved Oxygen	2008	L	6.56

Stagg Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**6.56**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F04R-03-PH** **Stagg Creek**

Cause Location: Headwaters to mouth at South Anna River

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2016 cycle, Stagg Creek was impaired of the Aquatic Life Use due to a pH exceedance rate of 3/9 at 8-STG005.46 (Route 686). In addition, the exceedance rate was 1/2 at 8-STG000.73.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F04R_STG01A06 / Stagg Creek / Headwaters to mouth at the South Anna River	5C	pH	2016	L	6.56

Stagg Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**6.56**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F05R-01-BAC** **Newfound River**

Cause Location: Newfound River from the confluence of Needstan Creek to its mouth.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2004 cycle, the segment was assessed not supporting of the Recreation Use based on fecal coliform exceedances at the Route 667 bridge (8-NFD002.26). The impairment converted to E. coli during the 2008 cycle.

The Pamunkey River Basin Bacteria TMDL was approved by the EPA on 8/2/2006. The TMDL addressed this segment and the Newfound River is classified as a Category 4A water.

Additional monitoring was conducted during the 2018 cycle. The exceedance rate was 12/24; therefore, the segment remains impaired.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F05R_NFD01A00 / Newfound River / Mainstem downstream of Needstan Creek.	4A	Escherichia coli (E. coli)	2008	L	10.95

Newfound River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**10.95**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F05R-01-BEN** **Newfound River**

Cause Location: Newfound River from the confluence of Needstan Creek to its mouth.

City / County: Hanover Co.

Use(s): Aquatic Life

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

During the 2018 cycle, the lower Newfound River was impaired of the Aquatic Life Use due to benthic community alteration at 2016 freshwater probabilistic monitoring station 8-NFD004.19.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F05R_NFD01A00 / Newfound River / Mainstem downstream of Needstan Creek.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	10.95

Newfound River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**10.95**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-01-BAC** **Mountain Run**

Cause Location: Begins at the confluence of Madison Run and continues downstream until the confluence with the North Anna River.

City / County: Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (7 of 18 samples - 38.9%) at DEQ station 8-MTN000.96 at Route 643. The York Basin Watersheds around Lake Anna bacteria TMDL for the Mountain Run watershed (Eq. ID POL0239) was approved by the EPA on 11/04/2005 (Fed ID 24427). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Beaver Creek watershed (ID 152) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_MTN01A00 / Mountain Run / Segment begins at the confluence of Madison Run and continues downstream until the confluence with the North Anna River.	4A	Escherichia coli (E. coli)	1998	L	2.64

Mountain Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.64**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-01-BEN** **North Anna River**

Cause Location: Begins at the confluence with Mountain Run and continues downstream until the confluence with White Oak Creek.

City / County: Louisa Co. Orange Co.

Use(s): Aquatic Life

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

Two biological monitoring events in 2015 at station 8-NAR065.95 (at ~0.6 rivermile downstream from Route 639) resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_NAR02A04 / North Anna River / Segment begins at the confluence with Mountain Run and continues downstream until the confluence with White Oak Creek.	5A	Benthic Macroinvertebrates Bioassessments	2018	L	2.79

North Anna River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**2.79**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-02-BAC** **Beaver Creek**

Cause Location: Begins at the confluence with Cooks Creek, approximately 0.68 rivermile upstream from the Route 638 bridge, and continues downstream until the confluence with the North Anna River.

City / County: Orange Co.

Use(s): Recreation

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

2014 Assessment: E. coli bacteria criterion excursions (5 of 13 samples - 38.5%) at DEQ station 8-BRC001.88 at Route 638. The York Basin Watersheds around Lake Anna bacteria TMDL for the Beaver Creek watershed (Eq. ID POL0238) was approved by the EPA on 11/04/2005 (Fed ID 24426). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Beaver Creek watershed (ID 250) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_BRC01A02 / Beaver Creek / Segment begins at the confluence with Cooks Creek, approximately 0.68 rivermile upstream from the Route 638 bridge, and continues downstream until the confluence with the North Anna River.	4A	Escherichia coli (E. coli)	1998	L	2.83

Beaver Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.83**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-03-BAC** **Gold Mine Creek**

Cause Location: Begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (5 of 10 samples - 50.0%) at DEQ station 8-GMC002.19 at Route 613. The York Basin Watersheds around Lake Anna bacteria TMDL for the Goldmine Creek watershed (Eq. ID POL0240) was approved by the EPA on 11/04/2005 (Fed ID 24428). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Goldmine Creek watershed (ID 247) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_GMC01A00 / Gold Mine Creek / Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.	4A	Escherichia coli (E. coli)	2002	L	7.53

Gold Mine Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.53**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-04-BAC** **North Anna River**

Cause Location: Begins at the confluence with Mountain Run and continues downstream until the confluence with White Oak Creek and begins again at the confluence with Beaver Creek and continues downstream until the confluence with Hickory Creek.

City / County: Louisa Co. Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (19 of 34 samples - 55.9%) at DEQ station 8-NAR061.09 at Route 651. E. coli bacteria criterion excursions at citizen monitoring stations 8NAR-EX4-LACA (4 of 14 samples - 28.6%) and 8HIK-EX5-LACA (2 of 7 samples - 28.6%). E. coli bacteria criterion excursions (8 of 12 samples - 66.7%) at DEQ station 8-NAR066.42 at Route 639.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_NAR01A02 / North Anna River / Segment begins at the confluence with Beaver Creek and continues downstream until the confluence with Hickory Creek.	5A	Escherichia coli (E. coli)	2006	L	3.78
VAN-F06R_NAR02A04 / North Anna River / Segment begins at the confluence with Mountain Run and continues downstream until the confluence with White Oak Creek.	5A	Escherichia coli (E. coli)	2010	L	2.79

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

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F06R-05-BAC** **Christopher Creek**

Cause Location: Begins at an unnamed tributary to Christopher Creek and continues downstream until the confluence with Lake Anna.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (7 of 11 samples - 63.6%) at DEQ station 8-CRC001.82 at Route 613.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_CRC01A10 / Christopher Creek / Segment begins at an unnamed tributary to Christopher Creek and continues downstream until the confluence with Lake Anna.	5A	Escherichia coli (E. coli)	2010	L	1.98

Christopher Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.98**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-06-BAC** **Hickory Creek**

Cause Location: Begins at the confluence with Fox Branch and continues downstream to the confluence with the North Anna River.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-HIK001.20 at Route 669. E. coli bacteria criterion excursions (11 of 19 samples - 57.9%) at citizen monitoring station 8HIK-EX2-LACA.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_HIK01A12 / Hickory Creek / Segment begins at the confluence with Fox Branch and continues downstream to the confluence with the North Anna River.	5A	Escherichia coli (E. coli)	2012	L	1.72

Hickory Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.72**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-07-BAC** **White Creek**

Cause Location: Begins at the headwaters of White Creek and continues downstream until the confluence with Gold Mine Creek.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (8 of 12 samples - 66.7%) at DEQ station 8-WHT001.33 at Route 669. A new TMDL is not required for this impaired segment of White Creek because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24428, 11/04/2005) included modeling, source identification, and reductions that covered the entire Goldmine Creek watershed (Eq. ID POL0240). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Goldmine Creek watershed (ID 247) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_WHT01A14 / White Creek / Segment begins at the headwaters of White Creek and continues downstream until the confluence with Gold Mine Creek.	4A	Escherichia coli (E. coli)	2014	L	6.05

White Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.05**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F06R-08-BAC** **Duckinghoe Creek**

Cause Location: Begins at the headwaters of Duckinghoe Creek and continues downstream until the confluence with Lake Anna.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (8 of 12 samples - 66.7%) at DEQ station 8-DKH001.44 at Route 613.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_DKH01A04 / Duckinghoe Creek / Segment begins at the headwaters of Duckinghoe Creek and continues downstream until the confluence with Lake Anna.	5A	Escherichia coli (E. coli)	2016	L	6.98

Duckinghoe Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.98**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F06R-10-BAC** **Hickory Creek**

Cause Location: Begins at the confluence of North Fork Hickory Creek and South Fork Hickory Creek, creating Hickory Creek, and continues downstream to the upstream portion of Lake Louisa, at Lakeshore Drive.

City / County: Louisa Co.

Use(s): Recreation

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

Excursions from the maximum E. coli bacteria criterion (2 of 15 samples - 13.3%) at citizen monitoring station 8HIK-EX9-LACA.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_HIK03A16 / Hickory Creek / Segment begins at the confluence of North Fork Hickory Creek and South Fork Hickory Creek, creating Hickory Creek, and continues downstream to the upstream portion of Lake Louisa, at Lakeshore Drive.	5A	Escherichia coli (E. coli)	2018	L	0.68

Hickory Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.68**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07L-01-BZOKFL** **Gold Mine Creek**

Cause Location: Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.

City / County: Louisa Co.

Use(s): Fish Consumption

Cause(s) / VA Category: Benzo[k]fluoranthene / 5A

2010 Assessment: Exceedances of the water quality criterion based fish tissue value (TV) of 5.5 parts per billion (ppb) for benzo(k)fluoranthene were recorded in two total samples of two species of fish (largemouth bass and carp) collected in 2003 at station 8-GMC001.43.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_GMC01A00 / Gold Mine Creek / Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.	5A	Benzo[k]fluoranthene	2010	L	7.53
VAN-F07L_GMC01A02 / Lake Anna/Gold Mine Creek / Segment includes the Gold Mine Creek arm of Lake Anna.	5A	Benzo[k]fluoranthene	2010	L	91.62

Gold Mine Creek **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benzo[k]fluoranthene - Total Impaired Size by Water Type:		**91.62**	**7.53**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F07L-01-HG** **Lake Anna**

Cause Location: Segment includes the lower portion of Lake Anna, beginning near the northern end of the Route 690 bridge, and continues downstream until the dam.

City / County: Louisa Co. Spotsylvania Co.

Use(s): Fish Consumption

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

Exceedances of the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded at DEQ monitoring station 8-NAR034.92 in one species of fish (carp) sampled in 2003, one species of fish (channel catfish) sampled in 2006, and in three samples of two species of fish (largemouth bass and striped bass) sampled in 2017.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07L_NAR01A02 / Lake Anna / Segment includes the lower portion of Lake Anna (lacustrine), beginning near the northern end of the Route 690 bridge (Dike 2), and continues downstream until the dam.	5A	Mercury in Fish Tissue	2010	L	1,563.36

Lake Anna **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		**1,563.36**	

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: F07L-01-PAHHMW Gold Mine Creek

Cause Location: Begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna (impairment includes the Gold Mine Creek arm).

City / County: Louisa Co.

Use(s): Fish Consumption

Cause(s) / VA Category: Benzo[a]pyrene (PAHs) / 5A

2010 Assessment: Exceedances of the water quality criterion based fish tissue value (TV) of 5.5 parts per billion (ppb) for benzo(a)pyrene were recorded in two total samples of two species of fish (largemouth bass and carp) collected in 2003 at station 8-GMC001.43.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_GMC01A00 / Gold Mine Creek / Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.	5A	Benzo[a]pyrene (PAHs)	2010	L	7.53
VAN-F07L_GMC01A02 / Lake Anna/Gold Mine Creek / Segment includes the Gold Mine Creek arm of Lake Anna.	5A	Benzo[a]pyrene (PAHs)	2010	L	91.62

Gold Mine Creek **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benzo[a]pyrene (PAHs) - Total Impaired Size by Water Type:		**91.62**	**7.53**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07L-01-PCB** **Lake Anna and Contrary Creek, Goldmine Creek, and Terrys Run tributaries**

Cause Location: Includes the entirety of Lake Anna, including its tributaries Terrys Run, Goldmine Creek, and Contrary Creek.

City / County: Louisa Co. Orange Co. Spotsylvania Co.

Use(s): Fish Consumption

Cause(s) / VA Category: PCBs in Fish Tissue / 5A Polychlorinated Biphenyls (PCBs) / 5A

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. The advisory, dated 6/15/04 and modified 12/13/04 and 08/31/07, limits consumption of bluegill sunfish, carp, channel catfish, largemouth bass, striped bass, white catfish, and white perch to no more than two meals per month. The advisory also bans the consumption of gizzard shad. The affected area includes the entirety of Lake Anna and its tributaries Contrary Creek, Gold Mine Creek, and Terrys Run.

The following exceedances of the water quality criterion based fish tissue value (TV) of 20 parts per billion (ppb) for PCBs in fish tissue were recorded: four species of fish (striped bass, largemouth bass, white catfish, and carp) in four samples collected in 2000, three species of fish (largemouth bass, brown bullhead catfish and carp) in four samples collected in 2003, and four species of fish (largemouth bass, carp, channel catfish, and white catfish) in seven samples collected in 2008 at DEQ station 8-GMC001.43; three species of fish (carp, channel catfish, largemouth bass) in five samples collected in 2003, three species of fish (carp, channel catfish, largemouth bass) in eight samples collected in 2006, one species of fish (carp) in two samples collected in 2008, and in two species of fish (carp, striped bass) in two samples collected in 2017 at DEQ station 8-NAR034.92; two species of fish (channel catfish and bluegill sunfish) in four samples collected in 2006 and in one species of fish (carp) in one sample collected in 2017 at DEQ station 8-NAR044.68; three species of fish (channel catfish, carp, and striped bass) in three samples collected in 2017 at DEQ station 8-NAR056.36; three species of fish (largemouth bass, channel catfish, and carp) in nine samples collected in 2006 at DEQ station 8-NAR056.48; three species of fish (channel catfish, striped bass, bluegill sunfish) in six samples collected in 2006 and four species of fish (largemouth bass, green sunfish, carp, striped bass) in six samples collected in 2017 at DEQ station 8-PMC002.13; two species of fish (carp, channel catfish) in two samples collected in 2000, one species of fish (carp) in two samples collected in 2003, and two species of fish (carp and white catfish) in five samples collected in2008 at DEQ station 8-CON003.84; six species of fish (bluegill sunfish, carp, channel catfish, gizzard shad, white perch, and largemouth bass) in eight samples collected in 2006 and seven species of fish (bluegill sunfish, brown bullhead catfish, carp, channel catfish, gizzard shad, white perch, and largemouth bass) in 12 samples collected in 2008 at DEQ station 8-TRY001.33; five species of fish (bluegill sunfish, carp, channel catfish, white catfish, and largemouth bass) in 2017 at DEQ station 8-TRY001.37.

The following exceedances of the human health criteria of 0.64 parts per billion (ppb) for total polychlorinated biphenyls (PCBs) in the water column were recorded: once exceedance in 2007 at DEQ station 8-PMC003.18; one exceedances in 2006 at DEQ station 8-PMC002.13; two exceedances in 2006 and two exceedances in 2007 at DEQ station 8-TRY001.39; one exceedance in 2006 at DEQ station 8-TRY002.52.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_GMC01A00 / Gold Mine Creek / Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.	5A	PCBs in Fish Tissue	2006	L	7.53
VAN-F07L_CON01A02 / Lake Anna/Contrary Creek / Segment includes most of the Contrary Creek arm of Lake Anna, beginning around rivermile 3.53 and continuing downstream until the confluence with the main portion of Lake Anna.	5A	PCBs in Fish Tissue	2002	L	445.19
VAN-F07L_CON02A08 / Lake Anna/Contrary Creek / Segment includes the remainder of the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters and continuing downstream until around rivermile 3.53.	5A	PCBs in Fish Tissue	2002	L	27.87
VAN-F07L_FRC01A04 / Lake Anna/Freshwater Creek / Segment includes the Freshwater Creek arm of Lake Anna.	5A	PCBs in Fish Tissue	2006	L	50.67

York River Basin

VAN-F07L_GMC01A02 / Lake Anna/Gold Mine Creek / Segment includes the Gold Mine Creek arm of Lake Anna.	5A	PCBs in Fish Tissue	2002	L	91.62
VAN-F07L_NAR01A02 / Lake Anna / Segment includes the lower portion of Lake Anna (lacustrine), beginning near the northern end of the Route 690 bridge (Dike 2), and continues downstream until the dam.	5A	PCBs in Fish Tissue	2002	L	1,563.36
VAN-F07L_NAR02A02 / Lake Anna / Segment begins at the start of the lacustrine waters of Lake Anna (0.7 miles upstream from 8-NAR044.68), and continues downstream until the northern end of the Route 690 bridge.	5A	PCBs in Fish Tissue	2006	L	3,039.18
VAN-F07L_NAR03A02 / Lake Anna / Segment includes the upper portion North Anna River portion of Lake Anna, beginning at the boundary of F07, and continues downstream until the start of the lacustrine waters of Lake Anna (0.7 miles upstream from 8-NAR044.68).	5A	PCBs in Fish Tissue	2006	L	1,141.85
VAN-F07L_NAR04A06 / Lake Anna / Segment includes the upper portion North Anna River of Lake Anna beginning at the start of the inundated waters of the North Anna River downstream until the boundary of the F06 watershed.	5A	PCBs in Fish Tissue	2006	L	1,422.31
VAN-F07L_PLT01A04 / Lake Anna/Plentiful Creek / Segment includes the Plentiful Creek arm of Lake Anna.	5A	PCBs in Fish Tissue	2006	L	109.04
VAN-F07L_PMC01A04 / Lake Anna/Pamunkey Creek / Segment includes the Pamunkey Creek arm of Lake Anna beginning at the confluence with the Terrys Run arm of the lake and continuing downstream until the confluence with the North Anna River at The Splits.	5A	PCBs in Fish Tissue	2006	L	802.74
VAN-F07L_PMC02A02 / Lake Anna/Pamunkey Creek / Segment includes the Pamunkey Creek Arm of Lake Anna from the beginning of the inundated waters of Pamunkey Creek downstream to the confluence with the Terry's Run arm of the lake.	5A	PCBs in Fish Tissue	2006	L	471.89
VAN-F07L_TRY01A04 / Terrys Run/Lake Anna / Segment includes the Terrys Run arm of Lake Anna.	5A	PCBs in Fish Tissue	2006	L	431.09
VAN-F07R_TRY01A00 / Terrys Run / Segment begins at the confluence with Riga Run and continues downstream until the confluence with Lake Anna.	5A	PCBs in Fish Tissue	2006	L	1.98
VAN-F07R_TRY02A02 / Terrys Run / Segment begins at the confluence with Horsepen Branch and continues downstream until the confluence with Riga Run.	5A	PCBs in Fish Tissue	2006	L	3.67
VAN-F07R_TRY03A08 / Terrys Run / Segment begins at the headwaters of Terrys Run and continues downstream until the confluence with Horsepen Branch.	5A	PCBs in Fish Tissue	2006	L	4.36
VAN-F08R_CON01A00 / Contrary Creek / Segment begins at the headwaters of Contrary Creek and continues downstream until the confluence with Lake Anna.	5A	PCBs in Fish Tissue	2006	L	5.52

Lake Anna and Contrary Creek, Goldmine Creek, and Terrys Run tributaries

Fish Consumption

	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:		**9,596.81**	**23.06**

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size

York River Basin

VAN-F07L_PMC01A04 / Lake Anna/Pamunkey Creek / Segment includes the Pamunkey Creek arm of Lake Anna beginning at the confluence with the Terrys Run arm of the lake and continuing downstream until the confluence with the North Anna River at The Splits.	5A	Polychlorinated Biphenyls (PCBs)	2010	L	802.74
VAN-F07L_TRY01A04 / Terrys Run/Lake Anna / Segment includes the Terrys Run arm of Lake Anna.	5A	Polychlorinated Biphenyls (PCBs)	2010	L	431.09

Lake Anna and Contrary Creek, Goldmine Creek, and Terrys Run tributaries

Fish Consumption	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Polychlorinated Biphenyls (PCBs) - Total Impaired Size by Water Type:		**1,233.83**	

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: F07L-02-PAHHMW Gold Mine Creek

Cause Location: Begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna (impairment includes the Gold Mine Creek arm).

City / County: Louisa Co.

Use(s): Fish Consumption

Cause(s) / VA Category: Benzo[b]fluoranthene / 5A

2010 Assessment: Exceedances of the water quality criterion based fish tissue value (TV) of 5.5 parts per billion (ppb) for benzo(b)fluoranthene were recorded in two total samples of two species of fish (largemouth bass and carp) collected in 2003 at station 8-GMC001.43.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F06R_GMC01A00 / Gold Mine Creek / Segment begins at the headwaters of Gold Mine Creek and continues downstream until the confluence with Lake Anna.	5A	Benzo[b]fluoranthene	2010	L	7.53
VAN-F07L_GMC01A02 / Lake Anna/Gold Mine Creek / Segment includes the Gold Mine Creek arm of Lake Anna.	5A	Benzo[b]fluoranthene	2010	L	91.62

Gold Mine Creek **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benzo[b]fluoranthene - Total Impaired Size by Water Type:		**91.62**	**7.53**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-01-BAC** **Pamunkey Creek**

Cause Location: Begins at the confluence of Tomahawk Creek and Church Creek, forming Pamunkey Creek, and continues downstream until the impounded waters of Lake Anna.

City / County: Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (23 of 34 samples - 67.6%) at station 8-PMC009.85 at Route 651. E. coli bacteria criterion excursions (2 of 4 samples - 50.0%) at citizen monitoring station 8PMC-P6-LACA (2018 Assessment).

The York Basin Watersheds around Lake Anna bacteria TMDL for the Pamunkey Creek watershed (Eq. ID POL0237) was approved by the EPA on 11/04/2005 (Fed ID 24430). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_PMC01A00 / Pamunkey Creek / Segment begins at the confluence with Clear Creek and continues downstream until the confluence with Lake Anna.	4A	Escherichia coli (E. coli)	1998	L	5.49
VAN-F07R_PMC02A02 / Pamunkey Creek / Segment begins at the confluence with Tomahawk Creek and Church Creek, where Pamunkey Creek begins, and continues downstream until the confluence with Clear Creek.	4A	Escherichia coli (E. coli)	1998	L	7.21

Pamunkey Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**12.70**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-01-BEN** **Pamunkey Creek**

Cause Location: Begins at the confluence of Tomahawk Creek and Church Creek, forming Pamunkey Creek, and continues downstream until the confluence with Clear Creek.

City / County: Orange Co.

Use(s): Aquatic Life

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

2016 Assessment: Two biological monitoring events in 2010 at station 8-PMC014.75 at Route 630 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_PMC02A02 / Pamunkey Creek / Segment begins at the confluence with Tomahawk Creek and Church Creek, where Pamunkey Creek begins, and continues downstream until the confluence with Clear Creek.	5A	Benthic Macroinvertebrates Bioassessments	2012	L	7.21

Pamunkey Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**7.21**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-02-BAC** **Terrys Run**

Cause Location: Begins at the confluence with Horsepen Branch and continues downstream until the confluence with Lake Anna.

City / County: Orange Co.

Use(s): Recreation

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

E. coli bacteria excursions (11 of 29 samples - 37.9%) at station 8-TRY004.98 at Route 629. E. coli bacteria criterion excursions at citizen monitoring stations 8TRY-T3-LACA (4 of 4 samples - 100.0%; 2018 assessment) and 8TRY-37-LACA (4 of 24 samples - 16.7%).

The York Basin Watersheds around Lake Anna bacteria TMDL for the Terrys Run watershed (Eq. ID POL0235) was developed and approved by the EPA on 11/04/2005 (Fed ID 24432). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Terrys Run watershed (ID 248) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_TRY01A00 / Terrys Run / Segment begins at the confluence with Riga Run and continues downstream until the confluence with Lake Anna.	4A	Escherichia coli (E. coli)	1998	L	1.98
VAN-F07R_TRY02A02 / Terrys Run / Segment begins at the confluence with Horsepen Branch and continues downstream until the confluence with Riga Run.	4A	Escherichia coli (E. coli)	2006	L	3.67

Terrys Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.65**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-03-BAC** **Plentiful Creek**

Cause Location: Begins at the confluence with an unnamed tributary to Plentiful Creek, upstream from the Route 601 bridge, and continues downstream until the confluence with Lake Anna.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria excursions (7 of 12 samples - 58.3%) at DEQ station 8-PLT002.82 at Route 653.

The York Basin Watersheds around Lake Anna bacteria TMDL for the Plentiful Creek watershed (Eq. ID POL0236) was approved by the EPA on 11/04/2005 (Fed ID 24429). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Plentiful Creek watershed (ID 198) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_PLT01A00 / Plentiful Creek / Segment begins at the confluence with an unnamed tributary to Plentiful Creek, upstream from the Route 601 bridge, and continues downstream until the confluence with Lake Anna.	4A	Escherichia coli (E. coli)	1998	L	3.30

Plentiful Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.30**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-04-BAC** **Tomahawk Creek**

Cause Location: Begins at the headwaters of Tomahawk Creek and continues downstream until the confluence with Church Run.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 4 samples - 100.0%) at citizen monitoring station 8THK-P10-LACA.

A new TMDL is not required for this impaired segment of Tomahawk Creek because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_THK01A02 / Tomahawk Creek / Segment begins at the headwaters of Tomahawk Creek and continues downstream until the confluence with Church Run.	4A	Escherichia coli (E. coli)	2014	L	3.84

Tomahawk Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.84**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-05-BAC** **Berry Run**

Cause Location: Begins at the headwaters of Berry Run and continues downstream until the confluence with Clear Creek.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (3 of 4 samples - 75.0%) at citizen monitoring station 8BRY-P4-LACA and E. coli bacteria criterion excursions (2 of 4 samples - 50.0%) at citizen monitoring station 8BRY-P8-LACA.

A new TMDL is not required for this impaired segment of Berry Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_BRY01A06 / Berry Run / Segment begins at the confluence with Little Creek and continues downstream until the confluence with Clear Creek.	4A	Escherichia coli (E. coli)	2006	L	2.34
VAN-F07R_BRY02A14 / Berry Run / Segment begins at the headwaters of Berry Run and continues downstream until the confluence with Little Creek.	4A	Escherichia coli (E. coli)	2014	L	2.96

Berry Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.30**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-06-BAC** **Terrys Run**

Cause Location: Begins at the headwaters of Terrys Run and continues downstream until the confluence with Horsepen Branch.

City / County: Orange Co. Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 11 samples - 27.3%) at DEQ station 8-TRY010.80 at Route 692.

A new TMDL is not required for this impaired segment of Terrys Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24432, 11/04/2005) included modeling, source identification, and reductions that covered the entire Terrys Run watershed (Eq. ID POL0235). The Upper York River bacteria TMDL Implementation Plan for the Terrys Run watershed (ID 248) was approved by the EPA on 01/09/2013

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_TRY03A08 / Terrys Run / Segment begins at the headwaters of Terrys Run and continues downstream until the confluence with Horsepen Branch.	4A	Escherichia coli (E. coli)	2010	L	4.36

Terrys Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.36**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-07-BAC** **Clear Creek**

Cause Location: Begins at the outlet of Lake Orange and continues downstream to the confluence with Berry Run.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (3 of 4 samples - 75.0%) at citizen monitoring station 8CLC-P5-LACA.

A new TMDL is not required for this impaired segment of Church Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_CLC01A12 / Clear Creek / Segment begins at the outlet of Lake Orange and continues downstream to the confluence with Berry Run.	4A	Escherichia coli (E. coli)	2014	L	2.44

Clear Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.44**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-08-BAC** **Riga Run**

Cause Location: Begins at the headwaters of Riga Run and continues downstream until the confluence with Terrys Run.

City / County: Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-RIG004.52 at Route 650.

A new TMDL is not required for this impaired segment of Riga Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24432, 11/04/2005) included modeling, source identification, and reductions that covered the entire Terrys Run watershed (Eq. ID POL0235). The Upper York River bacteria TMDL Implementation Plan for the Terrys Run watershed (ID 248) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_RIG01A02 / Riga Run / Segment begins at the headwaters of Riga Run and continues downstream until the confluence with Terrys Run.	4A	Escherichia coli (E. coli)	2014	L	7.36

Riga Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.36**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-09-BAC** **Rocky Run**

Cause Location: Begins at the headwaters of Rocky Run and continues downstream until the confluence with Terrys Run.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 4 samples - 100.0%) at citizen monitoring station 8ROC-T5-LACA and (3 of 4 samples - 75.0%) at citizen monitoring station 8ROC-T8-LACA.

A new TMDL is not required for this impaired segment of Rocky Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24432, 11/04/2005) included modeling, source identification, and reductions that covered the entire Terrys Run watershed (Eq. ID POL0235). The Upper York River bacteria TMDL Implementation Plan for the Terrys Run watershed (ID 248) was approved by the EPA on 01/09/2013

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_ROC01A10 / Rocky Run / Segment begins at the headwaters of Rocky Run and continues downstream until the confluence with Terrys Run.	4A	Escherichia coli (E. coli)	2014	L	2.40

Rocky Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.40**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-10-BAC** **Church Run**

Cause Location: Begins at Taylors Pond and continues downstream until the confluence with Tomahawk Creek.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 4 samples - 100.0%) at citizen monitoring station 8CHR-P9-LACA.

A new TMDL is not required for this impaired segment of Church Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_CHR01A14 / Church Run / Segment begins at Taylors Pond and continues downstream until the confluence with Tomahawk Creek.	4A	Escherichia coli (E. coli)	2014	L	0.71

Church Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.71**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-11-BAC** **Little Creek**

Cause Location: Begins at the headwaters of Little Creek and continues downstream until the confluence of Berry Run.

City / County: Orange Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions at citizen monitoring stations 8LIT-P7-LACA (7 of 15 samples - 46.7%) and 8LIT-P13-LACA (2 of 14 samples - 14.3%).

A new TMDL is not required for this impaired segment of Little Creek because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The SWCB approved the TMDL on 09/27/2006. The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_LIT01A14 / Little Creek / Segment begins at the headwaters of Little Creek and continues downstream until the confluence of Berry Run.	4A	Escherichia coli (E. coli)	2014	L	2.14

Little Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.14**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F07R-12-BAC** **Poor House Run**

Cause Location: Begins at the headwaters of Poor House Run and continues downstream until the confluence with Tomahawk Creek.

City / County: Orange Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 4 samples - 100.0%) at citizen monitoring station 8PHC-P12-LACA.

A new TMDL is not required for this impaired segment of Poor House Run because the downstream York Basin Watersheds around Lake Anna bacteria TMDL (Fed ID 24430, 11/04/2005) included modeling, source identification, and reductions that covered the entire Pamunkey Creek watershed (Eq. ID POL0237). The Upper York River bacteria TMDL Implementation Plan for the Pamunkey Creek watershed (ID 249) was approved by the EPA on 01/09/2013.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07R_PHC01A14 / Poor House Run / Segment begins at the headwaters of Poor House Run and continues downstream until the confluence with Tomahawk Creek.	4A	Escherichia coli (E. coli)	2014	L	3.51

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

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F08R-01-CD** **Contrary Creek**

Cause Location: Begins at the headwaters of Contrary Creek and continues downstream until approximately rivermile 3.53, partially into the inundated waters of Lake Anna.

City / County: Louisa Co.

Use(s): Aquatic Life Wildlife

Cause(s) / VA Category: Cadmium / 5A

A total of two exceedances of the freshwater acute criterion for cadmium were recorded in 2017 and 2018 at DEQ station 8-CON005.38 at Route 522.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07L_CON02A08 / Lake Anna/Contrary Creek / Segment includes the remainder of the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters and continuing downstream until around rivermile 3.53.	5A	Cadmium	2008	M	27.87
VAN-F08R_CON01A00 / Contrary Creek / Segment begins at the headwaters of Contrary Creek and continues downstream until the confluence with Lake Anna.	5A	Cadmium	2008	M	5.52

Contrary Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Cadmium - Total Impaired Size by Water Type:		**27.87**	**5.52**

Sources:

Impacts from Abandoned Mine Lands (Inactive)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F08R-01-CU** **Contrary Creek**

Cause Location: Begins at the headwaters of Contrary Creek and continues downstream until approximately rivermile 3.53, partially into the inundated waters of Lake Anna.

City / County: Louisa Co.

Use(s): Aquatic Life Wildlife

Cause(s) / VA Category: Copper / 5A

A total of three exceedances of the freshwater acute criterion for copper were recorded in 2017 and 2018 at DEQ stations 8-CON005.38 (at Route 522) and 8-CON006.12 (at 0.6 mile upstream from Route 522).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07L_CON02A08 / Lake Anna/Contrary Creek / Segment includes the remainder of the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters and continuing downstream until around rivermile 3.53.	5A	Copper	2008	M	27.87
VAN-F08R_CON01A00 / Contrary Creek / Segment begins at the headwaters of Contrary Creek and continues downstream until the confluence with Lake Anna.	5A	Copper	2008	M	5.52

Contrary Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Copper - Total Impaired Size by Water Type:		**27.87**	**5.52**

Sources:

Impacts from Abandoned Mine Lands (Inactive)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F08R-01-PH** **Contrary Creek**

Cause Location: Begins at the headwaters of Contrary Creek and continues downstream until approximately rivermile 3.53, partially into the inundated waters of Lake Anna.

City / County: Louisa Co.

Use(s): Aquatic Life

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

Excursions less than the lower limit of the pH criterion range (36 of 36 samples - 100.0%) at station 8-CON005.38.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07L_CON02A08 / Lake Anna/Contrary Creek / Segment includes the remainder of the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters and continuing downstream until around rivermile 3.53.	5A	pH	2008	M	27.87
VAN-F08R_CON01A00 / Contrary Creek / Segment begins at the headwaters of Contrary Creek and continues downstream until the confluence with Lake Anna.	5A	pH	2002	M	5.52

Contrary Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:		**27.87**	**5.52**

Sources:

Impacts from Abandoned Mine Lands (Inactive)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F08R-01-ZN** **Contrary Creek**

Cause Location: Begins at the headwaters of Contrary Creek and continues downstream until approximately rivermile 3.53, partially into the inundated waters of Lake Anna.

City / County: Louisa Co.

Use(s): Aquatic Life Wildlife

Cause(s) / VA Category: Zinc / 5A

A total of four exceedances of the freshwater acute criterion for zinc were recorded in 2017 and 2018 at DEQ stations 8-CON005.38 (at Route 522) and 8-CON006.12 (at 0.6 mile upstream from Route 522).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F07L_CON02A08 / Lake Anna/Contrary Creek / Segment includes the remainder of the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters and continuing downstream until around rivermile 3.53.	5A	Zinc	2008	M	27.87
VAN-F08R_CON01A00 / Contrary Creek / Segment begins at the headwaters of Contrary Creek and continues downstream until the confluence with Lake Anna.	5A	Zinc	2008	M	5.52

Contrary Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Zinc - Total Impaired Size by Water Type:		**27.87**	**5.52**

Sources:

Impacts from Abandoned Mine Lands (Inactive)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-01-BAC** **Northeast Creek**

Cause Location: Begins at the headwaters of Northeast Creek and continues downstream until the confluence with another unnamed tributary to Northeast Creek, approximately 0.67 rivermiles upstream from Route 622.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 12 samples - 16.7%) at DEQ station 8-NST007.84 at Route 614. E. coli bacteria criterion excursions (4 of 23 samples - 17.4%) at DEQ station 8-NST011.67 (2016 Assessment).

The Pamunkey River Basin bacteria TMDL for the Northeast Creek watershed was approved by the EPA on 08/2/2006. The modified Pamunkey River and Tributaries bacteria TMDL for the Northeast Creek watershed (Eq ID 1159) was approved by the EPA on 04/27/2015 (Federal ID 64652).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F09R_NST02A98 / Northeast Creek / Segment begins at the confluence with an unnamed tributary to Northeast Creek, approximately 0.67 rivermiles upstream from Route 622, and continues downstream until the confluence with another unnamed tributary to Northeast Creek.	4A	Escherichia coli (E. coli)	2008	L	1.09
VAN-F09R_NST03A08 / Northeast Creek / Segment begins at the confluence with an unnamed tributary to Northeast Creek, at rivermile 9.39, and continues downstream until the confluence with another unnamed tributary to Northeast Creek, approximately 0.67 rivermiles upstream from Route 622.	4A	Escherichia coli (E. coli)	2006	L	6.36
VAN-F09R_NST04A08 / Northeast Creek / Segment begins at the confluence of Knights Branch with Music Branch, forming Northeast Creek, and continues downstream until the confluence with an unnamed tributary to Northeast Creek, approximately 2.28 rivermiles downstream from Route 208.	4A	Escherichia coli (E. coli)	2012	L	3.52

Northeast Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**10.97**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-02-BAC** **Music Branch**

Cause Location: Begins at the headwaters of Music Branch and continues downstream until the confluence with Northeast Creek.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 12 samples - 16.7%) at DEQ station 3-MUS000.57 at Route 677.

This impairment was originally nested in the Pamunkey River Basin bacteria TMDL for the South Anna River (F04R-01) watershed (Federal ID 24448, 8/2/2006). The modified Pamunkey River and Tributaries bacteria TMDL for the Northeast Creek watershed was approved by the EPA on 4/27/2015. A new TMDL is not required for this impaired segment of Music Branch because the downstream Pamunkey River and Tributaries bacteria TMDL (Fed ID 64652) included modeling, source identification, and reductions that covered the entire Northeast Creek watershed (Eq. ID 1159).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F09R_MUS01A06 / Music Branch / Segment begins at the headwaters of Music Branch and continues downstream until the confluence with Northeast Creek.	4A	Escherichia coli (E. coli)	2008	L	3.56

Music Branch **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.56**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-02-BEN** **XHS - North Anna River, UT**

Cause Location: Unnamed Tributary XHS from its headwaters to its mouth at the North Anna River

City / County: Hanover Co.

Use(s): Aquatic Life

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

The unnamed tributary was assessed as not supporting of the Aquatic Life Use in the 2008 cycle due to impairment of the benthic community at station 8-XHS000.72.

It was confirmed by benthic monitoring at 8-XHS000.72 in 2011. Additional 2011 and 2012 benthic monitoring at 8-XHS000.49 also showed benthic community impairment.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_XHS01A08 / XHS - North Anna River, UT / Unnamed Tributary XHS from its headwaters to its mouth at the North Anna River	5A	Benthic Macroinvertebrates Bioassessments	2008	L	1.09

XHS - North Anna River, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**1.09**

Sources:

Industrial Point Source Discharge

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-03-PH** **XIM - North Anna River, UT**

Cause Location: Unnamed Tributary XIM from its mouth at the North Anna River to the first tributary (near Chandler Crossing)

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2010 cycle, the tributary was assessed as not supporting of the Aquatic Life Use due to a pH exceedance rate of 2/2 at freshwater probabilistic monitoring station 8-XIM000.53.

Additional monitoring was conducted during the 2016 cycle; the exceedance rate was 2/12.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_XIM01A10 / North Anna, UT / Mouth upstream to first tributary (near Chandler Crossing)	5C	pH	2010	L	0.70

XIM - North Anna River, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**0.70**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-04-BAC** **Mill Creek**

Cause Location: Mill Creek in its entirety.

City / County: Caroline Co.

Use(s): Recreation

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

During the 2012 cycle, Mill Creek was impaired of the Recreation Use due to an E. coli violation rate of 7/13 at the Route 652 bridge (8-MLL001.19).

The Pamunkey River and Tributaries Bacterial TMDL was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015. The impairment is considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_MLL01A12 / Mill Creek / Headwaters to mouth at the North Anna River	4A	Escherichia coli (E. coli)	2012	L	4.37

Mill Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.37**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-04-PH** **Mill Creek**

Cause Location: Mill Creek in its entirety.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Mill Creek was impaired of the Aquatic Life Use due to a pH violation rate of 5/13 at the Route 652 bridge (8-MLL001.19).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_MLL01A12 / Mill Creek / Headwaters to mouth at the North Anna River	5C	pH	2012	L	4.37

Mill Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**4.37**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-05-PH** **XJP - North Anna River, UT**

Cause Location: Headwaters to mouth

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2016 cycle, tributary XJP was impaired of the Aquatic Life Use due to a pH exceedance rate of 6/7 at station 8-XJP000.01, which is located 15 meters above the mouth.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_XJP01A14 / XJP - North Anna River, UT / Headwaters to mouth at XBU	5C	pH	2016	L	1.01

XJP - North Anna River, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**1.01**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-06-BAC** **North Anna River**

Cause Location: The North Anna River from Bull Run downstream to the Little River.

City / County: Caroline Co. Hanover Co. Spotsylvania Co.

Use(s): Recreation

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

During the 2016 cycle, the North Anna River from Bull Run to the mouth was impaired of the Recreation Use due to an E. coli exceedance rate of 8/59 at station 8-NAR005.42, which is located at the Route 30 bridge (Morris Bridge).

The Pamunkey River and Tributaries Bacterial TMDL was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015; therefore, the segment is considered Category 4A.

The exceedance rate was 9/76 in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F09R_NAR01A00 / North Anna River / From Bull Run to the Doswell PWS intake approximately 0.5 mi upstream of the Rte. 30 bridge.	4A	Escherichia coli (E. coli)	2016	L	1.73
VAP-F09R_NAR02A00 / North Anna River / From the Doswell PWS intake approximately 0.5 mi. upstream of the Route 30 bridge to the confluence with the Little River.	4A	Escherichia coli (E. coli)	2016	L	2.42

North Anna River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.15**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F09R-07-BAC** **Unnamed tributary to Northeast Creek**

Cause Location: Begins at the headwaters of an unnamed tributary to Northeast Creek and continues downstream until the confluence with Northeast Creek, approximately 0.46 rivermiles upstream from the Route 208 crossing.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion (3 of 12 samples - 25.0%) at DEQ station 8-XIA000.89 at Route 659.

A new TMDL is not required for this impaired segment of Northeast Creek because the downstream Pamunkey River and Tributaries bacteria TMDL (Fed ID 64652, 04/27/2015) included modeling, source identification, and reductions that covered the entire Northeast Creek watershed (Eq. ID 1159).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F09R_XIA01A06 / Unnamed tributary to Northeast Creek / Segment begins at the headwaters of an unnamed tributary to Northeast Creek and continues downstream until the confluence with Northeast Creek, approximately 0.46 rivermiles upstream from the Route 208 crossing.	4A	Escherichia coli (E. coli)	2016	L	3.00

Unnamed tributary to Northeast Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.00**

Sources:

Grazing in Riparian or Shoreline Zones	Impacts from Land Application of Wastes	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F10R-01-BAC** **Little River**

Cause Location: Begins at the confluence with Hawkins Creek and continues downstream until the confluence with Locust Creek.

City / County: Louisa Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (8 of 34 samples - 23.5%) at DEQ station 8-LTL030.55 at Route 654 (Signboard Road).

The Pamunkey River and Tributaries bacteria TMDL for the Upper Little River watershed (EQ ID 1160) was approved by the EPA on 4/27/2015 (Fed ID 65140). The SWCB approved the TMDL on 12/11/2014.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F10R_LTL01A02 / Little River / Segment begins at the confluence with Hawkins Creek and continues downstream until the confluence with Locust Creek.	4A	Escherichia coli (E. coli)	2006	L	4.17

Little River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.17**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F10R-02-BAC** **Little River**

Cause Location: Begins at the outlet from Swift Millpond and continues downstream until the confluence with Long Creek.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 11 samples - 36.4%) at DEQ station 8-LTL035.32 at Route 609.

A new TMDL is not required for this impaired segment of Long Creek because the downstream Pamunkey River and Tributaries bacteria TMDL (Fed ID 65140, 04/27/2015) included modeling, source identification, and reductions that covered the entire Upper Little River watershed (Eq. ID 1160).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F10R_LTL02A04 / Little River / Segment begins at the outlet from Swift Millpond and continues downstream until the confluence with Long Creek.	4A	Escherichia coli (E. coli)	2014	L	1.29

Little River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.29**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F10R-02-DO** **Long Creek**

Cause Location: Begins at the headwaters of Long Creek and continues downstream until the confluence with Little River.

City / County: Louisa Co.

Use(s): Aquatic Life

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

2018 Assessment: Excursions less than the minimum dissolved oxygen criterion (2 of 10 samples - 20.0%) at station 8-LNG000.94 at Route 655.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F10R_LNG01A14 / Long Creek / Segment begins at the headwaters of Long Creek and continues downstream until the confluence with Little River.	5A	Dissolved Oxygen	2014	L	5.15

Long Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**5.15**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F10R-03-BAC** **Long Creek**

Cause Location: Begins at the headwaters of Long Creek and continues downstream until the confluence with Little River.

City / County: Louisa Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 11 samples - 36.4%) at DEQ station 8-LNG000.94 at Route 655.

A new TMDL is not required for this impaired segment of Long Creek because the downstream Pamunkey River and Tributaries bacteria TMDL (Fed ID 65140, 04/27/2015) included modeling, source identification, and reductions that covered the entire Upper Little River watershed (Eq. ID 1160).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F10R_LNG01A14 / Long Creek / Segment begins at the headwaters of Long Creek and continues downstream until the confluence with Little River.	4A	Escherichia coli (E. coli)	2014	L	5.15

Long Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.15**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-01-BAC** **Little River**

Cause Location: The Little River from its confluence with Locust Creek downstream to the confluence with Beaverdam Creek.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2008 cycle, the segment was assessed as not supporting of the Recreation Use due to E. coli violations at the Route 715 bridge (8-LTL024.86). Additional monitoring at station 8-LTL018.80 in the 2012 cycle confirmed the impairment with a violation rate of 3/12. The violation rate at 8-LTL024.86 was 3/15 during the 2014 cycle.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F11R_LTL01B08 / Little River / From Locust Creek downstream to Fulcher Millpond dam.	4A	Escherichia coli (E. coli)	2008	L	6.29
VAP-F11R_LTL02B14 / Little River / Locust Creek from Fulcher Millpond dam downstream to Beaverdam Creek.	4A	Escherichia coli (E. coli)	2008	L	4.21

Little River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**10.50**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-01-BEN** **Locust Creek**

Cause Location: Begins at the headwaters to of Locust Creek and continues downstream until the confluence with Little River.

City / County: Hanover Co. Louisa Co.

Use(s): Aquatic Life

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

2014 Assessment: Two biological monitoring events in 2007 at DEQ station 8-LOC002.00 (0.9 miles upstream from Route 608) resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F11R_LOC01A06 / Locust Creek / Segment begins at the headwaters to of Locust Creek and continues downstream until the confluence with Little River.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	6.59

Locust Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**6.59**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-01-DO** **Little River**

Cause Location: The Little River from its confluence with Locust Creek downstream to the Fulcher Millpond dam.

City / County: Hanover Co.

Use(s): Aquatic Life

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

During the 2008 cycle, the Little River from Locust Creek downstream to Beaverdam Creek was assessed as not supporting of the Aquatic Life Use due to a dissolved oxygen violation rate of 2/9 at the Route 715 bridge (8-LTL024.86).

During the 2012 cycle, additional monitoring within the segment at station 8-LTL018.80 was acceptable; therefore, further monitoring was recommended.

The original listing station 8-LTL024.86 was subsequently monitored during the 2014 cycle. A dissolved oxygen impairment was confirmed with an exceedance rate of 10/16. The segment was shortened to end at the Fulcher Millpond dam because of the acceptable downstream dissolved oxygen levels and because of the probable impact caused by backwatering from the dam. The downstream segment was partially delisted.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F11R_LTL01B08 / Little River / From Locust Creek downstream to Fulcher Millpond dam.	5A	Dissolved Oxygen	2008	L	6.29

Little River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**6.29**

Sources:

Dam or Impoundment Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-02-BAC** **Beaverdam Creek**

Cause Location: Beaverdam Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2012 cycle, Beaverdam Creek was assessed as not supporting of the Recreation Use due to an E. coli violation rate of 4/9 at the Route 601 bridge (8-BDC000.05).

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F11R_BDC01A12 / Beaverdam Creek / Headwaters to mouth at the Little River	4A	Escherichia coli (E. coli)	2012	L	8.47

Beaverdam Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**8.47**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F11R-02-PH** **Beaverdam Creek**

Cause Location: Beaverdam Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Aquatic Life

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

During the 2012 cycle, Beaverdam Creek was assessed as not supporting of the Aquatic Life Use due to a pH violation rate of 3/10 at the Route 601 bridge (8-BDC000.05).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F11R_BDC01A12 / Beaverdam Creek / Headwaters to mouth at the Little River	5A	pH	2012	L	8.47

Beaverdam Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**8.47**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-03-BAC** **Little River**

Cause Location: The Little River from Route 1 downstream to its mouth.

City / County: Hanover Co.

Use(s): Recreation

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

The Little River from Beaverdam Creek to its mouth at the North Anna River was impaired during the 2014 cycle due to E. coli exceedances.

The violation rates are as follows in the 2018 cycle:
7/65 at 8-LTL009.54 (Rt. 685)
5/11 at 8-LTL002.69 (Rt. 689)

The Little River is within the study area for the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015. The impairment is considered nested.

In the 2020 cycle, the exceedance rate was acceptable at 8-LTL009.54 (4/57). No additional data has been collected at 8-LTL002.69. The segment will be shortened to extend from Route 1 to the mouth until data can be collected to characterize 8-LTL002.69 again. Additional monitoring should be prioritized. The upper portion (14.54 miles) will be partially delisted (Category 2A).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F11R_LTL01A98 / Little River / From Route 1 to its mouth at the North Anna River.	4A	Escherichia coli (E. coli)	2014	L	3.74

Segment split in 2020 cycle.

Little River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.74**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F11R-04-BAC** **Locust Creek**

Cause Location: Begins at the headwaters to of Locust Creek and continues downstream until the confluence with Little River.

City / County: Hanover Co. Louisa Co.

Use(s): Recreation

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

Excursions from the maximum E. coli bacteria criterion (3 of 12 samples - 25.0%) at DEQ station 8-LOC001.10 at Route 608.

A new TMDL is not required for this impaired segment of Locust Creek because the downstream Pamunkey River and Tributaries bacteria TMDL (Fed ID 65140, 04/27/2015) included modeling, source identification, and reductions that covered the entire Upper Little River watershed (Eq. ID 1160).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F11R_LOC01A06 / Locust Creek / Segment begins at the headwaters to of Locust Creek and continues downstream until the confluence with Little River.	4A	Escherichia coli (E. coli)	2020	L	6.59

Locust Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.59**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-02-BAC** **Mechumps Creek**

Cause Location: Mechumps Creek from its confluence with Slayden Creek to the Pamunkey River.

City / County: Hanover Co.

Use(s): Recreation

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

Mechumps Creek was initially assessed as not supporting of the Recreation Use due to fecal coliform exceedances at 8-MCP002.42.

During the 2006 cycle, the Bacteria TMDL for Mechumps Creek was developed and approved by the EPA on 10/21/2004. The segment remained impaired for fecal coliform and E. coli and was classified as Cat. 4A.

During the 2008 cycle, the impairment converted to E. coli. The exceedance rate at 8-MCP002.42 was 4/19 during the 2010 cycle. No additional data has been collected by the DEQ. However, Level 2 Coliscan data from 8-MCP-8-RMC, which is co-located with 8-MCP002.42, was acceptable during the 2014 cycle (0/16); therefore, additional monitoring by the DEQ is recommended.

The TMDL was superseded by the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_MCP01A94 / Mechumps Creek / Slayden Creek to the Pamunkey River	4A	Escherichia coli (E. coli)	2006	L	5.78

Mechumps Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.78**

Sources:

Industrial Point Source Discharge

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-05-BAC** **Mechumps Creek**

Cause Location: Headwaters to the confluence with unnamed tributary to XEG

City / County: Hanover Co.

Use(s): Recreation

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

During the 2010 cycle, Mechumps Creek from its headwaters to the confluence with tributary XEG was assessed as impaired of the Recreation Use due to an E. coli exceedance rate of 3/11 at 8-MCP009.56, which is located at Arbor Oak Drive. The bacterial TMDL for a downstream segment of Mechumps Creek was already completed and was approved by the EPA on 10/21/2004 and by the SWCB on 12/20/2005. As this downstream impairment required a 94.04% in nonpoint sources in the watershed, this segment was considered nested (Category 4A.)

Subsequently, the segment was specifically addressed in the Pamunkey River and Tributaries Bacterial TMDL, which superseded the previous TMDL. The TMDL was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015. No additional data has been collected by the DEQ; however, coliscan monitoring at a citizen station shows evidence of continued impairment.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_MCP03A06 / Mechumps Creek / Mechumps Creek from its headwaters downstream to the confluence with XEG.	4A	Escherichia coli (E. coli)	2010	L	1.05

Mechumps Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.05**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-05-DO** **Mechumps Creek**

Cause Location: Headwaters to the confluence with unnamed tributary to XEG

City / County: Hanover Co.

Use(s): Aquatic Life

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

During the 2010 cycle, Mechumps Creek from its headwaters to the confluence with tributary XEG was assessed as impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 4/23 at 8-MCP009.56, which is located at Arbor Oak Drive.

During the 2016 cycle, the exceedance rate was 3/10.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_MCP03A06 / Mechumps Creek / Mechumps Creek from its headwaters downstream to the confluence with XEG.	5A	Dissolved Oxygen	2010	L	1.05

Mechumps Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**1.05**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-05-PH** **Mechumps Creek**

Cause Location: Headwaters to the confluence with unnamed tributary to XEG

City / County: Hanover Co.

Use(s): Aquatic Life

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

During the 2006 cycle, Mechumps Creek from its headwaters to the confluence with tributary XEG was assessed as impaired of the Aquatic Life Use due to pH exceedances at 8-MCP009.56, which is located at Arbor Oak Drive.

During the 2016 cycle, the exceedance rate was 4/10.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_MCP03A06 / Mechumps Creek / Mechumps Creek from its headwaters downstream to the confluence with XEG.	5A	pH	2006	L	1.05

Mechumps Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**1.05**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-07-BAC** **Crump Creek**

Cause Location: The mainstem of Crump Creek.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2008 cycle, Crump Creek was assessed as not supporting of the Recreation Use based on E.coli exceedances at the Route 605 bridge (8-CRU000.92).

During the 2016 cycle, the violation rates in the segment were as follows:
0/12 at 8-CRU000.92
3/12 at 8-CRU005.61
2/12 at 8-CRU008.30

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_CRU01A02 / Crump Creek / Crump Creek from its headwaters downstream to its mouth at the Pamunkey River.	4A	Escherichia coli (E. coli)	2008	L	10.00

Crump Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**10.00**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-07-PH** **Crump Creek**

Cause Location: The mainstem of Crump Creek.

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2010 cycle, Crump Creek was assessed as not supporting of the Aquatic Life Use based on pH violations at the Route 605 bridge (8-CRU000.92). During the 2016 cycle, the violation rates in the segment were as follows:

5/24 at 8-CRU000.92
5/12 at 8-CRU005.61
10/12 at 8-CRU008.30

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_CRU01A02 / Crump Creek / Crump Creek from its headwaters downstream to its mouth at the Pamunkey River.	5C	pH	2010	L	10.00

Crump Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**10.00**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-08-BAC** **Pamunkey River**

Cause Location: The Pamunkey River from its start at the confluence of the South Anna and North Anna Rivers downstream to the confluence with Mechumps Creek.

City / County: Caroline Co. Hanover Co. King William Co.

Use(s): Recreation

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

During the 2016 cycle, the Pamunkey River from its headwaters to the confluence with Mechumps Creek was assessed as not supporting of the Recreation Use based on an E. coli violation rate of 12/58 at the Route 614 bridge (8-PMK082.34). Violation rates at 8-PMK088.11 were acceptable.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

In the 2020 cycle, exceedance rates were 18/72 at 8-PMK082.34 and 5/24 at 8-PMK088.11 (2018 cycle).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_PMK01B08 / Pamunkey River / The nontidal Pamunkey River from the North and South Anna Rivers to Mechumps Creek.	4A	Escherichia coli (E. coli)	2016	L	12.27

Pamunkey River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**12.27**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-09-BAC** **XEG - Mechumps Creek, UT**

Cause Location: Headwaters to its mouth at Mechumps Creek

City / County: Hanover Co.

Use(s): Recreation

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

During the 2010 cycle, tributary XEG was assessed as impaired of the Recreation Use due to an E. coli exceedance rate of 4/12 at 8-XEG000.06, which is located at Cottage Green Drive. The bacterial TMDL for a downstream segment of Mechumps Creek was already completed and was approved by the EPA on 10/21/2004 and by the SWCB on 12/20/2005. As this downstream impairment required a 94.04% in nonpoint sources in the watershed, this segment was considered nested (Category 4A.)

The TMDL was superseded in the 2016 cycle by the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015; XEG was specifically addressed.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_XEG01A06 / XEG - Mechumps Creek, UT (aka Middle Branch) / Headwaters to mouth at Mechumps Creek	4A	Escherichia coli (E. coli)	2010	L	0.48

XEG - Mechumps Creek, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.48**

Sources:

Industrial Point Source Discharge	Municipal Point Source Discharges	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-10-PH** **Millpond Creek**

Cause Location: The mainstem of Millpond Creek downstream of Gravatts Millpond.

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Millpond Creek was assessed as not supporting of the Aquatic Life Use based on pH exceedances at the Route 614 bridge (8-MLP002.74).

The exceedance rate was 5/23 during the 2016 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_MLP01A00 / Millpond Creek / Mainstem downstream of Gravatts Millpond.	5C	pH	2012	L	3.02

Millpond Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.02**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-11-BAC** **Kersey Creek**

Cause Location: Kersey Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2012 cycle, Kersey Creek was assessed as impaired of the Recreation Use due to an E. coli violation rate of 3/12 at the Route 301 bridge (8-KER001.31).

Kersey Creek was included in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_KER01A12 / Kersey Creek / Headwaters to mouth at Crump Creek	4A	Escherichia coli (E. coli)	2012	L	3.32

Kersey Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.32**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-11-PH** **Kersey Creek**

Cause Location: Kersey Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Kersey Creek was assessed as impaired of the Aquatic Life Use due to a pH violation rate of 4/12 at the Route 301 bridge (8-KER001.31).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_KER01A12 / Kersey Creek / Headwaters to mouth at Crump Creek	5C	pH	2012	L	3.32

Kersey Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.32**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-12-BAC** **XJC - Crump Creek, UT**

Cause Location: XJC mainstem in its entirety.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2012 cycle, XJC was assessed as impaired of the Recreation Use due to an E. coli violation rate of 5/12 at the Route 301 bridge (8-XJC001.12).

The tributary was included in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_XJC01A12 / XJC - Crump Creek, UT / Headwaters to mouth at Crump Creek	4A	Escherichia coli (E. coli)	2012	L	1.96

XJC - Crump Creek, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.96**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-12-PH** **XJC - Crump Creek, UT**

Cause Location: XJC mainstem in its entirety.

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, XJC was assessed as impaired of the Aquatic Life Use due to a pH violation rate of 5/12 at the Route 301 bridge (8-XJC001.12).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_XJC01A12 / XJC - Crump Creek, UT / Headwaters to mouth at Crump Creek	5C	pH	2012	L	1.96

XJC - Crump Creek, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**1.96**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-13-BAC** **Pollard Creek**

Cause Location: Pollard Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Recreation

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

During the 2012 cycle, Pollard Creek was assessed as impaired of the Recreation Use due to an E. coli violation rate of 2/12 at the Route 647 bridge (8-PLD001.73).

Pollard Creek was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

The exceedance rate was 5/12 in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_PLD01A12 / Pollard Creek / Headwaters to its mouth at Crump Creek	4A	Escherichia coli (E. coli)	2012	L	4.20

Pollard Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.20**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F12R-13-DO** **Pollard Creek**

Cause Location: Pollard Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

During the 2020 cycle, Pollard Creek was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 3/12 at 8-PLD001.73, which is located at the Route 647 bridge.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_PLD01A12 / Pollard Creek / Headwaters to its mouth at Crump Creek	5C	Dissolved Oxygen	2020	L	4.20

Pollard Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**4.20**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-13-PH** **Pollard Creek**

Cause Location: Pollard Creek mainstem in its entirety.

City / County: Hanover Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Pollard Creek was assessed as impaired of the Aquatic Life Use due to a pH violation rate of 8/12 at the Route 647 bridge (8-PLD001.73).

The exceedance rate was 4/12 in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_PLD01A12 / Pollard Creek / Headwaters to its mouth at Crump Creek	5C	pH	2012	L	4.20

Pollard Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**4.20**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F12R-14-BAC** **Pamunkey River**

Cause Location: The Pamunkey River from the confluence with Mechumps Creek downstream to Nelson Bridge Road

City / County: Hanover Co. King William Co.

Use(s): Recreation

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

During the 2020 cycle, the Pamunkey River from Mechumps Creek downstream to Nelson Bridge Road (Rt. 615) was impaired of the Recreation Use due to an E. coli exceedance rate of 3/24 at 8-PMK072.34.

This segment is located within the Middle Pamunkey River TMDL Watershed Unit which was addressed in the Pamunkey River and Tributaries Bacterial TMDL. The TMDL was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015. Although the impairment was not listed at the time, it is proposed for nesting (Category 4A.)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F12R_PMK01A00 / Pamunkey River / The nontidal Pamunkey River from Mechumps Creek to Nelson Bridge Road (Route 615,)	4A	Escherichia coli (E. coli)	2020	L	9.17

Pamunkey River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**9.17**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13E-01-BAC** **Pamunkey River**

Cause Location: From the tidal limit at Totopotomoy Creek to Pampatike Landing

City / County: Hanover Co. King William Co.

Use(s): Recreation

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

During the 2008 cycle, the Pamunkey River from the tidal limit to Pampatike Landing was impaired of the Recreation Use due to E. coli exceedances at 8-PMK056.87 (Rt. 360 bridge). The exceedance rate was 8/35 during the 2020 cycle.

The Pamunkey River and Tributaries Bacterial TMDL was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13E_PMK01A98 / Pamunkey River / Extent of tide near Totopotomoy Creek to Pampatike Landing.	4A	Escherichia coli (E. coli)	2008	L	0.307

PMKTF

Pamunkey River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**0.307**		

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13E-02-BAC** **Pamunkey River**

Cause Location: From Route 654 (Pampatike Landing to Macon Creek (the downstream boundary of watershed F13).

City / County: Hanover Co. King William Co. New Kent Co.

Use(s): Recreation

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

The Pamunkey River from Pampatike Landing to Macon Creek was initially listed on the 1998 303(d) list as impaired of the Recreation Use goal because of fecal coliform exceedances at Pampatike Landing (Route 654). EPA also identified the station on their list of "Waters Identified to Virginia for Consideration During Development of the Next Listing Cycle." This inclusion was probably in error as the segment was already 303(d) listed.

During the 2006 cycle, the bacteria standard changed to E. coli and the segment had acceptable exceedance rates and the segment was delisted. However, it was included in the Pamunkey Basin TMDL which was approved by the EPA on 8/2/2006.

During the 2008 cycle, the Pamunkey River again failed the Recreation Use based on E. coli exceedances at 8-PMK048.80. The original impairment is considered a Category 4A water.

The Pamunkey remains impaired in the 2020 cycle (6/29 at 8-PMK048.80 and 2/12 at 8-PMK039.74 (2016 cycle)). Monitoring at 8-PMK044.64 was acceptable.

The segment is considered a Category 4A water. The TMDL was superseded by the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13E_PMK02A98 / Pamunkey River / Pampatike Landing downstream to Jacks Creek.	4A	Escherichia coli (E. coli)	2008	L	0.783
PMKTF					
VAP-F13E_PMK03A06 / Pamunkey River / Jacks Creek downstream to Macon Creek.	4A	Escherichia coli (E. coli)	2008	L	0.115
PMKTF					

Pamunkey River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**0.898**		

Sources:

Industrial Point Source Discharge

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F13R-01-BAC** **Matadequin Creek**

Cause Location: Matadequin from the confluence with Parsleys Creek to the mouth.

City / County: Hanover Co. New Kent Co.

Use(s): Recreation

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

Matadequin Creek from Parsleys Creek to its mouth was assessed in 1998 as fully supporting but threatened of the Recreation Use goal. However, it was mistakenly included on the 1998 Consent Decree as an Attachment A Part 1 Water ("Waters listed on Part 1 of Virginia's October 14, 1998 303(d) Report"); therefore, the TMDL was due by 2010.

In 2002, the segment was downgraded to impaired. The impairment converted to E. coli during the 2008 cycle.

The bacterial TMDL for Matadequin Creek was approved by the EPA on 10/21/2004 and the segment is a Cat. 4A water. The TMDL was subsequently superseded by the Pamunkey River and Tributaries TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

The segment continues to be impaired of the Recreation Use goal based on an E. coli violation rate of 4/12 at 8-MDQ001.37 in the 2012 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_MDQ01A98 / Matadequin Creek / Downstream of Parsleys Creek.	4A	Escherichia coli (E. coli)	2006	L	4.91

Matadequin Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.91**

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-02-BAC** **Totopotomoy Creek**

Cause Location: Strawhorn Creek to the Pamunkey River.

City / County: Hanover Co.

Use(s): Recreation

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

Totopotomoy Creek was initially listed in 2002 as not supporting of the Recreation Use goal based on fecal coliform exceedances at the Route 606 bridge (8-TPT004.37). During the 2006 cycle, the impairment switched to E. coli.

The bacteria TMDL was completed during the 2008 cycle as part of the Pamunkey River Basin TMDL, which was approved by the EPA on 8/2/2006 and by the SWCB on 6/27/2007. The segment is now considered a Category 4A water.

The exceedance rates were 3/9 at 8-TPT004.37 and 2/10 at 8-TPT000.79 during the 2018 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_TPT01A98 / Totopotomoy Creek / Strawhorn Creek to the Pamunkey River.	4A	Escherichia coli (E. coli)	2006	L	10.26

Totopotomoy Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**10.26**

Sources:

Non-Point Source	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-03-BAC** **Jacks Creek and major tributaries**

Cause Location: Jacks Creek, Acquinton Creek, and Mallory Creek in their entireties.

City / County: King William Co.

Use(s): Recreation

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

During the 2008 cycle, the streams were assessed as not supporting of the Recreation Use based on E. coli violations at the Route 621 bridge (8-JKC004.15).

Additional E. coli data was collected in the 2014 cycle. The Jacks Creek impairment was confirmed with violation rates of 3/12, 2/11, and 4/12 at stations 8-JKC004.15, 8-JKC005.80, and 8-MLY001.58, respectively (8- JKC007.95 was acceptable (0/12).) E. coli levels on Acquinton Creek was determined to meet the WQS and therefore Acquinton Creek was partially delisted. However, the assessment was in error and Acquinton Creek remains listed.

The entire impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the SWCB on 4/27/2015. The creeks are considered Category 4A.

Monitoring was continued at 8-JKC004.15 in the 2016 cycle (3/12.)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_ACQ01A14 / Acquinton Creek / Headwaters to mouth at Jacks Creek	4A	Escherichia coli (E. coli)	2008	L	9.65
VAP-F13R_JKC01A98 / Jacks Creek / Jacks Creek in its entirety	4A	Escherichia coli (E. coli)	2008	L	7.51
VAP-F13R_MLY01A12 / Mallory Creek / Mallory Creek in its entirety.	4A	Escherichia coli (E. coli)	2008	L	4.02

Jacks Creek and major tributaries **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**21.18**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-04-BAC** **Moncuin Creek, Webb Creek**

Cause Location: From the headwaters of Webb Creek downstream to the swampy area around river mile 2.0.

City / County: King William Co.

Use(s): Recreation

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

In 1998, Moncuin Creek was assessed as fully supporting but threatened of the Recreation use because of fecal coliform exceedances at the Route 618 bridge.

In the 2002 cycle, the segment was extended to incorporate the station on Webb Creek and was assessed not supporting of the Recreation Use because of fecal coliform exceedances. The TMDL was due in 2014. The impairment converted to E. coli during the 2006 cycle.

During the 2008 cycle, the bacteria TMDL was addressed as part of the Pamunkey River Basin Bacteria TMDL, which was approved by the EPA on 8/2/2006. This is considered a Category 4A water.

The exceedance rate was 5/23 at 8-MNQ004.19 during the 2010 cycle.

The TMDL was superseded by the Pamunkey River and Tributaries Bacterial TMDL which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

During the 2018 cycle, the E. coli exceedance rate was 4/11 at 8-WEB002.00.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_MNQ01A98 / Monquin Creek / Webb Creek / From the headwaters of Webb Creek downstream to the swampy area on Monquin Creek around river mile 2.	4A	Escherichia coli (E. coli)	2006	L	12.12

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

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-04-PCB** **Moncuin Creek, Webb Creek**

Cause Location: From the headwaters of Webb Creek downstream to the swampy area around river mile 2.0.

City / County: King William Co.

Use(s): Fish Consumption

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

During the 2010 cycle, Moncuin and Webb Creeks were assessed as impaired of the Fish Consumption Use due to exceedances of the PCB tissue value at 8-MNQ004.19. PCBs exceeded in yellow bullhead catfish in 2003 and American eel in 2008.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_MNQ01A98 / Monquin Creek / Webb Creek / From the headwaters of Webb Creek downstream to the swampy area on Monquin Creek around river mile 2.	5A	PCBs in Fish Tissue	2010	L	12.12

Moncuin Creek, Webb Creek **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:			**12.12**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-07-PH** **Jacks Creek**

Cause Location: Headwaters to limit of tide

City / County: King William Co.

Use(s): Aquatic Life

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

During the 2018 cycle, the Jacks Creek watershed was reclassified as Class VII swampwaters. It was assessed against the Class VII pH criteria of 3.7-8.0 SU. Jacks Creek was impaired due to elevated pH levels (2/12) at 8-JKC007.95.

The remaining stations 8-JKC004.15 and 8-JKC005.80 had acceptable exceedance rates (0/24 and 0/13, respectively).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_JKC01A98 / Jacks Creek / Jacks Creek in its entirety	5A	pH	2018	L	7.51

Jacks Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**7.51**

Sources:

Dam or Impoundment Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-08-BAC** **Black Creek**

Cause Location: Black Creek from Southern Branch downstream to tidal limit

City / County: New Kent Co.

Use(s): Recreation

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

During the 2018 cycle, Black Creek was impaired of the Recreation Use due to an E. coli exceedance rate of 3/12 at 8-BLC001.77 (Route 608).

The bacteria TMDL was previously completed for this segment as part of the Pamunkey River Basin Bacteria TMDL, which was approved by the EPA on 8/2/2006. The TMDL was subsequently superseded by the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015. The segment is considered a Category 4A water.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_BLC01A00 / Black Creek / Southern Branch downstream to tidal limit	4A	Escherichia coli (E. coli)	2018	L	1.95

Black Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.95**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-09-BAC** **XDX - UT to XDW (Pamunkey River, UT)**

Cause Location: The mainstem of unnamed tributary XDX.

City / County: King William Co.

Use(s): Recreation

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

The tributary was initially considered as not supporting of the Recreation Use goal during the 2004 cycle based on fecal coliform violations at the Route 604 bridge (8-XDX000.38). The impairment converted to E.coli during the 2012 cycle due to an exceedance rate of 3/12.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XDX01A04 / XDX - UT to XDW (Pamunkey River, UT) / Headwaters to mouth at XDW	4A	Escherichia coli (E. coli)	2012	L	3.85

XDX - UT to XDW (Pamunkey River, UT) **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.85**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F13R-09-PH** **XDX - UT to XDW (Pamunkey River, UT)**

Cause Location: The mainstem of unnamed tributary XDX.

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

The tributary was considered as not supporting of the Aquatic Life Use goal during the 2012 cycle based on a pH violation rate of 2/11 at the Route 604 bridge (8-XDX000.38).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XDX01A04 / XDX - UT to XDW (Pamunkey River, UT) / Headwaters to mouth at XDW	5C	pH	2012	L	3.85

XDX - UT to XDW (Pamunkey River, UT) **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.85**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-11-BAC** **XDW - UT to Pamunkey River**

Cause Location: The mainstem of unnamed tributary XDW.

City / County: King William Co.

Use(s): Recreation

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

The tributary was assessed as not supporting of the Recreation Use goal during the 2012 cycle based on E. coli exceedances at the Route 604 bridge (8-XDW000.67). During the 2016 cycle, the violation rate was 2/12.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XDW01A08 / XDW - Pamunkey River, UT / Headwaters to mouth at the Pamunkey River	4A	Escherichia coli (E. coli)	2012	L	5.51

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

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-11-PH** **XDW - UT to Pamunkey River**

Cause Location: The mainstem of unnamed tributary XDW.

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

The tributary was assessed as not supporting of the Aquatic Life Use goal during the 2012 cycle based on pH exceedances at the Route 604 bridge (8-XDW000.67).

The exceedance rate was 4/23 during the 2016 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XDW01A08 / XDW - Pamunkey River, UT / Headwaters to mouth at the Pamunkey River	5C	pH	2012	L	5.51

XDW - UT to Pamunkey River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**5.51**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-12-PH** **Judy Swamp**

Cause Location: Judy Swamp from its headwaters to its mouth at the Pamunkey River.

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Judy Swamp was impaired of the Aquatic Life Use due to pH exceedances at 8-JDY000.19 and at 8-JDY001.27, the Rt. 604 and Rt. 639 bridges.

The 2016 cycle's exceedance rates were 4/10 and 9/23, respectively.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_JDY01A02 / Judy Swamp / The mainstem of Judy Swamp.	5C	pH	2012	L	3.33

Judy Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.33**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-13-HG** **Pamunkey River**

Cause Location: The Pamunkey River from Nelson Bridge Road (Route 15) downstream approximately 72 miles to the mouth at the York River.

City / County: Hanover Co. King William Co. New Kent Co.

Use(s): Fish Consumption

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

On 9/30/2004, VDH issued a fish consumption advisory from Nelson Bridge Road to Jacks Creek near Liberty Hall. The advisory recommends no more than two meals per month of blue catfish because of mercury contamination in the fish tissue.

This condemnation was expanded on 10/7/2009 and now extends downstream to the mouth at the York River.

The advisory is based on mercury fish tissue exceedances at DEQ monitoring stations 8-PMK056.87, 8-PMK032.00, and 8-PMK006.36.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13E_PMK01A98 / Pamunkey River / Extent of tide near Totopotomoy Creek to Pampatike Landing.	5A	Mercury in Fish Tissue	2006	M	0.307
PMKTF					
VAP-F13E_PMK02A98 / Pamunkey River / Pampatike Landing downstream to Jacks Creek.	5A	Mercury in Fish Tissue	2006	M	0.783
PMKTF					
VAP-F13E_PMK03A06 / Pamunkey River / Jacks Creek downstream to Macon Creek.	5A	Mercury in Fish Tissue	2010	M	0.115
PMKTF					
VAP-F13R_PMK01A98 / Pamunkey River / From Nelson Bridge Road (Rt. 615) in F12 to limit of tide near Totopotomoy Creek	5A	Mercury in Fish Tissue	2006	M	11.56
VAP-F14E_PMK02A00 / Pamunkey River / Macon Creek to downstream extent of tidal freshwater segment at approximately river mile 23.6	5A	Mercury in Fish Tissue	2010	M	3.638
PMKTF					
VAP-F14E_PMK05A18 / Pamunkey River / 0.5 miles above station 8-PMK017.90 downstream to Sweet Hall Landing.	5A	Mercury in Fish Tissue	2010	M	0.113
PMKOH					
VAP-F14E_PMK05B00 / Pamunkey River / Tidal freshwater/oligohaline boundary at approximately river mile 23.6 downstream to 0.5 mile above station 8-PMK017.90	5A	Mercury in Fish Tissue	2010	M	1.193
PMKOH					
VAP-F14E_PMK06A00 / Pamunkey River / Sweet Hall Landing to upstream boundary of VDH-DSS SFC 049-004A, 8/15/2018	5A	Mercury in Fish Tissue	2010	M	3.382
PMKOH					
VAP-F14E_PMK06B06 / Pamunkey River / VDH-DSS SFC 049-004A, 8/15/2018 to mesohaline boundary	5A	Mercury in Fish Tissue	2010	M	0.584

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

PMKOH

VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth	5A	Mercury in Fish Tissue	2010	M	0.398

YRKMH

Pamunkey River **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:	**10.513**		**11.56**

Sources:

Atmospheric Deposition - Toxics	Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-13-PCB** **Pamunkey River**

Cause Location: The Pamunkey River from Nelson Bridge Road (Route 15) downstream approximately 72 miles to the mouth at the York River.

City / County: Hanover Co. King William Co. New Kent Co.

Use(s): Fish Consumption

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

On 10/7/2009, VDH issued a fish consumption advisory from Nelson Bridge Road to the mouth at West Point. The advisory recommends no more than two meals per month of gizzard shad because of PCB contamination in the fish tissue.

The advisory is based on PCB fish tissue exceedances at DEQ monitoring stations 8-PMK056.87, 8-PMK032.00, and 8-PMK006.36.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13E_PMK01A98 / Pamunkey River / Extent of tide near Totopotomoy Creek to Pampatike Landing.	5A	PCBs in Fish Tissue	2010	L	0.307
PMKTF					
VAP-F13E_PMK02A98 / Pamunkey River / Pampatike Landing downstream to Jacks Creek.	5A	PCBs in Fish Tissue	2010	L	0.783
PMKTF					
VAP-F13E_PMK03A06 / Pamunkey River / Jacks Creek downstream to Macon Creek.	5A	PCBs in Fish Tissue	2010	L	0.115
PMKTF					
VAP-F13R_PMK01A98 / Pamunkey River / From Nelson Bridge Road (Rt. 615) in F12 to limit of tide near Totopotomoy Creek	5A	PCBs in Fish Tissue	2010	L	11.56
VAP-F14E_PMK02A00 / Pamunkey River / Macon Creek to downstream extent of tidal freshwater segment at approximately river mile 23.6	5A	PCBs in Fish Tissue	2010	L	3.638
PMKTF					
VAP-F14E_PMK05A18 / Pamunkey River / 0.5 miles above station 8-PMK017.90 downstream to Sweet Hall Landing.	5A	PCBs in Fish Tissue	2010	L	0.113
PMKOH					
VAP-F14E_PMK05B00 / Pamunkey River / Tidal freshwater/oligohaline boundary at approximately river mile 23.6 downstream to 0.5 mile above station 8-PMK017.90	5A	PCBs in Fish Tissue	2010	L	1.193
PMKOH					
VAP-F14E_PMK06A00 / Pamunkey River / Sweet Hall Landing to upstream boundary of VDH-DSS SFC 049-004A, 8/15/2018	5A	PCBs in Fish Tissue	2010	L	3.382
PMKOH					
VAP-F14E_PMK06B06 / Pamunkey River / VDH-DSS SFC 049-004A, 8/15/2018 to mesohaline boundary	5A	PCBs in Fish Tissue	2010	L	0.584
PMKOH					

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth	5A	PCBs in Fish Tissue	2010	L	0.398

YRKMH

Pamunkey River **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:	**10.513**		**11.56**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-14-PH** **XIV - Mehixen Creek, UT**

Cause Location: Headwaters to mouth at the Pamunkey River

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, Mehixen Creek and its tributary XIV were impaired of the Aquatic Life Use due to pH violation rates of 4/11 at stations 8-MHX001.50 and 8-XIV000.88, which are both located at Rt. 652.

A Natural Conditions Assessment was completed during the 2014 cycle. The exceedances were attributed to natural swampwater conditions and the report recommends that the watershed be reclassified as Class VII swampwater. However, the slopes and nutrients were slightly above the current protocol, so the watershed remained Category 5C.

Additional monitoring was conducted in the 2018 cycle at 8-MHX001.50. The exceedance rate was acceptable (1/11); therefore, the Mehixen Creek mainstem was partially delisted. XIV will remain impaired until monitoring at 8-XIV000.88 can be conducted.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XIV01A18 / XIV - Mehixen Creek, UT / Headwaters to mouth at Mehixen Creek	5C	pH	2012	L	2.04

XIV - Mehixen Creek, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**2.04**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F13R-15-BAC** **XIW - Jacks Creek, UT**

Cause Location: The tributary XIW from its headwaters to its mouth at Jacks Creek.

City / County: King William Co.

Use(s): Recreation

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

The tributary was monitored during the 2014 cycle to help characterize the downstream bacterial impairment on Jacks Creek. The station was located at the Route 663 bridge (8-XIW000.42).

The E. coli exceedance rate was 3/11; therefore, the stream is considered impaired.

The E. coli data results were included in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the SWCB on 4/27/2015.

Note: although the data from XIW was included in the TMDL, the impairment itself was not specifically mentioned and was moved to nested in the 2018 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13R_XIW01A12 / XIW - Jacks Creek, UT / Headwaters to mouth at Jacks Creek	4A	Escherichia coli (E. coli)	2014	L	2.28

XIW - Jacks Creek, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.28**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14E-03-BAC** **Pamunkey River**

Cause Location: The Pamunkey River from Sweet Hall Landing to the mouth.

City / County: King William Co. New Kent Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 4A

The Pamunkey River from Sweet Hall Landing to the mouth was assessed as not supporting of the Recreation Use during the 2006 cycle based on enterococci exceedances at 8-PMK006.36, located at the southern end of Lee Marsh.

The TMDL was approved by the EPA on 7/28/2010 and by the SWCB on 12/13/2010.

The exceedance rate in the 2020 cycle was 9/47. Sampling at 8-PMK016.23 was acceptable (1/12).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK06A00 / Pamunkey River / Sweet Hall Landing to upstream boundary of VDH-DSS SFC 049-004A, 8/15/2018 PMKOH	4A	Enterococcus	2006	L	3.382
VAP-F14E_PMK06B06 / Pamunkey River / VDH-DSS SFC 049-004A, 8/15/2018 to mesohaline boundary PMKOH	4A	Enterococcus	2006	L	0.584
VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth YRKMH	4A	Enterococcus	2006	L	0.398

Pamunkey River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**4.364**		

Sources:

Industrial Point Source Discharge

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14E-04-EBEN** **York-, Pamunkey-, and Mattaponi Rivers**

Cause Location: The York mesohaline mainstem, including the applicable mainstem portions of the Pamunkey and Mattaponi Rivers.

City / County: James City Co. King And Queen Co. King William Co. New Kent Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

During the 2018 cycle, the mainstem York mesohaline segment, which includes the mouths of the Pamunkey- and Mattaponi Rivers, was impaired of the Aquatic Life Use due to failure of the Chesapeake Bay B-IBI.

The impairment continued in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth YRKMH	5A	Estuarine Bioassessments	2018	L	0.398
VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018. YRKMH	5A	Estuarine Bioassessments	2018	L	0.209
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem. YRKMH	5A	Estuarine Bioassessments	2006	L	0.641
VAT-F26E_YRK01A04 / York River / York River at Goalders Creek downstream to the boundary of DSS OPEN condemnation # 049-004 (effective 20180815). CBP segment YRKMH.	5A	Estuarine Bioassessments	2018	L	3.962
VAT-F26E_YRK01B10 / York River / Start of York River at West Point (RM 32.0) downstream to the boundary of ADMIN COND # 049-004 A (effective 8/15/2018), approx. Goff Point . CBP segment YRKMH.	5A	Estuarine Bioassessments	2018	L	1.086
VAT-F26E_YRK01C12 / York River-at Hockley Cr / York River segment at mouth of Hockley Cr within VDH DSS Condemnation 049-004 C, 8/15/2018. CB Seg - YRKMH.	5A	Estuarine Bioassessments	2018	L	0.029
VAT-F26E_YRK01D12 / York River / Portion of York River within VDH Seasonal Cond 0049-004 effective date 20180815 YRKMH	5A	Estuarine Bioassessments	2018	L	0.042
VAT-F26E_YRK01E14 / York River / York River from Goff Point (end of Admin Cond) to the Conditional Approval condemnation. VDH new Restricted Condemnation 049-004 A 8/3/2015 . CBP segment YRKMH.	5A	Estuarine Bioassessments	2018	L	0.457
VAT-F26E_YRK02A14 / York River (Lower Middle MSN) / Segment starts south of New Kent and James City Boundary and extends downstream to the MSN boundary near Mt. Folly/Poropotank Bay. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	5A	Estuarine Bioassessments	2018	L	2.680
VAT-F26E_YRK03A00 / York River (Lower Middle) / Segment starts at end of MSN boundary near Mt. Folly/Poropotank Bay and	5A	Estuarine Bioassessments	2018	L	20.372

York River Basin

extends downstream to the mesohaline/polyhaline boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.					
VAT-F26E_YRK03B12 / York River (Lower Middle) / Portion of York River at Carter Creek north of Camp Peary. Within VDH-DSS Open condemnation-type #049-004 , 20180815. CB segment YRKMH.	5A	Estuarine Bioassessments	2018	L	0.023

York-, Pamunkey-, and Mattaponi Rivers **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Estuarine Bioassessments - Total Impaired Size by Water Type:	**29.899**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14E-05-EBEN** **Pamunkey River**

Cause Location: The mainstem Pamunkey River from 0.5 mile upstream of station 8-PMK017.90 downstream to Sweet Hall Landing.

City / County: King William Co. New Kent Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

The oligohaline Pamunkey River mainstem initially failed the Chesapeake Bay Index of Biologic Integrity during the 2010 cycle. The impairment continued during the 2014 cycle.

In addition, a 2012 weight-of-evidence analysis at estuarine probabilistic monitoring station 8-PMK017.90 showed benthic alteration probably caused by metals in sediment (Category 5A).

The mainstem met the B-IBI criteria in the 2018 cycle. However, due to the 2012 WOE sample the portion of the mainstem around the station will remain listed. Continued monitoring is recommended. The remaining Pamunkey mainstem was partially delisted.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK05A18 / Pamunkey River / 0.5 miles above station 8-PMK017.90 downstream to Sweet Hall Landing.	5A	Estuarine Bioassessments	2010	L	0.113

PMKOH

Pamunkey River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Estuarine Bioassessments - Total Impaired Size by Water Type:	**0.113**		

Sources:

Contaminated Sediments Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14E-06-BAC** **Harrison Creek**

Cause Location: The tidal portion of Harrison Creek.

City / County: King William Co.

Use(s): Recreation

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

During the 2012 cycle, tidal Harrison Creek was impaired of the Recreation Use due to E.coli exceedances at 8-HSN000.92, which is located at Elsing Green Road. The violation rate was 3/12 during the 2014 cycle.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL which was approved by the EPA on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_HSN01A12 / Harrison Creek / Tidal portion of Harrison Creek	4A	Escherichia coli (E. coli)	2012	L	0.044

PMKTF

Harrison Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**0.044**		

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14E-07-EBEN** **Pamunkey River**

Cause Location: The mainstem Pamunkey River from the boundary of VDH-DSS condemnation 049-004A downstream to the mesohaline boundary.

City / County: King William Co. New Kent Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

During the 2020 cycle, monitoring at 8-PMK002.60, a 2017 weight-of-evidence station, indicated impairment due to the probable effects of multiple PAHs and metals in sediment.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK06B06 / Pamunkey River / VDH-DSS SFC 049-004A, 8/15/2018 to mesohaline boundary	5A	Estuarine Bioassessments	2020	L	0.584

PMKOH

Pamunkey River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Estuarine Bioassessments - Total Impaired Size by Water Type:	**0.584**		

Sources:

Contaminated Sediments Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14R-01-DO** **Cohoke Mill Creek**

Cause Location: Cohoke Mill Stream mainstem from its headwaters downstream to Cohoke Millpond

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

During the 2010 cycle, Cohoke Mill Stream was assessed as not supporting of the Aquatic Life Use based on dissolved oxygen violations at 8-CMC005.16, which is located at the Route 626 bridge.

The exceedance rate was 9/25 during the 2014 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14R_CMC01A00 / Cohoke Mill Creek / Mainstem upstream of Cohoke Millpond.	5C	Dissolved Oxygen	2010	L	7.38

Headwaters adjusted.

Cohoke Mill Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**7.38**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14R-02-BAC** **Harrison Creek**

Cause Location: Harrison Creek and tributary upstream of pond at Elsing Green upstream to nearest tributaries.

City / County: King William Co.

Use(s): Recreation

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

Harrison Creek was assessed as not supporting of the Recreation Use in 2008 based on an E. coli violations at the Route 632 bridge (8-HSN002.12). During the 2014 cycle, the exceedance rates were as follows:

2/12 at 8-HSN002.12
3/12 at 8-HSN002.43
4/15 at 8-HSN003.93

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14R_HSN01A00 / Harrison Creek and Tributary / Upstream of pond at Elsing Green to nearest tributaries.	4A	Escherichia coli (E. coli)	2008	L	2.80

Harrison Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.80**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14R-02-DO** **Harrison Creek**

Cause Location: Harrison Creek and tributary upstream of pond at Elsing Green upstream to nearest tributaries.

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

During the 2014 cycle, Harrison Creek was assessed as not supporting of the Aquatic Life Use based on a dissolved oxygen exceedance rate of 2/11 at the Route 632 bridge (8-HSN002.12).

Monitoring at stations 8-HSN002.43 and 8-HSN003.93 was acceptable (1/11).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14R_HSN01A00 / Harrison Creek and Tributary / Upstream of pond at Elsing Green to nearest tributaries.	5C	Dissolved Oxygen	2014	L	2.80

Harrison Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**2.80**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14R-04-BAC** **XJD - Harrison Creek, UT**

Cause Location: Harrison Creek, UT from its headwaters to its mouth at Harrison Creek

City / County: King William Co.

Use(s): Recreation

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

The UT was impaired of the Recreation Use during the 2012 cycle based on E. coli exceedances at 8-XJD000.02. The exceedance rate was 4/12 during the 2014 cycle.

The impairment was addressed in the Pamunkey River and Tributaries Bacterial TMDL, which was approved by the SWCB on 12/11/2014 and by the EPA on 4/27/2015.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14R_XJD01A12 / XJD - Harrison Creek, UT / Headwaters to mouth at Harrison Creek	4A	Escherichia coli (E. coli)	2012	L	0.16

XJD - Harrison Creek, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.16**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F14R-04-PH** **XJD - Harrison Creek, UT**

Cause Location: Harrison Creek, UT from its headwaters to its mouth at Harrison Creek

City / County: King William Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

During the 2012 cycle, XJD was impaired of the Aquatic Life Use due to pH exceedance at 8-XJD000.02. The violation rate was 5/11 during the 2014 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14R_XJD01A12 / XJD - Harrison Creek, UT / Headwaters to mouth at Harrison Creek	5C	pH	2012	L	0.16

XJD - Harrison Creek, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**0.16**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F15R-01-BAC** **Ni River**

Cause Location: Begins at the confluence of an unnamed tributary to the Ni River, approximately 0.95 rivermiles downstream from the Route 608 bridge, and continues downstream until the confluence with the Po River, forming the Poni River.

City / County: Caroline Co. Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria excursions (5 of 32 samples 15.6%) at DEQ station 8-NIR003.96 at Route 1.

A new TMDL is not required for this impaired segment of Ni River because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66031, 07/19/2016) included modeling, source identification, and reductions that covered the entre Poni River watershed (Eq. ID 1577).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F15R_NIR01A00 / Ni River / Segment begins at the confluence of an unnamed tributary to the Ni River, approximately 0.95 rivermiles downstream from the Route 608 bridge, and continues downstream until the confluence with the Po River, forming the Poni River.	4A	Escherichia coli (E. coli)	2020	L	5.68

Ni River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.68**

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F15R-01-BEN** **Ni River**

Cause Location: Begins at the confluence of an unnamed tributary to the Ni River, approximately 0.95 rivermiles downstream from the Route 608 bridge, and continues downstream until the confluence with the Po River, forming the Poni River.

City / County: Caroline Co. Spotsylvania Co.

Use(s): Aquatic Life

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

2014 Assessment: Three biological monitoring events in 2007 and 2008 at DEQ station 8-NIR003.96 at Route 1 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F15R_NIR01A00 / Ni River / Segment begins at the confluence of an unnamed tributary to the Ni River, approximately 0.95 rivermiles downstream from the Route 608 bridge, and continues downstream until the confluence with the Po River, forming the Poni River.	5A	Benthic Macroinvertebrates Bioassessments	2010	L	5.68

Ni River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**5.68**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F15R-01-PH** **Brock Run**

Cause Location: Begins at the headwaters of Brock Run, and continues downstream to the confluence with Aunt Sarah Spring Creek.

City / County: Spotsylvania Co.

Use(s): Aquatic Life

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

Excursions less than the lower limit of the pH criterion range (4 of 32 samples - 12.5%) recorded at National Park Service's station 8BRK-17-NPS in Wilderness Battlefield.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F15R_BRK01B12 / Brock Run / Segment begins at the headwaters of Brock Run, and continues downstream to the confluence with Aunt Sarah Spring Creek.	5A	pH	2014	L	3.21

Brock Run **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.21**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F15R-02-BAC** **Brock Run**

Cause Location: Begins at the confluence with Aunt Sarah Spring Creek and continues downstream until the confluence with the Ni River.

City / County: Spotsylvania Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 10 samples - 40.0%) at station 8-BRK000.06 at Jackson Trail off Route 613.

The Mattaponi River Watershed bacteria TMDL for the Brock Run watershed (Eq. ID Eq ID 1566) was developed and approved by the EPA on 07/19/2016 (Fed ID 66045). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F15R_BRK01A06 / Brock Run / Segment begins at the confluence with Aunt Sarah Spring Creek and continues downstream until the confluence with the Ni River.	4A	Escherichia coli (E. coli)	2008	L	2.56

Brock Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.56**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F16R-01-BAC** **Po River**

Cause Location: Begins at the confluence with Piltzer Creek and continues downstream until the confluence with the Ni River, forming the Poni River.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (17 of 68 samples - 25.0%) at DEQ station 8-POR004.13 at Route 1 (2014 Assessment). E. coli bacteria criterion excursions (8 of 39 samples - 20.5%) at DEQ station 8-POR008.97 at Route 208 (Courthouse Rd). E. coli bacteria criterion excursions (6 of 24 samples - 25.0%) at DEQ station 8-POR016.04 at Route 608.

The Mattaponi River Watershed bacteria TMDL for the Po River watershed (Eq. ID 1575) was approved by the EPA on 07/19/2016 (Fed ID 66035). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F16R_POR01A10 / Po River / Segment begins at an unnamed tributary to the Po River and continues downstream until the confluence with the Ni River, forming the Poni River.	4A	Escherichia coli (E. coli)	2010	L	7.21
VAN-F16R_POR01B02 / Po River / Segment begins at the confluence with Glady Run and continues downstream until the confluence with an unnamed tributary to the Po River at rivermile 6.69, near the upstream boundary of the Old Trap development.	4A	Escherichia coli (E. coli)	2018	L	7.70
VAN-F16R_POR01C06 / Po River / Segment begins at the confluence with Piltzer Creek and continues downstream until the confluence with Glady Run.	4A	Escherichia coli (E. coli)	2018	L	5.18

Po River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**20.09**

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F16R-02-BAC** **Glady Run**

Cause Location: Begins at the headwaters of Glady Run and continues downstream until the confluence with the Po River.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 7 samples - 28.6%) at DEQ station 8-GDY003.00 at Route 649.

The Mattaponi River Watershed bacteria TMDL for the Glady Run watershed (Eq. ID 1569) was approved by the EPA on 07/19/2016 (Fed ID 66042). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F16R_GDY01A10 / Glady Run / Segments begins at the headwaters of Glady Run and continues downstream until the confluence with the Po River.	4A	Escherichia coli (E. coli)	2010	L	9.30

Glady Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**9.30**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F17L-01-HG** **Bowies Pond**

Cause Location: Includes all of Bowies Pond.

City / County: Caroline Co.

Use(s): Fish Consumption

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

2012 Assessment: Excursions above the fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded in tissue from three species (bowfin, chain pickerel, largemouth bass) of fish sampled (six total excursions) in 2005 at monitoring station 8-CAM001.00.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F17L_CAM01A06 / Bowies Pond / Segment includes all of Bowies Pond.	5A	Mercury in Fish Tissue	2008	L	25.71

Bowies Pond **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		**25.71**	

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F17R-02-BAC** **Mattaponi River**

Cause Location: Begins at the confluence with Matta River and continues downstream until the confluence with Polecat Creek at the outlet of waterbody F17R.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 22 samples - 13.6%) at DEQ station 8-MPN083.62 at Route 301 (2014 Assessment). E. coli bacteria criterion (5 of 12 samples - 41.7%) at DEQ station 8-MPN090.74 at Route 722. E. coli bacteria criterion excursions (12 of 67 samples - 17.9%) at DEQ station 8-MPN094.94 at the old bridge upstream of Route 605. E. coli bacteria criterion excursions (4 of 11 samples - 36.4%) at DEQ station 8-MPN101.86 at Route 626.

The Mattaponi River Watershed bacteria TMDL for the Mattaponi River watershed (Eq. ID 1573) was approved by the EPA on 07/19/2016 (Fed ID 66038). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F17R_MPN01A02 / Mattaponi River / Segment begins at the confluence with an unnamed tributary, draining from Goose Pond, and continues downstream until the confluence with Polecat Creek at the outlet of waterbody F17R.	4A	Escherichia coli (E. coli)	2008	L	3.20
VAN-F17R_MPN02A20 / Mattaponi River / Segment begins at the confluence with South River and continues downstream until the confluence with an unnamed tributary draining from Goose Pond.	4A	Escherichia coli (E. coli)	2020	L	6.58
VAN-F17R_MPN02B02 / Mattaponi River / Segment begins at the confluence with Downers Branch and continues downstream until the confluence with the South River.	4A	Escherichia coli (E. coli)	2006	L	8.24
VAN-F17R_MPN03A02 / Mattaponi River / Segment begins at the confluence of the Matta River and the Poni River, forming the Mattaponi River, and continues downstream until the confluence with Downers Branch.	4A	Escherichia coli (E. coli)	2020	L	3.65

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**21.67**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F17R-02-PH** **Unnamed Tributary to Poni River**

Cause Location: Begins at the confluence of an unnamed tributary at rivermile 3.66 and continues downstream to the confluence with an unnamed tributary at rivermile 0.05.

City / County: Caroline Co. Spotsylvania Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Excursions less than the lower limit of the pH criterion range (2 of 6 samples - 33.3%) at DEQ station 8-XJV001.81 at Route 660. Excursions less than the lower limit of the pH criterion range (5 of 12 samples - 41.7%) at DEQ station 8-XJV000.80 at Route 607.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F17R_XJV01A18 / Unnamed Tributary to Poni River / Segment begins at the confluence with an unnamed tributary at rivermile 0.72 and continues downstream to the confluence with an unnamed tributary at rivermile 0.05.	5C	pH	2018	L	0.67
VAN-F17R_XJV02A16 / Unnamed Tributary to Poni River / Segment begins at the confluence of an unnamed tributary at rivermile 3.66 and continues downstream to the confluence with an unnamed tributary at rivermile 0.72.	5C	pH	2018	L	2.93

Unnamed Tributary to Poni River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**3.60**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F17R-03-BAC** **Poni River**

Cause Location: Begins at the confluence with an unnamed tributary and continues downstream until the confluence with the Matta River, forming the Mattaponi River

City / County: Caroline Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (2 of 11 samples - 18.2%) at DEQ station 8-PNI002.43 at Route 606.

The Mattaponi River Watershed bacteria TMDL for the Poni River watershed (Eq. ID 1577) was approved by the EPA on 07/19/2016 (Fed ID 66031). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F17R_PNI01A10 / Poni River / Segment begins at the confluence with an unnamed tributary and continues downstream until the confluence with the Matta River, forming the Mattaponi River	4A	Escherichia coli (E. coli)	2010	L	3.21

Poni River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.21**

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F17R-04-BAC** **Unnamed Tributary to Poni River**

Cause Location: Begins at the confluence with an unnamed tributary at rivermile 0.72 and continues downstream to the confluence with an unnamed tributary at rivermile 0.05.

City / County: Caroline Co. Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 12 samples - 25.0%) at DEQ station 8-XJV000.80 at Route 607.

A new TMDL is not required for this impaired segment of an unnamed tributary to Poni River because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66031, 07/19/2016) included modeling, source identification, and reductions that covered the entire Poni River watershed (Eq. ID 1577).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F17R_XJV01A18 / Unnamed Tributary to Poni River / Segment begins at the confluence with an unnamed tributary at rivermile 0.72 and continues downstream to the confluence with an unnamed tributary at rivermile 0.05.	4A	Escherichia coli (E. coli)	2018	L	0.67

Unnamed Tributary to Poni River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.67**

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland
Sewage Discharges in Unsewered Areas	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F18R-02-BAC** **Matta River**

Cause Location: Begins at the confluence of the Mat River and the Ta River and continues downstream until the confluence with the Poni River, forming the Mattaponi River.

City / County: Caroline Co. Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (9 of 33 samples - 27.3%) at DEQ station 8-MTA001.69 at Route 632. E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-MTA008.96 at Route 646.

The Mattaponi River Watershed bacteria TMDL for the Matta River watershed (Eq. ID 1572) was approved by the EPA on 07/19/2016 (Fed ID 66040). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F18R_MTA01A00 / Matta River / Segment begins at the confluence with an unnamed tributary to the Matta River, approximately 0.5 rivermile upstream from the Route 646 bridge, and continues downstream until the confluence with the Poni River, forming the Mattaponi River.	4A	Escherichia coli (E. coli)	2006	L	11.89
VAN-F18R_MTA02A04 / Matta River / Segment begins at the confluence of the Mat River and the Ta River and continues downstream until the confluence with an unnamed tributary to the Matta River, approximately 0.5 rivermile upstream from Route 646.	4A	Escherichia coli (E. coli)	2020	L	1.24

Matta River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**13.13**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F18R-02-DO** **Bluff Run**

Cause Location: Begins at the confluence with Glebe Run and continues downstream to the confluence with Ta River.

City / County: Spotsylvania Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

Excursions less than the minimum dissolved oxygen criterion (4 of 12 samples - 33.3%) were recorded at DEQ station 8-BLF001.48 at Route 648.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F18R_BLF01A20 / Bluff Run / Segment begins at the confluence with Glebe Run and continues downstream to the confluence with Ta River.	5C	Dissolved Oxygen	2020	L	3.07

Bluff Run **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**3.07**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F18R-03-BAC** **Mat River**

Cause Location: Begins at the confluence with an unnamed tributary at rivermile 2.14 and continues downstream to the confluence with the Ta River to form the Matta River.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 12 samples - 25.0%) at DEQ station 8-MAT001.87 at Route 647. E. coli bacteria criterion excursions (5 of 12 samples - 41.7%) at DEQ station 8-MAT005.35 at Route 738.

The Mattaponi River Watershed bacteria TMDL for the Mat River watershed (Eq. ID 1571) was approved by the EPA on 07/19/2016 (Fed ID 66040). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F18R_MAT01A12 / Mat River / Segment begins at the confluence with an unnamed tributary, at rivermile 2.14, and continues downstream to the confluence with the Ta River to form the Matta River.	4A	Escherichia coli (E. coli)	2014	L	2.30
VAN-F18R_MAT02A18 / Mat River / Segment begins at the perennial headwaters and continues downstream to the confluence with an unnamed tributary at rivermile 2.14.	4A	Escherichia coli (E. coli)	2018	L	5.20

Mat River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.50**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F18R-03-BEN** **Matta River**

Cause Location: Begins at the confluence of the Mat River and the Ta River and continues downstream until the confluence with an unnamed tributary to the Matta River, approximately 0.5 rivermile upstream from Route 646.

City / County: Spotsylvania Co.

Use(s): Aquatic Life

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

2010 Assessment: One of two biological monitoring events in 2003 at station 8-MTA012.09 (upstream of Route 646) resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F18R_MTA02A04 / Matta River / Segment begins at the confluence of the Mat River and the Ta River and continues downstream until the confluence with an unnamed tributary to the Matta River, approximately 0.5 rivermile upstream from Route 646.	5A	Benthic Macroinvertebrates Bioassessments	2008	L	1.24

Matta River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**1.24**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F18R-04-BAC** **Ta River**

Cause Location: Begins at the confluence with Bluff Run, approximately 0.7 rivermile upstream from Route 738, and continues downstream until the confluence with the Mat River, forming the Matta River.

City / County: Spotsylvania Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-TAR002.40 at Route 738.

A new TMDL is not required for this impaired segment of Ta River because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66039, 07/19/2016) included modeling, source identification, and reductions that covered the entire Matta River watershed (Eq. ID 1572).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F18R_TAR01A00 / Ta River / Segment begins at the confluence with Bluff Run, approximately 0.7 rivermile upstream from Route 738, and continues downstream until the confluence with the Mat River, forming the Matta River.	4A	Escherichia coli (E. coli)	2018	L	3.76

Ta River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.76**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F19R-01-BAC** **South River**

Cause Location: Begins at the headwaters of the South River and continues downstream until the confluence with the Motto River.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-STH010.79 at Route 1.

A new TMDL is not required for this impaired segment of South River because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66038, 07/19/2016) included modeling, source identification, and reductions that covered the entire Mattaponi River watershed (Eq. ID 1573).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F19R_STH03A08 / South River / Segment begins at the headwaters of the South River and continues downstream until the confluence with the Motto River.	4A	Escherichia coli (E. coli)	2020	L	9.09

South River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**9.09**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F19R-02-BAC** **Motto River**

Cause Location: Begins at the confluence with an unnamed tributary, approximately 0.5 rivermile upstream from Route One, and continues downstream until the confluence with another unnamed tributary (streamcode XCF), downstream from I-95.

City / County: Caroline Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (2 of 8 samples - 25.0%) at DEQ station MOT002.62 at Route 1.

The Mattaponi River Watershed bacteria TMDL for the Motto River watershed (Eq. ID 1574) was approved by the EPA on 07/19/2016 (Fed ID 66036). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F19R_MOT01A04 / Motto River / Segment begins at the confluence with an unnamed tributary, approximately 0.5 rivermile upstream from Route One, and continues downstream until the confluence with another unnamed tributary (streamcode XCF), downstream from I-95.	4A	Escherichia coli (E. coli)	2014	L	1.80

Motto River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.80**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F19R-02-PH** **Hobby Swamp**

Cause Location: Begins at the confluence with an unnamed tributary to Hobby Swamp, approximately 0.36 rivermile upstream from Route 634, and continues downstream until the confluence with the South River.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Excursions less than the lower limit of the pH criterion range (9 of 9 samples - 100.0%) at DEQ station 8-HBS001.85 at Route 634

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F19R_HBS01A00 / Hobby Swamp / Segment begins at the confluence with an unnamed tributary to Hobby Swamp, approximately 0.36 rivermile upstream from Route 634, and continues downstream until the confluence with the South River.	5C	pH	2020	L	1.27

Hobby Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**1.27**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F19R-03-BAC** **Hobby Swamp**

Cause Location: Begins at the confluence with an unnamed tributary to Hobby Swamp, approximately 0.36 rivermile upstream from Route 634, and continues downstream until the confluence with the South River.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 9 samples - 33.3%) at DEQ station 8-HBS001.85 at Route 634.

A new TMDL is not required for this impaired segment of Hobby Swamp because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66038, 07/19/2016) included modeling, source identification, and reductions that covered the entire Mattaponi River watershed (Eq. ID 1573).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F19R_HBS01A00 / Hobby Swamp / Segment begins at the confluence with an unnamed tributary to Hobby Swamp, approximately 0.36 rivermile upstream from Route 634, and continues downstream until the confluence with the South River.	4A	Escherichia coli (E. coli)	2020	L	1.27

Hobby Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.27**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F20R-01-BEN** **Polecat Creek**

Cause Location: Begins at the confluence with Hackett Creek, approximately 0.5 rivermile upstream from Route 207, and continues downstream until the confluence with the Mattaponi River.

City / County: Caroline Co.

Use(s): Aquatic Life

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

2018 Assessment: Two biological monitoring events at station 8-PCT002.29 at Route 601 in 2011 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F20R_PCT01A00 / Polecat Creek / Segment begins at the confluence with an unnamed tributary at rivermile 5.0 and continues downstream until the confluence with the Mattaponi River.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	5.24

Polecat Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**5.24**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F20R-01-DO** **Polecat Creek**

Cause Location: Begins at the confluence with Stevens Mill Run and continues downstream until the confluence with an unnamed tributary at rivermile 5.0.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

2018 Assessment: Excursions less than the minimum dissolved oxygen criterion (5 of 8 samples - 50.0%) at station 8-PCT005.44 at Polecat Creek below Caroline County POTW; excursions less than the minimum dissolved oxygen criterion (5 of 8 samples - 62.5%) at station 8-PCT006.34 at Route 207.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F20R_PCT01B06 / Polecat Creek / Segment begins at the confluence with Stevens Mill Run and continues downstream until the confluence with an unnamed tributary at rivermile 5.0.	5C	Dissolved Oxygen	2018	L	4.34

Polecat Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**4.34**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F20R-02-BAC** **Polecat Creek**

Cause Location: Begins at the headwaters of Polecat Creek and continues downstream until the confluence with Stevens Mill Run.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-PCT010.10 at Route 652.

The Mattaponi River Watershed bacteria TMDL for the Polecat Creek watershed (Eq. ID 1576) was approved by the EPA on 07/19/2016 (Fed ID 66034). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F20R_PCT02A02 / Polecat Creek / Segment begins at the headwaters of Polecat Creek and continues downstream until the confluence with Stevens Mill Run.	4A	Escherichia coli (E. coli)	2012	L	5.31

Polecat Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**5.31**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-01-BAC** **Boot Swamp**

Cause Location: Begins at the confluence with Malden Creek and continues downstream to the confluence with Mattaponi River.

City / County: Caroline Co. King William Co.

Use(s): Recreation

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

Excursions from the maximum E. coli bacteria criterion (3 of 12 samples - 25%) at DEQ station 8-BOT002.14 at Route 600.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_BOT01A20 / Boot Swamp / Segment begins at the confluence with Malden Creek and continues downstream to the confluence with Mattaponi River.	5A	Escherichia coli (E. coli)	2020	L	1.68

Boot Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.68**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-01-BEN** **Herring Creek**

Cause Location: Begins at the headwaters of Herring Creek and continues downstream until the confluence with Millpond Creek.

City / County: Caroline Co.

Use(s): Aquatic Life

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

2008 Assessment: Two biological monitoring events in 2002 at DEQ station 8-HER012.99 (downstream of Route 601) resulted in a VCPMI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_HER02A04 / Herring Creek / Segment begins at the headwaters of Herring Creek and continues downstream until the confluence with Millpond Creek.	5A	Benthic Macroinvertebrates Bioassessments	2008	L	4.75

Herring Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**4.75**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-01-HG** **Herring Creek**

Cause Location: Extends from the Route 628 bridge (Dorrell Road) to the confluence with the Mattaponi River.

City / County: King William Co.

Use(s): Fish Consumption

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

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 09/30/04, limits bluegill sunfish and yellow bullhead catfish consumption to no more than two meals per month.

Additionally, exceedances of the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded in two fish species (flier sunfish and largemouth bass) collected in 2003 at DEQ station 8-HER005.12.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_HER01A06 / Herring Creek / Segment begins at the confluence with an unnamed tributary to Herring Creek, at rivermile 2.14, and continues downstream until the confluence with the Mattaponi River.	5A	Mercury in Fish Tissue	2006	L	2.14
VAN-F21R_HER01B02 / Herring Creek / Segment begins at the confluence with Dorrell Creek and continues downstream until the confluence with an unnamed tributary to Herring Creek, at rivermile 2.14.	5A	Mercury in Fish Tissue	2006	L	5.09

Herring Creek **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			**7.23**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-02-BEN** **Reedy Creek**

Cause Location: Begins at Route 301 and continues downstream until the start of Reedy Millpond. Class VII waters.

City / County: Caroline Co.

Use(s): Aquatic Life

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

Two biological monitoring events in 2011 at DEQ station 8-RDY003.43 at Route 648 resulted in a VSCI assessment that indicates an impaired macroinvertebrate community.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_RDY02A10 / Reedy Creek / Segment begins at Route 301 and continues downstream until the start of Reedy Millpond.	5A	Benthic Macroinvertebrates Bioassessments	2014	L	3.30

Reedy Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**3.30**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-02-HG** **Mattaponi River**

Cause Location: Extends from the Route 628 bridge and continues downstream approximately 55 miles, to the confluence with Pamunkey River near West Point.

City / County: King And Queen Co. King William Co.

Use(s): Fish Consumption

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

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 09/30/04, limits largemouth bass consumption 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
VAN-F21R_MPN01A06 / Mattaponi River / Segment begins at the confluence with Gravel Run and continues downstream until the confluence with Herring Creek.	5A	Mercury in Fish Tissue	2006	L	6.07
VAN-F21R_MPN01B02 / Mattaponi River / Segment begins at the Route 628 crossing and continues downstream until the confluence with Gravel Run.	5A	Mercury in Fish Tissue	2006	L	4.91
VAP-F23E_MPN02A98 / Mattaponi River / From the limit of tide above the Route 360 bridge to Aylett Creek.	5A	Mercury in Fish Tissue	2006	M	0.159
MPNTF					
VAP-F23E_MPN03A06 / Mattaponi River / Aylett Creek to Garnetts Creek.	5A	Mercury in Fish Tissue	2006	M	1.756
MPNTF					
VAP-F23R_MPN01A00 / Mattaponi River / From the watershed boundary (Herring Creek) to the limit of tide near the Route 360 bridge.	5A	Mercury in Fish Tissue	2006	M	4.72
VAP-F24E_MPN03A98 / Mattaponi River / Garnetts Creek to tidal freshwater/oligohaline boundary at approximately river mile 18	5A	Mercury in Fish Tissue	2006	M	1.384
MPNTF					
VAP-F24E_MPN03B02 / Mattaponi River / Tidal freshwater/oligohaline boundary to Melrose Landing at Route 602	5A	Mercury in Fish Tissue	2006	M	0.423
MPNOH					
VAP-F24E_MPN03C06 / Mattaponi River / Melrose Landing (Route 602) to Heartquake Creek.	5A	Mercury in Fish Tissue	2010	M	0.717
MPNOH					
VAP-F25E_MPN05A00 / Mattaponi River / Mattaponi River from Heartquake Creek to the downstream boundary of VDH-DSS 049-004G, 8/15/2018	5A	Mercury in Fish Tissue	2010	M	1.292
MPNOH					
VAP-F25E_MPN05B06 / Mattaponi River / From VDH-SFC 049-004B, 8/15/2018 to the oligohaline/York mesohaline boundary.	5A	Mercury in Fish Tissue	2010	M	0.384
MPNOH					

York River Basin

VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018.	5A	Mercury in Fish Tissue	2010	M	0.209
YRKMH					
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem.	5A	Mercury in Fish Tissue	2010	M	0.641
YRKMH					

Mattaponi River **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:	**6.965**		**15.70**

Sources:

Atmospheric Deposition - Toxics	Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-03-BAC** **Reedy Creek**

Cause Location: Begins at the headwaters of Reedy Creek and continues downstream until the start of Reedy Millpond.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 23 samples - 13.0%) at DEQ station 8-RDY003.43 at Route 648 (2014 Assessment).
E. coli bacteria criterion excursions (3 of 12 samples - 25.0%) at DEQ station 8-RDY004.39 at Route 301/2.

The Mattaponi River Watershed bacteria TMDL for the Reedy Creek watershed (Eq. ID 1578) was approved by the EPA on 07/19/2016 (Fed ID 66030). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_RDY02A10 / Reedy Creek / Segment begins at Route 301 and continues downstream until the start of Reedy Millpond.	4A	Escherichia coli (E. coli)	2010	L	3.30
VAN-F21R_RDY02B10 / Reedy Creek / Segment begins at the headwaters of Reedy Creek and continues downstream to Route 301 bridge.	4A	Escherichia coli (E. coli)	2010	L	9.39

Reedy Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**12.69**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-03-HG** **Reedy Creek and Reedy Millpond**

Cause Location: Begins at the 301 bridge and continues downstream to the confluence with the Mattaponi River.

City / County: Caroline Co. King And Queen Co. King William Co.

Use(s): Fish Consumption

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

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. The advisory, dated 10/07/09, limits redbreast sunfish and yellow bullhead catfish consumption to no more than two meals per month.

Additionally, exceedances of the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury in fish tissue were recorded at DEQ station 8-RDY003.43 in one species of fish (creek chubsucker) in samples collected in 2003 and in three species of fish (yellow bullhead catfish, bluegill sunfish, and redbreast sunfish) in samples collected in 2008. Four exceedances of the water quality criterion based fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded in two species of fish (bowfin, largemouth bass) sampled in 2003 at DEQ station 8-RDY000.87.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21L_RDY01A06 / Reedy Millpond / Segment includes all of Reedy Millpond.	5A	Mercury in Fish Tissue	2010	L	41.25
VAN-F21R_RDY01A10 / Reedy Creek / Segment begins at the outlet of Reedy Millpond and continues downstream to the confluence with the Mattaponi River.	5A	Mercury in Fish Tissue	2010	L	0.13
VAN-F21R_RDY02A10 / Reedy Creek / Segment begins at Route 301 and continues downstream until the start of Reedy Millpond.	5A	Mercury in Fish Tissue	2010	L	3.30
VAN-F21R_RDY02B10 / Reedy Creek / Segment begins at the headwaters of Reedy Creek and continues downstream to Route 301 bridge.	5A	Mercury in Fish Tissue	2010	L	9.39

Reedy Creek and Reedy Millpond **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		**41.25**	**12.82**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-04-BAC** **Chapel Creek**

Cause Location: Begins at the confluence with Beaver Branch and continues downstream until the confluence with the Mattaponi River.

City / County: King And Queen Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 12 samples - 25.0%) at DEQ station 8-CPL004.15 at Route 721.

The Mattaponi River Watershed bacteria TMDL for the Chapel Creek watershed (Eq. ID 1567) was approved by the EPA on 07/19/2016 (Fed ID 66044). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_CPL01A06 / Chapel Creek / Segment begins at the confluence with Beaver Branch and continues downstream until the confluence with the Mattaponi River.	4A	Escherichia coli (E. coli)	2014	L	4.64

Chapel Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.64**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-04-PH** **Chapel Creek**

Cause Location: Begins at the perennial headwaters of Chapel Creek and continues downstream to the upstream boundary of Garnett Millpond. Begins again at the confluence with Beaver Branch and continues downstream until the confluence with the Mattaponi River.

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Excursions less than the lower limit of the pH criterion range (3 of 28 samples - 10.7%) at DEQ station 8-CPL004.15 at Route 721. Excursions less than the lower limit of the pH criterion range (4 of 12 samples - 33.3%) at station 8-CPL011.27 at Route 623.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_CPL01A06 / Chapel Creek / Segment begins at the confluence with Beaver Branch and continues downstream until the confluence with the Mattaponi River.	5C	pH	2008	L	4.64
VAN-F21R_CPL02A18 / Chapel Creek / Segment begins at the perennial headwaters of Chapel Creek and continues downstream to the upstream boundary of Garnett Millpond.	5C	pH	2018	L	3.93

Chapel Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**8.57**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-05-BAC** **Herring Creek**

Cause Location: Begins at the confluence with Dorrell Creek and continues downstream until the confluence with the Mattaponi River

City / County: King William Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (4 of 24 samples - 16.7%) at DEQ station 8-HER000.33 at Route 600. E. coli bacteria criterion excursions (2 of 12 samples - 16.7%) at DEQ station 8-HER005.12 at Route 609.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_HER01A06 / Herring Creek / Segment begins at the confluence with an unnamed tributary to Herring Creek, at rivermile 2.14, and continues downstream until the confluence with the Mattaponi River.	5A	Escherichia coli (E. coli)	2018	L	2.14
VAN-F21R_HER01B02 / Herring Creek / Segment begins at the confluence with Dorrell Creek and continues downstream until the confluence with an unnamed tributary to Herring Creek, at rivermile 2.14.	5A	Escherichia coli (E. coli)	2016	L	5.09

Herring Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.23**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-07-BAC** **Mattaponi River**

Cause Location: Begins at the confluence with Union Swamp, at rivermile 76.58, and continues downstream until the confluence with Cobbin Creek, at rivermile 67.64.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 13 samples - 15.4%) at DEQ station 8-MPN073.75 at Route 647.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_MPN02A02 / Mattaponi River / Segment begins at the confluence with Union Swamp, at rivermile 76.58, and continues downstream until the confluence with Cobbin Creek, at rivermile 67.64.	5A	Escherichia coli (E. coli)	2018	L	8.87

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**8.87**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-08-BAC** **Dorrell Creek**

Cause Location: Begins at the confluence with Little Dorrell Creek and continues downstream to the confluence with Herring Creek.

City / County: Caroline Co. King William Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (2 of 12 samples - 16.7%) at DEQ station 8-DRL000.85 at Route 608.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_DRL01A18 / Dorrell Creek / Segment begins at the confluence with Little Dorrell Creek and continues downstream to the confluence with Herring Creek.	5A	Escherichia coli (E. coli)	2018	L	4.96

Dorrell Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.96**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F21R-09-BAC** **Gravel Run**

Cause Location: Begins at the perennial headwaters of Gravel Run and continues downstream to the confluence with Mattaponi River.

City / County: King And Queen Co. King William Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (5 of 12 samples - 41.7%) at DEQ station 8-GVL000.56 at Route 628.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_GVL01A18 / Gravel Run / Segment begins at the perennial headwaters of Gravel Run and continues downstream to the confluence with Mattaponi River.	5A	Escherichia coli (E. coli)	2018	L	3.54

Gravel Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.54**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22L-01-HG** **Collins Pond**

Cause Location: Segment includes all of Collins Pond.

City / County: Caroline Co.

Use(s): Fish Consumption

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

2010 Assessment: Excursions above the fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue were recorded in tissue from two species (largemouth bass, yellow bullhead catfish) of fish samples (three total excursions) collected in 2003 at monitoring station 8-DOC003.63.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22L_DOC01A06 / Collins Pond / Segment includes all of Collins Pond.	5A	Mercury in Fish Tissue	2010	L	63.93

Collins Pond **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:		**63.93**	

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F22R-01-BAC** **Maracossic Creek**

Cause Location: Begins at the outlet of Broaddus Pond and continues downstream until the confluence with Jones Run. Begins again at the confluence with Beverly Run and continues downstream until the confluence with the Mattaponi River.

City / County: Caroline Co. King And Queen Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (8 of 35 samples - 22.9%) at DEQ station 8-MAR003.24 at Route 627. E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-MAR011.09 at Route 721. E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at station 8-MAR014.20 at Route 641.

The Mattaponi River Watershed bacteria TMDL for the Maracossic Creek watershed (Eq. ID 1570) was approved by the EPA on 07/19/2016 (Fed ID 66041). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_MAR01A02 / Maracossic Creek / Segment begins at the confluence with Beverly Run and continues downstream until the confluence with the Mattaponi River.	4A	Escherichia coli (E. coli)	2006	L	4.21
VAN-F22R_MAR03A08 / Maracossic Creek / Segment begins at the confluence with Jones Run and continues downstream until the confluence with Doctors Creek.	4A	Escherichia coli (E. coli)	2020	L	5.13
VAN-F22R_MAR04A08 / Maracossic Creek / Segment begins at the outlet of Broaddus Pond and continues downstream until the confluence with Jones Run.	4A	Escherichia coli (E. coli)	2018	L	6.77

Maracossic Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**16.11**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-02-BAC** **Doctors Creek**

Cause Location: Begins at the confluence with Tanyard Swamp and continues downstream until the confluence with Maracossic Creek.

City / County: Caroline Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 12 samples - 33.3%) at DEQ station 8-DOC000.69 at Route 644. The Mattaponi River Watershed bacteria TMDL for the Doctors Creek watershed (Eq. ID 1568) was approved by the EPA on 07/19/2016 (Fed ID 66043). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_DOC01A08 / Doctors Creek / Segment begins at the confluence with Tanyard Swamp and continues downstream until the confluence with Maracossic Creek.	4A	Escherichia coli (E. coli)	2014	L	2.32

Doctors Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.32**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-02-PH** **Root Swamp**

Cause Location: Begins at the headwaters of Root Swamp and continues downstream until the confluence with Beverly Run.

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Excursions less than the lower limit of the pH criterion range (3 of 19 samples - 15.8%) at DEQ station 8-ROT001.09 at Route 721 and excursions less than the lower limit of the pH criterion range (5 of 11 samples - 45.5%) at DEQ station 8-ROT003.65 at Route 649.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_ROT01A06 / Root Swamp / Segment begins at the headwaters of Root Swamp and continues downstream until the confluence with Beverly Run.	5C	pH	2006	L	7.83

Root Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**7.83**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-03-BAC** **Root Swamp**

Cause Location: Begins at the confluence with Cook Swamp and continues downstream until the confluence with Beverly Run.

City / County: King And Queen Co.

Use(s): Recreation

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

2018 Assessment: E. coli bacteria criterion excursions (4 of 18 samples - 22.2%) at station 8-ROT001.09 at Route 721.

The Mattaponi River Watershed bacteria TMDL for the Root Swamp watershed (Eq. ID 1579) was approved by the EPA on 07/19/2016 (Fed ID 66029). The SWCB approved the TMDL on 06/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_ROT01A06 / Root Swamp / Segment begins at the headwaters of Root Swamp and continues downstream until the confluence with Beverly Run.	4A	Escherichia coli (E. coli)	2014	L	7.83

Root Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**7.83**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-03-DO** **Unnamed tributary to Root Swamp**

Cause Location: Begins at the headwaters of an unnamed tributary to Root Swamp and continues downstream until the confluence with Root Swamp.

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

2008 Assessment: Excursions less than the minimum dissolved oxygen criterion (2 of 6 samples - 33.3%) at DEQ station 8-XDY000.27 at Route 689.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_XDY01A06 / Unnamed tributary to Root Swamp / Segment begins at the headwaters of an unnamed tributary to Root Swamp and continues downstream until the confluence with Root Swamp.	5C	Dissolved Oxygen	2006	L	0.70

Unnamed tributary to Root Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**0.70**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-03-PH** **Unnamed tributary to Root Swamp**

Cause Location: Begins at the headwaters of an unnamed tributary to Root Swamp and continues downstream until the confluence with Root Swamp.

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

2008 Assessment: Excursions less than the lower limit of the pH criterion range (6 of 6 samples - 100%) at DEQ station 8-XDY000.27 at Route 689.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_XDY01A06 / Unnamed tributary to Root Swamp / Segment begins at the headwaters of an unnamed tributary to Root Swamp and continues downstream until the confluence with Root Swamp.	5C	pH	2006	L	0.70

Unnamed tributary to Root Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**0.70**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F22R-04-BAC** **Beverly Run**

Cause Location: Begins at the confluence with Mason Swamp and continues downstream until the confluence with King and Queen Swamp.

City / County: Caroline Co.

Use(s): Recreation

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

E. coli bacteria criterion excursions (3 of 12 samples - 25.0%) at DEQ station 8-BEV006.78 at Route 630.

A new TMDL is not required for this impaired segment of Beverly Run because the downstream Mattaponi River Watershed bacteria TMDL (Fed ID 66041, 07/19/2016) included modeling, source identification, and reductions that covered the entire Maracossic Creek watershed. The SWCB approved the TMDL on 6/27/2016.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_BEV01B00 / Beverly Run / Segment begins at the confluence with Mason Swamp and continues downstream until the confluence with King and Queen Swamp.	4A	Escherichia coli (E. coli)	2016	L	3.07

Beverly Run **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.07**

Sources:

Grazing in Riparian or Shoreline Zones	Livestock (Grazing or Feeding Operations)	Runoff from Forest/Grassland/Parkland	Sewage Discharges in Unsewered Areas
Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-04-PH** **Beverly Run**

Cause Location: Begins at the confluence with Shady Grove Run and continues downstream until the confluence with Mason Swamp.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

2018 Assessment: Excursions less than the lower limit of the pH criterion range (6 of 11 samples - 54.5%) at DEQ station 8-BEV008.47 at Route 665.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_BEV02A08 / Beverly Run / Segment begins at the outlet of White Lake and continues downstream until the confluence with Mason Swamp.	5C	pH	2008	L	2.58

Beverly Run **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**2.58**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-05-PH** **Doctors Creek**

Cause Location: Begins at the confluence with Tanyard Swamp and continues downstream until the confluence with Maracossic Creek.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

2018 Assessment: Excursions less than the lower limit of the pH criterion range (5 of 17 samples - 29.4%) at DEQ station 8-DOC000.69 at Route 644.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_DOC01A08 / Doctors Creek / Segment begins at the confluence with Tanyard Swamp and continues downstream until the confluence with Maracossic Creek.	5C	pH	2008	L	2.32

Doctors Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**2.32**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F22R-06-PH** **Maracossic Creek**

Cause Location: Begins at the outlet of Broaddus Pond and continues downstream until the confluence with Jones Run.

City / County: Caroline Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Excursions less than the lower limit of the pH criterion range (3 of 12 samples - 25.0%) at DEQ station 8-MAR014.20 at Route 641.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F22R_MAR04A08 / Maracossic Creek / Segment begins at the outlet of Broaddus Pond and continues downstream until the confluence with Jones Run.	5C	pH	2018	L	6.77

Maracossic Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**6.77**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23E-02-BAC** **Mattaponi River**

Cause Location: The mainstem Mattaponi River from Ayletts Creek to the confluence with Garnetts Creek.

City / County: King And Queen Co. King William Co.

Use(s): Recreation

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

During the 2016 cycle, the Mattaponi River from Ayletts Creek to Garnetts Creek was assessed as impaired of the Recreation Use due to an E. coli exceedance rate of 2/9 at 8-MPN034.33 (pier at Rosepont.)

Continued monitoring is recommended due to an acceptable exceedance rate at 8-MPN029.08 (Rt. 629 bridge near Walkerton.)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23E_MPN03A06 / Mattaponi River / Aylett Creek to Garnetts Creek.	5A	Escherichia coli (E. coli)	2016	L	1.756

MPNTF

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**1.756**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23E-03-BAC** **Mattaponi River**

Cause Location: The mainstem Mattaponi River from the limit of tide to the confluence with Aylett Creek.

City / County: King And Queen Co. King William Co.

Use(s): Recreation

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

During the 2020 cycle, the Mattaponi River from the tidal limit to Ayletts Creek was impaired of the Recreation Use due to an E. coli exceedance rate of 5/33 at 8-MPN039.10.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23E_MPN02A98 / Mattaponi River / From the limit of tide above the Route 360 bridge to Aylett Creek.	5A	Escherichia coli (E. coli)	2020	L	0.159

MPNTF

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**0.159**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-01-BAC** **Garnetts Creek**

Cause Location: The mainstem of Garnetts Creek from the confluence with Dickeys Swamp to the tidal limit.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2010 cycle, Garnetts Creek from the confluence with Dickeys Swamp downstream to the tidal limit was assessed as impaired of the Recreation Use due to E. coli violations at the Route 633 bridge (8-GNT001.54).

The exceedance rate was 6/23 during the 2014 cycle and 3/12 during the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_GNT01A00 / Garnetts Creek / Dickeys Swamp to tidal limit	5A	Escherichia coli (E. coli)	2010	H	2.83

Garnetts Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.83**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-03-DO** **Walkerton Branch**

Cause Location: Watershed upstream of Walkerton Millpond

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

Walkerton Branch was initially assessed as not supporting of the Aquatic Life Use for dissolved oxygen in 2006 based on exceedances at Route 636 (8-WKN003.16).

Additional monitoring was conducted during the 2014 cycle. The segment remained impaired for dissolved oxygen with an exceedance rates of 3/11.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_WKN01A00 / Walkerton Branch / Watershed above Walkerton Millpond.	5C	Dissolved Oxygen	2006	L	4.62

Walkerton Branch **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**4.62**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-03-PH** **Walkerton Branch**

Cause Location: Watershed upstream of Walkerton Millpond

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: pH / 5C

Walkerton Branch was initially assessed as not supporting of the Aquatic Life Use goal in 2004 based on pH exceedances at Route 636 (8-WKN003.16).

Additional monitoring was conducted during the 2014 cycle. The segment remained impaired for pH with an exceedance rate of 4/11.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_WKN01A00 / Walkerton Branch / Watershed above Walkerton Millpond.	5C	pH	2004	L	4.62

Walkerton Branch **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
pH - Total Impaired Size by Water Type:			**4.62**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-04-BAC** **Aylett Creek**

Cause Location: The mainstem of Aylett Creek.

City / County: King William Co.

Use(s): Recreation

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

During the 2012 cycle, Aylett Creek was impaired of the Recreation Use due to an E. coli violation rate of 3/11 at 8-AYL002.27, which is located at the Route 600 bridge.

The exceedance rate was 6/12 during the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_AYL01A12 / Aylett Creek / Headwaters to mouth at Mattaponi River	5A	Escherichia coli (E. coli)	2012	H	6.83

Aylett Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.83**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-05-BEN** **Fleets Creek**

Cause Location: Fleets Creek from its headwaters to its mouth.

City / County: King And Queen Co.

Use(s): Aquatic Life

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

During the 2018 cycle, Fleets Creek was assessed as impaired of the Aquatic Life Use due to benthic alteration during sampling in 2015 at 2-FTS001.98.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_FTS01A10 / Fleets Creek / Headwaters to mouth at Dickeys Swamp	5A	Benthic Macroinvertebrates Bioassessments	2018	L	5.01

Fleets Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**5.01**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-06-PCB** **Mattaponi River**

Cause Location: The Mattaponi River from the Route 628 bridge downstream to the mouth at West Point.

City / County: King And Queen Co. King William Co.

Use(s): Fish Consumption

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

During the 1998 cycle, the Mattaponi River from Herring Creek to the tidal limit was considered fully supporting but threatened of the Fish Consumption Use due to exceedance of a PCB screening value in 1 species (white perch) in 1996.

During the 2006 cycle, 2003 monitoring at 8-MPN041.41 indicated exceedances of the fish tissue level for PCBs in 2 species. In addition, the VDH issued a fish consumption advisory on 12/13/2004 for PCBs from Herring Creek to Aylett Creek which recommends that adults eat no more than 2 meals/month of anadromous striped bass, white perch, and gizzard shad. The TMDL is due in 2018.

The advisory was revised on 10/7/2009. The advisory now extends from Route 628 downstream approximately 55 miles to the mouth of the Mattaponi at West Point. No more than two meals/month of anadromous (coastal) striped bass, white perch, and gizzard shad are recommended due to PCBs.

The advisory is based on the results of DEQ's fish tissue monitoring program, which indicated PCB exceedances at 8-MPN029.08, 8-MPN014.33 and 8-MPN041.41.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAN-F21R_MPN01A06 / Mattaponi River / Segment begins at the confluence with Gravel Run and continues downstream until the confluence with Herring Creek.	5A	PCBs in Fish Tissue	2010	L	6.07
VAN-F21R_MPN01B02 / Mattaponi River / Segment begins at the Route 628 crossing and continues downstream until the confluence with Gravel Run.	5A	PCBs in Fish Tissue	2010	L	4.91
VAP-F23E_MPN02A98 / Mattaponi River / From the limit of tide above the Route 360 bridge to Aylett Creek.	5A	PCBs in Fish Tissue	2006	L	0.159
MPNTF					
VAP-F23E_MPN03A06 / Mattaponi River / Aylett Creek to Garnetts Creek.	5A	PCBs in Fish Tissue	2010	L	1.756
MPNTF					
VAP-F23R_MPN01A00 / Mattaponi River / From the watershed boundary (Herring Creek) to the limit of tide near the Route 360 bridge.	5A	PCBs in Fish Tissue	2006	L	4.72
VAP-F24E_MPN03A98 / Mattaponi River / Garnetts Creek to tidal freshwater/oligohaline boundary at approximately river mile 18	5A	PCBs in Fish Tissue	2010	L	1.384
MPNTF					
VAP-F24E_MPN03B02 / Mattaponi River / Tidal freshwater/oligohaline boundary to Melrose Landing at Route 602	5A	PCBs in Fish Tissue	2010	L	0.423
MPNOH					
VAP-F24E_MPN03C06 / Mattaponi River / Melrose Landing (Route 602) to Heartquake Creek.	5A	PCBs in Fish Tissue	2010	L	0.717
MPNOH					

York River Basin

VAP-F25E_MPN05A00 / Mattaponi River / Mattaponi River from Heartquake Creek to the downstream boundary of VDH-DSS 049-004G, 8/15/2018	5A	PCBs in Fish Tissue	2010	L	1.292
MPNOH					
VAP-F25E_MPN05B06 / Mattaponi River / From VDH-SFC 049-004B, 8/15/2018 to the oligohaline/York mesohaline boundary.	5A	PCBs in Fish Tissue	2010	L	0.384
MPNOH					
VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018.	5A	PCBs in Fish Tissue	2010	L	0.209
YRKMH					
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem.	5A	PCBs in Fish Tissue	2010	L	0.641
YRKMH					

Mattaponi River **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:	**6.965**		**15.70**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-08-BAC** **Dickeys Swamp**

Cause Location: Dickeys Swamp from the confluence with Dogwoods Fork downstream to the Route 620 bridge.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2014 cycle, Dickeys Swamp from Dogwoods Fork downstream to the Route 620 bridge was impaired of the Recreation Use due to an E. coli exceedance rate of 4/12 at station 8-DKW004.31. Monitoring at station 8-DKW001.12 was acceptable (0/12).

In the 2020 cycle, the segment remained impaired (3/12).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_DKW01B00 / Dickeys Swamp / Dogwoods Fork to Route 620	5A	Escherichia coli (E. coli)	2014	H	4.33

Dickeys Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.33**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-09-BAC** **Market Swamp**

Cause Location: Market Swamp from the Walker Coleman Pond dam downstream to its mouth.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2014 cycle, Market Swamp below Walker Coleman Pond was impaired of the Recreation Use due to an E. coli exceedance rate of 2/12 at station 8-MKT001.04, which is located at the Route 14 bridge.

Note: monitoring at station 8-MKT001.96 was acceptable (0/12).

The exceedance rate was 4/12 at 8-MKT001.04 during the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_MKT01B00 / Market Swamp / Walker Coleman Pond to mouth at Dickeys Swamp.	5A	Escherichia coli (E. coli)	2014	H	2.01

Market Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.01**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-10-BAC** **XJG - Dickeys Swamp, UT**

Cause Location: Tributary XJG in its entirety.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2014 cycle, Dickeys Swamp UT XJG was considered impaired of the Recreation Use due to an E. coli exceedance rate of 5/12 at 8-XJG000.08.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_XJG01A14 / XJG - Dickeys Swamp, UT / Headwaters to mouth	5A	Escherichia coli (E. coli)	2014	H	1.99

XJG - Dickeys Swamp, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**1.99**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-11-BAC** **Dogwood Fork**

Cause Location: Dogwood Fork from its headwaters to its mouth at Dickeys Swamp

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2014 cycle, Dogwood Fork was impaired of the Recreation Use due to an E. coli exceedance rate of 4/12 at station 8-DWD000.77, which is located at the Route 621 bridge.

The exceedance rate was 3/12 in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_DWD01A00 / Dogwood Fork / From its headwaters to its mouth at Dickeys Swamp.	5A	Escherichia coli (E. coli)	2014	H	2.91

Dogwood Fork **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.91**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-12-BAC** **XDN - Garnetts Creek, UT**

Cause Location: Headwaters to mouth at Garnetts Creek

City / County: King And Queen Co.

Use(s): Recreation

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

Based on monitoring during the 2014 cycle, tributary XDN was impaired of the Recreation Use due to an E. coli exceedance rate of 2/11 at 8-XDN000.12, which is located at the Route 620 bridge.

Unfortunately, the impairment was inadvertently left off in the 2014 cycle. Although XDN was first listed in the 2016 cycle, the TMDL due date is 2026 to reflect the initial monitoring.

The exceedance rate was 5/9 during the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_XDN01A00 / XDN - Garnetts Creek, UT / Headwaters to mouth at Garnetts Creek.	5A	Escherichia coli (E. coli)	2016	H	2.53

XDN - Garnetts Creek, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.53**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-13-BAC** **Dickeys Swamp**

Cause Location: Dickeys Swamp from its headwaters downstream to the confluence with Dogwood Fork.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2020 cycle, Dickeys Swamp from its headwaters to the confluence with Dogwood Fork was impaired of the Recreation Use due to an E. coli exceedance rate of 3/12 at 8-DKW005.73.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_DKW01A00 / Dickeys Swamp / Headwaters to Dogwood Fork.	5A	Escherichia coli (E. coli)	2020	L	3.99

Dickeys Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**3.99**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F23R-14-BAC** **Dickeys Swamp**

Cause Location: Dickeys Swamp from Route 620 downstream to its mouth at Garnetts Creek.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2020 cycle, Dickeys Swamp from Route 620 to its mouth at Garnetts Creek was impaired of the Recreation Use due to an E. coli exceedance rate of 4/23 at 8-DKW000.12.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23R_DKW01C98 / Dickeys Swamp / Route 620 to mouth at Garnetts Creek	5A	Escherichia coli (E. coli)	2020	L	0.07

Dickeys Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.07**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F24E-02-BAC** **Mattaponi River**

Cause Location: The Mattaponi River from Garnetts Creek to the tidal freshwater/oligohaline boundary at approximately river mile 18

City / County: King And Queen Co. King William Co.

Use(s): Recreation

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

During the 2018 cycle, the Mattaponi River from Garnetts Creek to the tidal freshwater/oligohaline boundary was impaired of the Recreation Use due to an E. coli exceedance rate of 4/35 at 8-MPN017.46.

The exceedance rate was 4/34 in the 2020 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F24E_MPN03A98 / Mattaponi River / Garnetts Creek to tidal freshwater/oligohaline boundary at approximately river mile 18	5A	Escherichia coli (E. coli)	2018	L	1.384

MPNTF

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:	**1.384**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F24R-01-BAC** **Heartquake Creek**

Cause Location: Heartquake Creek from the confluence with the UT at approx. rivermile 4.67 downstream to the tidal limit.

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2012 cycle, the segment was impaired of the Recreation Use due to an E. coli exceedance rate of 2/12 at the Route 14 bridge (8-HTQ003.77).

The stream is located within the study area for the Upper York Shellfish TMDL, which was approved by the EPA on 7/28/2010; therefore, the impairment is considered nested (Category 4A).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F24R_HTQ01A00 / Heartquake Creek / From the confluence with the UT at approx. rivermile 4.67 downstream to the tidal limit.	4A	Escherichia coli (E. coli)	2012	L	2.27

Heartquake Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.27**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F24R-03-BAC** **Courthouse Creek**

Cause Location: Courthouse Creek from King and Queen Courthouse Pond to the tidal limit

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2016 cycle, Courthouse Creek downstream of King and Queen Courthouse Pond was impaired of the Recreation Use due to an E. coli exceedance rate of 3/12 at 8-CTH001.96, which is located at the Route 14 bridge.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F24R_CTH01A00 / Courthouse Creek / From King and Queen Courthouse Pond downstream to the tidal limit.	5A	Escherichia coli (E. coli)	2016	H	0.72

Courthouse Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**0.72**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F24R-03-DO** **Courthouse Creek**

Cause Location: Courthouse Creek from King and Queen Courthouse Pond to the tidal limit

City / County: King And Queen Co.

Use(s): Aquatic Life

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

During the 2014 cycle, Courthouse Creek downstream of King and Queen Courthouse Pond was impaired of the Aquatic Life Use due to dissolved oxygen exceedances at 8-CTH001.96, which is located at the Route 14 bridge.

The exceedance rate was 4/24 during the 2016 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F24R_CTH01A00 / Courthouse Creek / From King and Queen Courthouse Pond downstream to the tidal limit.	5A	Dissolved Oxygen	2014	L	0.72

Courthouse Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**0.72**

Sources:

Dam or Impoundment	Natural Conditions - Water Quality Standards Use Attainability Analyses Needed	Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F25E-01-BAC** **Mattaponi River**

Cause Location: The Mattaponi River from Heartquake Creek downstream to its mouth.

City / County: King And Queen Co. King William Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 4A

The Mattaponi from Heartquake Creek downstream to its mouth was assessed as not supporting the Recreation Use based on enterococci exceedances at 8-MPN004.39 during the 2006 cycle.

The TMDL was approved by the EPA on 7/28/2010; therefore, the segment is Category 4A.

During the 2020 cycle, enterococci exceedance rates were 20/69 at 8-MPN004.39 and 5/12 at 8-MPN006.23. The exceedance rate at 8-MPN000.98 was acceptable (0/10).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F25E_MPN05A00 / Mattaponi River / Mattaponi River from Heartquake Creek to the downstream boundary of VDH-DSS 049-004G, 8/15/2018 MPNOH	4A	Enterococcus	2006	L	1.292
VAP-F25E_MPN05B06 / Mattaponi River / From VDH-SFC 049-004B, 8/15/2018 to the oligohaline/York mesohaline boundary. MPNOH	4A	Enterococcus	2006	L	0.384
VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018. YRKMH	4A	Enterococcus	2006	L	0.209
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem. YRKMH	4A	Enterococcus	2006	L	0.641

Mattaponi River **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**2.525**		

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F25R-01-BAC** **Tastine Swamp and Little Tastine Swamp**

Cause Location: From the headwaters of Little Tastine Swamp down Tastine Swamp to Corbins Pond.

City / County: King And Queen Co.

Use(s): Recreation

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

Tastine Swamp from the Route 611 bridge downstream to Corbins Pond was initially assessed in 1998 as fully supporting but threatened of the Recreation use goal.

During the year 2002 cycle the segment was downgraded and extended to incorporate Little Tastine Swamp.

In the 2004 cycle, the segment continued to be impaired based on fecal coliform exceedances at 8-TST001.81 (Route 611 bridge).

E. coli monitoring was conducted during the 2010 cycle. Although the exceedance rate was acceptable at the original listing station (1/12 at 8-TST001.81), impairment was noted at two new stations (3/12 at 8-LTS001.65 and 2/12 at 8-TST001.35). The impairment converted to E. coli but the original TMDL due date was maintained.

The stream is located within the study area for the tidal Lower Mattaponi River Bacterial TMDL, which was approved by the EPA on 7/28/2010. Implementation of the enterococci TMDL is expected to bring the riverine E. coli impairment into compliance; therefore, the impairment was considered nested (Category 4A) in the 2012 cycle.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F25R_TST01A98 / Tastine Swamp, Little Tastine Swamp / From the headwaters of Little Tastine Swamp down Tastine Swamp to Corbin Pond	4A	Escherichia coli (E. coli)	2010	L	6.25

Tastine Swamp and Little Tastine Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**6.25**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F25R-01-DO** **Tastine Swamp and Little Tastine Swamp**

Cause Location: From the headwaters of Little Tastine Swamp down Tastine Swamp to Corbins Pond.

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

During the 2016 cycle, the segment was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/12 at 8-TST001.81 (Rt. 611 bridge.)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F25R_TST01A98 / Tastine Swamp, Little Tastine Swamp / From the headwaters of Little Tastine Swamp down Tastine Swamp to Corbin Pond	5C	Dissolved Oxygen	2016	L	6.25

Tastine Swamp and Little Tastine Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**6.25**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F25R-02-DO** **Tastine Swamp**

Cause Location: From the headwaters of Tastine Swamp downstream to the confluence with Little Tastine Swamp

City / County: King And Queen Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 5C

Tastine Swamp from its headwaters down to the confluence with Little Tastine Swamp was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a dissolved oxygen exceedance rate of 2/12 at station 8-TST003.16.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F25R_TST01B10 / Tastine Swamp / Headwaters to confluence with Little Tastine Swamp	5C	Dissolved Oxygen	2010	L	2.15

Tastine Swamp **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:			**2.15**

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F25R-03-BAC** **XIN - Tastine Swamp, UT**

Cause Location: From the headwaters downstream to the mouth at Tastine Swamp

City / County: King And Queen Co.

Use(s): Recreation

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

During the 2010 cycle, the tributary was assessed as not supporting of the Recreation Use due to an E. coli violation rate of 3/12 at station 8-XIN001.00.

The stream is located within the study area for the tidal Lower Mattaponi River Bacterial TMDL, which was approved by the EPA on 7/28/2010 and by the SWCB on 12/13/2010. Implementation of the enterococci TMDL is expected to bring the riverine E. coli impairment into compliance; therefore, the impairment was considered nested during the 2012 cycle (Category 4A.)

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F25R_XIN01A10 / XIN - Tastine Swamp, UT / Headwaters to mouth at Tastine Swamp	4A	Escherichia coli (E. coli)	2010	L	2.40

XIN - Tastine Swamp, UT **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**2.40**

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-01-PCB** **York River, Queens Creek, Kings Creek, Wormley**

Cause Location: This cause encompasses the area from the confluence of the Mattaponi and Pamunkey Rivers down to the mouth of the York River including King, Queens and Wormley Creek

City / County: Gloucester Co. James City Co. King And Queen Co. King William Co. New Kent Co. Williamsburg City York Co.

Use(s): Fish Consumption

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

The segment is included under a 12/13/2004 VDH Fish Consumption Advisory due to polychlorinated biphenyls (PCBs) in fish tissue. The advisory recommends that adults eat no more than two meals/month of croaker, gizzard shad, and spot. High risk individual

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_QEN01A02 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of tidal waters (below dam at Waller Mill Res.) downstream to end of DSS shellfish condemnation # 051-035 A, 8/14/2018. CBP segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	0.296
Split in 2012 cycle.					
VAT-F26E_QEN01B12 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of DSS shellfish condemnation # 051-035 (20180814). downstream to mouth. CBP segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	0.136
VAT-F26E_YRK01A04 / York River / York River at Goalders Creek downstream to the boundary of DSS OPEN condemnation # 049-004 (effective 20180815). CBP segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	3.962
VAT-F26E_YRK01B10 / York River / Start of York River at West Point (RM 32.0) downstream to the boundary of ADMIN COND # 049-004 A (effective 8/15/2018), approx. Goff Point . CBP segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	1.086
VAT-F26E_YRK01C12 / York River-at Hockley Cr / York River segment at mouth of Hockley Cr within VDH DSS Condemnation 049-004 C, 8/15/2018. CB Seg - YRKMH.	5A	PCBs in Fish Tissue	2006	L	0.029
VAT-F26E_YRK01D12 / York River / Portion of York River within VDH Seasonal Cond 0049-004 effective date 20180815	5A	PCBs in Fish Tissue	2006	L	0.042
YRKMH					
VAT-F26E_YRK01E14 / York River / York River from Goff Point (end of Admin Cond) to the Conditional Approval condemnation. VDH new Restricted Condemnation 049-004 A 8/3/2015 . CBP segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	0.457
VAT-F26E_YRK02A14 / York River (Lower Middle MSN) / Segment starts south of New Kent and James City Boundary and extends downstream to the MSN boundary near Mt. Folly/Poropotank Bay. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	5A	PCBs in Fish Tissue	2006	L	2.680
VAT-F26E_YRK02E20 / York River (lower middle) / York River from Goff Point (end of Restricted-Condemnation) to Goalders Creek. VDH new Conditionally Approved condemnation 20180815.	5A	PCBs in Fish Tissue	2006	L	2.125

York River Basin

CBP segment YRKMH.

VAT-F26E_YRK03A00 / York River (Lower Middle) / Segment starts at end of MSN boundary near Mt. Folly/Poropotank Bay and extends downstream to the mesohaline/polyhaline boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	5A	PCBs in Fish Tissue	2006	L	20.372
VAT-F26E_YRK03B12 / York River (Lower Middle) / Portion of York River at Carter Creek north of Camp Peary. Within VDH-DSS Open condemnation-type #049-004 , 20180815. CB segment YRKMH.	5A	PCBs in Fish Tissue	2006	L	0.023
VAT-F27E_KNG01A02 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to end of DSS condemnation # 051-035C, 8/14/2018. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.128
Shortened in 2012 cycle.					
VAT-F27E_KNG02A02 / King Creek - Mouth / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From boundary of (OPEN) condemnation # 051-035 (8/14/2018) to mouth. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2002	L	0.220
VAT-F27E_KNG03A20 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to halfway through DSS Open condemnation-type # 051-035, 8/14/2018. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.072
Shortened in 2012 cycle.					
VAT-F27E_WOR01A08 / Wormley Creek / South shore York River near Amoco facility southeast of Gloucester Point. CBP segment YRKPH. Upstream portion of DSS (ADMINISTRATIVE) condemnation # 052-006 A (effective 2018-05-03).	5A	PCBs in Fish Tissue	2002	L	0.283
VAT-F27E_YRK01A00 / York River - Lower Middle / The polyhaline boundary downstream to line from Roosevelt Pond N to Mumfort Islands at RM 7.49, excluding otherwise segmented DSS shellfish condemnation areas. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	5A	PCBs in Fish Tissue	2006	L	10.393
YRKPH					
VAT-F27E_YRK01B00 / York R - DSS AdminCond @ Cheatham Annex/Camp Peary / Segment adjacent to Cheatham Annex, VDH-DSS condemnation 051-035 B (effective 8/14/2018) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.260
VAT-F27E_YRK01C00 / York R - DSS AdminCond @ Naval Weapons Station / Segment adjacent to Yorktown Naval Weapons Sta., VDH-DSS condemnation 051-040 B (effective 20180814) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.236
VAT-F27E_YRK01D06 / York River - Yorktown Beach / Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	5A	PCBs in Fish Tissue	2006	L	0.024
VAT-F27E_YRK01E06 / York River - Gloucester Point Beach / Gloucester Point Beach VDH bathing area. CBP segment YRKPH. Portion of DSS (OPEN) shellfish direct harvesting condemnation # 046-027 (effective 20120808).	5A	PCBs in Fish Tissue	2006	L	0.018

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

VAT-F27E_YRK02A00 / York River - Lower / Segment starts at line across river from Roosevelt Pond to Mumfort Islands (RM 7.49), downstream to mouth (RM 0.0) near Thoroughfare Creek. CBP segment YRKPH. No DSS shellfish condemnation.	5A	PCBs in Fish Tissue	2006	L	11.657
VAT-F27E_YRK02B00 / York R - DSS AdminCond @ HRSD York STP/Amoco / Described in VDH-DSS (ADMINISTRATIVE) shellfish condemnation 052-006 B&C (effective 20180503) adjacent Wormley Cr., HRSD STP & power plant and refinery. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.508
VAT-F27E_YRK02C00 / York River - DSS AdminCond @ Wormley to USCG / Segment on Yorktown side (south shore) of river. DSS (ADMINISTRATIVE) shellfish condemnation # 052-006 A (effective 2018-05-03) (portion in York R), from Wormley Cr. to USCG Station, S shore to mid-channel. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	2.698
VAT-F27E_YRK02D12 / York River - Lower / Portion of York River within VDH-DSS seasonal condemnation 046-052M1, 20180906. CBP segment YRKPH.	5A	PCBs in Fish Tissue	2006	L	0.139

York River, Queens Creek, Kings Creek, Wormley **Fish Consumption**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
PCBs in Fish Tissue - Total Impaired Size by Water Type:	**57.844**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-03-BAC** **Queens Creek**

Cause Location: This cause encompasses the entirety of Queens Creek to the end of VHD shellfish condemnation 051-035 on the southern shore of the York River.

City / County: Williamsburg City York Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 4A

Queens Creek was initially assessed as impaired of the Recreation Use in the 2002 cycle. The impairment is based on data collected at station 8-QEN002.47. The exceedance rate is 6/32. The Recreation Use impairment is located within the study area for the Shellfish TMDL completed April 17, 2008; therefore it will be considered nested in 2012.
NESTED: 34372, 4/17/2008
2006 00328 / 2008 F26E-03-BAC

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_QEN01A02 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of tidal waters (below dam at Waller Mill Res.) downstream to end of DSS shellfish condemnation # 051-035 A, 8/14/2018. CBP segment YRKMH.	4A	Enterococcus	2002	L	0.296
Split in 2012 cycle.					
VAT-F26E_QEN01B12 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of DSS shellfish condemnation # 051-035 (20180814). downstream to mouth. CBP segment YRKMH.	4A	Enterococcus	2002	L	0.136

Queens Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**0.432**		

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-06-SF** **Fox Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Direct Harvesting Condemnation #047-072 A,7/22/2016.

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 5B

The Shellfishing Use is impaired based on the VDH-DSS condemnation 047-072A (20160722).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_FOX01A06 / Fox Creek / North shore trib to York River. Located southeast of Allmondsville in Gloucester Co. From estuarine/riverine transition to mouth. CBP segment YRKMH. DSS condemnation # 047-072 A (effective 20160722).	5B	Fecal Coliform	2006	L	0.016

Fox Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.016**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-10-SF** **Carter Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Direct Harvesting Condemnation # 050-079A, 7/24/2015.

City / County: York Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 5B

Portion of VDH-DSS condemnation 050-079A (20150724)
Carter Creek has been impaired since the 2004 cycle due to a VDH condemnation. During the 2012 cycle, the condemnation extends into a portion of the York River.

2006 70004 / 2008 F26E-10-SF

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_CTC01A06 / Carter Creek / Located in York County near Skimino. From estuarine/riverine transition to mouth. CBP segment YRKMH. Portion of DSS Restricted condemnation # 050-087 B, 20180807.	5B	Fecal Coliform	2004	L	0.025

Carter Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.025**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-12-SF** **Adams Creek-Upper**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 048-128 B (effective 7/26/2016).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired based on the VDH-DSS condemnation 048-128B, 7/26/2016. A portion of Adams Creek was listed on the 1998 303(d) list due to VDH condemnation 198B. The condemnation expanded and, during the 2010 cycle, the condemnation extended to the mouth of the creek (#048-128B, 7/6/2005). The TMDL was approved by the EPA on 6/9/2009 for most of the Creek (from upstream end of tidal waters to downstream last Unnamed Trib). During the 2014 cycle, the condemnation shrank. The open area within the TMDL study area will be partially delisted (Category 2C) and added to AU VAT-F26E_ADM01B12, the condemned area will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_ADM01A00 / Adams Creek-Upper / Eastern shore of York River near Purtan Island. CBP segment YRKMH. DSS shellfish restricted condemnation and Conditionally Approved # 048-128 B (effective 8/07/2018).	4A	Fecal Coliform	1998	L	0.116

Adams Creek-Upper **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.116**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-14-SF** **Poropotank River**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 048-128A, 7/26/2016.

City / County: Gloucester Co. King And Queen Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired based on the VDH-DSS condemnation 048-128A, 7/26/2016. A portion of Poropotank Creek was listed on the 1998 303(d) list due to VDH condemnation 198A. The condemnation expanded and during the 2010 cycle, the condemnation extended to the mouth of the creek (#048-128A, 7/6/2005) (see 2010 fact sheet F26E-28-SF). However, the TMDL addressed the 1998 impaired area only. The TMDL was approved by the EPA on 6/9/2009. During the 2012 cycle, the condemnation shrank and is now smaller than the 1998 impairment. The downstream area will be partially delisted (Category 2A), the open area within the TMDL study area will be partially delisted (Category 2C), the condemned area is considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_PTK01A00 / Poropotank River / North shore of York River near Purtan Island. Forms boundary of King and Queen/Gloucester Co. From end of tidal waters downstream to end of DSS condemnation # 048-128A, 8/07/2018. CBP segment YRKMH.	4A	Fecal Coliform	1998	L	0.451

Poropotank River **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.451**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-15-SF** **Aberdeen Creek - Upper**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 047-078 A (8/4/2015).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired for a portion of Aberdeen Creek and has been impaired since the 1998 cycle due to VDH shellfish condemnation 047-078. The condemnation has since expanded and is currently included under 047-078A (20150804). However, the TMDL "York River: Gloucester Point to Jones Creek", which was approved by the EPA on 7/30/2007, only addressed the 1998 portion. The original condemned area will be considered Category 4A. In 2014, the downstream expansion (F26E-02-SF) will be Nested and now included with this CGC and AU. New nesting rules for 2014 allow nesting within the tidal range as long as newly impaired segments are comparable and all existing sources are accounted for in the TMDL. NESTED 2014: 33102 , 7/30/2007 from VAT-F26E_ABD02A12 from 2012.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_ABD01A00 / Aberdeen Creek - Upper / Southeast of Clay Bank, south of Rt. 631. From the end of tidal waters downstream to the end of Shellfish Conditionally Approved area. Portion of CBP segment YRKMH. Portion of DSS shellfish direct harvesting condemnation # 047-078 A (effective 8/15/2018).	4A	Fecal Coliform	1998	L	0.094

Aberdeen Creek - Upper **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.094**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-16-SF** **Queens Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 051-035 A,7/16/2010.

City / County: Williamsburg City York Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired for Queens Creek. Queens Creek was impaired of the Shellfish Use in the 1998 cycle. The TMDL was developed to address the impairment and was approved by the EPA on 4/17/2008. However, the condemnation has subsequently shortened and is currently addressed in VDH condemnation #051-035A, 7/16/2010. The open downstream area was partially delisted (Category 2C); the condemned area remains Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_QEN01A02 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of tidal waters (below dam at Waller Mill Res.) downstream to end of DSS shellfish condemnation # 051-035 A, 8/14/2018. CBP segment YRKMH.	4A	Fecal Coliform	1998	L	0.296

Split in 2012 cycle.

Queens Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.296**		

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-17-SF** **Skimino Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 050-087 A (effective 20150724).

City / County: James City Co. York Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired due to the DSS shellfish direct harvesting condemnation which is present 050-087A, 7/24/2015. The TMDL for Chesapeake Bay Shellfish Waters: Ware Creek, Taskinas Creek, and Skimino Creek Bacterial Impairments in York, James City, and New Kent Counties, VA, for growing area 50 - Condemnations 073 and 087 was completed during the 2012 cycle and was approved by the EPA on 3/25/2010. Skimino Creek will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_SKM01A00 / Skimino Creek / North of Skimino Farms. Boundary of James City/York Co. From estuarine/riverine transition (dam at Barlows Pond, Rt 604) to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-087 A (effective 20180807).	4A	Fecal Coliform	1998	L	0.174

Skimino Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.174**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-18-SF** **Taskinas Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 050-073 B (effective 20160728).

City / County: James City Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired due to the DSS shellfish direct harvesting condemnation which is present 050-073B, 7/28/2016. The TMDL was completed during the 2012 cycle and was approved by the EPA on 3/25/2010. Taskinas Creek will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_TSK01A00 / Taskinas Creek / West of Purtan Island, south of Croaker Landing. From end of tidal waters downstream to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-073 B (effective 20180807).	4A	Fecal Coliform	1998	L	0.026

Taskinas Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.026**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26E-19-SF** **Ware Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 050-073 A (effective 20160728).

City / County: James City Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired due to the DSS shellfish direct harvesting condemnation which is present, 050-073A, 7/28/2016. The TMDL was completed during the 2012 cycle and was approved by the EPA on 3/25/2010. Ware Creek will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_WRE01A00 / Ware Creek / South of Terrapin Pt., W of Purtan Island. From end of tidal waters downstream to mouth; includes piece of York SF Cond, CBP segment YRKMH. DSS shellfish condemnation # 050-073 A (effective 20180807).	4A	Fecal Coliform	1998	L	0.133

Ware Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.133**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F26E-20-SF** **Baker Creek, Philbates Creek, York River at Hockley & Unsegmented SF Condemned in F26E**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 049-004 A (20120621) as well as the southern portion of VDH condemnation 049-004 A (20150803)

City / County: King And Queen Co. New Kent Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired based on the DSS condemnation #049-009A, effective 20150803.

Included in TMDL for Bacteria for the Upper York River EPA approved 7/28/2010. TMDL #1 for SF Condemnations in the York R Mainstem, unsegmented estuaries in F26, Philbates, Baker, Bakers Ferry, Hockley and Robinson Creeks are included.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_BKS01A08 / Baker Creek / South shore trib to York R. S of Plum Pt. & E of Davis Pond. Estuarine portion of creek with York River. CBP segment YRKMH. DSS Cond 049-004 (20180815)	4A	Fecal Coliform	2008	L	0.017
VAT-F26E_YRK01C12 / York River-at Hockley Cr / York River segment at mouth of Hockley Cr within VDH DSS Condemnation 049-004 C, 8/15/2018. CB Seg - YRKMH.	4A	Fecal Coliform	2002	L	0.029

Baker Creek, Philbates Creek, York River at Hockley & Unsegmented SF Condemned in F26E	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Shellfishing			
Fecal Coliform - Total Impaired Size by Water Type:	**0.046**		

Sources:

Municipal Point Source Discharges

Non-Point Source

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F26E-22-SF** **Hockley Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 049-004 C (effective 8/03/2015). Northern portion of condemnation area.

City / County: King And Queen Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

Shellfish Use is impaired based on DSS Condemnation 049-004 C effective 8/3/2015.

The impairment was addressed in the report "Bacteria Total Maximum Daily Load (TMDL) Development for the Upper York River, the Lower Pamunkey River, and the Lower Mattaponi River (Tidal) Watersheds" which was completed during the 2012 cycle and was approved by the EPA on 7/28/2010.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_HCK01A04 / Hockley Creek / North shore York R NW of Belleview. Estuarine portion of creek. CBP segment YRKMH. Portion of DSS condemnation # 049-004 C (effective 8/15/2018).	4A	Fecal Coliform	2002	L	0.055

Hockley Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.055**		

Sources:

Municipal Point Source Discharges

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F26E-29-SF** **York River**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 049-004 A ,8/3/2015. This is the only portion of the condemnation that is not administrative.

City / County: King And Queen Co. King William Co. New Kent Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired based on new VDH Restricted Condemnation apart of Admin Condemn 049-004 A effective date 8/3/2015. Included in the report "Bacteria Total Maximum Daily Load (TMDL) Development for the Upper York River, the Lower Pamunkey River, and the Lower Mattaponi River (Tidal) Watersheds" which was completed during the 2012 cycle and was approved by the EPA on 7/28/2010.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_YRK01E14 / York River / York River from Goff Point (end of Admin Cond) to the Conditional Approval condemnation. VDH new Restricted Condemnation 049-004 A 8/3/2015 . CBP segment YRKMH.	4A	Fecal Coliform	2014	L	0.457

York River **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.457**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F26R-01-BAC** **Carter Creek**

Cause Location: This cause encompasses Carter Creek from the tidal limit upstream to the confluence with an unnamed tributary.

City / County: York Co.

Use(s): Recreation

Cause(s) / VA Category: Fecal Coliform / 5A

Carter Creek is impaired of the Recreation Use due to fecal coliform exceedances at 8-CTC003.78. The exceedance rate was 2/3 during the 2006 cycle. No additional monitoring has been conducted.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26R_CTC01A04 / Carter Creek / NW & SE of Skimino, N of Camp Peary area. Riverine portion of Carter Creek, extends upstream to branches SW of Skimino area.	5A	Fecal Coliform	2004	L	3.38

Carter Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:			**3.38**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26R-01-BEN** **Carter Creek**

Cause Location: This cause encompasses Carter Creek from the tidal limit upstream to the confluence with an unnamed tributary.

City / County: York Co.

Use(s): Aquatic Life

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

Benthic biological monitoring previously conducted at station 8-CTC003.78 (located at State Route 604) indicated the stream's benthic community was moderately impaired (Benthic MI: 1999, SI S&F 2000, MI F 2001]. As a result, DEQ's General Standard (VR680-21-01.2) is not met for the protection of benthic aquatic life and this segment is assessed as not supporting of the Clean Water Act's Aquatic Life Use. Impairment retained as no more recent data available since 2001.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26R_CTC01A04 / Carter Creek / NW & SE of Skimino, N of Camp Peary area. Riverine portion of Carter Creek, extends upstream to branches SW of Skimino area.	5A	Benthic Macroinvertebrates Bioassessments	2004	L	3.38

Carter Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**3.38**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26R-02-BEN** **XEA - Bland Creek, UT**

Cause Location: This cause encompasses the tributary XEA from its headwater to its mouth at Bland Creek.

City / County: Gloucester Co.

Use(s): Aquatic Life

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

The Aquatic life use is not supporting based on benthic population diversity and abundance measures at this Freshwater Probabilistic Monitoring (FPM) station. The Aquatic Life Use is not supporting based on benthic population diversity and abundance measures at this Freshwater Probabilistic Monitoring (FPM) station, IM-carried forward as no data in cycle. The Aquatic Life Use is not supported based on the benthic data collected in 2001 (Benthic ProbMon-Benthic IM [MI: S&F-01]. Benthic biological monitoring at station 8-XEA000.12 (FPM) indicated the stream's benthic community was moderately impaired. As a result, DEQ's General Standard (VR680-21-01.2) is not met for the protection of benthic aquatic life and this segment is assessed as not supporting of the Clean Water Act's Aquatic Life Use.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26R_XEA01A08 / Unnamed Tributary to Bland Creek / Located northwest of Sassafras area, in Gloucester County. From headwaters downstream to confluence with Bland Creek. Downstream (west) of Rt. 606 7 Rt 615, NE of Stubbs Pond	5A	Benthic Macroinvertebrates Bioassessments	2008	L	1.23

XEA - Bland Creek, UT **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**1.23**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26R-04-BEN** **Bird Creek**

Cause Location: This cause encompasses Bird Creek from its headwater to its mouth at Ware Creek.

City / County: James City Co.

Use(s): Aquatic Life

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

During the 2012 cycle, Byrd Creek was impaired of the Aquatic Use due to a slightly impaired benthic community at freshwater probabilistic monitoring station 8-BRD000.43.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26R_BRD01A12 / Bird Swamp / Headwaters to mouth at Ware Creek	5A	Benthic Macroinvertebrates Bioassessments	2012	L	2.47

Bird Creek **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Benthic Macroinvertebrates Bioassessments - Total Impaired Size by Water Type:			**2.47**

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F26R-05-BAC** **France Swamp**

Cause Location: This cause encompasses the Trib to Ware Creek. NW of Croaker, NE of Toano.

City / County: James City Co.

Use(s): Recreation

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

Recreation Use is not supporting based on E.coli data at station 8-FRS001.17, with 4 viol/ 22 obs. Previously was supporting with 0 viol/ 11 obs. In 2018 nested new recreation use impairment in EPA approved Ware, Taskinas and Skimino Creeks Fecal Coliform TMDL. New impairment is contained in TMDL watershed with similar land uses. Reductions in the TMDL apply to entire TMDL and are adequate.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26R_FRS01A00 / France Swamp / Trib to Ware Creek. NW of Croaker, NE of Toano.	4A	Escherichia coli (E. coli)	2018	L	4.53

France Swamp **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Escherichia coli (E. coli) - Total Impaired Size by Water Type:			**4.53**

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-05-BAC** **King Creek**

Cause Location: This cause encompasses all of King Creek, at South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility.

City / County: York Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 4A

King Creek from the tidal limit to its mouth is impaired of the Recreation Use due to an enterococci violation rate of 12/29 at 8-KNG004.46. The Recreation Use is nested within the Shellfish Use TMDL, EPA approved 4/8/2008.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_KNG01A02 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to end of DSS condemnation # 051-035C, 8/14/2018. CBP segment YRKPH.	4A	Enterococcus	1998	L	0.128
Shortened in 2012 cycle.					
VAT-F27E_KNG02A02 / King Creek - Mouth / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From boundary of (OPEN) condemnation # 051-035 (8/14/2018) to mouth. CBP segment YRKPH.	4A	Enterococcus	1998	L	0.220
VAT-F27E_KNG03A20 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to halfway through DSS Open condemnation-type # 051-035, 8/14/2018. CBP segment YRKPH.	4A	Enterococcus	1998	L	0.072
Shortened in 2012 cycle.					

King Creek **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**0.420**		

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **F27E-06-BAC** **York River - Yorktown Beach**

Cause Location: This cause encompasses Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.

City / County: York Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 5A

Enterococcus is impaired based on a monthly geometric mean violation in 2013 as well as multiple swimming advisories. Enterococcus data at VDHB station VA482894 had 2 geometric mean viol/ 20 obs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_YRK01D06 / York River - Yorktown Beach / Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	5A	Enterococcus	2016	L	0.024

York River - Yorktown Beach **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**0.024**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-07-BAC** **York River - Gloucester Point Beach**

Cause Location: This cause encompasses Gloucester Point Beach VDH bathing area. CBP segment YRKPH.

City / County: Gloucester Co.

Use(s): Recreation

Cause(s) / VA Category: Enterococcus / 5A

Enterococcus is impaired based on a monthly geometric mean violation at VDH Beach Program station VA714367 as well as multiple swimming advisories. Enterococcus data collected at station VA714367 had 1 viol/ 20 obs.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_YRK01E06 / York River - Gloucester Point Beach / Gloucester Point Beach VDH bathing area. CBP segment YRKPH. Portion of DSS (OPEN) shellfish direct harvesting condemnation # 046-027 (effective 20120808).	5A	Enterococcus	2016	L	0.018

York River - Gloucester Point Beach **Recreation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Enterococcus - Total Impaired Size by Water Type:	**0.018**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-13-SF** **King Creek - Upper**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 051-035C, 7/16/2010.

City / County: York Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired based on VDH-DSS Condemnation 051-035C, 7/16/2010. King Creek was impaired in the 1998 cycle due to a VDH-DSS condemnation. The TMDL was approved by the EPA on 4/17/2008 and addressed King Creek to the mouth at the York River. During the 2012 cycle, the condemnation shortened. The condemned area remains Category 4A; the open downstream area will be Category 2C.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_KNG01A02 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to end of DSS condemnation # 051-035C, 8/14/2018. CBP segment YRKPH.	4A	Fecal Coliform	1998	L	0.128

Shortened in 2012 cycle.

King Creek - Upper **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.128**		

Sources:

Discharges from Municipal Separate Storm Sewer Systems (MS4)	Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-15-SF** **Northwest & Northeast Branch Sarah Creek**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 046-052 A, C,E, M1 as well as the non-administratively condemned region of 046-052 B (effective 20161011).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired for a portion of VDH-DSS condemnation 046-052 Seasonal M1 and Restricted A, C,E 10/11/2016.

Sarah Creek was impaired of the Shellfish Use in the 1998 cycle. The TMDL for Sarah Creek from Tidemill Road downstream to the extent of the 1998 impairment was approved by the EPA on 6/4/2006. The condemned areas will be considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_SRH01B10 / Sarah Creek - Northeast Branch, Upper / North shore trib to York River near Gloucester Point. Segment includes north branch off of the northeast branch of Sarah Creek. CBP segment YRKPH. Part of DSS condemnation # 046-052 B, 20180906.	4A	Fecal Coliform	1998	L	0.029
VAT-F27E_SRW01A14 / Northwest Branch Sarah Creek / North shore York River near Gloucester Point. Segment extends from headwaters north of Rt 641 downstream to mouth of Northwest Br. DSS condemnation # 046-052 M1, A, C and E (effective 20180906). CBP segment YRKPH.	4A	Fecal Coliform	1998	L	0.193

Northwest & Northeast Branch Sarah Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.222**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-16-SF** **Timberneck Creek - Upper [TMDL-bact]**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number # 047-003 A (effective 7/22/2016).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired due to the DSS shellfish direct harvesting condemnation which is present, 047-003A 7/22/2016. Covered under TMDL "York River: Gloucester Point to Jones Creek" VAT-F26E-13, 15-18, EPA approved 7/30/2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_TMB01A00 / Timberneck Creek - Upper [TMDL-bact] / North shore York River, NE of Catlett Islands. From the end of tidal waters downstream to the end of DSS shellfish direct harvesting condemnation # 047-003 A (effective 20170725). Portion of CBP segment YRKPH.	4A	Fecal Coliform	1998	L	0.139

Timberneck Creek - Upper [TMDL-bact] **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.139**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-17-SF** **Cedarbush Creek - Upper [TMDL-bact]**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 047-078 C (effective 20150804).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfishing Use is impaired due to the DSS shellfish direct harvesting condemnation which is present, 047-078C (20150804). Covered under TMDL "York River: Gloucester Point to Jones Creek" VAT-F26E-13, 15-18, EPA approved 7/30/2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_CDB01A00 / Cedarbush Creek - Upper [TMDL-bact] / North shore York River, NW of Catlett Islands. From the end of tidal waters downstream to the end of TMDL (07) coverage. Portion of CBP segment YRKPH. DSS shellfish direct harvesting condemnation # 047-078 C (effective 20180815).	4A	Fecal Coliform	1998	L	0.078

Cedarbush Creek - Upper [TMDL-bact] **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.078**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-18-SF** **Carter Cr. (Gloucester Co.) - Upper portion [TMDL-bact]**

Cause Location: Described in VDH Notice and Description of Shellfish Condemnation Number 047-078B (20150804).

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The shellfish use is impaired for Carter Creek. Carter Creek has been impaired since the 1998 cycle due to VDH-DSS condemnations. The impairment was addressed in the TMDL "York River: Gloucester Point to Jones Creek VAT-F26E-13, 15-18, which was approved by the EPA on 7/30/2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_CRT01A00 / Carter Cr. (Gloucester Co.) - Upper portion [TMDL-bact] / North shore York River, north of Catlett Islands. From the end of tidal waters downstream to the end of DSS condemnation 047-078B, 20180815 . Portion of CBP segment YRKPH.	4A	Fecal Coliform	1998	L	0.180

Split in 2012 cycle

Carter Cr. (Gloucester Co.) - Upper portion [TMDL-bact] **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.180**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-28-SF** **Jones Creek**

Cause Location: Described in the VDH Notice and Description of Shellfish Condemnation number 047-072 B (20160722)

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

Shellfish Use is impaired based on the Restricted VDH-DSS Condemnation # 047-072B, effective date 20160722). Covered under TMDL "York River: Gloucester Point to Jones Creek" VAT-F26E-13, 15-18, EPA approved 7/30/2007.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_JNS01A00 / Jones Creek / NW of Clay Bank, between Rts 618 & 616. Portion of CBP segment YRKMH. Described in DSS shellfish direct harvesting condemnation # 047-072B (effective 20180815).	4A	Fecal Coliform	2002	L	0.051

Jones Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.051**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-29-SF** **Perrin River - Upper**

Cause Location: Described in the VDH Notice and Description of Shellfish Condemnation number 046-081 A (20150804)

City / County: Gloucester Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

Shellfish Use is impaired for Upper Perrin River based on Restricted Condemnation for Shellfish Use based on VDH-DSS condemnation #046-081A (effective date 20150804).

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_PRN01A00 / Perrin River - Upper / North shore York River near Cuba Island. Described in DSS Restricted condemnation # 046-081A (effective 20180906). CBP segment YRKPH.	4A	Fecal Coliform	2002	L	0.052
VAT-F27E_PRN01C12 / Perrin River - Upper Middle / North shore York River near Cuba Island. Portion of DSS Restricted-Condemnation 046-081, 20180906. CBP segment YRKPH.	4A	Fecal Coliform	2002	L	0.030
VAT-F27E_SRH03A20 / Sarah Creek - Northeast Branch / Sarah Creek is a North shore trib to York River near Gloucester Point. Northern branch of Sarah Creek near Guinea Neck. DSS Restricted-Condemnation #046-052 B (20180906). CBP segment YRKPH.	4A	Fecal Coliform	2020	L	0.003

Perrin River - Upper **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.085**		

Sources:

Non-Point Source

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* F27E-32-SF** **UT to Cedarbush Creek**

Cause Location: Described in the VDH Notice and Description of RESTRICTED Shellfish condemnation # 047-078 (effective 20150804).

City / County: Gloucester Co. York Co.

Use(s): Shellfishing

Cause(s) / VA Category: Fecal Coliform / 4A

The Shellfish Use is impaired based on the Restricted Shellfish GA # 047-078 D effective date 20150804. Impairment is nested within the TMDL for Shellfish Areas listed due to bacteria contamination for York River: Gloucester Point to Jones Creek. The new impairment is located within existing TMDL watershed with similar land use. Reductions for Cedarbush Cr in the TMDL are 91% for the 90th percentile for Fecal Coliform. The necessary reductions to meet water quality standards are 100% for human, livestock and pets with 45% reductions to wildlife.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_CDB04A18 / UT to Cedarbush Creek / UT at Mouth of Cedarbush Creek. CBP segment YRKPH. RESTRICTED condemnation # 047-078 (effective 20180804).	4A	Fecal Coliform	2018	L	0.029

UT to Cedarbush Creek **Shellfishing**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Fecal Coliform - Total Impaired Size by Water Type:	**0.029**		

Sources:

Livestock (Grazing or Feeding Operations)	Wastes from Pets	Waterfowl	Wildlife Other than Waterfowl

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* MPNOH-DO-BAY** **Mattaponi River**

Cause Location: The oligohaline Mattaponi estuary.

City / County: King And Queen Co. King William Co.

Use(s): Aquatic Life Open-Water Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 4A

The Chesapeake Bay and its tidal tributaries were added by the EPA to the 1998 303(d) list. This included the entire tidal portion of the Mattaponi River. EPA listed the impairment as dissolved oxygen exceedances caused by nutrient overenrichment. During the 2002 cycle, dissolved oxygen and chlorophyll A violation rates at multiple monitoring stations were all acceptable. Since the listing was based solely on the EPA overlist, the impairment was considered Nutrients/Eutrophication Biological Indicators.

However, during the 2006 cycle, the Chesapeake Bay water quality standards were implemented. The area failed both the Open Water default summer criteria and the rest-of-year criteria of 5 mg/L.

Water quality standards specific for the Pamunkey and Mattaponi Rivers were adopted in the 2008 cycle. The specific criteria recognize that DO is naturally depressed in the rivers due to their extensive marsh systems. During the 2016 to 2020 cycles, MPNOH fails the OW summer criteria. The Rest-of-Year criteria is met. The TMDL was approved by the EPA on 12/29/2010; therefore, the estuary is considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F24E_MPN03B02 / Mattaponi River / Tidal freshwater/oligohaline boundary to Melrose Landing at Route 602	4A	Dissolved Oxygen	2006	L	0.423
MPNOH					
VAP-F24E_MPN03C06 / Mattaponi River / Melrose Landing (Route 602) to Heartquake Creek.	4A	Dissolved Oxygen	2006	L	0.717
MPNOH					
VAP-F24E_ZZZ02A06 / Unsegmented estuaries in F24 / Unsegmented portion of the watershed within MPNOH	4A	Dissolved Oxygen	2006	L	0.102
VAP-F25E_BMC01A08 / Burnt Mill Creek / Tidal limit to mouth at Mattaponi River	4A	Dissolved Oxygen	2006	L	0.054
MPNOH					
VAP-F25E_CBN01A00 / Corbin Creek / Corbin Pond to tidal limit	4A	Dissolved Oxygen	2006	L	0.037
MPNOH					
VAP-F25E_MPN05A00 / Mattaponi River / Mattaponi River from Heartquake Creek to the downstream boundary of VDH-DSS 049-004G, 8/15/2018	4A	Dissolved Oxygen	2006	L	1.292
MPNOH					
VAP-F25E_MPN05B06 / Mattaponi River / From VDH-SFC 049-004B, 8/15/2018 to the oligohaline/York mesohaline boundary.	4A	Dissolved Oxygen	2006	L	0.384
MPNOH					
VAP-F25E_ZZZ01A00 / Unsegmented estuaries in F25 / Unsegmented portion of the watershed.	4A	Dissolved Oxygen	2006	L	0.067
MPNOH					

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

VAP-F25E_ZZZ02A06 / Unsegmented estuaries in F25 / Unsegmented portion of the watershed within SFC 049-004B, 8/15/2018.	4A	Dissolved Oxygen	2006	L	0.006

MPNOH

Mattaponi River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:	**3.081**		

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* MPNTF-DO-BAY** **Mattaponi River**

Cause Location: The tidal freshwater Mattaponi mainstem.

City / County: King And Queen Co. King William Co.

Use(s): Aquatic Life Open-Water Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 4D

The Chesapeake Bay and its tidal tributaries were added by the EPA to the 1998 303(d) list. This included the entire tidal mainstem of the Mattaponi River. EPA listed the impairment as dissolved oxygen exceedances caused by nutrient overenrichment. During the 2002 cycle, dissolved oxygen and chlorophyll a exceedance rates at multiple monitoring stations were all acceptable (see below). Since the listing was based solely on the EPA overlist, the impairment was considered Nutrients/Eutrophication Biological Indicators.

During the 2006 cycle, the Chesapeake Bay water quality standards were implemented. The tidal freshwater portion of the Mattaponi had acceptable SAV acreages and was considered fully supporting of the Shallow Water Use. However, the area failed the default CB 30-day open water summer criteria of 5.5 mg/L.

Water quality standards specific for the Pamunkey and Mattaponi Rivers were adopted in the 2008 cycle. The specific criteria recognize that dissolved oxygen is naturally depressed in the rivers due to their extensive marsh systems. The Mattaponi Tidal Freshwater segment is in attainment of both the site-specific 30-day open water summer DO criteria and the 30-day Rest of Year DO criteria. The Shallow Water Use is fully supporting the SAV acreage criteria.

Although the Mattaponi Tidal Freshwater segment is in attainment of every Chesapeake Bay criteria which is measured, there is insufficient information to assess the Migratory Spawning Use or the other Open Water Use's dissolved oxygen frequency criteria; therefore, the mainstem must remain impaired due to EPA's overlisting (nutrients/eutrophication biological indicators). The TMDL is was approved on 12/29/2010, so the mainstem Mattaponi is considered Category 4D.

Note: The tributaries are considered Category 2C because they were not included in the overlist.

Previously MPNTF-BNUT-BAY

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F23E_MPN02A98 / Mattaponi River / From the limit of tide above the Route 360 bridge to Aylett Creek.	4D	Dissolved Oxygen	1998	L	0.159
MPNTF					
VAP-F23E_MPN03A06 / Mattaponi River / Aylett Creek to Garnetts Creek.	4D	Dissolved Oxygen	1998	L	1.756
MPNTF					
VAP-F24E_MPN03A98 / Mattaponi River / Garnetts Creek to tidal freshwater/oligohaline boundary at approximately river mile 18	4D	Dissolved Oxygen	1998	L	1.384
MPNTF					

Mattaponi River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:	**3.300**		

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* PMKOH-DO-BAY** **Pamunkey River Oligohaline Estuary**

Cause Location: The oligohaline Pamunkey estuary.

City / County: King William Co. New Kent Co.

Use(s): Aquatic Life | Migratory Fish Spawning and Nursery | Open-Water Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 4A

The Pamunkey River was initially listed on the 1998 303(d) list as fully supporting but threatened of the Aquatic Life Use goal because a 1995 special study showed river subject to 33% violation rate of daily mean DO standard during warm weather conditions (May through October). The estuarine Pamunkey was considered fully allocated relative to dissolved oxygen and new discharges cannot result in further DO depression.

The Chesapeake Bay and its tidal tributaries were added by the EPA to the 1998 303(d) list. EPA listed the impairment as dissolved oxygen exceedances caused by nutrient overenrichment. This listing included the entire mainstem estuarine Pamunkey River.

However, during the 2006 cycle, the new Chesapeake Bay water quality standards were adopted. The oligohaline Pamunkey segment failed the default CB 30-day open water summer dissolved oxygen criteria of 5 mg/L.

During the 2008 cycle, Water Quality Standards specific for the Pamunkey and Mattaponi Rivers were adopted; the specific criteria recognize that dissolved oxygen is naturally depressed below the default criteria in the rivers due to their extensive marsh systems.

The TMDL was approved by the EPA on 12/29/2010.

In the 2018 cycle, the segment met all criteria that could be measured. The Pamunkey mainstem remained listed due to EPA's overlisting (Category 4D.) The tributaries were considered fully supporting (Category 2C.)

During the 2020 cycle, the Pamunkey Oligohaline estuary fails the site-specific 30-day open water summer DO criteria. The 30-day Rest of Year DO criteria is met. In addition, the Open Water Subuse and the Migratory Spawning and Nursery (MSN) Subuse both failed the instantaneous minimum DO criteria. The MSN Subuse met the 7-day mean criteria. The mainstem and tributaries will all be considered impaired (Category 4A.)

Previously PMKOH-BNUT-BAY

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK05A18 / Pamunkey River / 0.5 miles above station 8-PMK017.90 downstream to Sweet Hall Landing.	4A	Dissolved Oxygen	1998	L	0.113
PMKOH					
	4A	Dissolved Oxygen	1998	L	0.113
VAP-F14E_PMK05B00 / Pamunkey River / Tidal freshwater/oligohaline boundary at approximately river mile 23.6 downstream to 0.5 mile above station 8-PMK017.90	4A	Dissolved Oxygen	1998	L	1.193
PMKOH					
	4A	Dissolved Oxygen	1998	L	1.193
VAP-F14E_PMK06A00 / Pamunkey River / Sweet Hall Landing to upstream boundary of VDH-DSS SFC 049-004A, 8/15/2018	4A	Dissolved Oxygen	1998	L	3.382
PMKOH					
	4A	Dissolved Oxygen	1998	L	3.382

York River Basin

VAP-F14E_PMK06B06 / Pamunkey River / VDH-DSS SFC 049-004A, 8/15/2018 to mesohaline boundary	4A	Dissolved Oxygen	1998	L	0.584
PMKOH					
	4A	Dissolved Oxygen	1998	L	0.584
VAP-F14E_ZZZ02A06 / Unsegmented estuaries in F14 / Unsegmented portion of the watershed within PMKOH	4A	Dissolved Oxygen	2020	L	0.265
	4A	Dissolved Oxygen	2020	L	0.265
VAP-F14E_ZZZ02B06 / Unsegmented estuaries in F14 / Unsegmented portion of the watershed within SFC 004A & PMKOH	4A	Dissolved Oxygen	2020	L	0.060
	4A	Dissolved Oxygen	2020	L	0.060

Pamunkey River Oligohaline Estuary	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Migratory Fish Spawning and Nursery			
Dissolved Oxygen - Total Impaired Size by Water Type:	**11.194**		

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* PMKTF-DO-BAY** **Pamunkey River Tidal Freshwater Estuary**

Cause Location: The tidal freshwater Pamunkey River estuary.

City / County: Hanover Co. King William Co. New Kent Co.

Use(s): Aquatic Life Migratory Fish Spawning and Nursery

Cause(s) / VA Category: Dissolved Oxygen / 4A

The tidal Pamunkey River was initially listed on the 1998 303(d) list as fully supporting but threatened of the Aquatic Life Use goal because a 1995 special study showed river subject to 33% violation rate of daily mean DO standard during warm weather conditions May through October. The estuarine Pamunkey River was considered fully allocated relative to dissolved oxygen and new discharges could not result in further DO depression.

The Chesapeake Bay and its tidal tributaries were added by the EPA to the 1998 303(d) list. EPA listed the impairment as dissolved oxygen exceedances caused by nutrient overenrichment. This listing included the entire mainstem estuarine Pamunkey River.

During the 2006 cycle, the new Chesapeake Bay water quality standards were adopted. The tidal freshwater Pamunkey segment failed the default CB 30-day open water summer dissolved oxygen criteria of 5.5 mg/L. Water quality standards specific for the Pamunkey and Mattaponi Rivers were adopted and the new criteria were used in the 2008 cycle. The specific criteria recognize that dissolved oxygen is naturally depressed in the rivers due to their extensive marsh systems. The Pamunkey Tidal Freshwater segment is in attainment of both the site-specific 30-day open water summer DO criteria and the 30-day Rest of Year DO criteria. The Shallow Water Use is fully supporting the SAV acreage criteria.

Previously, the mainstem Pamunkey remained impaired even though the segment met every criteria that was monitored due to EPA's overlisting because there was insufficient information to assess the Migratory Spawning and Nursery subuse as well as some other Open Water frequency criteria (Category 4D). However, in the 2020 cycle, the Migratory Spawning and Nursery Use fails the instantaneous minimum dissolved oxygen criteria; therefore, the impairment converts to Category 4A and the tributaries are added to the impairment. The 7-day mean criterion was met.

The Chesapeake Bay TMDL was approved by the EPA on 12/31/2010. The Pamunkey River and tributaries are considered Cat 4A waters.

Previously PMKTF-BNUT-BAY

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F13E_PMK01A98 / Pamunkey River / Extent of tide near Totopotomoy Creek to Pampatike Landing.	4A	Dissolved Oxygen	1998	L	0.307
PMKTF					
	4A	Dissolved Oxygen	1998	L	0.307
VAP-F13E_PMK02A98 / Pamunkey River / Pampatike Landing downstream to Jacks Creek.	4A	Dissolved Oxygen	1998	L	0.783
PMKTF					
	4A	Dissolved Oxygen	1998	L	0.783
VAP-F13E_PMK03A06 / Pamunkey River / Jacks Creek downstream to Macon Creek.	4A	Dissolved Oxygen	1998	L	0.115
PMKTF					
	4A	Dissolved Oxygen	1998	L	0.115
VAP-F13E_ZZZ01C14 / Unsegmented estuaries in F13 / Unsegmented portion of watershed YO31.	4A	Dissolved Oxygen	2020	L	0.009

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PMKTF					
	4A	Dissolved Oxygen	2020	L	0.009
VAP-F13E_ZZZ01D14 / Unsegmented estuaries in F13 / Unsegmented portion of watershed YO32.	4A	Dissolved Oxygen	2020	L	0.016
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.016
VAP-F13E_ZZZ01E14 / Unsegmented estuaries in F13 / Unsegmented portion of watershed YO33.	4A	Dissolved Oxygen	2020	L	0.009
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.009
VAP-F13E_ZZZ01F14 / Unsegmented estuaries in F13 / Unsegmented portion of watershed YO34.	4A	Dissolved Oxygen	2020	L	0.213
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.213
VAP-F13E_ZZZ01G14 / Unsegmented estuaries in F13 / Unsegmented portion of watershed YO35.	4A	Dissolved Oxygen	2020	L	0.047
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.047
VAP-F14E_CMC01A06 / Cohoke Mill Creek / Tidal limit at Cohoke Millpond to mouth at Pamunkey River	4A	Dissolved Oxygen	2020	L	0.026
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.026
VAP-F14E_HSN01A12 / Harrison Creek / Tidal portion of Harrison Creek	4A	Dissolved Oxygen	2020	L	0.044
PMKTF					
	4A	Dissolved Oxygen	2020	L	0.044
VAP-F14E_PMK02A00 / Pamunkey River / Macon Creek to downstream extent of tidal freshwater segment at approximately river mile 23.6	4A	Dissolved Oxygen	1998	L	3.638
PMKTF					
	4A	Dissolved Oxygen	1998	L	3.638
VAP-F14E_ZZZ01A00 / Unsegmented estuaries in F14 / Unsegmented portion of the watershed within PMKTF	4A	Dissolved Oxygen	2020	L	0.697
	4A	Dissolved Oxygen	2020	L	0.697

Pamunkey River Tidal Freshwater Estuary **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:	**11.808**		

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* YRKMH-DO-BAY** **York Mesohaline**

Cause Location: The York mesohaline segment, including the applicable portions of the Pamunkey and Mattaponi Rivers.

City / County: Gloucester Co. James City Co. King And Queen Co. King William Co. New Kent Co. Williamsburg City York Co.

Use(s): Aquatic Life Open-Water Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 4A

The Pamunkey River was initially listed on the 1998 303(d) list as fully supporting but threatened of the aquatic life use goal because a 1995 special study showed river subject to 33% exceedance rate of daily mean dissolved oxygen (DO) standard during warm weather conditions May through October. The estuarine Pamunkey River is considered fully allocated relative to dissolved oxygen; new discharges cannot result in further DO depression.

The Chesapeake Bay and its tidal tributaries were added by the EPA to the 1998 303(d) list. EPA listed the impairment as dissolved oxygen exceedances caused by nutrient overenrichment. This listing included the entire mainstem estuarine York, Pamunkey, and Mattaponi Rivers.

New Chesapeake Bay water quality standards have since been adopted. In the 2020 cycle, the mesohaline York segment (which includes the mouths of the Pamunkey and Mattaponi Rivers) fails the 30-day mean open water summer dissolved oxygen criteria. The rest-of-year criteria was met.

The Chesapeake Bay TMDL was approved by the EPA on 12/29/2010. The segment is considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth	4A	Dissolved Oxygen	1998	L	0.398
YRKMH					
VAP-F14E_ZZZ03A06 / Unsegmented estuaries in F14 / Unsegmented portion of the watershed within YRKMH	4A	Dissolved Oxygen	2006	L	0.077
VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018.	4A	Dissolved Oxygen	2006	L	0.209
YRKMH					
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem.	4A	Dissolved Oxygen	2006	L	0.641
YRKMH					
VAP-F25E_ZZZ03A06 / Unsegmented estuaries in F25 / Unsegmented portion of the watershed within SFC 049-004F, 8/15/2018.	4A	Dissolved Oxygen	2006	L	0.031
YRKMH					
VAT-F26E_ABD01A00 / Aberdeen Creek - Upper / Southeast of Clay Bank, south of Rt. 631. From the end of tidal waters downstream to the end of Shellfish Conditionally Approved area. Portion of CBP segment YRKMH. Portion of DSS shellfish direct harvesting condemnation # 047-078 A (effective 8/15/2018).	4A	Dissolved Oxygen	2006	L	0.094
VAT-F26E_ABD01B08 / Aberdeen Creek - Mouth / Southeast of Clay Bank, south of Rt. 631. From the end of TMDL (07) coverage downstream to the mouth. Portion of CBP segment YRKMH. Conditionally Approved shellfish direct harvesting condemnation #	4A	Dissolved Oxygen	2006	L	0.010

York River Basin

047-078 8/15/2018).					
VAT-F26E_ABD02A20 / Aberdeen Creek - Upper / Southeast of Clay Bank, south of Rt. 631. From the end of tidal waters downstream to the start of Shellfish Admin-Cond. Portion of CBP segment YRKMH. Portion of DSS shellfish Admin-Condemn # 047-078 A (effective 8/15/2018).	4A	Dissolved Oxygen	2006	L	0.011
VAT-F26E_ADM01A00 / Adams Creek-Upper / Eastern shore of York River near Purtan Island. CBP segment YRKMH. DSS shellfish restricted condemnation and Conditionally Approved # 048-128 B (effective 8/07/2018).	4A	Dissolved Oxygen	2006	L	0.116
VAT-F26E_ADM01B12 / Adams Creek- Lower / Eastern shore of York River near Purtan Island. CBP segment YRKMH. Portion of 1998 impairment open in DSS shellfish condemnation # 048-128 (effective 8/07/2018).	4A	Dissolved Oxygen	2006	L	0.072
VAT-F26E_BAK01A00 / Bakers Creek / North shore York R SE of West Point Municipal Airport & NW of Hockley Cr. Estuarine portion of creek. CBP segment YRKMH. DSS Admin-Condemnation.	4A	Dissolved Oxygen	2006	L	0.039
VAT-F26E_BKS01A08 / Baker Creek / South shore trib to York R. S of Plum Pt. & E of Davis Pond. Estuarine portion of creek with York River. CBP segment YRKMH. DSS Cond 049-004 (20180815)	4A	Dissolved Oxygen	2006	L	0.017
VAT-F26E_BND01A06 / Bland Creek / North shore York R west of Sassafras. Estuarine portion of creek, from the tidal limit to mouth. CBP segment YRKMH. Conditionally approved condemnation #048-128 20180807.	4A	Dissolved Oxygen	2006	L	0.051
VAT-F26E_CTC01A06 / Carter Creek / Located in York County near Skimino. From estuarine/riverine transition to mouth. CBP segment YRKMH. Portion of DSS Restricted condemnation # 050-087 B, 20180807.	4A	Dissolved Oxygen	2006	L	0.025
VAT-F26E_FER01A08 / Ferry Creek / South shore trib to York R. SW of West Point. Estuarine portion of creek. From dam to confluence with York River. CBP segment YRKMH. Portion of DSS shellfish ADMIN condemnation # 049-004 A (effective 8/15/2018).	4A	Dissolved Oxygen	2006	L	0.004
VAT-F26E_FOX01A06 / Fox Creek / North shore trib to York River. Located southeast of Allmondsville in Gloucester Co. From estuarine/riverine transition to mouth. CBP segment YRKMH. DSS condemnation # 047-072 A (effective 20160722).	4A	Dissolved Oxygen	2006	L	0.016
VAT-F26E_HCK01A04 / Hockley Creek / North shore York R NW of Belleview. Estuarine portion of creek. CBP segment YRKMH. Portion of DSS condemnation # 049-004 C (effective 8/15/2018).	4A	Dissolved Oxygen	2006	L	0.055
VAT-F26E_JNS01A00 / Jones Creek / NW of Clay Bank, between Rts 618 & 616. Portion of CBP segment YRKMH. Described in DSS shellfish direct harvesting condemnation # 047-072B (effective 20180815).	4A	Dissolved Oxygen	2006	L	0.051
VAT-F26E_PHB01A00 / Philbates Creek / South shore trib to York R. NW of Belleview. Estuarine portion of creek. From dam to confluence with York River. CBP segment YRKMH. VDH-DSS #049-009 shellfish Conditional Approval (effective 20180815).	4A	Dissolved Oxygen	2006	L	0.013
VAT-F26E_PTK01A00 / Poropotank River / North shore of York River near Purtan Island. Forms boundary of King and Queen/Gloucester Co. From end of tidal waters downstream to end of DSS condemnation # 048-128A, 8/07/2018. CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	0.451

York River Basin

VAT-F26E_PTK02A08 / Morris Bay at mouth of Poropotank River / From end of the upstream DSS condemnation downstream to the mouth. CBP segment YRKMH. DSS shellfish direct harvesting OPEN condemnation # 048-128 (effective date 20180807).	4A	Dissolved Oxygen	2006	L	0.606
VAT-F26E_PTN01A08 / Purtan & Leigh Creeks / North shore of York River at Purtan Bay. Forms headwaters of Purtan Bay. CBP segment YRKMH. DSS shellfish Open condemnation # 048-128 (effective 20180807).	4A	Dissolved Oxygen	2006	L	0.098
VAT-F26E_PTN02A20 / Purtan Creek / North shore of York River at Purtan Bay. Forms headwaters of Purtan Bay just prior to the formation of the mouth. CBP segment YRKMH. DSS shellfish Admin-Condemnation # 048-128 C (effective 20180807).	4A	Dissolved Oxygen	2006	L	0.089
VAT-F26E_QEN01A02 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of tidal waters (below dam at Waller Mill Res.) downstream to end of DSS shellfish condemnation # 051-035 A, 8/14/2018. CBP segment YRKMH. Split in 2012 cycle.	4A	Dissolved Oxygen	1998	L	0.296
VAT-F26E_QEN01B12 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of DSS shellfish condemnation # 051-035 (20180814). downstream to mouth. CBP segment YRKMH.	4A	Dissolved Oxygen	1998	L	0.136
VAT-F26E_RBN01A08 / Robinson Creek / North shore York R SE of West Point Municipal Airport. Estuarine portion of creek. CBP segment YRKMH. Part of VDH-DSS Conditional Approval 049-004 (effective 20180815)	4A	Dissolved Oxygen	2006	L	0.012
VAT-F26E_SKM01A00 / Skimino Creek / North of Skimino Farms. Boundary of James City/York Co. From estuarine/riverine transition (dam at Barlows Pond, Rt 604) to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-087 A (effective 20180807).	4A	Dissolved Oxygen	2006	L	0.174
VAT-F26E_SND01A08 / Sandy Creek / North shore York R near Allmondsville. Estuarine portion of creek, from the tidal limit to mouth. CBP segment YRKMH. DSS (OPEN) shellfish direct harvesting condemnation # 047-072, 20160722.	4A	Dissolved Oxygen	2006	L	0.007
VAT-F26E_TSK01A00 / Taskinas Creek / West of Purtan Island, south of Croaker Landing. From end of tidal waters downstream to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-073 B (effective 20180807).	4A	Dissolved Oxygen	2006	L	0.026
VAT-F26E_WRE01A00 / Ware Creek / South of Terrapin Pt., W of Purtan Island. From end of tidal waters downstream to mouth; includes piece of York SF Cond, CBP segment YRKMH. DSS shellfish condemnation # 050-073 A (effective 20180807).	4A	Dissolved Oxygen	2006	L	0.133
VAT-F26E_YRK01A04 / York River / York River at Goalders Creek downstream to the boundary of DSS OPEN condemnation # 049-004 (effective 20180815). CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	3.962
VAT-F26E_YRK01B10 / York River / Start of York River at West Point (RM 32.0) downstream to the boundary of ADMIN COND # 049-004 A (effective 8/15/2018), approx. Goff Point . CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	1.086
VAT-F26E_YRK01C12 / York River-at Hockley Cr / York River segment at mouth of Hockley Cr within VDH DSS Condemnation 049-004 C, 8/15/2018. CB Seg - YRKMH.	4A	Dissolved Oxygen	2006	L	0.029

York River Basin

VAT-F26E_YRK01D12 / York River / Portion of York River within VDH Seasonal Cond 0049-004 effective date 20180815	4A	Dissolved Oxygen	2006	L	0.042
YRKMH					
VAT-F26E_YRK01E14 / York River / York River from Goff Point (end of Admin Cond) to the Conditional Approval condemnation. VDH new Restricted Condemnation 049-004 A 8/3/2015 . CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	0.457
VAT-F26E_YRK02A14 / York River (Lower Middle MSN) / Segment starts south of New Kent and James City Boundary and extends downstream to the MSN boundary near Mt. Folly/Poropotank Bay. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Dissolved Oxygen	2006	L	2.680
VAT-F26E_YRK02E20 / York River (lower middle) / York River from Goff Point (end of Restricted-Condemnation) to Goalders Creek. VDH new Conditionally Approved condemnation 20180815. CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	2.125
VAT-F26E_YRK03A00 / York River (Lower Middle) / Segment starts at end of MSN boundary near Mt. Folly/Poropotank Bay and extends downstream to the mesohaline/polyhaline boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Dissolved Oxygen	2006	L	20.372
VAT-F26E_YRK03B12 / York River (Lower Middle) / Portion of York River at Carter Creek north of Camp Peary. Within VDH-DSS Open condemnation-type #049-004 , 20180815. CB segment YRKMH.	4A	Dissolved Oxygen	2006	L	0.023
VAT-F26E_ZZZ01A00 / Unsegmented estuaries in F26E / Non-segmented areas of F26E (N shore York R. trib SW of Gressit) within MSN area. CBP segment YRKMH. DSS (OPEN) shellfish direct harvesting condemnation # 049-004 (effective 20180815)	4A	Dissolved Oxygen	2006	L	0.008
VAT-F26E_ZZZ01B06 / Unsegmented estuaries in F26E / Non-segmented areas of F26E (N shore York R. tribs, upstream of Poropotank R.) below MSN boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Dissolved Oxygen	2006	L	0.072
VAT-F26E_ZZZ02A06 / Unsegmented estuaries in F26E / Non-segmented areas within VDH-DSS OPEN condemnation 049-004 (effective 20180815). Includes Goalders Creek. CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	0.038
VAT-F26E_ZZZ02B18 / Unsegmented SF Condemned estuaries in F26E / Non-segmented areas within VDH-DSS Admin-Condemnation 049-004 A (effective 20180815). CBP segment YRKMH.	4A	Dissolved Oxygen	2006	L	0.043

York Mesohaline **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:	**34.892**		

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Non-Point Source)
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)			

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* YRKMH-EBEN-BAY Adams Creek - Upper and the lower York River**

Cause Location: This cause encompasses upper portions of Adams Creek and a portion of the lower York River.

City / County: Gloucester Co. King And Queen Co. King William Co. New Kent Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

The Aquatic Life Use is impaired for the benthic BIBI assessment for the YRKMHa in the 2020 IR. The 2020 IR cycle is the initial list date for the estuarine bioassessment.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F26E_ADM01A00 / Adams Creek-Upper / Eastern shore of York River near Purtan Island. CBP segment YRKMH. DSS shellfish restricted condemnation and Conditionally Approved # 048-128 B (effective 8/07/2018).	5A	Estuarine Bioassessments	2020	L	0.116
VAT-F26E_YRK02E20 / York River (lower middle) / York River from Goff Point (end of Restricted-Condemnation) to Goalders Creek. VDH new Conditionally Approved condemnation 20180815. CBP segment YRKMH.	5A	Estuarine Bioassessments	2018	L	2.125

Adams Creek - Upper and the lower York River **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Estuarine Bioassessments - Total Impaired Size by Water Type:	**2.241**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* YRKMH-SAV-BAY** **York Mesohaline**

Cause Location: The York mesohaline segment, including the applicable portions of the Pamunkey and Mattaponi Rivers.

City / County: Gloucester Co. James City Co. King And Queen Co. King William Co. New Kent Co. Williamsburg City York Co.

Use(s): Aquatic Life Shallow-Water Submerged Aquatic Vegetation

Cause(s) / VA Category: Aquatic Plants (Macrophytes) / 4A

During the 2006 cycle, the Chesapeake Bay water quality standards were adopted. The mesohaline York segment (which includes the mouths of the Pamunkey and Mattaponi Rivers) fails the Shallow Water Subuse's submerged aquatic vegetation (SAV) acreage requirements. There is insufficient data to assess the water clarity acreage criteria.

The Chesapeake Bay TMDL was approved by the EPA on 12/29/2010. YRKMH is considered Category 4A.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAP-F14E_PMK07A04 / Pamunkey River / Mesohaline boundary to mouth	4A	Aquatic Plants (Macrophytes)	2006	L	0.398
YRKMH					
VAP-F14E_ZZZ03A06 / Unsegmented estuaries in F14 / Unsegmented portion of the watershed within YRKMH	4A	Aquatic Plants (Macrophytes)	2006	L	0.077
VAP-F25E_MPN06A04 / Mattaponi River / The Mattaponi mainstem within VDH advisory 049-004F, 8/15/2018.	4A	Aquatic Plants (Macrophytes)	2006	L	0.209
YRKMH					
VAP-F25E_MPN06B06 / Mattaponi River / Portion of VDH-DSS condemnation 049-004A, 8/15/2018 within Mattaponi River mainstem.	4A	Aquatic Plants (Macrophytes)	2006	L	0.641
YRKMH					
VAP-F25E_ZZZ03A06 / Unsegmented estuaries in F25 / Unsegmented portion of the watershed within SFC 049-004F, 8/15/2018.	4A	Aquatic Plants (Macrophytes)	2006	L	0.031
YRKMH					
VAT-F26E_ABD01A00 / Aberdeen Creek - Upper / Southeast of Clay Bank, south of Rt. 631. From the end of tidal waters downstream to the end of Shellfish Conditionally Approved area. Portion of CBP segment YRKMH. Portion of DSS shellfish direct harvesting condemnation # 047-078 A (effective 8/15/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.094
VAT-F26E_ABD01B08 / Aberdeen Creek - Mouth / Southeast of Clay Bank, south of Rt. 631. From the end of TMDL (07) coverage downstream to the mouth. Portion of CBP segment YRKMH. Conditionally Approved shellfish direct harvesting condemnation # 047-078 8/15/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.010
VAT-F26E_ABD02A20 / Aberdeen Creek - Upper / Southeast of Clay Bank, south of Rt. 631. From the end of tidal waters downstream to the start of Shellfish Admin-Cond. Portion of CBP segment YRKMH. Portion of DSS shellfish Admin-Condemn # 047-078 A (effective 8/15/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.011
VAT-F26E_ADM01A00 / Adams Creek-Upper / Eastern shore of York River near Purtan Island. CBP segment YRKMH. DSS shellfish	4A	Aquatic Plants (Macrophytes)	2006	L	0.116

York River Basin

restricted condemnation and Conditionally Approved # 048-128 B (effective 8/07/2018).					
VAT-F26E_ADM01B12 / Adams Creek- Lower / Eastern shore of York River near Purtan Island. CBP segment YRKMH. Portion of 1998 impairment open in DSS shellfish condemnation # 048-128 (effective 8/07/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.072
VAT-F26E_BAK01A00 / Bakers Creek / North shore York R SE of West Point Municipal Airport & NW of Hockley Cr. Estuarine portion of creek. CBP segment YRKMH. DSS Admin-Condemnation.	4A	Aquatic Plants (Macrophytes)	2006	L	0.039
VAT-F26E_BKS01A08 / Baker Creek / South shore trib to York R. S of Plum Pt. & E of Davis Pond. Estuarine portion of creek with York River. CBP segment YRKMH. DSS Cond 049-004 (20180815)	4A	Aquatic Plants (Macrophytes)	2006	L	0.017
VAT-F26E_BND01A06 / Bland Creek / North shore York R west of Sassafras. Estuarine portion of creek, from the tidal limit to mouth. CBP segment YRKMH. Conditionally approved condemnation #048-128 20180807.	4A	Aquatic Plants (Macrophytes)	2006	L	0.051
VAT-F26E_CTC01A06 / Carter Creek / Located in York County near Skimino. From estuarine/riverine transition to mouth. CBP segment YRKMH. Portion of DSS Restricted condemnation # 050-087 B, 20180807.	4A	Aquatic Plants (Macrophytes)	2006	L	0.025
VAT-F26E_FER01A08 / Ferry Creek / South shore trib to York R. SW of West Point. Estuarine portion of creek. From dam to confluence with York River. CBP segment YRKMH. Portion of DSS shellfish ADMIN condemnation # 049-004 A (effective 8/15/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.004
VAT-F26E_FOX01A06 / Fox Creek / North shore trib to York River. Located southeast of Allmondsville in Gloucester Co. From estuarine/riverine transition to mouth. CBP segment YRKMH. DSS condemnation # 047-072 A (effective 20160722).	4A	Aquatic Plants (Macrophytes)	2006	L	0.016
VAT-F26E_HCK01A04 / Hockley Creek / North shore York R NW of Belleview. Estuarine portion of creek. CBP segment YRKMH. Portion of DSS condemnation # 049-004 C (effective 8/15/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.055
VAT-F26E_JNS01A00 / Jones Creek / NW of Clay Bank, between Rts 618 & 616. Portion of CBP segment YRKMH. Described in DSS shellfish direct harvesting condemnation # 047-072B (effective 20180815).	4A	Aquatic Plants (Macrophytes)	2006	L	0.051
VAT-F26E_PHB01A00 / Philbates Creek / South shore trib to York R. NW of Belleview. Estuarine portion of creek. From dam to confluence with York River. CBP segment YRKMH. VDH-DSS #049-009 shellfish Conditional Approval (effective 20180815).	4A	Aquatic Plants (Macrophytes)	2006	L	0.013
VAT-F26E_PTK01A00 / Poropotank River / North shore of York River near Purtan Island. Forms boundary of King and Queen/Gloucester Co. From end of tidal waters downstream to end of DSS condemnation # 048-128A, 8/07/2018. CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.451
VAT-F26E_PTK02A08 / Morris Bay at mouth of Poropotank River / From end of the upstream DSS condemnation downstream to the mouth. CBP segment YRKMH. DSS shellfish direct harvesting OPEN condemnation # 048-128 (effective date 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.606
VAT-F26E_PTN01A08 / Purtan & Leigh Creeks / North shore of York River at Purtan Bay. Forms headwaters of Purtan Bay. CBP segment YRKMH. DSS shellfish Open condemnation # 048-128 (effective 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.098

York River Basin

VAT-F26E_PTN02A20 / Purtan Creek / North shore of York River at Purtan Bay. Forms headwaters of Purtan Bay just prior to the formation of the mouth. CBP segment YRKMH. DSS shellfish Admin-Condemnation # 048-128 C (effective 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.089
VAT-F26E_QEN01A02 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of tidal waters (below dam at Waller Mill Res.) downstream to end of DSS shellfish condemnation # 051-035 A, 8/14/2018. CBP segment YRKMH. Split in 2012 cycle.	4A	Aquatic Plants (Macrophytes)	2006	L	0.296
VAT-F26E_QEN01B12 / Queens Creek / South shore York River, south of Camp Peary Naval Reservation. From end of DSS shellfish condemnation # 051-035 (20180814). downstream to mouth. CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.136
VAT-F26E_RBN01A08 / Robinson Creek / North shore York R SE of West Point Municipal Airport. Estuarine portion of creek. CBP segment YRKMH. Part of VDH-DSS Conditional Approval 049-004 (effective 20180815)	4A	Aquatic Plants (Macrophytes)	2006	L	0.012
VAT-F26E_SKM01A00 / Skimino Creek / North of Skimino Farms. Boundary of James City/York Co. From estuarine/riverine transition (dam at Barlows Pond, Rt 604) to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-087 A (effective 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.174
VAT-F26E_SND01A08 / Sandy Creek / North shore York R near Allmondsville. Estuarine portion of creek, from the tidal limit to mouth. CBP segment YRKMH. DSS (OPEN) shellfish direct harvesting condemnation # 047-072, 20160722.	4A	Aquatic Plants (Macrophytes)	2006	L	0.007
VAT-F26E_TSK01A00 / Taskinas Creek / West of Purtan Island, south of Croaker Landing. From end of tidal waters downstream to mouth. CBP segment YRKMH. DSS shellfish condemnation # 050-073 B (effective 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.026
VAT-F26E_WRE01A00 / Ware Creek / South of Terrapin Pt., W of Purtan Island. From end of tidal waters downstream to mouth; includes piece of York SF Cond, CBP segment YRKMH. DSS shellfish condemnation # 050-073 A (effective 20180807).	4A	Aquatic Plants (Macrophytes)	2006	L	0.133
VAT-F26E_YRK01A04 / York River / York River at Goalders Creek downstream to the boundary of DSS OPEN condemnation # 049-004 (effective 20180815). CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	3.962
VAT-F26E_YRK01B10 / York River / Start of York River at West Point (RM 32.0) downstream to the boundary of ADMIN COND # 049-004 A (effective 8/15/2018), approx. Goff Point . CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	1.086
VAT-F26E_YRK01C12 / York River-at Hockley Cr / York River segment at mouth of Hockley Cr within VDH DSS Condemnation 049-004 C, 8/15/2018. CB Seg - YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.029
VAT-F26E_YRK01D12 / York River / Portion of York River within VDH Seasonal Cond 0049-004 effective date 20180815 YRKMH	4A	Aquatic Plants (Macrophytes)	2006	L	0.042
VAT-F26E_YRK01E14 / York River / York River from Goff Point (end of Admin Cond) to the Conditional Approval condemnation. VDH new Restricted Condemnation 049-004 A 8/3/2015 . CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.457

York River Basin

VAT-F26E_YRK02A14 / York River (Lower Middle MSN) / Segment starts south of New Kent and James City Boundary and extends downstream to the MSN boundary near Mt. Folly/Poropotank Bay. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Aquatic Plants (Macrophytes)	2006	L	2.680
VAT-F26E_YRK02E20 / York River (lower middle) / York River from Goff Point (end of Restricted-Condemnation) to Goalders Creek. VDH new Conditionally Approved condemnation 20180815. CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	2.125
VAT-F26E_YRK03A00 / York River (Lower Middle) / Segment starts at end of MSN boundary near Mt. Folly/Poropotank Bay and extends downstream to the mesohaline/polyhaline boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Aquatic Plants (Macrophytes)	2006	L	20.372
VAT-F26E_YRK03B12 / York River (Lower Middle) / Portion of York River at Carter Creek north of Camp Peary. Within VDH-DSS Open condemnation-type #049-004 , 20180815. CB segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.023
VAT-F26E_ZZZ01A00 / Unsegmented estuaries in F26E / Non-segmented areas of F26E (N shore York R. trib SW of Gressit) within MSN area. CBP segment YRKMH. DSS (OPEN) shellfish direct harvesting condemnation # 049-004 (effective 20180815)	4A	Aquatic Plants (Macrophytes)	2006	L	0.008
VAT-F26E_ZZZ01B06 / Unsegmented estuaries in F26E / Non-segmented areas of F26E (N shore York R. tribs, upstream of Poropotank R.) below MSN boundary. CBP segment YRKMH. No DSS shellfish direct harvesting condemnation present.	4A	Aquatic Plants (Macrophytes)	2006	L	0.072
VAT-F26E_ZZZ02A06 / Unsegmented estuaries in F26E / Non-segmented areas within VDH-DSS OPEN condemnation 049-004 (effective 20180815). Includes Goalders Creek. CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.038
VAT-F26E_ZZZ02B18 / Unsegmented SF Condemned estuaries in F26E / Non-segmented areas within VDH-DSS Admin-Condemnation 049-004 A (effective 20180815). CBP segment YRKMH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.043

York Mesohaline **Shallow-Water Submerged Aquatic Vegetation**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Aquatic Plants (Macrophytes) - Total Impaired Size by Water Type:	**34.892**		

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Clean Sediments	Industrial Point Source Discharge
Internal Nutrient Recycling	Loss of Riparian Habitat	Municipal Point Source Discharges	Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Non-Point Source)	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)	

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **YRKPH-DO-BAY** **Chesapeake Bay segment YRKPH**

Cause Location: This cause encompasses the polyhaline portion of the York.

City / County: Gloucester Co. York Co.

Use(s): Aquatic Life Deep-Water Aquatic Life Open-Water Aquatic Life

Cause(s) / VA Category: Dissolved Oxygen / 4A

The Aquatic Life and Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer and Rest of Year. There is insufficient data to assess the remaining shorter-term dissolved oxygen criteria for these uses. EPA approved Chesapeake Bay TMDL 12/29/2010.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_CDB01A00 / Cedarbush Creek - Upper [TMDL-bact] / North shore York River, NW of Catlett Islands. From the end of tidal waters downstream to the end of TMDL (07) coverage. Portion of CBP segment YRKPH. DSS shellfish direct harvesting condemnation # 047-078 C (effective 20180815).	4A	Dissolved Oxygen	2006	L	0.078
VAT-F27E_CDB02A00 / Cedarbush Creek - Mouth / North shore York River, NW of Catlett Islands. CBP segment YRKPH. Portion of DSS shellfish condemnation # 047-078 C (20180804) not included in TMDL.	4A	Dissolved Oxygen	2006	L	0.015
VAT-F27E_CDB03A16 / Cedarbush Creek (Mouth) / Mouth of Cedarbush Creek. CBP segment YRKPH. No DSS OPEN condemnation # 047-078 (effective 20180815).	4A	Dissolved Oxygen	2006	L	0.090
VAT-F27E_CDB04A18 / UT to Cedarbush Creek / UT at Mouth of Cedarbush Creek. CBP segment YRKPH. RESTRICTED condemnation # 047-078 (effective 20180804).	4A	Dissolved Oxygen	2006	L	0.029
VAT-F27E_CRT01A00 / Carter Cr. (Gloucester Co.) - Upper portion [TMDL-bact] / North shore York River, north of Catlett Islands. From the end of tidal waters downstream to the end of DSS condemnation 047-078B, 20180815 . Portion of CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.180
Split in 2012 cycle					
VAT-F27E_CRT02A00 / Carter Cr. (Gloucester Co.) - Lower- Mouth / North shore York River, north of Catlett Islands. CBP segment YRKPH. DSS OPEN shellfish direct harvesting 047-078 (effective date 20150804).	4A	Dissolved Oxygen	2006	L	0.177
VAT-F27E_FEL01A00 / Felgates Creek / South of Pennimon Spit, within Naval Weapons Station. Segment extends from headwaters downstream to mouth. CBP segment YRKPH. DSS Admin condemnation # 051-035 D (effective 8/14/2018)	4A	Dissolved Oxygen	2006	L	0.236
VAT-F27E_IFC01A00 / Indian Field Creek / Southeast of Pennimon Spit, within Naval Weapons Station. CBP segment YRKPH. DSS condemnation (ADMINISTRATIVE) # 051-040 A (effective 2018-8-14).	4A	Dissolved Oxygen	2006	L	0.108
VAT-F27E_KNG01A02 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to end of DSS condemnation # 051-035C, 8/14/2018. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.128

Shortened in 2012 cycle.

York River Basin

VAT-F27E_KNG02A02 / King Creek - Mouth / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From boundary of (OPEN) condemnation # 051-035 (8/14/2018) to mouth. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.220
VAT-F27E_KNG03A20 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to halfway through DSS Open condemnation-type # 051-035, 8/14/2018. CBP segment YRKPH. Shortened in 2012 cycle.	4A	Dissolved Oxygen	2006	L	0.072
VAT-F27E_POP01A16 / Poplar Creek / Entirety of Poplar Creek. CBP segment YRKPH. No DSS condemnations.	4A	Dissolved Oxygen	2006	L	0.146
VAT-F27E_PRN01A00 / Perrin River - Upper / North shore York River near Cuba Island. Described in DSS Restricted condemnation # 046-081A (effective 20180906). CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.052
VAT-F27E_PRN01C12 / Perrin River - Upper Middle / North shore York River near Cuba Island. Portion of DSS Restricted-Condemnation 046-081, 20180906. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.030
VAT-F27E_PRN02A00 / Perrin River - Lower / North shore York River near Cuba Island. CBP segment YRKPH. Portion of DSS seasonal condemnation # 046-081 M1 (effective 20180906) addressed in the TMDL.	4A	Dissolved Oxygen	2006	L	0.057
VAT-F27E_PRN02B12 / Perrin River - Lower Mouth / North shore York River near Cuba Island. CBP segment YRKPH. From boundary of DSS condemnation 81, 7/21/1996 to end of seasonal condemnation # 046-081 M1 (effective 20180906).	4A	Dissolved Oxygen	2006	L	0.048
VAT-F27E_SRH01A00 / Sarah Creek - Northeast Branch / Sarah Creek is a North shore trib to York River near Gloucester Point. Northeast branch of Sarah Creek near Guinea Neck. DSS OPEN #046-052 B (20180906). CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.110
VAT-F27E_SRH01B10 / Sarah Creek - Northeast Branch, Upper / North shore trib to York River near Gloucester Point. Segment includes north branch off of the northeast branch of Sarah Creek. CBP segment YRKPH. Part of DSS condemnation # 046-052 B, 20180906.	4A	Dissolved Oxygen	2010	L	0.029
VAT-F27E_SRH01D14 / Sarah Creek / North shore trib of York River near Gloucester Point. Segment extends from end of OPEN SF Cond 046-052 to end of TMDL area near Rt 642. CBP segment YRKPH. DSS condemnation # 046-052 M1 (effective 20180906).	4A	Dissolved Oxygen	2010	L	0.062
VAT-F27E_SRH02A08 / Sarah Creek - Lower / North shore trib to York River near Gloucester Point. End of TMDL study area to mouth. CBP segment YRKPH. DSS seasonal condemnation # 046-052 M1 (effective 20180906).	4A	Dissolved Oxygen	2008	L	0.026
VAT-F27E_SRH02B16 / Sarah Creek - Northeast Branch, Middle / North shore York River near Gloucester Point. Mainstem and tribs to the Northeast Branch. CBP segment YRKPH. DSS Restricted condemnation # 046-052 D (effective 09/06/2018).	4A	Dissolved Oxygen	2010	L	0.021
VAT-F27E_SRH03A20 / Sarah Creek - Northeast Branch / Sarah Creek is a North shore trib to York River near Gloucester Point. Northern branch of Sarah Creek near Guinea Neck. DSS Restricted-Condemnation #046-052 B (20180906). CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.003
VAT-F27E_SRW01A14 / Northwest Branch Sarah Creek / North	4A	Dissolved Oxygen	2010	L	0.193

shore York River near Gloucester Point. Segment extends from headwaters north of Rt 641 downstream to mouth of Northwest Br. DSS condemnation # 046-052 M1, A, C and E (effective 20180906). CBP segment YRKPH.					
VAT-F27E_TMB01A00 / Timberneck Creek - Upper [TMDL-bact] / North shore York River, NE of Catlett Islands. From the end of tidal waters downstream to the end of DSS shellfish direct harvesting condemnation # 047-003 A (effective 20170725). Portion of CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.139
VAT-F27E_TMB01B12 / Timberneck Creek - Upper [TMDL-bact] / North shore York River, NE of Catlett Islands. From the end of DSS shellfish Conditional Approval condemnation # 047-003 (effective 20170725). downstream to the end of TMDL (07) coverage. Portion of CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.077
VAT-F27E_TMB02A08 / Timberneck Creek - Middle / North shore York River, north of Catlett Islands. CBP segment YRKPH. DSS (OPEN) shellfish direct harvesting condemnation # 047-003 (effective 7/25/2017).	4A	Dissolved Oxygen	2008	L	0.034
VAT-F27E_TMB03A08 / Timberneck Creek - Mouth / North shore York River, north of Catlett Islands. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation present 20170725.	4A	Dissolved Oxygen	2008	L	0.188
VAT-F27E_WOR01A08 / Wormley Creek / South shore York River near Amoco facility southeast of Gloucester Point. CBP segment YRKPH. Upstream portion of DSS (ADMINISTRATIVE) condemnation # 052-006 A (effective 2018-05-03).	4A	Dissolved Oxygen	2008	L	0.283
VAT-F27E_YRK01A00 / York River - Lower Middle / The polyhaline boundary downstream to line from Roosevelt Pond N to Mumfort Islands at RM 7.49, excluding otherwise segmented DSS shellfish condemnation areas. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	4A	Dissolved Oxygen	2006	L	10.393
YRKPH					
VAT-F27E_YRK01B00 / York R - DSS AdminCond @ Cheatham Annex/Camp Peary / Segment adjacent to Cheatham Annex, VDH-DSS condemnation 051-035 B (effective 8/14/2018) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.260
VAT-F27E_YRK01C00 / York R - DSS AdminCond @ Naval Weapons Station / Segment adjacent to Yorktown Naval Weapons Sta., VDH-DSS condemnation 051-040 B (effective 20180814) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	0.236
VAT-F27E_YRK01D06 / York River - Yorktown Beach / Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	4A	Dissolved Oxygen	2006	L	0.024
VAT-F27E_YRK01E06 / York River - Gloucester Point Beach / Gloucester Point Beach VDH bathing area. CBP segment YRKPH. Portion of DSS (OPEN) shellfish direct harvesting condemnation # 046-027 (effective 20120808).	4A	Dissolved Oxygen	2006	L	0.018
VAT-F27E_YRK02A00 / York River - Lower / Segment starts at line across river from Roosevelt Pond to Mumfort Islands (RM 7.49), downstream to mouth (RM 0.0) near Thoroughfare Creek. CBP segment YRKPH. No DSS shellfish condemnation.	4A	Dissolved Oxygen	2004	L	11.657
VAT-F27E_YRK02B00 / York R - DSS AdminCond @ HRSD York	4A	Dissolved Oxygen	2006	L	0.508

York River Basin

STP/Amoco / Described in VDH-DSS (ADMINISTRATIVE) shellfish condemnation 052-006 B&C (effective 20180503) adjacent Wormley Cr., HRSD STP & power plant and refinery. CBP segment YRKPH.					
VAT-F27E_YRK02C00 / York River - DSS AdminCond @ Wormley to USCG / Segment on Yorktown side (south shore) of river. DSS (ADMINISTRATIVE) shellfish condemnation # 052-006 A (effective 2018-05-03) (portion in York R), from Wormley Cr. to USCG Station, S shore to mid-channel. CBP segment YRKPH.	4A	Dissolved Oxygen	2006	L	2.698
VAT-F27E_YRK02D12 / York River - Lower / Portion of York River within VDH-DSS seasonal condemnation 046-052M1, 20180906. CBP segment YRKPH.	4A	Dissolved Oxygen	2004	L	0.139
VAT-F27E_ZZZ01A00 / Unsegmented estuaries in F27E / Non-segmented estuarine areas of F27E - Lower York River. Primarily north shore tribs between Cedarbush and Timberneck Creeks. CBP segment YRKPH. No DSS condemnations.	4A	Dissolved Oxygen	2006	L	0.112

Chesapeake Bay segment YRKPH **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Dissolved Oxygen - Total Impaired Size by Water Type:	**28.874**		

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Industrial Point Source Discharge	Internal Nutrient Recycling
Loss of Riparian Habitat	Municipal Point Source Discharges	Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

***Cause Group Code:* YRKPH-EBEN-BAY York River - BIBI YRKPHa segments**

Cause Location: This cause encompasses the polyhaline BIBI segment YRKPHa portions of the mainstem York River.

City / County: Gloucester Co. York Co.

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

The Chesapeake Bay BIBI assessment is impaired for YRKPHa. Previously this segment was delisted in 2012 and had insufficient data up until now.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_KNG02A02 / King Creek - Mouth / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From boundary of (OPEN) condemnation # 051-035 (8/14/2018) to mouth. CBP segment YRKPH.	5A	Estuarine Bioassessments	2010	L	0.220
VAT-F27E_TMB03A08 / Timberneck Creek - Mouth / North shore York River, north of Catlett Islands. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation present 20170725.	5A	Estuarine Bioassessments	2010	L	0.188
VAT-F27E_YRK01A00 / York River - Lower Middle / The polyhaline boundary downstream to line from Roosevelt Pond N to Mumfort Islands at RM 7.49, excluding otherwise segmented DSS shellfish condemnation areas. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	5A	Estuarine Bioassessments	2004	L	10.393
YRKPH					
VAT-F27E_YRK01B00 / York R - DSS AdminCond @ Cheatham Annex/Camp Peary / Segment adjacent to Cheatham Annex, VDH-DSS condemnation 051-035 B (effective 8/14/2018) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	5A	Estuarine Bioassessments	2004	L	0.260
VAT-F27E_YRK01C00 / York R - DSS AdminCond @ Naval Weapons Station / Segment adjacent to Yorktown Naval Weapons Sta., VDH-DSS condemnation 051-040 B (effective 20180814) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	5A	Estuarine Bioassessments	2004	L	0.236
VAT-F27E_YRK01D06 / York River - Yorktown Beach / Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	5A	Estuarine Bioassessments	2006	L	0.024
VAT-F27E_YRK01E06 / York River - Gloucester Point Beach / Gloucester Point Beach VDH bathing area. CBP segment YRKPH. Portion of DSS (OPEN) shellfish direct harvesting condemnation # 046-027 (effective 20120808).	5A	Estuarine Bioassessments	2006	L	0.018
VAT-F27E_YRK02A00 / York River - Lower / Segment starts at line across river from Roosevelt Pond to Mumfort Islands (RM 7.49), downstream to mouth (RM 0.0) near Thoroughfare Creek. CBP segment YRKPH. No DSS shellfish condemnation.	5A	Estuarine Bioassessments	2004	L	11.657
VAT-F27E_YRK02B00 / York R - DSS AdminCond @ HRSD York STP/Amoco / Described in VDH-DSS (ADMINISTRATIVE) shellfish condemnation 052-006 B&C (effective 20180503) adjacent Wormley Cr., HRSD STP & power plant and refinery. CBP segment YRKPH.	5A	Estuarine Bioassessments	2004	L	0.508
VAT-F27E_YRK02C00 / York River - DSS AdminCond @ Wormley	5A	Estuarine Bioassessments	2004	L	2.698

York River Basin

to USCG / Segment on Yorktown side (south shore) of river. DSS (ADMINISTRATIVE) shellfish condemnation # 052-006 A (effective 2018-05-03) (portion in York R), from Wormley Cr. to USCG Station, S shore to mid-channel. CBP segment YRKPH.

VAT-F27E_YRK02D12 / York River - Lower / Portion of York River within VDH-DSS seasonal condemnation 046-052M1, 20180906. CBP segment YRKPH.	5A	Estuarine Bioassessments	2018	L	0.139

York River - BIBI YRKPHa segments **Aquatic Life**	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Estuarine Bioassessments - Total Impaired Size by Water Type:	**26.341**		

Sources:

Source Unknown

Fact Sheets for Impaired (Category 4 or 5) Waters in 2020

York River Basin

Cause Group Code: **YRKPH-SAV-BAY** **Chesapeake Bay segment YRKPH**

Cause Location: This cause encompasses the polyhaline portion of the York.

City / County: Gloucester Co. York Co.

Use(s): Aquatic Life Shallow-Water Submerged Aquatic Vegetation

Cause(s) / VA Category: Aquatic Plants (Macrophytes) / 4A

The Aquatic Life Use Aquatic Plants [Macrophytes] use is impaired for the 2016 cycle based on not meeting the SAV criteria. EPA approved Chesapeake Bay TMDL 12/29/2010.

Assessment Unit / Water Name / Location Desc.	Cause Category	Cause Name	Cycle First Listed	TMDL Dev. Priority	Water Size
VAT-F27E_CDB01A00 / Cedarbush Creek - Upper [TMDL-bact] / North shore York River, NW of Catlett Islands. From the end of tidal waters downstream to the end of TMDL (07) coverage. Portion of CBP segment YRKPH. DSS shellfish direct harvesting condemnation # 047-078 C (effective 20180815).	4A	Aquatic Plants (Macrophytes)	2006	L	0.078
VAT-F27E_CDB02A00 / Cedarbush Creek - Mouth / North shore York River, NW of Catlett Islands. CBP segment YRKPH. Portion of DSS shellfish condemnation # 047-078 C (20180804) not included in TMDL.	4A	Aquatic Plants (Macrophytes)	2006	L	0.015
VAT-F27E_CDB03A16 / Cedarbush Creek (Mouth) / Mouth of Cedarbush Creek. CBP segment YRKPH. No DSS OPEN condemnation # 047-078 (effective 20180815).	4A	Aquatic Plants (Macrophytes)	2006	L	0.090
VAT-F27E_CDB04A18 / UT to Cedarbush Creek / UT at Mouth of Cedarbush Creek. CBP segment YRKPH. RESTRICTED condemnation # 047-078 (effective 20180804).	4A	Aquatic Plants (Macrophytes)	2006	L	0.029
VAT-F27E_CRT01A00 / Carter Cr. (Gloucester Co.) - Upper portion [TMDL-bact] / North shore York River, north of Catlett Islands. From the end of tidal waters downstream to the end of DSS condemnation 047-078B, 20180815 . Portion of CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.180
Split in 2012 cycle					
VAT-F27E_CRT02A00 / Carter Cr. (Gloucester Co.) - Lower- Mouth / North shore York River, north of Catlett Islands. CBP segment YRKPH. DSS OPEN shellfish direct harvesting 047-078 (effective date 20150804).	4A	Aquatic Plants (Macrophytes)	2006	L	0.177
VAT-F27E_FEL01A00 / Felgates Creek / South of Pennimon Spit, within Naval Weapons Station. Segment extends from headwaters downstream to mouth. CBP segment YRKPH. DSS Admin condemnation # 051-035 D (effective 8/14/2018)	4A	Aquatic Plants (Macrophytes)	2006	L	0.236
VAT-F27E_IFC01A00 / Indian Field Creek / Southeast of Pennimon Spit, within Naval Weapons Station. CBP segment YRKPH. DSS condemnation (ADMINISTRATIVE) # 051-040 A (effective 2018-8-14).	4A	Aquatic Plants (Macrophytes)	2006	L	0.108
VAT-F27E_KNG01A02 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to end of DSS condemnation # 051-035C, 8/14/2018. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.128

Shortened in 2012 cycle.

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VAT-F27E_KNG02A02 / King Creek - Mouth / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From boundary of (OPEN) condemnation # 051-035 (8/14/2018) to mouth. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.220
VAT-F27E_KNG03A20 / King Creek - Upper / South shore of York River. East of Pennimon Spit, within Naval Weapons Station facility. From end of tidal waters downstream to halfway through DSS Open condemnation-type # 051-035, 8/14/2018. CBP segment YRKPH. Shortened in 2012 cycle.	4A	Aquatic Plants (Macrophytes)	2006	L	0.072
VAT-F27E_POP01A16 / Poplar Creek / Entirety of Poplar Creek. CBP segment YRKPH. No DSS condemnations.	4A	Aquatic Plants (Macrophytes)	2006	L	0.146
VAT-F27E_PRN01A00 / Perrin River - Upper / North shore York River near Cuba Island. Described in DSS Restricted condemnation # 046-081A (effective 20180906). CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.052
VAT-F27E_PRN01C12 / Perrin River - Upper Middle / North shore York River near Cuba Island. Portion of DSS Restricted-Condemnation 046-081, 20180906. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.030
VAT-F27E_PRN02A00 / Perrin River - Lower / North shore York River near Cuba Island. CBP segment YRKPH. Portion of DSS seasonal condemnation # 046-081 M1 (effective 20180906) addressed in the TMDL.	4A	Aquatic Plants (Macrophytes)	2006	L	0.057
VAT-F27E_PRN02B12 / Perrin River - Lower Mouth / North shore York River near Cuba Island. CBP segment YRKPH. From boundary of DSS condemnation 81, 7/21/1996 to end of seasonal condemnation # 046-081 M1 (effective 20180906).	4A	Aquatic Plants (Macrophytes)	2006	L	0.048
VAT-F27E_SRH01A00 / Sarah Creek - Northeast Branch / Sarah Creek is a North shore trib to York River near Gloucester Point. Northeast branch of Sarah Creek near Guinea Neck. DSS OPEN #046-052 B (20180906). CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.110
VAT-F27E_SRH01B10 / Sarah Creek - Northeast Branch, Upper / North shore trib to York River near Gloucester Point. Segment includes north branch off of the northeast branch of Sarah Creek. CBP segment YRKPH. Part of DSS condemnation # 046-052 B, 20180906.	4A	Aquatic Plants (Macrophytes)	2006	L	0.029
VAT-F27E_SRH01D14 / Sarah Creek / North shore trib of York River near Gloucester Point. Segment extends from end of OPEN SF Cond 046-052 to end of TMDL area near Rt 642. CBP segment YRKPH. DSS condemnation # 046-052 M1 (effective 20180906).	4A	Aquatic Plants (Macrophytes)	2006	L	0.062
VAT-F27E_SRH02A08 / Sarah Creek - Lower / North shore trib to York River near Gloucester Point. End of TMDL study area to mouth. CBP segment YRKPH. DSS seasonal condemnation # 046-052 M1 (effective 20180906).	4A	Aquatic Plants (Macrophytes)	2006	L	0.026
VAT-F27E_SRH02B16 / Sarah Creek - Northeast Branch, Middle / North shore York River near Gloucester Point. Mainstem and tribs to the Northeast Branch. CBP segment YRKPH. DSS Restricted condemnation # 046-052 D (effective 09/06/2018).	4A	Aquatic Plants (Macrophytes)	2006	L	0.021
VAT-F27E_SRH03A20 / Sarah Creek - Northeast Branch / Sarah Creek is a North shore trib to York River near Gloucester Point. Northern branch of Sarah Creek near Guinea Neck. DSS Restricted-Condemnation #046-052 B (20180906). CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.003
VAT-F27E_SRW01A14 / Northwest Branch Sarah Creek / North	4A	Aquatic Plants (Macrophytes)	2006	L	0.193

shore York River near Gloucester Point. Segment extends from headwaters north of Rt 641 downstream to mouth of Northwest Br. DSS condemnation # 046-052 M1, A, C and E (effective 20180906). CBP segment YRKPH.					
VAT-F27E_TMB01A00 / Timberneck Creek - Upper [TMDL-bact] / North shore York River, NE of Catlett Islands. From the end of tidal waters downstream to the end of DSS shellfish direct harvesting condemnation # 047-003 A (effective 20170725). Portion of CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.139
VAT-F27E_TMB01B12 / Timberneck Creek - Upper [TMDL-bact] / North shore York River, NE of Catlett Islands. From the end of DSS shellfish Conditional Approval condemnation # 047-003 (effective 20170725). downstream to the end of TMDL (07) coverage. Portion of CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.077
VAT-F27E_TMB02A08 / Timberneck Creek - Middle / North shore York River, north of Catlett Islands. CBP segment YRKPH. DSS (OPEN) shellfish direct harvesting condemnation # 047-003 (effective 7/25/2017).	4A	Aquatic Plants (Macrophytes)	2006	L	0.034
VAT-F27E_TMB03A08 / Timberneck Creek - Mouth / North shore York River, north of Catlett Islands. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation present 20170725.	4A	Aquatic Plants (Macrophytes)	2006	L	0.188
VAT-F27E_WOR01A08 / Wormley Creek / South shore York River near Amoco facility southeast of Gloucester Point. CBP segment YRKPH. Upstream portion of DSS (ADMINISTRATIVE) condemnation # 052-006 A (effective 2018-05-03).	4A	Aquatic Plants (Macrophytes)	2006	L	0.283
VAT-F27E_YRK01A00 / York River - Lower Middle / The polyhaline boundary downstream to line from Roosevelt Pond N to Mumfort Islands at RM 7.49, excluding otherwise segmented DSS shellfish condemnation areas. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	4A	Aquatic Plants (Macrophytes)	2006	L	10.393
YRKPH					
VAT-F27E_YRK01B00 / York R - DSS AdminCond @ Cheatham Annex/Camp Peary / Segment adjacent to Cheatham Annex, VDH-DSS condemnation 051-035 B (effective 8/14/2018) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.260
VAT-F27E_YRK01C00 / York R - DSS AdminCond @ Naval Weapons Station / Segment adjacent to Yorktown Naval Weapons Sta., VDH-DSS condemnation 051-040 B (effective 20180814) ADMINISTRATIVE condemnation due to National Security. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.236
VAT-F27E_YRK01D06 / York River - Yorktown Beach / Yorktown Beach VDH bathing area. CBP segment YRKPH. No DSS shellfish direct harvesting condemnation.	4A	Aquatic Plants (Macrophytes)	2006	L	0.024
VAT-F27E_YRK01E06 / York River - Gloucester Point Beach / Gloucester Point Beach VDH bathing area. CBP segment YRKPH. Portion of DSS (OPEN) shellfish direct harvesting condemnation # 046-027 (effective 20120808).	4A	Aquatic Plants (Macrophytes)	2006	L	0.018
VAT-F27E_YRK02A00 / York River - Lower / Segment starts at line across river from Roosevelt Pond to Mumfort Islands (RM 7.49), downstream to mouth (RM 0.0) near Thoroughfare Creek. CBP segment YRKPH. No DSS shellfish condemnation.	4A	Aquatic Plants (Macrophytes)	2006	L	11.657
VAT-F27E_YRK02B00 / York R - DSS AdminCond @ HRSD York	4A	Aquatic Plants (Macrophytes)	2006	L	0.508

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STP/Amoco / Described in VDH-DSS (ADMINISTRATIVE) shellfish condemnation 052-006 B&C (effective 20180503) adjacent Wormley Cr., HRSD STP & power plant and refinery. CBP segment YRKPH.					
VAT-F27E_YRK02C00 / York River - DSS AdminCond @ Wormley to USCG / Segment on Yorktown side (south shore) of river. DSS (ADMINISTRATIVE) shellfish condemnation # 052-006 A (effective 2018-05-03) (portion in York R), from Wormley Cr. to USCG Station, S shore to mid-channel. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	2.698
VAT-F27E_YRK02D12 / York River - Lower / Portion of York River within VDH-DSS seasonal condemnation 046-052M1, 20180906. CBP segment YRKPH.	4A	Aquatic Plants (Macrophytes)	2006	L	0.139
VAT-F27E_ZZZ01A00 / Unsegmented estuaries in F27E / Non-segmented estuarine areas of F27E - Lower York River. Primarily north shore tribs between Cedarbush and Timberneck Creeks. CBP segment YRKPH. No DSS condemnations.	4A	Aquatic Plants (Macrophytes)	2006	L	0.112

Chesapeake Bay segment YRKPH	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
Shallow-Water Submerged Aquatic Vegetation			
Aquatic Plants (Macrophytes) - Total Impaired Size by Water Type:	**28.874**		

Sources:

Agriculture	Atmospheric Deposition - Nitrogen	Clean Sediments	Industrial Point Source Discharge
Internal Nutrient Recycling	Loss of Riparian Habitat	Municipal Point Source Discharges	Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders	Wet Weather Discharges (Non-Point Source)	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)	